



Ministry of
Forests, Lands, Natural
Resource Operations
and Rural Development

IMPROVING WILDLIFE MANAGEMENT AND HABITAT CONSERVATION

POLICY PRIMER BOOKLET
FOR DISCUSSION WITH INDIGENOUS PEOPLES
AND STAKEHOLDERS

JANUARY 2019

Contents

Introduction	1
Relationship with Indigenous Engagement	2
Policy Area #1: Reconciliation with Indigenous Peoples.....	2
Policy Area #2: Stakeholder Engagement	3
Phase 1 Engagement: What you told us about engagement	3
Current engagement processes	3
Definitions	4
Some questions to consider.....	4
Policy Area #3: Funding	6
Phase 1 Engagement: What you told us about funding	6
Current approach to funding	6
Definitions	7
Some questions to consider.....	7
Policy Area #4: Data, Information and Knowledge.....	9
Phase 1 Engagement: What you told us about data, information, and knowledge.....	9
Current situation.....	10
Definitions	11
Some questions to consider.....	12
Policy Area #5: Wildlife Planning and Objectives	14
Phase 1 Engagement: What you told us about wildlife planning and objectives.....	14
Current approaches to wildlife planning and objectives	14
Some questions to consider.....	15
Policy Area #6: Wildlife Habitat Management.....	18
Phase 1 Engagement: What you told us about wildlife habitat management	18
Current approaches to wildlife habitat management	19
Some questions to consider.....	20

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Policy Area #7: Decision Making for Wildlife and Habitat	22
Phase 1 Engagement: What you told us about decision making.....	22
Current approaches to decision making	22
Some questions to consider.....	23
Policy Area #8: Achieving Desired Outcomes.....	26
Getting to desired outcomes: Performance measurement and program evaluation	26
Phase 1 Engagement: What you told us about desired outcomes.....	26
Some questions to consider.....	26

Abbreviations:

EAO	Environmental Assessment Office
FCI	Forest Carbon Initiative
FESBC	Forest Enhancement Society of BC
G2G	Government to Government
GIS	Geographic Information Systems
GO	Guide Outfitters
HCTF	Habitat Conservation Trust Foundation
LEH	Limited Entry Hunting

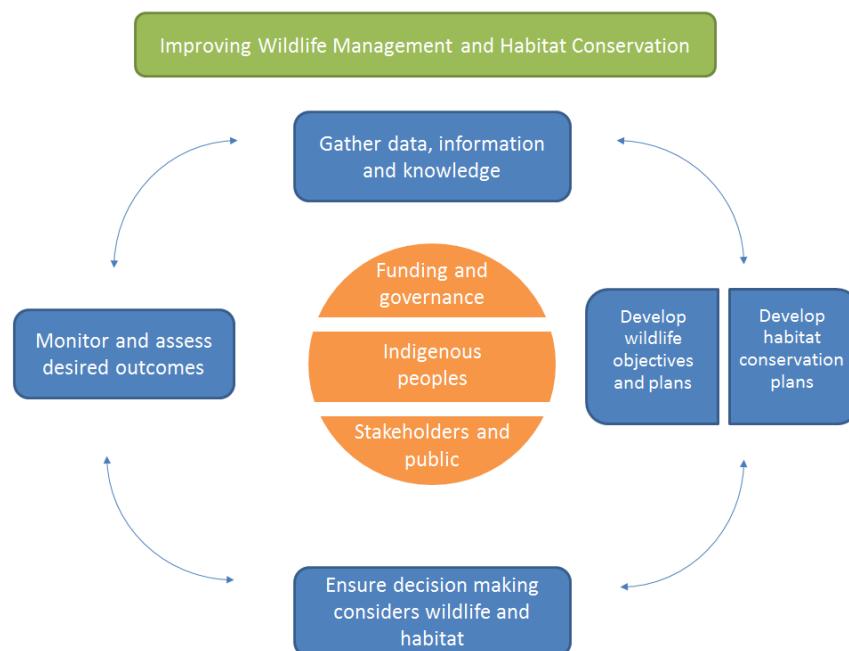
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Introduction

The Government of British Columbia (BC) is speaking with Indigenous peoples, stakeholders and the public about ways to improve wildlife management and habitat conservation in the province. The first round of engagement (Phase 1) took place from May to July 2018 and included face-to-face discussions and online public engagement. Input received was consolidated into eight priority policy areas:

1. Reconciliation with Indigenous Peoples
2. Stakeholder Engagement
3. Funding
4. Data, Information and Knowledge
5. Wildlife Planning and Objectives
6. Wildlife Habitat Management
7. Decision Making for Wildlife and Habitat
8. Achieving Desired Outcomes

The following graphic represents the relationship between the eight policy areas.



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The second phase of engagement (December 2018 – April 2019) is designed to delve into more detailed discussions with Indigenous groups and stakeholders, with an aim to develop policy options for the government to consider.

This booklet provides a summary of “what we heard” in Phase 1 related to each of the eight priority policy areas for wildlife and habitat, and some questions to consider during Phase 2 discussions. Policy examples are also provided. In some cases, policy examples are provided based on feedback received during preliminary engagement, while others are examples of activities underway. The questions and examples provided are intended to stimulate discussion and help inform policy options that can be more deeply explored and prioritized for inclusion in the long-term strategy.

This Policy Primer Booklet is intended to complement the Phase 2 discussion paper, which summarizes “what we heard” during Phase 1. The Phase 2 discussion paper will include complete links to all comments made by Indigenous peoples, stakeholders and the public.

Relationship with Indigenous Engagement

For clarity, this paper provides materials that are primarily focused on engagement with stakeholder groups, industry and the public. During Phase 1, many people spoke of the need to better integrate Indigenous involvement in wildlife and habitat decisions. The Province respects its Government-to-Government (G2G) relationship with Indigenous communities and is currently engaging directly with Indigenous peoples as part of a separate, but integrated process.

