



January 31, 2024

biodiversity.ecosystemhealth@gov.bc.ca

Re: **DRAFT B.C. BIODIVERSITY AND ECOSYSTEM HEALTH FRAMEWORK**

To whom it may concern:

Thank you for the opportunity to provide feedback on the discussion paper regarding BC's proposed *Biodiversity and Ecosystem Health Framework* (BEHF), released for public comment in November. As scientists specializing in conservation ecology, species at risk, land use planning, wildlife management, natural resource planning and management, impact assessment, and biodiversity at Wildlife Conservation Society (WCS) Canada, we are pleased to be able to provide comments.

WCS Canada (www.wcscanada.org) is a national non-government organization that has been engaged in field-based science and conservation activities in BC since 2011. Province-wide we lead a comprehensive bat conservation program, leading multiple field research projects ranging from disease mitigation to habitat enhancement. Our work in the province has also focused on Northern Mountain Caribou, conservation planning in the Greater Muskwa Kechika, and identification of Key Biodiversity Areas. We work collaboratively with, and provide technical support to, dozens of partners including provincial, federal and First Nation governments and other nonprofit conservation organizations. We have developed guidance documents provincially and continentally.

First and foremost, we were surprised and yet highly encouraged to see this Framework appear on paper. We are particularly pleased to recognize several significant elements of the draft document that indicate a refreshing willingness by the BC government to take responsibility for major actions that are within its power, in collaboration with Indigenous Peoples, for the benefit of biodiversity and ecosystem health that will ultimately be to the benefit of climate and people. These elements include:

- Committing to management of ecosystem health and biodiversity as an "overarching priority" of government, to be formalized in legislation.
- Acknowledging BC's responsibility for biodiversity and of the significant threats biodiversity faces;
- Demonstrating an understanding of the inextricable linkages between the condition of biodiversity and climate, human health, cultural diversity and long-term economic prosperity;
- Centering the BEHF on UNDRIP and DRIPA, and committing to a collaborative stewardship approach fostering true and lasting reconciliation with Indigenous Peoples;

- Recognizing the “urgent need for unprecedented shifts in land and water management to ensure biodiversity and ecosystem resilience for generations to come” and the need for transformative change;
- Committing to an open and transparent process; and
- Committing to overall legislative reform.

We fully recognize the challenges the provincial government will face in undertaking such an aspirational objective. While we sincerely hope that the BC government has already put considerable thought into the implementation of this ambitious Framework, we are pleased to provide some of our own insights by way of hopeful contribution.

SUMMARY OF WCS CANADA’S FEEDBACK

We have organized our comments on the draft BEHF into four overarching recommendations:

First, we emphasize the necessity of providing clear details on the design and implementation of transformative changes required to fulfill the intent of the BEHF. This underscores the need for transformative change due to the failure of current measures in BC to effectively address ecological degradation. While the draft BEHF conceptually acknowledges this need, it lacks necessary details, particularly regarding structural changes within the government machinery. We highlight several aspects of the draft BEHF that need improvement, including a comprehensive diagnosis of the current failures of management regimes for safeguarding biodiversity and ecosystem health, and the need to thoroughly evaluate existing initiatives, policies and legislation. We suggest that BC could lead by example, aligning with the Kunming-Montreal Global Biodiversity Framework and the Canada 2030 National Biodiversity Strategy to achieve transformative change.

Second, we call for more emphasis to be placed on a whole-of-government approach required to implement the eventual BEHF. We stress the importance of adopting an integrated approach to prevent conflicting policies among ministries, thereby promoting policy coherence. Currently, the fragmented approach limits proactive measures and undermines ecosystem health. We celebrate the intent to establish a central agency like the Office of Biodiversity and Ecosystem Health. Key elements, such as defining the role of this office, specifying decision-making processes, managing trade-offs transparently, maintaining accessible biodiversity maps, and ensuring accountability mechanisms, must be included or further emphasized in the BEHF for successful implementation. Clarification on the scope of "whole-of-government" transformation and addressing cultural norms within the public service are also crucial for effective change management.

