



**Wildlife & Habitat Management
Species at Risk
Caribou Recovery**

REPORT ON STAKEHOLDER
DIALOGUES



TABLE OF CONTENTS

Wildlife Engagement Summary.....	1
Wildlife & Habitat Management.....	2
Species at Risk.....	10
Caribou Recovery.....	18

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Above: Dall sheep, courtesy of Ministry of Forests, Lands, Natural Resource Operations & Rural Development.

Wildlife Engagement Summary

The Government of British Columbia has launched three concurrent initiatives to develop over the coming year to protect wildlife in the province. One will lead to a new stand-alone species-at-risk legislation. The second will develop a new program to recover and conserve woodland caribou in British Columbia. The goal of the third initiative is to develop more effective tools for wildlife management and habitat conservation in the province.

The Ministry of Environment and Climate Change Strategy, and the Ministry of Forests, Lands, Natural Resource Operations and Rural Development are leading these initiatives.

Through 2018, the ministries will engage with those who interact with B.C.'s wilderness and wildlife, with First Nations communities, and the public at large to hear their ideas on how to enhance wildlife and habitat management. Those ideas will be used to forge strong, responsive tools for the benefit of wildlife, habitat and the citizens of B.C.

The Province held the first of these engagements from April 10 to April 12, 2018, in collaboration with the Fraser Basin Council. In an innovative strategy to make the process more efficient, and to bring stakeholders together to find common ground and possible alliances, the Province adopted a “bundled” approach to stakeholder engagement.

Seven stakeholder groups representing more than 50 organizations were assembled in small groups to discuss ideas on *Protecting Species at Risk*, the *Provincial Caribou Recovery Program*, and *Wildlife Management & Habitat Conservation*.

Stakeholders groups included:

- 1) Conservation, Wildlife, and Environmental Non-Governmental Organizations
- 2) Hunters, Trappers and Guides
- 3) Tourism and Recreation
- 4) Energy and Mining
- 5) Forestry
- 6) Agriculture
- 7) Habitat Conservation and Land Trusts

The approximately 80 participants were encouraged to ask questions and to offer comment. This report is a summary of comments from each stakeholder group on each of the wildlife proposals.

While First Nations communities were not part of the April sessions, the Province will hold separate government-to-government conversations through the spring and summer.

The public is now also invited to provide their input on these three provincial wildlife initiatives, through govTogetherBC (engage.gov.bc.ca/govtogetherbc). Each initiative has its individual public consultation deadline. The Province welcomes comments on priority issues or concerns, ideas and solutions, as well as thoughts on their engagement approach.

Wildlife & Habitat Management

The Ministry of Forests, Lands, Natural Resource Operations and Rural Development (FLNRORD) is developing an enhanced strategy for improved Wildlife Management and Habitat Conservation in British Columbia. From April 10 to 12, 2018, FLNRORD heard from 50 stakeholder groups to better understand their perspectives about wildlife conservation and habitat management and conservation in B.C. Below is a summary of the discussions by each sector group.

Group 1 – Environmental NGOs/Conservation/Wildlife

WHAT IS WORKING

- **Advocacy for wildlife and habitat:** ENGOs and related groups provide a public service and a voice for wild animals and habitats.
- **Partnerships:** Between conservancy groups and individual donors to secure small parcels of land to protect and restore habitat, and with other ENGOs to recover and improve habitat.
- **Ecosystem assessment:** The application of science to assess a situation to inform an action plan provides a higher degree of success and support from community.
- **Habitat protection:** Works to the degree where explicit habitat reserves are large enough to provide adequate habitat for species, and when they are actually kept as reserves (not for resource use).

OPPORTUNITIES

- **Intrinsic wildlife and habitat values: Redefine wildlife:** Animals are not just a commodity or nuisance: wildlife and habitats have intrinsic values in and for themselves. All wildlife and habitat protection legislation should be based on this intrinsic value. Include all species, to avoid having some fall through the cracks. Wildlife, people should be valued on par with resource sectors that provide jobs and money.
- **Partnerships:** Enhance partnerships with trust, money, other support (data, guidance). Expand and emulate good relations with new groups. Find non-traditional partners.
- **First Nations, rural development:** Include ENGOS as a partner in rural development. Diversify rural, FN communities to include ecosystem protection (e.g. forestry liquidation should be in the past).
- **Consolidate environmental voices:** Create a round table to assemble wildlife groups that represent 40,000 people to enable better communication between ENGOs and the government. Build a unified plan collaboratively.
- **Balance ministerial relations:** Ministerial relationships are often adversarial with public interest wildlife groups, yet friendly with resource lobbyists. Engage with capable ENGOs, invite them into the process to build trust and engagement.

CHALLENGES

- **Forestry:** Rein in tenure system, as it always trumps wildlife. Enforce existing rules consistently to ensure forestry 'friendly' regional offices include wildlife concerns. Enforce harvest limits, restoration; reduce or eliminate exemptions to licensees in protected areas.
- **Ban glyphosate:** Used to defoliate broadleaf trees – it destroys biodiversity, and that weakens resilience of ecosystems and ability to revive.

- **Poaching:** Enforcement, Conservation Officers monitoring are needed.
- **Habitat:** Protect habitats from reduction, fragmentation, invasive species, and roads. Entrench rare habitat protection (old growth, desert, grasslands) to protect from regional discretionary decisions. Consider ALR-type land reserves. Build action plans to: reduce road density, secure animal ranges & migration corridors, evaluate impact of negative cumulative effects.
- **Set clear goals:** Set clear wildlife & habitat goals, so resource sectors know the limits, and so ENGOs have confidence and trust in government intentions.
- **Recreational hunting:** Is an industry, and should have industry restraints. Reduce or ban trophy hunting in provincial parks.
- **Data, monitoring, Freedom of Information requests are challenging:** Build a robust, accessible database: there is no recent data or adequate monitoring on how much habitat actually remains.

Group 2 – Hunters/Trappers/Guides

WHAT IS WORKING

- **Wildlife Act:** The *Wildlife Act* is working, in so far as it is about managing hunters. It is now going to an electronic system.
- **Engagement sessions:** Sector greatly appreciated being part of the April engagement sessions and meeting other groups.

OPPORTUNITIES

- **We are wildlife advocates:** Recognize hunters, trappers, guides as wildlife advocates. Use our local knowledge, enthusiasm in developing goals, programs.
- **Establish round tables:** Assemble hunters, conservationists, First Nations, others to build relationships, collaborate on protecting common interest: wildlife & habitat.
- **Wildlife reserves:** Create and connect new reserves or existing wildlife habitats, and/or give parks, habitats more legislative protections from resource sectors.
- **Management, evaluation strategies in other jurisdictions:** Examine what places like Alaska, Sweden have done to increase game populations, calculate negative or positive economic and community impacts of this and other actions such as grizzly bans.

CHALLENGES

- **Continuity of initiatives:** Protect long-term wildlife and habitat goals from changing priorities of future government. Keep initiatives from being politicized.
- **Wildlife values:** Wildlife and habitat values must have priority. Wildlife values are lacking in *Wildlife Act*, from land use planning, mega project impacts, to resource development planning.
- **Create and state goals:** Wildlife objectives are lacking. Clarify goals for wildlife numbers, habitat capacity, safeguards, based on science and with input from stakeholders.
- **Lack of data, data misuse:** Government is using old or incorrect data to inform hunting, trapping, First Nations sustenance planning, wildlife-habitat management. Data is misused, withheld to benefit 'insiders,' friends.
- **Poor collision reporting:** Inadequate, inconsistent data and reporting on road, railway collisions. Enforcements and incentives are required to get accurate figures.
- **First Nations:** Consultations with First Nations are inconsistent, at times ignored. First Nations are overlooked as a valuable source for information and provider of on the ground support.

- **Enforcement:** Enforcement of all Acts' regulations, objectives should be transparent, applied equally within all sectors, reviewed and strengthened.

Group 3 – Tourism and Recreation

WHAT IS WORKING

- **Marketing BC:** Beautiful BC marketing helped create productive businesses.
- **Database:** Province has a good data framework that could be better utilized, made more accessible. It promotes more productive discussions. Expand and improve this resource.
- **Shared tenure agreements:** These can work well, but need to add more certainty for tourism sector members.
- **Compliance officers:** Eight compliance officers were recently hired in one area. Keep restoring CO staffing levels.