We recognize that the policy areas described in this booklet are also of immense interest to Indigenous communities and it is anticipated that this booklet may support those discussions. However, the Indigenous engagement process will be co-designed with Indigenous communities.

Policy Area #1: Reconciliation with Indigenous Peoples

The Province respects its G2G relationship with Indigenous communities and is currently engaging directly with Indigenous peoples as part of a separate, but integrated, process.

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Policy Area #2: Stakeholder Engagement

Phase 1 Engagement: What you told us about engagement

Engagement was among the top five concerns identified during the Phase 1 Engagement process, with a request for “more and better” engagement with all groups.

Specific ideas for “better” stakeholder engagement included:

- ♦ Engage with and demonstrate listening to all users; ensure that engagement forums are neutral, open, transparent, deliberate and inclusive.
- ♦ Create opportunities for roundtable discussions with a clear purpose of bringing various groups together; create advisory committees comprised of diverse stakeholder groups; and, partner with, enable and empower Indigenous peoples and local groups to play a key role in wildlife management decision making and conservation efforts.
- ♦ Ensure that the wildlife management role and knowledge of consumptive user groups, especially hunters, is not overlooked.
- ♦ Improve collaboration between the hunting community and conservation organizations.
- ♦ Provide a diversity of engagement opportunities with the public, including community meetings, online tools, etc.

Current engagement processes

- ♦ As with the Phase 1 engagement for this discussion, the Engage BC website (<https://engage.gov.bc.ca/govtogetherbc/>) is often used by the BC government to provide an online forum for public input. Input from engagement processes are also posted on the Engage BC site (<https://engage.gov.bc.ca/govtogetherbc/your-voice-your-impact/>).
- ♦ The Ministry of Forests, Lands, Natural Resource Operations and Rural Development has a policy on stakeholder engagement for setting Hunting, Trapping and Angling Regulations, and supports Provincial and Regional Advisory Teams to advise on the management and regulation of fish and wildlife resources and associated activities.
- ♦ Stakeholder input on management plans for wildlife and habitat is conducted on a project-by-project basis.
- ♦ There are more than 20 different provincial or regional committees (active and inactive) in BC that address wildlife and habitat management issues, either from a single-species, multi-species or area-specific perspective.
- ♦ Groups and individuals regularly express their views to the Province through letters, e-mails and meetings with public servants or elected officials.

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Definitions

Engagement: Principles, structures and approaches for seeking views and perspectives from a diversity of stakeholders in order to effectively inform decisions, as well as ensure accurate and transparent access to information. There are many different levels of engagement, ranging from the simple provision of information to interested parties, to more in-depth engagement with stakeholders on options, to full collaboration where stakeholders are fully engaged in identifying options and participating in non-statutory decision making.

Stakeholder: Someone with the capacity to affect or believes they are affected by the outcome of a decision. Stakeholders can include groups and organizations with a specific mandate or interest, and any member of the public who chooses to participate in the engagement process.

Some questions to consider

1. Why engage: What is the purpose of stakeholder engagement?

- a) What are the goals of engaging with stakeholder groups? What is the value to that group and what is the value to the government?
- b) What are the goals of engaging with the public?

2. Who: Who should the government be engaging with?

- a) What types of decisions should provide an opportunity for stakeholder input? For example:
 - i. Site-specific decisions: e.g., project authorizations for timber harvesting, pipelines, mines, resorts, etc.; habitat restoration projects;
 - ii. Regulations and quotas: e.g., hunting and trapping regulations; LEH or GO quotas; and
 - iii. Changes in legislation.
- b) Are there groups who are not currently being engaged and should be?

3. How: What are appropriate models for engagement?

- a) For each of these types of decisions, what are the most effective forms of engagement for stakeholder groups? For the public?
- b) What are the pros and cons of each of these models of engagement?
- c) Should there be a provincial or regional group[s] to provide input into government decisions (e.g., regional roundtables, provincial advisory committee or board . . .). If so, what should its mandate be? Are there good models that should be followed?

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4. Considerations: What are the challenges with implementing these models of engagement?

- a) What are the barriers for groups to participate in a provincial / regional committee (e.g., non-profits with no capacity to engage?)
- b) How should the government address strongly conflicting / opposing views on wildlife and habitat management in their decision making?
- c) What portion of an annual budget should be dedicated to supporting engagement activities?
- d) How should “engagement overload” (i.e., too many initiatives to comment on within a short timeframe) be managed or avoided?

5. How do we measure “success”?

- a) How do we measure “good” engagement? How will we know that we are doing “better” engagement than in the past?

Policy examples: Stakeholder Engagement

- ♦ The Province establishes a Provincial Wildlife and Habitat Management Committee with diverse stakeholder participation to provide strategic advice to senior government (e.g., similar to the Minister’s Advisory Council on the *Forest and Range Practices Act*).
- ♦ A standardized, inclusive, collaborative engagement process is developed for all new or updated wildlife or habitat management plans.
- ♦ Regional wildlife boards are established to review and comment on wildlife and habitat decisions.
- ♦ Wildlife and habitat values are fully integrated into multi-resource land use planning tables.

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Policy Area #3: Funding

Phase 1 Engagement: What you told us about funding

“Lack of funding” was identified as a key challenge by many of the Phase 1 participants. Frequent comments included:

- ♦ Provide more funding. Current funding amounts are below past levels and are low compared to the US / other provinces / other countries.
- ♦ More funding is needed for inventory, assessments and science-based research.
- ♦ There is a need for independent oversight of funding.
- ♦ Consider additional funding sources:
 - Funds derived from hunting tag fees and licences should be reinvested (100%) back into conservation;
 - All outdoor equipment should be taxed, and funds should be reinvested into a conservation fund; there is a strong willingness to pay increased fees or taxes on outdoor equipment under the condition that funds are reinvested into wildlife management; and
 - Consider taxing other users, especially resource and tourism industries.