Third, we highlight the need to adopt a careful, iterative approach in revising and creating new legislation. While the draft BEHF vaguely references new legislation and modifications to existing laws, we stress the importance of both co-development with Indigenous Nations and

evaluating potential conflicts with current laws. We highlight the need for alignment with First Nations-led conservation efforts, particularly concerning Indigenous Protected and Conserved Areas. The current fragmented approach to habitat protection for species at risk in BC is deemed ineffective and confusing, necessitating a system overhaul with biodiversity and ecosystem health at its core. There is a need for close alignment between the reform of the Wildlife Act and the BEHF to avoid entrenching ineffective legislation.

Finally, we strongly recommend improving the definitions for key terms, specifically “ecosystem health”, “ecological integrity” and “adaptive management”.

Our recommendations for accelerated actions include: co-announcing with BC Nations a Consultation and Cooperation Plan for the timely development of a new biodiversity and ecosystem health law aligned with the UN Declaration on the Rights of Indigenous Peoples; creating the Office of Biodiversity and Ecosystem Health prior to the next provincial election to oversee major decisions; developing a plan to restructure government ministries and decision-making hierarchy in line with the BEHF principles; committing financially to facilitate the necessary restructuring for a whole-of-government approach; socializing the BEHF across ministries for immediate alignment of policies and practices; and evaluating existing policies and legislation for alignment with the new framework, reforming as necessary in a coordinated manner.

DETAILS OF OUR FOUR RECOMMENDATIONS

1) Clear details on the design and implementation of transformative changes required to fulfill the intent of the BEHF must be provided.

Actualizing the statement of intent of the BEHF, and particularly its “commitment to the conservation and management of ecosystem health and biodiversity as an overarching priority”, will indeed require transformative change. “Transformation” is first and foremost an acknowledgment that the status quo is failing to ameliorate ecological degradation and that measures that have been put in place to prevent and manage impacts have had little discernible effect. In short, “transformative change means doing things differently – not just a little more or less of something we’re already doing”¹. While the draft BEHF acknowledges this conceptually, at this stage it is short on necessary details to provide assurance that the BC government will conduct the required actions, including necessary structural changes to the machinery of government.

Although hopeful, we are not yet assured that the Province has given adequate consideration to the vast and fundamental changes required to every area of government operation that will be needed to successfully steer out of this crisis. Here, we highlight several aspects of the draft

¹ <https://ipbes.net/news/what-transformative-change-how-do-we-achieve-it>

BEHF where we think that government must take a bold leadership role to realize the document's stated intent given the huge inertia in the status quo:

- a) The draft BEHF does not venture beyond characterizing the overarching problem at hand, i.e., the deterioration of biodiversity and ecosystem health in BC. Without a complete and proper diagnosis of the faults with the historic management and governance conditions that have largely caused the problems, there will be no common understanding of the shifts (transformation) that are required to "create the conditions for change" that will lead to the "desired outcomes" (p. 5). Those problematic conditions include, but are not limited to, lack of attention to species at risk, ecologically unsustainable levels of forest harvest (i.e. excessive annual allowable cuts), insufficient protection of old growth forests, and inadequate management of resource roads, back-country access, and cumulative effects of multiple human activities on the land base.
- b) While ecosystem-based management is a desired pathway, it is important to note that this is already being deployed in many landscapes in BC, at least on paper, but significant economic constraints often make it impossible to implement as designed.
- c) Although the draft BEHF recognizes "existing initiatives", BC is going to have to be prepared to evaluate the effectiveness of all of them if truly committed.
- d) Effective governance mechanisms to conserve biodiversity and ecosystem health will require measures that build much greater awareness of natural limits into planning and decision-making processes that reverse the current approach of land use conversion being a foregone conclusion. Liquidating biological systems to finance economic growth, and ignoring this element in decision-making, must end. Instead, such governance would result in a system where all such conversion must be considered within the context of clear scientific limits (similar to the idea of a carbon budget for climate). Shifting to such a regime will require investment in biodiversity monitoring and meaningful cumulative effects assessments that actually inform decisions. This will require taking necessary measures to manage access road development and decommissioning, which may not be popular with all sectors of the public. A truly adaptive management approach at appropriate planning scales will be needed, with focus on core BEHF mandates that safeguard all of society, outweighing personal or commercial interests.
- e) The six principles (p. 6) to "guide actions, decisions, and policy development to support implementation of the Framework" need to be strengthened. For instance, "biodiversity", "climate", "ecosystem health" and "conservation" aren't even mentioned in the table, making the link between these principles and the intent of the draft BEHF unclear. To illustrate, the principle on sustainable and inclusive economies should explicitly acknowledge the value of biodiversity and ecosystem health.