OPPORTUNITIES

- **Establish, support a wildlife fund:** Tourism already pays to access forest tenure – channel funds back to wildlife, habitat fund with regional goals, rather than back to forestry or general revenue. Wildlife funds could also come from a tourism fee.
- **Protecting wilderness also supports \$2B tourism sector:** Lack of certainty due to resource sector dominance, climate change. Tourism also requires healthy habitats. Expand and improve tenure agreements to use lands.
- **Update tourism guidelines:** Collaborative tenure sharing agreements established best practices to reduce tourism company impacts on species (e.g. keep helicopters away from mountain goats). Expand guidelines to encourage non-tenured companies, recreation associations to follow same principles.
- **Recognize, support and/or fund volunteer works:** Association volunteers put vast numbers of hours into trail development, day shelters, info kiosks and other field work, working with communities. Recreation associations: there is a gap between resources and what needs to be done. Companies, associations have a lot of local knowledge of location and state of wildlife and habitat, as well as destructive activities.
- **Protect grasslands:** Protect and restore wild grasslands. Unless Province acts, we will completely lose grasslands through climate change and invasive species.

CHALLENGES

- **Lack of objectives:** Province lacks vision for wildlife and habitat goals on what we want in 10, 20, 30 and more years. Establish specific objectives and be proactive. Without this, provincial oversight is diminished. Vision is a way around NIMBY reaction.
- **Poor habitat management:** Wholesale change required. Poor habitat management means fewer resources for wildlife and people: this is bad economic planning. Tourists say what they see on the ground is not what BC is selling: they are seeing changes in habitats.
- **Climate change:** Habitats are changing, deteriorating and we may not be able to keep what we have. Grasslands are being lost to development, invasive species. Be proactive.
- **Review dominance of resource sectors, values:** Resource sectors are seen to have more economic value than other sectors: Those who 'pay to play' have been dominant, but BC taxpayers also 'pay.' Need to recalibrate values – wilderness, wildlife also have significant values – adventure tourism alone is \$2B industry. Realigning these values will channel investment into wilderness habitats.

- **Lack of security in wilderness tourism:** Unlike forestry, tourism companies, recreational associations don't have land tenures. They operate until resource sectors want the resource, then lose trails, pristine wilderness.
- **Loss of regional ministry staff:** With new FLNRORD staff, we risk losing historic, local knowledge and disconnection between regions. Establish an office for Adventure Tourism.

Group 4 – Energy and Mining

WHAT IS WORKING

- **Responsiveness:** There is some degree of responsiveness – must be improved.
- **Early assessment:** It's a good approach to understand and assess situation before initiating an action plan.
- **Existing programs:** Build on existing programs, cumulative impacts studies, conservation frameworks. Continue with what works, expand to new programs.
- **Partnerships:** Existing collaborations with Nature Conservancy, Ducks Unlimited, individual donors to secure small parcels of land. Continue creation/restoration of habitat projects.

CHALLENGES

- **Lack of data, monitoring:** Inaccurate population counts, lack of understanding of long-term cumulative effects of habitat fragmentation, climate change, protected habitats. Need updated tools & strategies to respond to current and projected issues (e.g. beetle kill, drought, fires).
- **One-species approach is ineffective:** Multi-species/habitat approach is more practical, effective and efficient, as it takes into account ecosystem complexity, allows for better resilience in habitat, and species recovery.
- **Fencing conflicts:** Fences interfere with migration, movement corridors. Bring hunters and ranchers to the table to work out fencing issues.
- **Data access conflicts:** Inherent conflicts lie in varying regulation application for different sectors re: habitat access. Strengthen regulations and apply equally. Use existing corridors, minimize disturbance, erase roads if possible.
- **Impacts of fire:** Need flexibility to respond: do we use prescribed burns? Plan for post-fire monitoring strategies, such as where to re-establish protected habitat.

Group 5 – Forestry

WHAT IS WORKING

- **Woodlot license plan:** Will propose management for species in a collaborative model.
- **Forestry best practices:** Industry land use plan in Sunshine Coast, Squamish forest district met multiple species objectives with minimal impact on harvest.
- **Forest and Range Practices Act:** FRPA is good legislation.
- **MacMillan Bloedel:** Scientific panel review works, adaptive management research.
- **Partnerships:** Agreements with nature trusts on the use of forest roads (e.g. on Vancouver Island with Ducks Unlimited).

OPPORTUNITIES

- **Strategic planning:** Adjust for regional issues. Integrate wildlife planning process with the cumulative impacts framework. Have scientific evaluations of how plans are working, to

understand habitat supply curves. Keep plans flexible, show how monitoring and adjusting plans create improvements.

- **Legislation review:** Continually monitor legislation to ensure it is still effective with changing habitat, climate. FLNRORD to identify and work with complementary legislation.
- **Data:** Traditional Indigenous knowledge can offer new information, perspectives on wildlife, habitat. Wildlife status is unclear due to lack of inventory and research.
- **Education:** Educate the public, local communities on the realistic impact on parks and conservation areas for wildlife, need for new approaches.
- **Access management:** Restore unused roads to habitat for wildlife. Identify who is responsible for costs.
- **Collaboration:** Bring local governments into wildlife and habitat management decisions, especially in rural areas. Forestry interests vary according to size; COFI wants to be involved.

CHALLENGES

- **Climate change:** Prepare to be flexible: what works now may not work in the future; high level plans historically are too static. Natural and managed species will change in the future; wildlife and habitats will change.
- **Funding:** Inadequate funding for inventory of wildlife populations. Need sustained funding for updated wildlife monitoring, for management plan review.
- **Land use management:** Land use areas are static and don't adapt to changing conditions. Habitat conservation should be based on quality not size. Landscape values should reflect societal needs. Wildlife conservation in wildfire ecosystems does not make sense. Province releases *Government Actions Regulation* orders without monitoring – district managers need authority to revisit its value.
- **Manage access to habitats:** Increase support for closing forest roads. Forest roads become a public resource: communities, tourism want access to recreation. *Natural Resource Road Act* tried to address this, but failed.
- **Strategic planning weariness:** Important to engage communities but people don't want to re-engage in long process; innovative incentives may be needed.
- **Realistic objectives:** E.g. Sea to Sky grizzly bear habitat capacity was based on historical salmon population in 1911, unrealistic today. Industry is unclear about government objectives. Lack of direction from government creates confusion. *FRPA* needs regional goals, addition of wildfire management component.

Group 6 – Agriculture

WHAT IS WORKING

- **BC geography:** The complex mountainous terrain provides barriers that protect unique ecosystems intact and wild populations – use natural barriers to protect.

OPPORTUNITIES

- **Landowners as stewards:** Government undervalues the benefits private lands provide to overall wildlife. General view that landowners negate wildlife dampens engagement and innovation that can occur from the sectors.
- **Increase data collection, monitoring:** There is good value in monitoring trends, pressure points, cumulative effects. First Nations are key contributors to this.

- **Industry and local knowledge:** Industry sectors have much knowledge and nodes of innovation and good work done, but are not used enough. Tap into Traditional Ecological Knowledge (TEK), citizen science, and collaborate and verify with science. Provide truckers with an app for wildlife counts.
- **Carcass distribution:** Stop taking dead animals to landfills. As an alternative, Alaska ranchers and Alberta parks take dead animals from populated areas to grizzly ranges (e.g. Waterton National Park) to reduce human-wildlife conflict.
- **Connectivity of habitats:** Improve connectivity of protected areas, such as valley bottoms. Fencing blocks wildlife ungulates from parcels, but they go to impact other areas, attract predators. Review fencing programs overall, leave 'sacrifice' corridors for wildlife.
- **Use science to counter emotional reaction:** Land users are willing to take on some wildlife risk, but the social responses can block appropriate management. Consequences to land user makes wildlife, predator management controversial: public will tolerate a vaccination/cull if science supports it.
- **Local resources:** The network of people with good knowledge – companies, ranchers, hunters, trappers – is underutilized. Knowledge is priceless: you need information to know what you are protecting.