Current approach to funding

It is challenging to determine how much money the provincial government currently spends on wildlife and habitat because it ultimately depends on how it is counted. For example, reforestation may restore habitat, but is rarely included as “funding for habitat”. In addition, funding is allocated to wildlife and habitat across different Ministries, branches and regions in the Province.

- ♦ The Province spends approximately \$32 million annually on wildlife and habitat. Examples of funding envelopes include the Land Base Investment and Provincial Species and Habitat Research Funds.
- ♦ Additional resources are invested through external groups such as the Habitat Conservation Trust Foundation (HCTF), Forest Enhancement Society of BC (FESBC) and the Forest Carbon Initiative (FCI). HCTF is funded by a surcharge added to *Wildlife Act* licences and permits (>\$2.5 million per year for wildlife). The HCTF provides funding to government and non-government groups to support conservation projects.
- ♦ Other sources of wildlife and habitat investment occur through partnerships such as the Fish and Wildlife Compensation programs, which conserve and enhance fish and wildlife habitat in watersheds impacted by BC Hydro dams. Non-government organizations, such as Ducks Unlimited and the Nature Trust, partner with local or provincial and federal governments, private investors and Indigenous communities to add covenants or protect / conserve private lands. Government

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agencies, such as the Environmental Assessment Office (EAO), direct private companies to collect habitat and wildlife information and monitor effects on ecosystems.

- ♦ Many of these funds are managed by independent boards, and although individually accountable, the ability to direct these diverse sources of investment in a strategic and coordinated approach is likely limiting the potential benefits to wildlife and habitat. Further, there is limited monitoring of the effectiveness of the work invested in.
- ♦ In a [National Survey](#) conducted reported in 2012, it was estimated that residents of BC spent over \$7.5 billion on nature-related activities (e.g., hiking, birding, motorized recreation, hunting, trapping, fishing, etc.) and associated services in the 12 months preceding the survey. In a provincial survey of hunting expenditures (including those of resident hunters and guide outfitters) it was estimated that those activities contribute \$350 million each year to BC's economy.

Definitions

Raising funds: Methods, approaches and sources for generating money that are available to improve wildlife management and habitat conservation.

Investing: Putting money to work to generate positive outcomes for wildlife and habitat.

Managing funds: Governance mechanisms to acquire, hold, disburse and report on funds.

Some questions to consider

1. How much: How much money is “enough” to support BC’s wildlife and habitat needs?

- a) What aspects of wildlife and habitat management are currently underfunded or unfunded?
- b) If additional funds were available for wildlife and habitat, how should these funds be used?
- c) If more funds are needed, what order of magnitude are we talking about? 10% more? 100% more?

2. Raising funds: Where should the funds come from?

- a) Are there options to diversify funding sources and create additional funding for wildlife and habitat? More from general revenue? New / higher fees or taxes? Existing fees set aside in dedicated conservation funds? Other?
- b) What are the pros and cons of each of these options? What challenges might be encountered in implementing them?

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3. Investing: What are the priorities?

- a) What criteria should be used to make decisions on investments in wildlife and habitat? For example, should priority go to projects or programs that provide economic benefit? Or that support species / ecosystems at risk? Or that prevent species / ecosystems from becoming 'at risk'? Or...?

4. Managing funds: Who should make decisions on allocating funds?

- a) Who should be involved in the investment decisions? An existing body? A new group, within government or external to government? Who should participate in this?
- b) How can we ensure accountability and transparency?
- c) Are there ways to improve the current process of allocating funds?
- d) How should we measure the impacts of funding and assess if public funds have been "well spent"?

Policy examples: Funding

- ♦ Implement a new tax on non-consumptive outdoor recreational equipment to be added to the dedicated fund.
- ♦ Implement increases in fees associated with hunting licenses, tags, LEH authorizations, etc.
- ♦ Tie permit fees to inflation.
- ♦ Establish a financial mechanism to allow for long-term multi-year funding and new creative partnerships.
- ♦ Develop new sources of sustainable funding dedicated to the support of wildlife and habitat conservation.
- ♦ Create an inter-agency strategic investment plan for wildlife and habitat that provides direction and common performance measures to other government funding sources including the FESBC, the EAO and third parties.
- ♦ Provide opportunities for in-kind contributions and financial contributions by resource users.

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Policy Area #4: Data, Information and Knowledge

Note: Indigenous Knowledge is a critical source of information that must be treated with due respect to the holders of that knowledge. The definition and use of Indigenous Knowledge can vary with each Indigenous Nation. As such, Indigenous Knowledge will be explored in depth under a separate paper, developed in collaboration with Indigenous peoples, to ensure that the various meanings of Indigenous Knowledge and its use in appropriate contexts will be respected. During Phase 1, many people spoke of the need to better integrate all sources of information and knowledge. The Province respects its relationship with Indigenous communities, and their special relationship to the land, and is currently engaging directly with Indigenous peoples to discuss this further as part of a separate, but integrated process.

Phase 1 Engagement: What you told us about data, information, and knowledge

General

- ♦ Improve understanding of the economic and cultural value of wildlife and habitat

Science

- ♦ Desire for science-based decision making.
- ♦ Use scientific best practices to inform all wildlife management decisions.
- ♦ Increase funding for science.
- ♦ Important data are missing or outdated.
- ♦ Ensure that scientific findings are transparent and publicly available, and report back to the public on the scientific basis for which wildlife management decisions are made.

Indigenous and Local Knowledge

- ♦ Increase the value placed on Indigenous Knowledge.
- ♦ Wildlife management needs to use Indigenous and local knowledge to be effective on the ground; top-down, one-size-fits-all approaches don't work.
- ♦ Indigenous Knowledge, citizen science and other forms of knowledge require funding to inform decision making.
- ♦ Ensure that the wildlife management knowledge of consumptive user groups and resource managers is not overlooked.