- f) Despite acknowledgment at several points in the draft BEHF of the strong linkages between economic prosperity/human wellbeing and biodiversity/ecosystem health, there is no specific use of the “one health” realization. The reality of these linkages requires valuation of biodiversity as an asset; similarly, there needs to be quantification of harmful economic subsidies that undermine its value. This necessary valuation process would require a move to measure wealth in a more inclusive fashion by including natural capital into accounting. Again, accomplishing this would require a transformation of our institutions and systems². This need to value nature is missing from the table of shifts (to and from) on p. 5 of the BEHF draft document and really must be included.
- g) The Kunming-Montreal Global Biodiversity Framework (KMGBF) is mentioned, but only to state that it was signed in 2022. We suggest that the KMGBF offers a strong blueprint for achieving transformative change with 4 goals and 23 targets that can be applied at the subnational scale. Aligning with KMGBF, and the [Canada’s 2030 National Biodiversity Strategy](#) that is being developed in Canada right now would be useful in so many ways even beyond implementing the 30x30 (Target 3) commitment of the Canada Nature Agreement. BC could serve as a model for other Canadian jurisdictions – similar to BC’s leadership on carbon pricing and electric vehicle mandates.

2) Several key elements of a whole-of-government require more emphasis in the BEHF

It is crucial to adopt an integrated approach that ensures the policies and actions of one Ministry do not undermine those of another, promoting policy coherence rather than conflict. Status quo management approaches position biodiversity as an afterthought, considered only once major decisions have already been made, and thereby limiting opportunities for proactive measures to avoid negative impacts. The current fragmented and siloed approach of multiple Acts and Orders pertaining to select species, select industries, specific ministries, and different application to different ecosystems/habitats, has undermined ecosystem health, and resulted in increasingly longer lists of species and ecosystems at risk.

This underscores the vital role of a new central agency within government, which this proposal signifies as the Office of Biodiversity and Ecosystem Health (but see below). To successfully implement a whole-of-government approach, biodiversity and ecosystem health, together with climate change, must be key considerations when formulating budgets and determining the government's direction as early in decision-making processes as possible.

² Dasgupta, P. (2021), The Economics of Biodiversity: The Dasgupta Review. London: HM Treasury.

<https://www.gov.uk/government/publications/final-report-the-economics-of-biodiversity-the-dasgupta-review>

Accordingly, several key elements should be included or further emphasized in this document to enable a whole-of-government approach to implementation of the BEHF:

- a) While the draft BEHF makes reference to “necessary powers and authorities” for a new Office of Biodiversity and Ecosystem Health, the bullets that follow focus on knowledge sharing, standard development, and communications (“championing”). These are all necessary but wholly insufficient responsibilities. Creating such a body will be part of the truly transformative changes in a mindset that will be required to be successful. As currently drafted, the role this office will play in the context of “Integrate and align decision-making processes, policies, programs, with the priority of conserving and managing ecosystem health and biodiversity”, would be pivotal, requiring policy coherence and a clear mandate for how it will function in a co-governed institution.
- b) Greater detail is required as to which governmental decision-making processes must be modified, or instituted, to realize the ambitions of the BEHF. The draft document mentions some, notably land use planning, but fails to be explicit on many, including those that are overseen by Ministries other than the Ministry of Water, Land and Resource Stewardship whose Minister has put forward this draft BEHF. There are dozens of processes overseen by Ministry of Forests (AAC determinations, old growth deferrals, wildlife habitat areas, carbon emissions reporting), Ministry of Transportation (vegetation control), Ministry of Indigenous Relations and Reconciliation (DRIPA consultation and implementation), Ministry of Environment and Climate Change Strategy (carbon emissions accounting notably biofuels, ecosystem carbon sequestration, biodiversity implications of renewable energy developments), and Ministry of Energy, Mines and Low Carbon Innovation (environmental impact assessment; reclamation and restoration). Clarification in the BEHF on the scope of “whole-of-government” transformation is required.
- c) Trade-offs between different values and potential outcomes within the plethora of government-led or mediated decision-making processes at play will be inevitable. Adjudicating these trade-offs in a transparent fashion will require formalized rules and procedures. It will also require a whole-of-civil-service process to explain, justify, and promote the necessary changes to the status quo, otherwise much of government’s activities will continue despite the rhetoric of the draft BEHF. This applies to at all levels, ranging from the Office of BEH as a clearinghouse for government decisions to “community/place-based decisions and actions” (p. 6) where there will need to be a clear framework and oversight ensuring alignment with the overarching principles of the BHEF (although these principles currently lack critical keywords for effectively guiding this process – see 1e above).