CHALLENGES

- **Wildlife-human conflicts:** Cities cannot cull deer in urban areas, predators follow them in. Farmers shooting predators in barns are prosecuted. We need common sense balance, strategies to make urban/rural interface unattractive to wildlife.
- **Costs of losses to farmers:** Elk are worse than rats for fruit growers – losses of \$40K and more. There are no compensation programs.
- **Get accurate predator numbers, control:** Conflicting counts between local knowledge and government for wolf, moose, etc., undermine public trust and support of predator control programs. Accurate counts lead to more effective programs. Use citizen science.
- **Wolf kill program:** Canid program is onerous: livestock kill must be verified; no poison; must use certified trappers. But if we take out one offending pack, we can impact 100 km range radius. Set up pilot programs like that.
- **Health and disease:** Ranchers are constantly concerned about what disease (TB, wasting disease) wild ungulates could bring. Consider compensation.
- **Invasive plants:** Invading species are damaging forest, grassland habitats: respond more immediately. Have identification and eradication methods available online data for the public.
- **Management of parks, valley bottoms:** Restore damaged BC parks faster to maintain carrying capacity of wildlife. After fires, beetle kills, animals leave protected areas to go to valley bottoms, impact farms, urban interface, and bring predators. Limit human access and their dogs in protected parks, habitats.

Group 7 – Habitat Conservation and Land Trusts

WHAT IS WORKING

- **Planning:** Planning is strong; BC Conservation Data Centre; conservation frameworks; good coarse and fine species filters.
- **Collaborations:** Some trusts meet quarterly with senior ENV, FLNRORD managers. Trusts defer to Province for wildlife management & data. Partnerships with other ENGOS, local

governments, First Nations for habitat restoration, management. Work with Canadian Wildlife Service and other agencies to identify habitats for protection or restoration.

OPPORTUNITIES

- **Fund joint conservation plans:** Create a fund for ENGOs–government joint efforts, like the California funding model.
- **Coordinate conservation efforts:** B.C isn't part of joint efforts; its branches compete with ENGOs for Habitat Conservation Trust Foundation funds. B.C could bring ENGOs, private land, sectors, FNs, regulatory resources together to galvanize resources and fill the gaps.
- **Innovative shared land use:** California: wildlife easements to protect conservation lands and grow rice; create program for multi-year agreements to keep cows out of water, have farmers manage. Flathead watershed is innovative example.
- **Set regional objectives:** High-level goals are good, but set objectives at regional levels and allow them to be flexible to adapt. Monitoring is crucial to inform needs for changing objectives.

CHALLENGES

- **Funding:** Current HCTF of \$6M is too small to meet conservation demands. All initiatives could be more effective with long-range government funding. Best option is to fund groups already on the ground with good partnerships.
- **Clarify B.C.'s objectives:** Clear provincial objectives would assist trusts, NGOs in planning, make their efforts more effective.
- **Be proactive vs reactive:** More cost effective to keep common species common before they become a species at risk. The weak spot is keeping habitats intact to keep species/numbers intact.
- **Government partnerships:** Trusts, NGOs run into regulatory barriers. Government could help navigate through these (e.g. burn permits). Provide guidance with First Nations to access lands for foods and plants.
- **Access to data, roundtable:** Province or sectors may have information that isn't accessible to NGOs. Open up access, create a round table to discuss.
- **Protect lands from resource access:** Currently it's 'conservation with conditions.' Currently, resource sectors can access private and critical habitat lands (caribou). Extinguish sub-surface resource rights on land trusts, private lands, protected habitats. Discuss this in a round table.
- **Forestry covenants don't protect:** Private forestry land – covenants are not working effectively to protect what we got the covenant for.
- **Agricultural collaboration, revise legislation:** Change Agricultural Land Commission rules to allow farmers to donate ALR land to conservancy. Currently conservation is not seen as beneficial to agriculture, (but it allows parking lots and 12,000 sq ft homes). Fencing: In Kootenays, high fencing blocks wildlife corridors. Government helps with cost, so government is helping to prevent movement of wildlife. One reason trusts buy valley bottom land is to prevent the high fencing. Collaborate efforts for wildlife.

Common Themes

During the Wildlife Management and Habitat dialogues held from April 10 to 12, industry and non-profit representatives raised several common themes. Following are some key messages regarding current and future legislation, policy and regulations for wildlife management and habitat conservation in British Columbia.

Clear objectives for the long term

All groups wanted clarity of government overall long-term objectives and updated legislation with a 'wildlife first' philosophy to plan projects, whether resource operations or conservation, accordingly and with certainty. Such mandates should have enough flexibility to address regional factors and changing conditions. Participants wanted to be involved in determining those regional goals.

Stable, ongoing funding

Objectives cannot be met without adequate funds. NGOs often struggle with funding gaps or lag times, which impact the complexity, duration, follow-up monitoring and success of projects. Ongoing stable government funding would allow conservation programs to continue uninterrupted, allow for valuable monitoring and data collection. Government funds help NGOs groups leverage other monies. Industry has funds to invest. Participants suggested government invite innovative funding partnerships with the private sector, and play a role at coordinating funding and funding relationships.

Habitat protection

A greater emphasis on habitat protection and restoration is deemed to have positive effects not only on endangered species but also on healthy populations, and on ecosystem diversity as a whole. Protecting habitats fully from resource exploitation and other human intrusions was strongly supported.

Multi-species approach

Participants reiterated that a multiple-species versus single species focus in conservation mandates was more efficient and effective. Emphasize a species-first approach in any policy development, and this would require a cultural shift in viewing wildlife and habitats as commodities, a new valuation that should be built into all policies and legislation related to conservation in the future, and across all ministries.

Collaboration, relationships

The province cannot do this alone. There is much good will and knowledge across the province. Innovative partnerships, networks of all manner and dissolving silos were supported – between governments, First Nations, NGOs, industry sectors and communities, within government itself – to leverage resources, to find synergies and common goals, and to build trust and momentum.

Updated data and better access to it

Every stakeholder group emphasized the immense value of adequate, current and science-based data with which to develop their plans. They require simplified access to relevant research, trends and population counts from government, industry and from citizens. Contemporary data is required to respond meaningfully in real time to changes due to climate, fires, resource extraction and other events.

Species at Risk

The Ministry of Environment and Climate Change Strategy (ENV) is developing legislation for protecting and recovering species at risk (SAR) in British Columbia. On April 10 to 12, ENV engaged diverse stakeholders in face-to-face discussions to better understand their perspectives about species-at-risk legislation. Below is a summary of the discussions by each stakeholder group.

Group 1 – Environmental NGOs/Conservation/Wildlife

WHAT IS WORKING

- **Strong advocacy:** Current protections that are in place for species at risk are due to robust ENGO advocacy with both government and industries.
- **Grassroots monitoring:** Groups are actively monitoring and taking inventories of SAR and engaging the public in this work (e.g. Bio-blitzes).
- **Independent research:** ENGOs have undertaken their own research and developed strategy documents regarding SAR (e.g. Wilderness Committee videos on SAR legislation, caribou habitat mapping project).

CHALLENGES

- **Habitat protection:** Fragmentation of habitat leading to range contraction – need to address migration routes. Increasing loss of key habitats such as old growth forests. Invasive species (e.g. pets) are released into sensitive habitats. Need for mandatory interim habitat protection while the SAR legislation is developing.
- **Economic values prioritized over SAR:** Socioeconomic implications influence species-at-risk listings. It is too easy to get permits and exemptions.
- **Equity:** Apply Professional Reliance to all professional bodies in the best interest of SAR (biologists, foresters, agrologists, engineers). Act will need to provide a clear set of rules and define acceptable land use by which industry can abide.
- **Lack of government support:** Need more government resources for citizen science. Lack of provincial support to local governments, which is important for private land. Need better coordination between FLNRORD and ENV on SAR.
- **Climate change:** Species must adapt to climate change. Planning in uncertainty, with unknown impacts and changing ranges.

OPPORTUNITIES

- **Alignment of provincial and federal wording:** Definitions within federal and provincial legislation must align (e.g. Critical Habitat and Matrix Habitat). Protect old growth forest and identify areas to recover habitat.
- **Private land management:** Provide incentives to private landowners to maintain habitat on their land. Create mechanisms for purchasing private lands with SAR.
- **Strong species protection:** Legislation should aim to recover species to a self-sustaining state. Protection needed for “special concern” species before they become threatened. Include strict and mandatory timelines for action after a species is found to be at risk.