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Data collection

- ♦ Collect data on all sources of mortality (e.g., licensed and unlicensed hunting), in order to ensure sound wildlife management decisions.
- ♦ Involve citizens and stakeholders in data collection (i.e., citizen science).
- ♦ Coordinate wildlife data inventory and analysis with academic institutions and the private sector.
- ♦ Contemporary data is required to respond meaningfully and quickly to changes in response to climate change, fires, resource extraction and other disturbance events.

Information sharing

- ♦ Have government use social media as a method of sharing information to reach a broader audience.
- ♦ Employ greater use of DataBC to increase availability of information used by government to make decisions for use by other interested parties.
- ♦ Form partnerships with environmental groups, local governments, naturalist clubs, etc., to promote increased public education on wildlife and habitat management.
- ♦ Stakeholders require simplified access to relevant research, trends and population counts from government, industry and the citizens of BC.

Current situation

Collecting data

- ♦ The most common source of information used to inform wildlife management decisions is data collected through inventory, monitoring, research, hunter surveys and reporting. These data may be gathered internally, contracted to scientific consultants or produced by other organizations inside or outside government (e.g., non-governmental organizations, proponents in the Environmental Assessment process, academia, Crown agencies like BC Hydro).
- ♦ Common sources of ecosystem data include field-based vegetation and biophysical surveys, air photo interpretation and remote sensing. Provincial manuals and standards guide data collection and analysis.

Acquiring knowledge

- ♦ Indigenous Knowledge is used extensively by the Province for wildlife and habitat decisions. Recent examples include collaboration with Indigenous communities to inform planning for prescribed burning, better understanding of historical health and distribution of ungulates, and licenced harvest decisions.

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- ♦ Local knowledge has been used by the Province for years to affirm some of its scientific findings and to help frame the direction of new studies. For example, hunting, trapping and guiding individuals and organizations have provided the Province with valuable information.
- ♦ Involving citizens in the collection of scientific information is also used as cost-effective way to acquire data, which at the same time builds trust and confidence through sharing of information and partnerships between government, stakeholders and the public. An example is the BC Moose Tracker mobile phone app, which encourages users of the app to report moose sightings to help inform provincial moose management.
- ♦ Knowledge about BC wildlife and ecosystems is built on information collected in the Province, as well as from published literature and unpublished reports based on research elsewhere in North America and the world.

Sharing data

- ♦ Access to wildlife data is provided through several online resources. The best resource for Provincial wildlife data and information is this website, with links that explain how to access information - <https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/wildlife/wildlife-data-information>. This site identifies three main search engines the public can use (Cross-Linked Information Resources, Species Inventory Web Explorer and BC Species and Ecosystems Explorer).
- ♦ The DataBC Data Catalogue can be used to access various publicly available Wildlife Species Inventory spatial data layers for desktop GIS analyses including: Survey Observations, Telemetry Observations, Incidental Observations and Results by Area.
- ♦ For a variety of reasons, not all wildlife information can be distributed publicly. The Species and Ecosystems Data and Information Security website (<https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/laws-policies-standards-guidance/data-information-security>) outlines the policies and procedures used to manage secure information, including the process for obtaining access to secure information.

Definitions

Natural science is a branch of science concerned with the description, prediction, and understanding of natural phenomena, based on empirical evidence from observation and experimentation. Mechanisms, such as peer review and repeatability of findings, are used to try to ensure the validity of scientific advances.

Citizen science is the involvement of the public and stakeholder volunteers in scientific research, often involving the collection of data.

Indigenous Knowledge is a cumulative body of knowledge, practice and belief handed down through generations by cultural transmission.

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Local knowledge is knowledge held by people who have come to know an area by living and / or working in it.

Social science is a category of academic discipline concerned with society and the relationships between individuals in a society. Social science includes economics, sociology, psychology and other fields. Social scientists use methods resembling those of the natural sciences as tools for understanding society and thus, define science in its stricter modern sense.

Some questions to consider

1. **What types of information is required to support informed decisions on wildlife and habitat? What types of data are missing or are inadequate?**
2. **How could the Ministry better share information and data? What types of data or information would people like to see?**
3. **Many groups and individuals say that decisions should be “science-based.” Other factors (e.g., implementation costs, social values and ethics) may come into play. Without diminishing the importance of science, how should other factors be incorporated?**
4. **Where are the opportunities to increase the use of citizen science? What are the benefits and pitfalls of doing so? How could such information be collected in a transparent and fair way? How could it be “peer” reviewed?**
5. **Should more social science information be gathered and used to inform decisions? If so, what types of information?**
6. **How should different sources of knowledge (Indigenous Knowledge, citizen science, social science and natural science) be collected and presented to inform decision makers?**
7. **If different sources of knowledge are in conflict, how should that conflict be resolved?**
8. **How can universities and colleges support “improved” information on wildlife and habitat?**

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Policy examples: Data, Information and Knowledge

- ♦ Create a new scientific body to independently lead research on wildlife and habitat, and provide scientific information to support sound decision making.
- ♦ Endow a research chair of natural resources at a BC university, supported by stable, long-term funding.
- ♦ Direct agencies to identify opportunities to use citizen science-generated information to support decisions.
- ♦ Work with Indigenous peoples to incorporate Indigenous Knowledge into management assessments, plans and decisions (*will be explored in depth under a separate paper in collaboration with Indigenous peoples*).
- ♦ Work with stakeholders and members of the public to incorporate local knowledge into management assessments, plans and decisions.
- ♦ Review the compilation and storage of wildlife and habitat data collected by government and partners to ensure information is available to British Columbians.
- ♦ Strengthen partnerships with BC universities to foster relevant wildlife management and habitat conservation research.
- ♦ Hire wildlife-dedicated communications staff and build more robust websites and information sharing tools.
- ♦ Publish annual reports on the state of wildlife populations in BC and share status of information to be more transparent about information gaps, strengths, etc.