- d) Maintaining broadly accessible and current maps of areas important for biodiversity, (e.g., Key Biodiversity Areas, connectivity, cultural areas, etc.) so that all government departments and partners have access to the same high quality biodiversity information. Making spatial data available to everyone is required to mainstream biodiversity considerations into land use planning and resource development planning³.
- e) Ensure mechanisms for both external and internal accountability for all levels of decision making are in place to ensure effective implementation. Legislation, regulations and policy will be challenging to change in meaningful ways, and doing so will be necessary for success. However, there will remain cultural and business practice norms within the public service that, if they are not addressed in an effective change management system, will certainly persist beyond legislative and policy changes.

3) Revising and creating new legislation needs to be accelerated and will require a careful, iterative approach

The draft BEHF refers (albeit vaguely) to both new legislation and the intention to modify existing legislation and regulatory practices. We welcome a new law for biodiversity and ecosystem health to implement BEHF (with accountability mechanisms), as long as the details are established through co-development with Nations. However, no new law should be contemplated before proper care is taken to evaluate its potential relationship with the existing set of laws in BC. Too often, the tendency is to pile new laws on top of existing legislation, creating a maze of potential conflicts as to which law takes precedence. Accompanying new legislation will be a strong need to amend existing legislation (for example, the Forests and Range Practices Act) to implement this Framework. Considerable thought will need to go into aligning BC's policies and practices with First Nations-led conservation, and in particular with First Nations governance of Indigenous Protected and Conserved Areas ("IPCA") declared by them.

To illustrate, the current government approach in BC towards habitat protection for species at risk is highly fragmented, with differing levels of habitat protection, if any, applying to some Acts and not others; and only a subset of species qualify for protection. This is an ineffective approach to wildlife conservation and has resulted in a system that is not only confusing to the public, but to the industries and government employees that must navigate it. The Biodiversity and Ecosystem Health Framework could facilitate a fresh start. A system that has biodiversity and ecosystem health at the core, encompassing all legislation and ministries, is urgently needed. Along with this needs to be a clear and concrete process by which all government decisions and industry activities are held accountable, hopefully through the Office of Biodiversity and Ecosystem Health.

³ Plumptre et al. (2023 <https://doi.org/10.1016/j.oneear.2023.12.007>)

In this vein, while we are encouraged that BC government is seeking to improve its dated Wildlife Act, we stress the need for this reform process to be closely aligned with the development of the BEHF. Without this, revisions to the Wildlife Act may further entrench the status quo and inadvertently undermine the implementation of the BEHF. For example, we understand that Min. of WLRs is considering expanding the wildlife habitat features (current GAR Order 213 under FRPA in Kootenay Region) to be an instrument of protection under the Wildlife Act. This is despite evidence that WHFs are largely ineffective and contribute to piecemeal and reductionist approaches. Most species require some degree of ecosystem intactness (current habitat with recruitment potential) to thrive and persist; and thus the act of protecting only a single feature such as a decaying snag from forest harvest is at best misplaced conservation. Effort and resources are better spent protecting intact areas of habitat for communities of species. It is our hope that revisions to the Wildlife Act are made in line with the BEHF and not with the current trajectory to build upon ineffective legislation.

We take this opportunity to note that species at risk are only mentioned in the letter from the Minister that prepends the draft BEHF, in a manner that suggests they will be taken care of through prioritization of “biodiversity and ecosystem health”. While this is to a certain extent true, we submit that most will still require more dedicated attention through actions taken and monitoring. Given that SAR can be an index or warning for biodiversity loss, or changes in ecosystem health, SAR need to have prominent mention in the BEHF. In line with this new more inclusive biodiversity conservation framework needs to be inclusion of *all* species at risk as identified by BC Conservation Data Center, *not* a subset (i.e., Identified Wildlife). This in fact represents a much needed simplification, and provides recognition that all species assessed as at-risk through science-based assessments need to be afforded protection.