- **Strong legislation:** SAR legislation should stand up to other legislation that may interact with it. US model has large industrial projects signed off by a panel of species experts. Legislation should apply to scale of impact: the greater the impact on landscape, the more the legislation should apply.
- **Knowledge and information:** Base SAR legislation on science and ecological knowledge. Identify amount of habitat needed to maintain a species/ecosystem's original numbers (even if starting from a degraded baseline). Require provincial projects, consultants and industry to submit species and ecosystem survey results to the government. Educate the public on the values and state of ecosystems and species.

Group 2 – Hunters/Trappers/Guides

WHAT IS WORKING

- **Partnerships:** Collaborations with First Nations on threatened caribou herds. Working with licensees to address habitats. Different boards provide input on recovery strategies.
- **Research:** Trappers are engaged in research (e.g. Wolverine study).

CHALLENGES

- **Perception of hunting/trapping:** Perception of hunters as anti-conservation and the most significant risk to SAR. Lack of understanding of sustainable hunting. Concerned that once a species is “closed” for hunting, it will not be re-opened once recovered.
- **Equity:** Need to apply the SAR legislation to all industries in the same way. Must balance socioeconomic impacts of losing resource rights. Need to reconcile First Nations issues.
- **Litigation:** Prevent legislation from creating litigation issues. Need safeguards to prevent decisions getting tied up in court (on categorizing species).
- **Lack of information:** Need more knowledge on how climate change will affect species. Legislation will need to make decisions on species with limited records.
- **Limited resources:** Lack of funding for initiatives that prevent species from becoming at risk.

OPPORTUNITIES

- **Working with and improving on existing legislation:** Harmonize SAR legislation with other federal and provincial legislation. Work jointly with BC wildlife management initiative. Address weaknesses of the *Wildlife Act* (e.g. imbalance of how rules apply to forestry vs. hunting).
- **Landscape approach:** Focus on landscape level actions that can recover SAR.
- **Clear criteria:** Establish clear triggers (e.g. threshold levels) for species to be listed or unlisted. Ensure the legislation is science-driven.
- **Address misconceptions about hunting:** Incorporate impact studies and risk assessments that reflect the real impact of hunting and trapping, rather than the perceived impacts.

Group 3 – Tourism and Recreation

WHAT IS WORKING

- **MOU with Province:** Snowmobilers abide by a MOU about education, stewardship, monitoring and compliance. Operators abide by a MOU with rules on area closures and flight path buffers.
- **Education:** Educating public about conservation through signage, brochures and meetings. Issuing fines to non-compliant public.

- **Fundraising:** Engaging in fundraising and research for SAR initiatives. Contributing donations towards conservation (e.g. climate change fund).
- **Monitoring and reporting:** Mapping animal hotspots, training staff on how to record and track sightings.

CHALLENGES

- **Equity:** Rules should be the same for all user groups. Need to balance viability of businesses and respecting habitat.
- **Access for recreation:** Decreasing access to land for recreation because of area closures where SAR or Critical Habitat is identified. Public not reporting on SAR because of fear of closures. Concern losing tenure areas if they are not used – linked to concern with GPS flight tracking, as required in some MOUs, and how that data is used. If an identified SAR or Critical Habitat has been unused by a SAR for a period, open it to low-impact recreational uses.
- **Understanding MOUs:** Clarify goal of returning animals to these habitats. Concern that heli-operators and snowmobilers are being penalized for issues they may have not contributed to (easier to close an area than to identify the cause).
- **Government support and recognition:** Government should be proactive and quicker to respond. Reporting from government on non-compliance takes too long. Voluntary response by tourism groups can often be faster and more effective than government enforcement.

OPPORTUNITIES

- **Better collaboration:** Strengthen relationships between clubs, conservation officers and land managers. Improve existing MOUs with Province. Engage users in the SAR legislation process.
- **Data and research:** Tourism operators can contribute more data through eyes on the ground. Develop scale of impact model of different businesses on SAR.
- **Clear legislation:** SAR legislation should have clear definitions and consideration of other wildlife legislation. It should provide clear guidance on procedure and policy.
- **Land use management:** Improve regional land use planning processes. Remove blanket moratoriums on GARs. Allow flexibility such as the ability to clean up tenure lines, there is opportunity for areas to be exchanged in parcels between tourism/forestry.
- **Incentives:** Create incentives for businesses to reduce impact of operations.

Group 4 – Energy and Mining

WHAT IS WORKING

- **Policy:** BC Hydro is using the Mitigation Policy documents to avoid harm to species. The oil and gas sector has a SAR policy.
- **Awareness of SAR:** Use BC Conservation Data Centre lists and species rankings.
- **Industry-led initiatives:** Oil and gas sector has wildlife monitoring programs and biodiversity risk assessments. Mining association practices habitat trade-offs.
- **Partnerships:** Oil and gas sector partners with conservation organizations to invest in high-value conservation areas. Benefits agreements with First Nations addresses wildlife.

CHALLENGES

- **Lack of information and uncertainty:** We do not have data on many species, which creates uncertainty. Government data is difficult to access and is not centralized (e.g. *Species at Risk Act* critical habitat data). Competing companies do not want to share their information. Climate change adds another layer of complexity.

- **Uneven regulations:** Different benefits and expectations for different sectors. Federal and provincial protection of species does not always align.
- **Learning from federal act:** Federal model does not have the resources to undertake necessary research. SARA is very process heavy and this creates backlogs. A body that reviews SAR is already in place through COSEWIC.
- **Length of project lifecycle:** Project lifecycle is long and can be disrupted by SAR designations or land use changes. Need for certainty and predictability.

OPPORTUNITIES

- **Ecosystems-based approach:** Protect large ranges that are shared by several species. This approach clarifies where land use restrictions are located and is good for long-term planning. Create linkages between landscape planning and SAR legislation. Allow for habitat trade-offs for ongoing projects. Once a project is deemed economically viable – industry is willing to take an innovative approach (can include trade-offs).
- **Consistent regulations:** Consistency in regulations over sectors and regions. Federal and provincial regulations should be similar for easier compliance.
- **Clear regulations:** Establish clear objectives that are science-based. Clarity between ecosystem and site-specific approaches. Establish clear boundaries to indicate what you can or cannot do in an area.
- **Indigenous perspectives:** Understand the concerns and desires of Indigenous communities for the SAR legislation. Clarify the role of Indigenous communities in the decision-making process. First Nations have expectations beyond legislation.
- **Stewardship incentives:** Incentives or regulatory benefits for going above and beyond (e.g. habitat banking in the federal fisheries). Allocate more money for habitat restoration.
- **Autonomy:** Industry wants to remain the main land manager for land their projects are on, even if it is a SAR habitat.
- **Industry knowledge:** Oil and gas companies can share monitoring data of wildlife populations with government. Inventory of conservation initiatives can show where companies can invest.

Group 5 – Forestry

WHAT IS WORKING

- **Current regulations:** The *Forest and Range Practices Act* has substantial goals for dealing with SAR and enables the identification of regionally important species. FRPA also provides flexibility with climate change. Federation of BC Woodlots Association has their own regulation for SAR.

CHALLENGES

- **Too much and conflicting legislation:** Multiple pieces of legislation addressing wildlife that need to be considered. FRPA should be amended rather than adding new legislation. Conflicting regulations (e.g. under habitat regulation, cannot clear wood, under fire regulation, must clear wood).
- **Lack of information:** Poor inventory for many species impacts recovery strategies. We need more data on status, distribution and abundance of species. We also need information on how to maintain attributes for species at risk.

- **Lessons from federal act:** Avoid duplicating federal legislation. Federal listing process is too broad. Federal recovery strategy has multiple layers of precaution, setting aside larger areas than recommended.
- **Restrictions on unprotected areas:** We are focusing on SAR in areas that are open for resource use. We should not unduly restrict resource use.
- **Eligibility of species:** Some species ranges and habitat in BC are very small, so we need to understand if we are dealing with a subpopulation or the whole population.
- **Climate change:** Forest changes with climate change need to be considered. Mountain pine beetle has harmed interior communities and the remaining land base is caribou habitat. The tree species needed in the future will be different.
- **Socioeconomic considerations:** Land use decisions are leading to a decrease in forestry profits. Mills and communities are suffering. Consider rural communities and province as a whole. Placing GARs and WHAs next to communities is not working - conflicts with public safety and fuel management.
- **Equity:** Establish one set of rules on the land base to apply equally to all sectors.