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Policy Area #5: Wildlife Planning and Objectives

Phase 1 Engagement: What you told us about wildlife planning and objectives

Phase 1 participants identified the following issues and possible solutions:

- ♦ There is a lack of measurable and meaningful objectives for wildlife in BC, and transparency around decision making.
- ♦ Wildlife and habitat should be valued equal to, or more than economic revenue and jobs in industry; clear objectives and management plans may drive decisions that value wildlife and habitat.
- ♦ Ungulate populations will not recover without addressing the causes of declines, be it predators, hunting, habitat loss or road / rail collisions.
- ♦ The effects of human activities on wildlife abundance and distribution should be considered in wildlife plans and objectives. For example, forestry practices are correlated with predation trends. More specifically, cut blocks and logging roads are facilitating access and use, and is consequently changing wolf hunting patterns.
- ♦ Set clear objectives for wildlife management, research, and accountability in collaboration with Indigenous peoples and stakeholders.
- ♦ Wildlife management objectives need to be set at a regional level to address the diversity of wildlife in BC and ensure meaningful engagement with Indigenous communities and stakeholders.
- ♦ A multi-species approach to management planning may be more effective and efficient.
- ♦ Climate change should be considered in management planning to ensure we can be flexible and respond to changes in the environment over time.
- ♦ Include wildlife objectives in legislation that are directly linked to habitat management (e.g., road density and habitat fragmentation objectives).

Current approaches to wildlife planning and objectives

The Province currently establishes wildlife objectives with the intent to balance biological, social and economic values. Wildlife planning is directed by a series of species-specific management, recovery and implementation plans and harvest procedures that set objectives and performance indicators. These plans may be provincial or regional in scope, and are prepared by government staff, often with the support of contractors who serve as species experts. Indigenous, stakeholder and public input is sought to varying degrees. Plans are prepared as needed based on social and conservation priorities. Provincial plans are approved and signed off by the Director of Wildlife and Habitat Branch (formerly, the Fish and Wildlife Branch). Regional plans may or may not be signed off.

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Measurable objectives have been set for most big game species through management plans or harvest procedures. These include population size or trend targets or other population indicators that are useful for setting hunting regulations (e.g., bull to cow ratios).

Depending on the factors affecting a population, there are different “management levers” that can be used to influence population dynamics, including:

- ♦ Habitat conservation or enhancement
- ♦ Increasing or decreasing hunting or trapping
- ♦ Managing other species, such as predators and competitors (e.g., for forage on Crown range)
- ♦ Controlling access
- ♦ Mitigating conflicts (e.g., highway and railway collisions, agricultural losses, access to garbage, etc.)

In BC, wildlife management plans are advice to government agencies involved in managing the species and its habitat. The requirement to consider wildlife objectives when making decisions that may impact the species or its habitat is established through objectives set through specific statutes that govern those decisions (e.g., *Forest and Range Practices Act*, *Oil and Gas Activities Act*, *Land Act*, etc.) and the overarching need to consider section 35 Constitutional Rights of First Nations.

Wildlife objectives can lead to direct statutory regulation (e.g., hunting and trapping regulations, motor vehicle closures, etc.), indirect regulation (e.g., legal conditions incorporated into permits and authorizations), policy direction (e.g., Cumulative Effects Framework) or voluntary programs (e.g., Bear Smart).

Some questions to consider

- 1. What are the benefits and drawbacks of the current approach to wildlife planning and objective setting?**
 - a) Where, or for which species, are wildlife plans currently adequate or inadequate?
 - b) Are current approaches to setting some objectives valuable for species management?
 - c) Is the current suite of legal and policy tools used to implement management plans adequate?
 - d) Are potential impacts of climate change adequately addressed?
 - e) Is enough being done to address conflicts with humans?

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2. What could be revised or what would other approaches to wildlife planning and objective setting look like?

- a) What is the appropriate content of a wildlife plan?
- b) What is the appropriate geographic scale of a wildlife plan?
- c) How can plans balance the needs of more than one species?
- d) How should wildlife objectives be expressed?
- e) How and by whom should objectives be set?
- f) How can social and economic impacts of setting wildlife objectives be accurately assessed?

3. What are the possible pros and cons of different approaches?

- a) Are there risks of unintended consequences and how could they be mitigated?
- b) How would other values (e.g., crown tenure holders, public recreationists, and investment certainty) be affected by wildlife plans and objectives?
- c) Which actions are easiest to implement?
- d) Which actions are likely to generate the most significant benefits?
- e) What are the technical challenges to setting different types of population objectives and linking these to habitat objectives?

4. What are the challenges of implementing proposed actions?

- a) How long might the different actions take to be implemented, and are there interim strategies that could be employed?
- b) What opposition to the actions can be expected, and how can criticisms be addressed?

5. How do we measure success?

- a) How can the desired outcomes be measured and monitored?

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Policy examples: Wildlife Planning and Objectives

- ♦ Develop a clear and transparent framework for preparing management plans and setting wildlife population objectives in BC, and establish legislative / policy tools to ensure their implementation.
- ♦ Formalize a process for prioritizing species and areas for management planning and generating associated wildlife objectives. Provide guidelines for establishing SMART (Specific, Measurable, Attainable, Realistic and Timely) wildlife objectives.
- ♦ Develop a standardized approach to collaboration on population objective setting (*also covered under Stakeholder Engagement policy theme*).
- ♦ Require consideration of climate change in all wildlife plans.
- ♦ Create new or implement existing legislation to ensure decision makers are obligated to consider wildlife objectives.
- ♦ Require consideration of wildlife objectives in decision rationales (*also covered under Decision Making policy theme*).