4) Definitions of several key terms require improvement.

While we appreciate the efforts to provide definitions to important terms in the document, we propose improvements to three of them:

- a) ***Ecosystem Health*** – *a concept or metaphor that describes environmental conditions in relation to natural/historical benchmarks for biodiversity and ecosystem structures, functions, and processes. Unhealthy ecosystems are degraded by human/industrial use.*

We suggest that this definition include at the end a phrase describing the consequence of degradation, by adding “and are less resilient to local surprises or larger scale changes.”⁴

⁴ *Restoration Ecology: The New Frontier* by Jelte van Andel, James Aronson (2006).
<https://www.jstor.org/stable/26396622>

Suggested revised definition of “ecosystem health”: *A concept or metaphor that describes environmental conditions in relation to natural/historical benchmarks for biodiversity and ecosystem structures, functions, and processes. Unhealthy ecosystems are degraded by human/industrial use and are less resilient to local surprises or larger scale changes.*

- b) **Ecological Integrity** - *ecosystems that contain native species and communities, natural landscapes, and ecological functions that are characteristic of the region and ecosystem they occur within.*

Integrity is the degree to which an ecosystem’s composition, structure, and function are similar to its natural or reference state. Ecological integrity figures prominently in the Kunming-Montreal Global Biodiversity Framework, in Goal A and three targets. We suggest the definition of this key term center on how close an ecosystem is to its “natural” state -- or, more precisely, its natural range of variation -- and more explicitly highlight three aspects of the combined biotic and abiotic system: composition (including, for example, presence and diversity of species), structure (e.g. organizational attributes like connectivity, fragmentation), and function (e.g. productivity, disturbance regimes, and functional connectivity).⁵

Suggested revised definition of “ecological integrity”: *the ability of an ecological system to support and maintain a community of organisms that has species composition, diversity, and functional organization comparable to those of natural habitats within a region.*⁶

- c) **Adaptive Management** – *is a rigorous approach for designing and implementing management actions to maximize learning about critical uncertainties that affect recurrent decisions while simultaneously striving to meet multiple management objectives.*

The success of the proposed BEHF hinges in no small part on embracing genuine active adaptive management. It should underscore its iterative process, dependence on monitoring and experimentation, and the necessity for ongoing learning and adjustment to address evolving conditions. The current definition lacks emphasis on responding to new information. We recommend that BC adopt the definition outlined by Walters and Holling (1990).⁷

⁵ Nicholson et al. (2021) <https://www.nature.com/articles/s41559-021-01538-5>

⁶ Parish et al. (2003). <https://academic.oup.com/bioscience/article/53/9/851/311604>.

⁷ Walters and Holling (1990). <https://www.jstor.org/stable/1938620>.



Suggested revised definition of “adaptive management”: *Active adaptive management is a systematic process that emphasizes the iterative cycle of planning, implementation, monitoring, and adjustment, where management actions are continually refined based on feedback from monitoring and evaluation to achieve desired objectives.*

OUR RECOMMENDATIONS FOR ACCELERATED ACTIONS:

- 1) Co-announce with BC Nations a Consultation and Cooperation Plan for the timely and sufficiently resourced, co-development of a new biodiversity and ecosystem health law that is fully aligned with the UN Declaration on the Rights of Indigenous Peoples.
- 2) Prior to the next provincial election, create the Office of Biodiversity and Ecosystem Health as a central overarching body for all major decisions and direction, with full legal authority to achieve its stated goals.
- 3) Develop a tangible plan for restructuring government ministries and hierarchy of decision-making that will uphold the principles of the BEHF.
- 4) Announce a financial commitment that reflects the scale necessary to restructure for a whole-of-government approach.
- 5) Socialize the BEHF across all ministries for a true and immediate ‘all of government’ approach to prepare for revision of policies and practices in alignment with the framework.
- 6) Evaluate existing policies and legislation for alignment with the new BEHF framework, and reform accordingly and in a coordinated fashion.

Thank you again for the opportunity to provide our insight. We are optimistic, if wary, and certainly welcome further discussions. We look forward to further details in the coming months and are prepared to provide expertise and resources as needed.

Sincerely,

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