OPPORTUNITIES

- **Adaptable legislation:** Legislation needs flexibility to change to circumstances. Forests evolve over time (e.g. if a stand is burnt down, it should not be considered protected habitat). Do not put firm polygons on the map.
- **Ecosystem-based approach:** There is an ever increasing number of species at risk, which will require an ecosystem-based approach.
- **Utilizing local knowledge:** Use local knowledge of rural residents who are often on the land. Use local knowledge from resource managers. Site-level information is important, which we can find from foresters and landowners.
- **One set of legislation:** Authority on SAR should be delegated from the federal level, so that we do not have multiple pieces of legislation.
- **Showcase current tools:** BC Conservation Data Centre has a good structure for disseminating information. The Climate Change Vulnerability of BC's Fish and Wildlife tool is useful. Climate Change Informed Species Selection is another good tool.

Group 6 – Agriculture

WHAT IS WORKING

- **Work of Individual Ranchers:** Ranchers have a 5-year management plan that includes SAR. Ranchers work closely with the district agrologist. Ranchers use best practices (e.g. salt, watering sites) to keep cattle away from SAR.
- **Community-based programs:** Burrowing owl, yellow-breasted chat, and woodpecker box programs work well, mostly run by ranchers.
- **Ministry of Agriculture programs:** Environmental Farm Plan program includes a risk assessment that considers SAR and allows for planning for biodiversity. Incentive funds available to make enhancements (e.g. fencing, bird boxes). Agricultural land use inventory includes SAR info. Farmland riparian interface stewardship program protects streambeds and riparian areas.

CHALLENGES

- **Heavy regulation and enforcement:** The act should not be heavy enforcement, which creates more harm. Assumption that cattle will damage SAR habitat, but they can be beneficial. Some farmers associate SAR with alienation of their land, so are hesitant to report SAR.
- **Incomplete knowledge:** Species are inaccurately listed at risk because of knowledge gaps. Species are categorized at risk in a smaller region, when they would not be considered at risk in a larger geographic scope. Need better understanding of how species are impacted outside of Canada.
- **Unfair burden on farmers:** Dairy farmers are land-strapped and cannot afford to lose productive land. Rural farmers are asked to be responsible for SAR, when the cause is from cities. Overregulating agriculture will bankrupt farmers.
- **Ineffective legislation:** The proposed *Right to Roam Act* has the potential to allow access to Crown land by anyone, which may cause issues for species at risk in terms of human interaction.

OPPORTUNITIES

- **Stewardship-first approach:** Support agricultural partners in conservation, instead of being penalized. Engage farmers in helping to monitor wildlife.
- **Incentives:** More “carrots than sticks” approach. Options: tax credits, certification/awards, natural enhancements, and contributions to maintain land enhancements. Provide compensation to farmers if they have a SAR on their land and incur business losses.
- **Landscape-level planning:** Landscape-level initiatives that deal with cumulative impacts, considering land tenure. Multi-species approach where it makes sense.
- **Funding and resources:** Government should support farmers in accessing funding, such as programs that support stewardship initiatives that can funnel into existing successful programs.
- **Clear regulations and process:** Establish clarity of process and clarify roles and responsibilities of farmers. Introduce transparent prioritization of SAR.
- **Partnerships:** Explore opportunities for collaboration between stakeholders and government. Bring together scientific community and traditional Indigenous knowledge.

Group 7 – Habitat Conservation and Land Trusts

WHAT IS WORKING

- **Securement of land:** Securing private and Crown ecologically important land (some areas with high numbers of SAR).
- **Partnerships:** Coastal Douglas-fir conservation partnership works with industry on best management practices, contributing to federal conservation program, working with landowners and First Nations to implement stewardship programs.
- **Existing initiatives/tools:** 5-year land management plans, B.C. Conservation Data Centre’s annual inventory, wildlife management areas as a tool for Crown lands, securement partnered with BC’s Habitat Stewardship program.
- **Collaborative, integrated projects:** Matching funding with partnerships and plans (e.g. California joint plan for wildlife conservation, bringing together state funding and NGO project partners).

CHALLENGES

- **Limited capacity and resources:** Small organizations do not have much time to spend on permits. There are not enough resources to conserve private land opportunities. Trouble finding

resources for stewardship costs beyond securement funding. Need multi-year funding to get best securement outcomes. Need resources to engage landowners on stewardship.

- **Legislative barriers:** *Range Act and Livestock Act* interferes with conservation projects. Land owners must fence their land to prevent cattle from 'trespassing' on lands, and this uses time, energy and funds. Concerns *SAR Act* will add cost and delay to restoration projects due to permitting.
- **Industry support:** Industry uptake on best management practices (BMPs) is dependent on the economy. Need more support for industry to adopt BMPs.

OPPORTUNITIES

- **Collaboration with Province:** Establish a stewardship agreement or multi-year management plan between the Province and nature trusts, to get around annual permitting (e.g. Manitoba's 5-year endangered species management plans).
- **Habitat/ecosystems approach:** Need to have a holistic habitat perspective rather than letting one species drive habitat management.
- **Incentives:** Incentive-based conservation focus, including for private land owners to secure their land or preserve ecosystem services (trees, wetlands).
- **Provincial funding:** Offer funding for land securement. Establish a stewardship program where funding is based on outcomes and is not project specific. Province can offer in-kind through waiving the cost of permits.
- **Partnerships:** Map priorities with all organizations to identify overlapping priorities and opportunities for partnerships (resources and operations).

Common Themes

During the April 10th to 12th species-at-risk dialogues, there were common themes and issues that emerged across stakeholder groups. Below is a summary of the key messages regarding legislation and regulations for species at risk in British Columbia, which were reiterated by multiple sectors.

Habitat or ecosystems approach

We need a multi-species approach. Habitat management should not be driven by a single species. We have to plan and protect species at a habitat, ecosystems or landscape scale.

Equity

Species-at-risk legislation should be applied equally across sectors and industries. We have to balance socio-economic factors and commercial viability with habitat and wildlife protection.

Partnerships and collaboration

We should increase collaboration between the Province and stakeholders, which can be in the form of collaborative management plans. For effective species-at-risk protection, we need to match funding with partnerships and plans. Partnerships can bring scientific knowledge and traditional ecological knowledge together.

Missing information and knowledge

It is challenging to plan with an incomplete record of species, in terms of their status, distribution and abundance. Organizations struggle with the lack of open data, as government and industry data are difficult to access. There is additional uncertainty around how climate change will impact species.

Clear legislation

The species-at-risk legislation should have concrete, science-based objectives and clear criteria for how species will be listed or unlisted. Stakeholders want clarity on what their roles and responsibilities will be, and how the new legislation will work with existing wildlife regulations. The legislation should provide long-term certainty and predictability.

Incentives

Stakeholders prefer a “carrots over sticks” approach, where incentives are used rather than heavy regulations. The Province can create stewardship incentives for private landowners, businesses, and farmers.

Caribou Recovery

The provincial government is developing a Caribou Recovery Program to address the decline faced by many BC caribou herds. On April 10 to April 12, the Province engaged stakeholder feedback on caribou recovery in face-to-face discussions. Below is a summary of the discussions by each stakeholder group.

Group 1 – Environmental NGOs/Conservation/Wildlife

WHAT IS WORKING

- **Independent research:** ENGOs have researched caribou and impacts in their habitat in a number of ways (e.g. mapping projects, monitoring logging operations in caribou habitat).
- **Protected habitat:** Forests throughout BC have been protected by ENGOs, including some forests that are home to caribou.

CHALLENGES

- **Industry activities:** The Caribou Recovery Plan creation could be a lengthy process. If there are no limits to industry activities during this time, caribou habitat and population health will continue to be impacted. Need to have “solution spaces” in critical habitat areas where there is no industry activity taking place during plan creation.
- **Forestry impacts:** Conservation areas for caribou benefit forestry as they are in upper elevations, which are not as desirable for forestry activities. Some protected areas have been clear cut as well. Need to curtail logging completely in ungulate winter ranges, change logging methods to be more caribou-friendly, and include forestry logging data in report.
- **Trust:** There is uncertainty that this is time well-spent and not a repetition of efforts from prior caribou herd consultations. Federal caribou approach is preferable to provincial approach.
- **Weak regulations:** The Section 11 agreement is not binding and cannot make up for damages to old growth forests. Need to have stricter regulations (e.g. should prevent impact of off-highway vehicles, heli-skiing and snowmobiles). *SARA* approach should be implemented.