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Policy Area #6: Wildlife Habitat Management

Phase 1 Engagement: What you told us about wildlife habitat management

Phase One participants identified a variety of suggestions related to wildlife habitat management, including:

General themes:

- ♦ Address habitat loss, alteration and fragmentation, and reduce net loss of habitat and assess cumulative impacts.
- ♦ Protect and restore habitat, including ungulate winter ranges, wetlands and grazing lands.
- ♦ Improve over-wintering habitat for ungulates.
- ♦ Reduce road density through deactivation and management of human access.
- ♦ Conduct large-scale ecosystem planning.
- ♦ Pay more attention to streamside, lakeshore and wetland habitats, as well the hydrological functions of watersheds.
- ♦ Leverage funding from major projects / developments as opportunities to improve wildlife habitat, both pre- and post development.

Forestry, Agriculture and Industry

- ♦ Restore logged areas with a diversity of native plants that provide benefits to wildlife (e.g., deciduous trees and shrubs).
- ♦ Reduce or eliminate the use of herbicides, which reduce available wildlife forage.
- ♦ Ban the cutting of old growth forests and promote forest diversity.
- ♦ Allow natural regeneration of forests, allow growth of climate adapted species and promote biodiversity by allowing natural disturbance areas (e.g., wildfire, insects, disease outbreak areas) to recover naturally.
- ♦ Review grazing practices and related impacts on wildlife habitat.
- ♦ Address the cumulative effects of resource industries on wildlife habitat.

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Current approaches to wildlife habitat management

BC manages habitat at both the broad (coarse-filter or landscape) and local (fine-filter or stand) level (Figure 1). At the landscape level, parks and protected areas (both federal and provincial), as well as forest-scale mature and old forest management (including Old Growth Management Areas and ungulate winter ranges) provide general maintenance of biodiversity values.

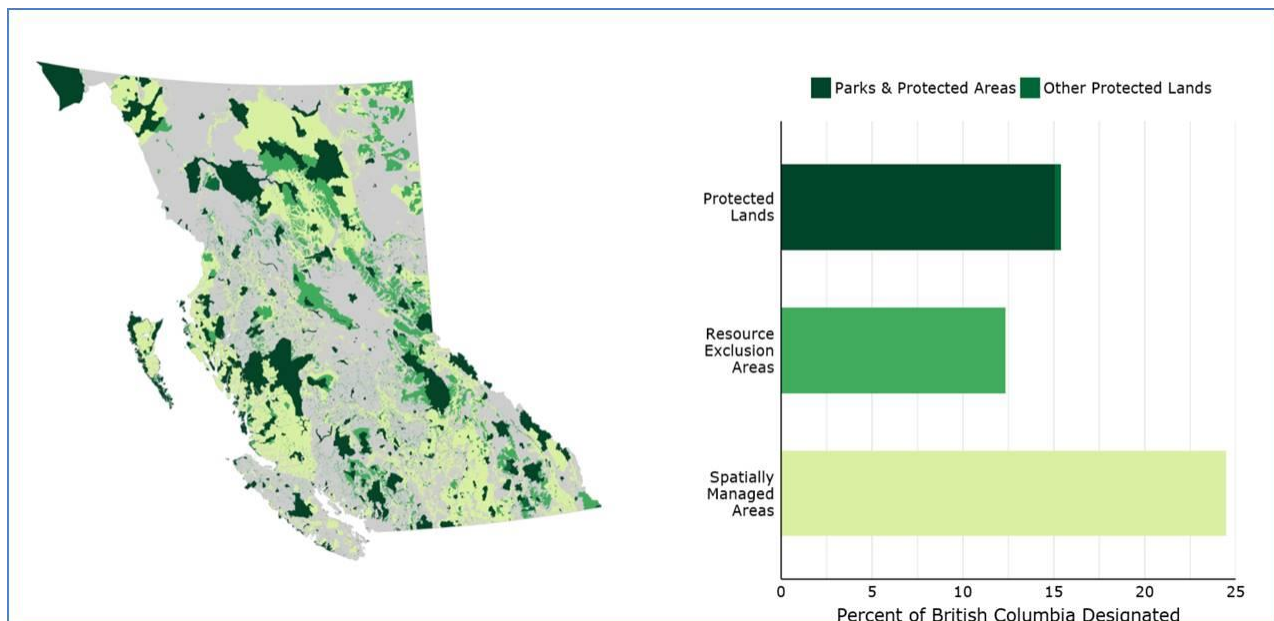


Figure 1. Summary of land designations that contribute to conservation including areas established as parks, areas identified to protect species at risk or cultural heritage and areas that are identified to manage the balance of nature conservation and economic opportunities.

Fine-filter management is required where landscape-level management is unlikely to address the habitat needs of a wildlife species or ecological community. Examples of designations that address fine-filter management include:

- ♦ Wildlife Habitat Areas
- ♦ Wildlife Management Areas
- ♦ Wildlife Habitat Features
- ♦ Conservation Lands
- ♦ Ecological Reserves
- ♦ *Land Act* Reserves
- ♦ No Registration Reserves where mining / staking activity is restricted.

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In addition, there are measures and practices to manage habitat that apply to most major land uses, such as riparian set-backs, stream crossing standards, wildlife tree retention requirements and avoidance of special features (e.g., mineral licks or stick nests) during land development activities. Timing restrictions are also in place to protect wildlife during critical time periods (e.g. measures to restrict helicopter logging near mountain goat winter ranges to avoid the critical winter period and the birth and rearing period for young in the spring). The implementation of these requirements varies by activity, depending on the governing legislation. In general, actions required by proponents are included as conditions of provincial crown land authorization and permits. They also form part of the obligations of resource professionals, such as Registered Professional Foresters, Biologists and Agrologists.

Efforts are also underway to address the cumulative impacts of resource development on key wildlife species and rare ecosystems (e.g., grizzly bear, old growth forest) and ensure consideration of cumulative effects in decision making (see Cumulative Effects Framework Policy).

Some questions to consider

1. What are the benefits and drawbacks of the current approach to wildlife habitat management?

- b) Is habitat inadequately protected or managed?
- c) Which ecosystems are lacking objectives and need to be defined?
- d) Are habitat objectives being balanced appropriately with competing values, such as economic development, recreational use and cultural resources?

2. What are alternative or improved approaches to wildlife habitat management?

- a) Are new tools or designations needed to manage wildlife habitat or would full implementation of existing tools be adequate?
- b) What would a multi-species approach to habitat management look like?
- c) How can population and habitat objectives be better integrated?
- d) What strategies should be used to address climate change impacts?
- e) How can we more effectively monitor the condition of habitat?
- f) How can we determine how well habitat will function and whether it is adequate to support wildlife populations and achieve desired biological diversity?

3. What are the pros and cons of these alternatives or improvements?

- a) Are there risks of unintended consequences (e.g., to habitat supply or socio-economic implications) and how could they be mitigated?
- b) How would other values be affected?

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- c) Which actions are the easiest to implement?
- d) Which actions are likely to generate the most significant benefits?

4. What are the challenges of implementing the alternatives or improvements?

- a) How long might the different actions take to be implemented and are there interim strategies that could be employed?
- b) What opposition to the actions can be expected and how can criticisms be addressed?

5. How do we measure success?

- a) How can the desired outcomes be measured and monitored?

Policy examples: Wildlife Habitat Management

- ♦ Make better use of existing tools (e.g., objectives setting provisions under the *Land Act*, *Forest and Range Practices Act*, *Oil and Gas Activities Act*, etc.) or enact new legislation to help achieve key habitat objectives.
- ♦ Establish mechanisms to ensure a direct link between wildlife population objectives and habitat objectives.
- ♦ Strengthen application of the Cumulative Effects Framework in decision making.
- ♦ Proactively incorporate habitat objectives into analysis, planning, objective setting and management of industrial uses on crown land.
- ♦ Increase investment in habitat assessment, modeling and monitoring (but if so, how and where?)
- ♦ Reduce reliance on site-specific, static habitat protections and develop alternatives to address the effects of a shifting climate (e.g., create a more dynamic / responsive habitat protection regime).
- ♦ Strengthen implementation of environmental mitigation policies and apply both at the landscape-scale as well as for project-specific activities.
- ♦ Develop a Conservation Legacy Fund to encourage private land stewardship.
- ♦ Create a new land management designation that replaces some / all existing designations but applies to all Crown land activities (i.e., across resource sectors, not just forestry).
- ♦ Create a new access designation that would limit any “net new” access in a geographic area (e.g., if 10 km of new roads were to be built, 10 km of existing roads would need to be rehabilitated).

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Policy Area #7: Decision Making for Wildlife and Habitat

Phase 1 Engagement: What you told us about decision making

Phase 1 participants identified science-based decision making and appropriately valuing wildlife and habitat as key challenges for future decision making related to wildlife and habitat. Comments included:

- ♦ Politics should not drive wildlife management decisions; although social values should be considered, science should be directly linked to decision making.
- ♦ Wildlife and habitat management decisions should be based on science (e.g., grizzly bear hunt ban, construction of wildlife exclusion fences, population management objectives, cumulative impacts of industry practices and development on wildlife).
- ♦ Decision making should consider wildlife and habitat equally or prioritize over economic revenue.
- ♦ Clear objectives should drive decision making for all land uses.
- ♦ Government decisions should be transparent; the rationale behind decisions should be clearly explained.
- ♦ Wildlife management needs to use traditional and local knowledge to be effective on the ground; top-down, one-size-fits-all approaches don't work.
- ♦ Traditional Knowledge, citizen science and other forms of knowledge require funding to inform decision making.

Current approaches to decision making

Many statutes, regulations and policies govern management of wildlife and habitat on crown land. Before decisions are made, government consults with potentially affected Indigenous peoples, consistent with applicable policy, agreements and other direction (e.g., treaties, G2G agreements, court direction, etc.). Stakeholder engagement is often conducted as well. Government decisions are expected to consider, and balance, social and economic priorities, and use science to inform whether desired outcomes are likely to be achieved under different management alternatives.

Current consideration of wildlife and habitat objectives in natural resource decision making varies based on the type of decision (e.g., hunting regulations under the *Wildlife Act*, *Land Act* authorizations such as gravel pits, Ungulate Winter Range designations under the *Forest and Range Practices Act* or *Oil and Gas Activities Act*). There are often conflicting standards and approaches for considering wildlife and habitat objectives under different legal and policy regimes. This is mostly for legacy reasons; statutes and regulations have been implemented for different sectors at different times, and priorities and expectations are constantly evolving. For example:

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- ♦ While impacts to riparian habitat are regulated for forestry, oil and gas development and mineral exploration activities, the size of riparian buffers under management differ for activities conducted by each of these three sectors.
- ♦ The discretion of statutory decision makers to manage wildlife and habitat objectives differs among sectors. The authority for decision making by government employees is delegated by the legislature and has varying limits. For example, considerable discretion is afforded for activities regulated under the *Land Act*, while activity-level authorizations under the *Forest and Range Practices Act* have largely shifted in favour of a system of professional reliance, where licensed professionals provide recommendations to achieve results (i.e., objectives) established by government.
- ♦ The Cumulative Effects Framework Interim Policy provides governance and information approach that is intended to improve consistency in the consideration of objectives and condition of values; however, relatively few values are approved and assessment information is still being validated. Ensuring that wildlife and habitat objectives are applied consistently may require a review of statutory, regulatory and / or policy-level changes to align the following Acts that concern natural resource management.

Some questions to consider

Note: the following questions are focused only on statutory decision making by the provincial government and do not preclude the participation of Indigenous communities and stakeholders in decision making and setting objectives.

1. What are the benefits and drawbacks of the current approach to decision making regarding wildlife and habitat?

- a) What are the barriers to considering wildlife and habitat in government's current decision-making approach?
- b) What are the specific crown land activities or sectors where wildlife and habitat are not considered adequately?
- c) Are existing barriers created by gaps in legislation, regulation or policy?