OPPORTUNITIES

- **Creating a transparent process:** The Caribou Recovery Plan should clearly showcase the opinions of the different stakeholder groups that were consulted and provide insight into how decisions were made in the development of the plan.
- **Protection of habitat:** Old growth and matrix habitat that’s adjacent to critical habitat need to be protected over the long term to facilitate long term herd restoration.
- **Stakeholder involvement:** ENGO stakeholders need to be more involved in decision-making, including providing comments on the draft of the final report and reviewing provincial acts. Reimburse stakeholders for participating in the process (e.g. travel costs, information sharing). ENGOs can contribute to shaping the program’s operations and animal care protocols.
- **Deactivate roads:** Roads are contributing to caribou fragmentation and deactivating roads are a major management tool. The forestry sector needs to pay for deactivation of logging roads.
- **Science-based decisions:** Caribou biologist input should be sought, and the ecological threshold of caribou needs to be considered when determining objectives.

- **Showcase social and economic benefits:** Forestry workers could enhance forests and restore caribou habitat, while communities could benefit from this forestry activity and from sustainable tourism. Need to show potential beneficial impacts in the report.
- **Captive breeding:** Captive breeding is necessary to maintain caribou in their traditional habitats.

Group 2 – Hunters/Trappers/Guides

WHAT IS WORKING

- **Independent wildlife management:** Communities and experienced hunters/trappers/guides undertake caribou and wildlife management using their own knowledge when government management is insufficient.

CHALLENGES

- **Caribou decision-making is ineffective and lacks political will:** There have been many consultations over the years and even though this group gives the same feedback, nothing has been acted on effectively. Need the political will to implement legislative change to improve management and a Caribou Recovery Plan that will have impact on the ground.
- **Plans are reactive rather than proactive:** Proactive management is lacking. Need to manage for the future and have a mandate to prevent decline of caribou before the herd is in an emergency situation.
- **Uninformed public:** The public opposes methods that will conserve caribou such as killing wolves. Need to educate the public but also be ready to take action if the plan is opposed.
- **Habitat is being lost to industry:** Caribou habitat is being infringed upon by industry and resource extraction, and industry can take certain actions with impunity. There has to be a balance between industry and the survival of wildlife.
- **Caribou distress is wide spread:** There is a large area on either side of the Rockies where there aren't any roads, but caribou are still in trouble – they are not in rutting areas and you don't see caribou calves.
- **Local knowledge is disregarded:** The Province is slow to use community-based knowledge. Need to incorporate this knowledge into the planning process.
- **Impact to communities of caribou and habitat decline:** The government concentrates on what the industrial impact will be to communities if caribou are helped. Government needs to address how smaller winter caribou ranges and less habitat will also impact families.

OPPORTUNITIES

- **Stakeholder involvement:** Hunters, trappers and guides need to be consistently involved in the policy discussions around how resources are prioritized for caribou recovery. They can also play a role on the ground at a project level.
- **Influence on social licence of other organizations:** Hunters, trappers and guides can influence how other sectors achieve and maintain their social licence.
- **Improve forestry practices:** Foresters need to make a number of changes to benefit caribou (e.g. not immediately replanting areas hit by wildfires, and use the Land Use Planning Framework, which is legally binding in B.C).
- **Comprehensive, place-based plan with clear objectives:** Need a plan that is component-based, proactive and reactive, systems level and place-based, with involvement of local

communities. Need to clearly define the population unit that we want to see based on landscape capacity, which can then be applied to predator numbers. The objectives should be enforceable.

- **First Nations caribou management:** First Nations should manage caribou, either fully or through a government-to-government relationship, which will support long-term stability of landscapes and wildlife. If First Nations are not included in the management plans, it may infringe on their rights to caribou.
- **Incorporate many types of knowledge:** Traditional ecological knowledge (TEK), local on the ground knowledge and science need to be included.
- **Protection of habitat:** Most of the land base is managed by industry, while 1% is set aside for species – this arrangement is set up for failure, and we are left with small islands of useless habitat, surrounded by nothing. We need to look at the value of habitat to caribou and also to the public and need to be willing to close areas.
- **Incentives:** Industry responds to incentives. Government needs to give industry incentives for managing wildlife populations, to ensure that what we value is protected.
- **Address risk of bears:** Grizzly bears will kill a lot of caribou calves, so by curtailing the hunting of grizzly bears, we have removed a management tool to help caribou. We need to address grizzly bears' impact on caribou.
- **Create net present value for moose:** Value moose per animal (e.g. Sweden's system) and allow the selling of moose meat.
- **Connect diverse stakeholders:** Alignment between stakeholder priorities can make government's job easier. Need to find the common ground between stakeholders to see where there are opportunities to share information and advance the caribou recovery process.
- **Creating a transparent process:** Important to see what other stakeholders and caribou portal commenters have said so that the decision-making process is clear. Need to ascribe caribou portal comments to their authors using full names (e.g. "John Smith said...").
- **Make a caribou map showing disturbance:** It would be useful to develop a map similar to the one shown at the caribou session, but with disturbance overlaid on it.
- **Value caribou economically:** Need to showcase and take into account how much caribou and predators are worth to society by valuing them economically (e.g. if one caribou is worth \$4,000, and a grizzly eats 14 calves, then the grizzly has cost society \$50,000).

Group 3 – Tourism and Recreation

WHAT IS WORKING

- **Provincial framework for management:** Appreciate that the plan provides a provincial framework for caribou management. Maintaining provincial plan development and control is important.
- **Caribou Progress Board:** The Caribou Progress Board is a positive thing that should be continued. The Progress Board keeps us informed of what is happening on the ground, and brings together stakeholders with varied interests.
- **Memorandum of Understanding:** The MOU in place with Helicat Canada has been effective in teaching members how to behave in caribou habitat. The framework for the Stewardship Management Agreements under the MOUs is solid. Other tourism and recreation groups are interested in signing formal MOUs to help engage people on caribou recovery and to allow their operations to continue alongside stewardship. A template for MOUs could be helpful for this.

CHALLENGES

- **Potential sectoral/monetary biases:** It's important to have the same rules for all sectors in terms of accessing habitat. Privileges should not be granted to sectors that bring in more money. Small tourism operators have less opportunity and less certainty, and can't shift their reach, so they should be given priority over large-scale industrial activities.
- **Maternity pen expenses:** Maternity pens are not a recovery strategy we can afford in order to recover the numbers we are aiming for. Penning is successful because of predator control, so the predator control may be effective even without the penning.
- **Loss of tenure areas:** The potential loss of current tenure areas is a significant concern and could threaten the viability of outdoor tourism and recreation businesses.
- **Lack of data on sectoral impacts to caribou:** There is a lack of data regarding quantified negative pressures on caribou. Need to know how our industry ranks on the scale of caribou decline.
- **Predator management can impact tourism:** There is lots of misinformation about the science behind wolf culls. For a period of time it seriously impacted visitor numbers. Need to improve the communication around predator control to avoid negative impacts.
- **Industry regulations don't apply to First Nations rights to hunt:** There were many potential limits laid out for industry that didn't apply to the rights of First Nations people to hunt caribou.
- **Uncertainty around ideal objectives:** The healthy quota for herds is not something specified in the discussion paper, so there is uncertainty on what targets we want for caribou recovery.