2. What would improved decision-making models look like?

- a) What are the desired outcomes of "improved" decision making?
- b) Could deficiencies be addressed entirely within policy, or are regulatory and / or statutory changes required?
- c) How could the regulatory framework associated with different activities be better aligned to achieve wildlife and habitat objectives?
- d) Under which current regulatory regimes are the desired outcomes most achievable (i.e., what is the closest model we have compared to what we need)?

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- e) How can Indigenous Knowledge¹, citizen science and other sources of evidence be incorporated to support improved decision making?

3. What are the pros and cons of the different decision-making approaches?

- a) Are there risks of unintended consequences and how could they be mitigated?
- b) How would other values be affected?
- c) Which models are most likely to achieve desired outcomes?
- d) Which models are the easiest to implement?

4. What are the challenges of implementing different approaches?

- a) How long might the different models take to be implemented and are there interim strategies that could be employed?
- b) What opposition to the models can be expected and how can criticisms be addressed?

5. How do we measure success?

- a) How can the desired outcomes be measured and monitored?
- b) How is failure defined?
- c) Who should assess the success / failure of the initiative?

¹ This topic will primarily be addressed in discussions with Indigenous peoples.

Policy examples: Decision Making for Wildlife and Habitat

- ♦ Review existing decision-making processes and where necessary, make regulatory amendments to allow statutory decision makers discretion to consider wildlife and habitat objectives.
- ♦ As a matter of operating procedures where decision rationales are created, require decision makers to document how wildlife and habitat objectives were considered in a decision. Make reasons for decision public.
- ♦ Clarify and publicize operating policies and procedures to define the roles of various participants in decision-making processes (e.g., professionals, stakeholders and Statutory Decision Makers).
- ♦ Develop and implement guidance for using Traditional Knowledge, citizen science and other sources of information in the government decision-making process.
- ♦ Review and harmonize statutes to ensure that various resource-use authorizations provide a similar level of protection to wildlife and habitat.
- ♦ Review statutes that include land-use designations aimed at wildlife and habitat conservation and amend or consolidate to provide more understandable, equitable and effective mechanisms.
- ♦ Implement a Scientific Advisory Board to summarize the latest science for decision makers (also under Information, Knowledge and Science policy theme).

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Policy Area #8: Achieving Desired Outcomes

Getting to desired outcomes: Performance measurement and program evaluation

This policy theme looks at the big question: are we making a difference? The Province funds numerous projects and programs to improve wildlife management and habitat conservation in BC, but what is the net effect of those combined efforts? How can we tell if we are succeeding? Where do we need to make improvements?

To do this, we need to measure our performance: knowing how public funds are being spent, whether these expenditures are achieving their intended outcomes, and reporting this information in a clear and transparent manner. But we also need to evaluate the program as a whole to know whether we are achieving overall goals of improving wildlife and habitat and making the most effective use of available funds.

This builds on the objectives discussed in the policy theme *Wildlife Planning and Objectives*, and on the information provided by monitoring (policy theme *Data, Information and Knowledge*).

Phase 1 Engagement: What you told us about desired outcomes

During Phase 1 engagement, participants shared the following comments:

- ♦ Species management plans should have clear objectives, and monitoring should be conducted to measure the success of the plan.
- ♦ There should be public reporting on progress towards wildlife and habitat objectives.

Some questions to consider

1. Tracking expenditures (how are public funds being spent?)

While the government tracks spending on individual projects, there is a need for a more rigorous and transparent approach that pulls province-wide information together to be able to answer the question “how much money is spent on wildlife and habitat”?

- a) Should there be a means of collectively tracking how public funds are spent on wildlife and habitat? Should this tracking focus solely on Ministry funds, or also funds spent through agencies (e.g., FESBC and HCTF)?
- b) How could this information be assembled in a way that would be useful? (e.g., what categories would you use to gather the information?)

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2. Measuring outcomes (Are funds achieving the intended outcome?)

It is often said that what gets measured, gets valued. Again, while individual projects may be measured (e.g., “we restored 2 km of riparian habitat”), it would be helpful to have more province-wide measures of progress towards outcomes (e.g., 1,000 km of riparian habitat require restoration, 50 km were restored this year).

- a) What are the big outcomes that we should be measuring? (i.e., what are important indicators for wildlife and habitat?) What metrics can we use to measure these?
- b) Are there ways to improve how funding is tied to clearly stated objectives?

3. Reporting outcomes (What is the best way to communicate those outcomes?)

- a) What changes should the Province make to improve public confidence that “good” wildlife and habitat decisions are being made? (i.e., how can we clearly demonstrate that objectives are being met?)
- b) How can reporting be improved? What are the best ways / formats for the government to report out on progress towards stated wildlife and habitat objectives? (e.g., dashboards, brochures, web-based, etc.).

4. Program evaluation (Are our efforts improving wildlife management and habitat conservation?)

The first three questions look at what we are currently doing, and whether we are doing it well. These questions look at the big picture: are we doing the right things, and if not, what needs to change or improve?

5. If you could change one thing in the way that BC manages wildlife and habitat, what would that be?

6. Are there examples where you think public funds for wildlife and habitat projects are NOT a good use of this money? Where should these funds be invested instead?

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Policy examples: Achieving Desired Outcomes

- ♦ Develop a robust performance management system that tracks the effectiveness of investments (e.g., inventories, regulations and policies) and provides this information publicly.
- ♦ Create an independent Audit Board or expand the mandate of an existing board to include recommendations back to government on habitat designations, effectiveness, and other ways to improve wildlife and habitat outcomes.
- ♦ Require that requests for government funding (i.e., by Ministries and by non-government groups) are tied to strategic objectives and intended outcomes.
- ♦ Track expenditures and reports on the link to intended outcomes annually.
- ♦ Produce a biennial “State of the Wildlife and their Habitat” report that summarizes the health of wildlife populations, the protection of wildlife habitat and enforcement activities. The report would focus on key wildlife species.

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