OPPORTUNITIES

- **Contribution of information:** With more MOUs in place, there may be an opportunity to collect information from operators in the field.
- **Stakeholder involvement:** Continuously involve stakeholders in a living plan and ensure that someone updates the plan as data comes in. Have a unified group of stakeholders to review caribou actions and provide information about these actions to the public and media.
- **Expand predator management:** There isn't a province-wide plan to manage predators because there is social pressure to not have culls. This makes it easier to target our sector so that predators can be ignored. Need to have predator control beyond crisis control.
- **Proactive management:** Currently treat caribou populations as at crisis level when they are at 20-25 animals, which is expensive. Need to treat it as a crisis when populations are still in the hundreds and focus on herds when there's a healthy, viable population.
- **Expand captive breeding programs:** There are herds that are at 4-5 members, and we need to capture them now and captive breed them.
- **Manage areas selectively:** Focus on the areas that are most important, rather than every square inch of the province. Manage lower elevation levels as well.
- **Consider and mitigate community impact:** Ensure that socio-economic impacts are mitigated and fully considered at a rural community level.
- **Legislation to manage users:** Mountain biking seems to be getting out of control and they are not necessarily part of our group or listening to what we're listening to. Bring in another piece of legislation to manage users.
- **Technology for public buy-in:** Expand use of technology, as it was in the Revelstoke Maternity Pen pilot project. This project allowed people to see caribou locations and how they were killed, which spread the word about wolf predation and created public buy-in.

Group 4 – Energy and Mining

WHAT IS WORKING

- **Engagement on caribou recovery:** This workshop and discussion paper are a very good start for engagement. The MOU and research consortium models also work well for engagement and could be expanded to the clean energy and mining sectors.
- **Structured decision making:** This form of decision making is effective, pragmatic and clinical. It looks at the impacts of proposed decisions and helps to identify what we can and cannot do.
- **Investment in caribou:** There has been good investment in caribou, including \$50 million, in-kind work, and a search for suitable partnerships.
- **Multi-pronged approach:** A broad suite of options and tools to address caribou recovery have been created and is essential. We should address biases around viability of different options. Ideal to have a proposal with some outcomes that could benefit this sector.

CHALLENGES

- **Funding:** Certain sectors could be unduly targeted for providing funds. Caribou recovery funds should mainly come from governments, followed by shared costs across resource sectors. Challenging to secure a commitment and source for ongoing funds. Find ways to demonstrate successes to secure sustainable funding and incorporate investment options in the plan. Work on herds supported by stakeholders.
- **Certainty in length of terms and in management of tenures:** Habitat protection legislation causes a level of uncertainty. Need long-term plans (5+ years) with clear goals to provide certainty for industry. Tenure is directly linked to viability in this sector. Consider how to deal with offsets and zonation changes.
- **Socio-economic impact:** If areas are cut off for exploration/prospecting, the uncertainty can have long-term economic effects on rural communities, companies and the economy.
- **Ongoing industry extraction:** A challenge is how to continue to extract B.C.'s natural resources in a sustainable and responsible way.
- **Difficult to obtain data:** It's difficult to get timely habitat data for specific areas from government. Province has to ask to release data with its data-sharing agreement with federal government. Need to be able to access more information easily and know who to ask for certain data. Would be beneficial to merge caribou data with SARA data.
- **Disturbance buffers:** The federal and provincial governments disagree on disturbance buffers. Currently it is at 500m, but this might not be appropriate for all herds.
- **Scale of interaction needed for recovery:** There are many measures for caribou recovery, such as health, forage ability and quality, and disease control. The forestry sector may cause loss of forest lichen, and high snow years are preventing caribou from accessing lichen. Supplemental feeding seems to have positive effects. Need to increase our scientific knowledge and know what scale of interaction we need for recovery.
- **Federal impacts on decisions around caribou:** There is uncertainty around how federal ministry and cabinet decisions impact provincial planning and decision-making. It is difficult to know what to expect in an order.
- **Cross-border herds:** Cross-border herd planning implications are a concern.
- **Breeding programs:** These programs can have various issues, e.g. taking caribou away from their natural range, disallowing them to develop natural instincts, and compromising genetics.

OPPORTUNITIES

- **Stakeholder involvement:** It's important to continually engage with diverse stakeholders and the public in tactical ways that are not overwhelming. May be useful to discuss species at risk and caribou at the same time. Allocate funds for engagement with different stakeholders. Webinars may also allow more frequent involvement, though in-person involvement is preferred.
- **Multi-species, regional and ecosystem-based approach:** Show benefits to wildlife beyond caribou with the plan to have more impact and attract funding. A regionally-based approach could be integrated with regional initiatives, planning, and partnerships. Allows the Province to balance a suite of values and consider private land, protected land and Crown land.
- **Partnerships:** Broad range of partnerships could address problems being faced by industrial, resource sectors and NGOs. Encourage pan-sectoral approaches and collaborations and integrate current effective partnerships with existing regional plans.
- **Science-based goals:** Set specific goals that are based in science, and allocate funding based on these goals.
- **Cost-benefit analysis:** A cost-benefit analysis could be more complete and elegant.
- **Consider different business models:** Consider business models in industry: one group will freely take action, one will need incentives, and one will need a much stronger push.
- **Alignment between federal and provincial government:** Definitions that are different between the two governments can be aligned through this process.

Group 5 – Forestry

WHAT IS WORKING

- **Maternity penning:** Maternity penning has been a good method for caribou recovery. Need to keep a captive breeding program.
- **Caribou recovery actions by the forestry sector:** The sector is doing a lot of good work (e.g. maternity penning and setting aside millions of hectares of habitat).

CHALLENGES

- **Federal government legislation:** Forestry supports a B.C. solution, but the federal government favours an emergency protection order and the B.C. solution may not take precedence. An order could be negative for forestry. SARA has potential negative implications, unclear definitions and a lack of stakeholder consultation. COSEWIC is also problematic.
- **Uncertain cause of decline:** There was a decline in caribou numbers long before resource development was close to the scale it is at now, and even with good quality habitat locked up in protected areas, there are still declines. Simply protecting habitat is not necessarily working. Need to better understand what is really going on.
- **Impact of protecting habitat on forestry and communities:** Preserving more land will have catastrophic effects on forestry, and also concerns investors. This is unjustified since there is no proof that saving more habitat will make a difference (e.g. the goshawk is said to need old-growth but is doing well). This will also impact communities where businesses are based.
- **Protection of unhealthy herds:** Under SARA, herds with greatest damage get the most attention. Need to spend resources where we can have success, rather than on heavily damaged herds.
- **Species-at-risk trade-offs:** Trade-offs with species at risk need to be addressed (e.g. moose).
- **Climate change:** The effects of climate change on caribou habitat and its related effects on nutrition is a challenge.

- **Uncertain pilot project feedback:** It is difficult to determine cause-effect relationships with pilot projects. Need to take pilot projects and see if they work in different areas.
- **Funding for caribou recovery:** Need to have sustainable funding for the sector to take action. Uncertain where Forest Enhancement Society fits in with this.
- **On the ground knowledge not fully utilized:** Need better support for citizen science and anecdotal evidence (e.g. by using truck drivers, grader operators, and helicopter operators).
- **Changing predator-prey dynamics:** The changing interactions of predators and prey are challenging to caribou recovery.

OPPORTUNITIES

- **Transplanting/translocating herds:** Has been tried unsuccessfully with caribou, but that doesn't mean it should be the end of using this as a tool. Worked with Sunshine Coast elk.
- **Learn from other jurisdictions:** Can learn recovery techniques from other areas (e.g. Alberta's population stabilization through predator management and captive breeding programs).
- **Stakeholder engagement:** Forest sector can help outline cost-benefit analysis and likelihood for success of caribou recovery options as they relate to forests. Need transparent collaboration between sectors as well, to get a more accurate assessment of sectoral caribou impacts.
- **Treat small area-based tenures differently from larger holdings:** Common sense best management practices should be implemented for small area-based tenures (woodlots). These woodlots may need permission to take predator management into their own hands and need to be treated differently from larger holdings.
- **Public education:** There is a lot of misinformation and the public doesn't always understand what is at stake on both sides of the caribou equation. Need to educate on trade-offs and communicate recovery strategy successes.

Group 6 – Agricultural/Oil & Gas

WHAT IS WORKING

- **Partnerships:** Canadian Association of Petroleum Producers and Province were involved in successful partnership that jointly defined problems and created a boreal research agenda.
- **Communication of need to federal and provincial government:** Work that has been done to raise the profile of caribou and through this raise significant funding and recognition has been a success.

CHALLENGES

- **Many years of continuous decline:** Caribou recovery efforts are not working well and nothing has improved in 35 years. Herds are being managed long term without success.
- **Communication of caribou issue:** Explaining what is behind the caribou decline to the public and to stakeholders is a difficult task.
- **Self-sustaining herds don't mean independent herds:** Expectation exists that self-sustaining herds are not actively managed. We don't know what it will take to get to self-sustaining.
- **Defining responsibility:** Defining responsibility in caribou management is a challenge.
- **Trade-offs with species at risk:** Trade-offs between caribou and other species at risk, and how to manage these, is unknown. Potential inequity if we invest in a single species over others.
- **Socioeconomic needs:** Potential trade-offs between SARA and the rights of Indigenous Peoples to harvest, and between other community socioeconomic issues and caribou recovery.

- **Reconcile goals and costs:** Definition of success is unclear. Need to limit costly recovery activities with unsatisfactory results and focus on achievable goals, such as maintaining what we have.
- **Predator management:** Sociopolitical acceptance of predator management is a large restraint. Need to better manage, harvest, and communicate on all predators, and enable management of predators on private land without fear of repercussions. Use groups to communicate (e.g. cattle groups). Run pilot project to remove wolves and monitor effects on herds.
- **Understand true reason of decline:** Difficult to identify true risks of different actions; there are divergent interpretations of research. Learn from pilot project results (e.g. maternity pens and moose reduction), identify causes of unanticipated results, have more trial controls, and approach research with area-based approaches. Address health and nutrition of caribou.
- **Climate change:** Transparently address and communicate climate change risks. Difficult to identify appropriate management treatments for unknown future conditions, but we can't use climate change as an excuse for inaction. Identify areas of impact, determine feasibility of recovering caribou, and intervene to adapt as needed.
- **Legislation:** SARA has several issues. There is little clarity on how legislation and cross-border commitments impact safety net measures and when they are undertaken. Federal government needs to be involved in planning and in characterizing risk. Understand how plan will work within SARA and other legislation. Need to break down legal barriers (e.g. through acquisition, land use planning, incentivizing).
- **Timeframe:** Need a long-term timeframe that does not conflict with shorter political cycles.
- **Funding for caribou recovery:** There are undefined compensation provisions through the federal government. Need to know who pays the price of remediation.

OPPORTUNITIES

- **Multi-species approach:** Consider a more holistic, multi-species approach.
- **Caribou well-being in breeding programs:** In maternity pens caribou are raised without predators and lose natural instincts. Need to maintain natural conditions to keep instincts.
- **Multiple types of knowledge:** Need to use TEK, citizen science, and anecdotal evidence of those in the field (e.g. logging truck drivers, COFI, CAPP, ranchers, and heli-guides).
- **Different intensities of land use:** Need to design a policy instrument that does not shut industry out, and that looks at how we can achieve different levels and intensities of land use.
- **Stakeholder engagement:** There is an opportunity for industry associations to bring politicians on-board (e.g. the Minister of Agriculture). Encourage a united voice of different industry sectors to find common ground and work towards a healthy landscape.

Group 7 – Habitat Conservation and Land Trusts

WHAT IS WORKING

- **Protected habitat:** The Nature Conservancy and Land Trusts secure and manage private lands, some of which have caribou on them.
- **Independent research:** Caribou habitat has been mapped. There has been remote sensing work in Northeast Peace that highlighted areas with classes of wetlands with caribou land attributes.
- **Partnerships:** Provincial staff support and sharing of information (e.g. GIS data and facts behind wolf culls) with the Province has been very helpful.

- **Caribou Discussion Paper elements:** Province-wide plan and herd-specific plans are leading edge. Landscape-level areas are tangible and will facilitate regional partnerships that can bring in securement, restoration and management. Important to articulate constraints.

CHALLENGES

- **Alignment between federal and provincial government:** Federal and provincial government have different messaging about priority areas for caribou and different mapping and data layers.
- **Insufficient data:** Amount of private forests in caribou habitat unknown by this group. Need to know extent of private land and what percentage is in the *Private Managed Forest Land Act*.
- **Legislation:** Conservation work of this group is hindered by the amount of work that goes into regulation permitting, because they are grouped in the same category as industry.
- **Protection of northern areas:** There is a conversation in the north about removing protection designation. In the northeast, there is a lot of Crown land used by caribou, but it is unprotected.

OPPORTUNITIES

- **Partnerships:** Use existing partnership frameworks for engagement (e.g. Canadian Intermountain Joint Venture and Kootenay Conservation Program). Engage private land owners who want to conserve land that may be next to Crown lands. Build relationships with Indigenous communities and experts. Share funding information and mapping tools for zoning.
- **Private land procurement:** Approach private land procurement as one method of preserving caribou and achieving the Province's caribou objectives.
- **Further research:** Expand mapping work and access to province-wide caribou data, that could include a wetland data layer, to help prioritize regional actions. Use a larger scale of Crown Land Securement Partnership Program to form partnerships and share landscape data. Provide a list of caribou protection tools and risks that come with them (e.g. a national park is considered a great tool but could raise traffic to an area).
- **Funding for conservation and restoration:** Fund conservation and restoration on private conservation lands, to enable seamless habitat restoration management without borders; there are opportunities for quick wins on private lands.
- **Stakeholder involvement:** Involve those who focus on caribou. Consider Terms of Reference for participants, for provincial outcomes, and for participants' ongoing needs and engagement.
- **Adaptive management and structured decision-making:** Adaptive management can maximize restoration as it quickly shows if restoration techniques are effective. Structured decision-making and adaptive management show uncertainties that help plot the way forward.
- **Predator management and messaging:** Show donors what happens without predator control and the long-term goals and benefits of predator management.
- **Legislation:** Protect caribou under the *Private Managed Forest Land Act*, especially in South Selkirks where organizations are buying huge tracts of land. Caribou could be a good pilot for a more effective environmental mitigation program, as many industrial activities are taking place in caribou range.
- **Incentives:** Current regulations prevent companies from managing caribou using positive actions. Have incentives for "caribou-logging". Reframe Best Management Practices as an "incentive" rather than a "regulation" to make it sound more positive. Provide incentives for managing wetlands for private landowners, as it will be less costly than full conservation.
- **Resource Exclusion Areas in protected areas:** This group can buy surface rights but don't have the mineral, oil or gas rights in most cases. Ability of other parties to extract resources or even explore can impact our ability to conserve our lands. If surface rights are protected, and the land is being used for caribou, a REA or other tool could exclude oil and gas and minerals.

Common Themes

During the Caribou Recovery Program dialogues, common themes and issues emerged across stakeholder groups. Below is a summary of key messages that were reiterated by multiple sectors.

Stakeholder involvement

Sectors saw themselves being involved after the workshop in several ways, from high-level planning to the operational level. Various sectors noted finding alignment between stakeholder priorities, allocating resources and using their networks and communications that support the plan.

Impacts to communities

The community socioeconomic impact of different methods of caribou recovery should be analysed and outlined in the plan. This should include negative impacts that communities could experience from restricting industry and sectoral economic pathways, negative impacts from smaller winter caribou ranges and smaller habitat area, and positive impacts from enhanced forests and restored habitat.

Clear legislation that improves management

There needs to be clarity between federal and provincial caribou legislation, and integration of messaging, mapping, data and definitions. We need to know *SARA*'s role in this plan, what legislation takes precedence in which situations, and what will happen if the federal government issues an emergency protection order. Legislative change to restrict users and improve practices may be required. Incentives could help industry and NGOs protect habitat, potentially at less cost than full conservation.

Broad range of knowledge systems

Utilizing a broad range of knowledge systems, including science, local knowledge, on the ground industry and sectoral knowledge, and traditional ecological knowledge was important to many sectors.

Communications

Communications can be improved in the following areas: educating the public about caribou decline and management options, taking particular care on communications surrounding predator management, and communicating successes in order to secure support and sustainable funding.

Lack of data

Sectors were concerned with a lack of data and with the difficulty of obtaining and accessing data. They wanted more information on the true causes of caribou decline, sectoral impacts to caribou decline, recovery options, and province-wide habitat and mapping data.

Proactive plan with careful resource allocation

Currently herds get the most attention when they are in emergency situations, which is expensive. We need to proactively manage for the future to prevent decline and spend resources on achievable goals.

Predator management

While predator management is not widely accepted by the public, it is needed. It is important to improve communications and show the public the consequences of not using predator control.