GETTING THE BALANCE RIGHT: IMPROVING WILDLIFE HABITAT MANAGEMENT IN BRITISH COLUMBIA

STRATEGIC ADVICE TO THE MINISTER OF FORESTS LANDS AND NATURAL RESOURCE OPERATIONS

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Parliamentary Secretary to the Minister of Forests, Lands and Natural Resource Operations

August, 2015

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1. Introduction

Responding to concerns raised by several provincial wildlife groups, the Minister of Forests, Lands and Natural Resource Operations asked me to review wildlife habitat in BC. I was grateful for this opportunity.

I am a conservationist with a great respect for our wildlife and its habitat from a lifetime of living and raising my family in rural communities in the central interior of British Columbia. My 32 year career in the Royal Canadian Mounted Police provided me the privilege to travel extensively by road, air and water throughout our great province. I have been a fisherman, hunter and an active trapper for over 40 years. This has been an active and rewarding lifestyle that my sons and their families continue to enjoy today.

As a Member of BC's Legislative Assembly and Parliamentary Secretary to the Minister responsible for Forests, Lands and Natural Resource Operations, I was asked to consider British Columbia's rich economic heritage. I examined forestry, mining, agriculture, range, and oil and gas all the while looking for opportunities to better balance responsible stewardship of our unique biodiversity; our natural resources and environmental values that sustain us all.

Over the past decade Government has responded to two major events of global proportions: the economic recession and the mountain pine beetle infestation. With a decline in revenue and a need to reduce spending all the while tackling an environmental epidemic, tough choices had to be made that would be sure to impact wildlife habitats across the province. The massive mountain pine beetle epidemic dramatically altered the ecology of the landscape with significant implications for wildlife due to epic losses in habitat. In addition, the attempt to recover as much economic value as reasonable and possible from the dead forest further jeopardized these habitats.

Now that the epidemic has run its course and harvest levels are being reduced it is important to assess the changes that have taken place and fully understand their immediate and future implications for wildlife habitat and forest management. Simply put, new strategies are required to support impacted wildlife populations and the needed habitat to allow species to recover.

The Minister has asked me to review the policy framework provisions in place that affect habitat and wildlife. The conclusion of this review will provide him with advice on how to better support the maintenance and recovery of habitat across the province; allowing for healthy, robust and growing wildlife populations while at the same time ensuring a balance that will provide our resource sectors opportunities to continue making important economic contributions to our province.

This report reflects not just my conclusions, but considers the input of the many industry representatives, stakeholders and experts I've spoken with over the last six months as well as

the wealth of information contained in the literature review I've conducted.[1] Of all the resource sectors that I considered in this review, I note that because of the scale of forestry across the province, it has greater interaction with wildlife and wildlife habitats than any other sector and therefore runs the risk of having the highest levels of impact. That is not to say that the impacts of other sectors are trivial or unimportant.

[1] Appendix 1- 4

2. Summary

British Columbia is Canada's most ecologically diverse province. It has everything from temperate rainforest to dry pine forests to alpine meadows. It is also the country's most biologically diverse province and home to more than half of the fish and wildlife species indigenous to Canada. BC's Parks and protected areas contribute towards the maintenance of our unique biodiversity by conserving wilderness areas, wildlife habitat, recreation areas, cultural sites and much more. BC is over 94 million hectares in size and has more than 14.1 million hectares of protected lands where no forestry, mining or industrial development is currently allowed (close to 15% of the province).

BC also enjoys a diverse and vibrant natural resource economy which includes agriculture, forestry, mining and energy (both oil and gas, wind and hydro power, along with their associated pipelines and transmission lines). Understanding the importance and the sensitivity of our biodiversity while finding the balance as we develop our natural resource sector is challenging. That said, the provincial government continues to improve its resource management policies and practices in order to meet public expectations for sustainable development. In addition, the resource sectors themselves have undertaken a number of initiatives, including independent certification, to demonstrate their commitment to sustainability.

With the emergence of these progressive policies, BC is in a good position to approach the conservation of wildlife habitats. However, there is a need for continual response to emerging challenges such as climate change, the needs of listed species, and the unforeseen habitat changes such as those that occurred with the mountain pine beetle infestation. It will be continually necessary that provincial responses and difficult decisions are guided by good science, data, and analysis to ensure that each decision is made with a holistic understanding of its implication.

Population growth, economic development and other factors such as climate change place constant pressure on wildlife populations and their habitat throughout the world. BC is no exception. Indeed, the mountain pine beetle epidemic should remind us that we too, are vulnerable to this type of ecological calamity—one that has had and will have, far reaching impacts not just on our forest resource and forestry economy—but also on our wildlife and a wide range of environmental values.

This report addresses wildlife and wildlife habitat and provides a path forward for the continuous improvement in balancing biodiversity and economic objectives. Our provincial Ministry of Environment Ecosystems Branch defines biodiversity as "life in all its forms and the habitat and natural processes that support it". I agree with this interpretation. Wildlife requires all forms of biodiversity to survive and adapt. We need to keep this in mind as we continue to diversify and move our economy forward, to increase our competitiveness and to develop our abundant natural resources. If we do this in the right way, we can diversify and enhance our traditional and non-traditional natural resource sector going forward. This will

be best accomplished with better planning, better science and more timely and effective implementation of policies and programs.

The following advice to the Minister is intended to compliment the provincial strategic plan[2] and the strategic context[3] of the current Ministry service plans. I will identify areas where more can be accomplished. I would especially like to recognize the forest stabilization pilots, cumulative effects assessments, and projects like the Moose mortality project, as critical work that needs to continue, and hopefully expand across the province. It is my ongoing belief that innovation in resource management techniques and practices needs to be fostered and encouraged.

My vision in moving this project forward is that:

The government of British Columbia shall recognize our unique and abundant biodiversity as a natural resource and provide it with full and equal consideration in the planning, development and extraction of all our natural resources.

As stated in the current Ministry Service Plan, "solidifying the integrated delivery of natural resource management through the one land manager model remains a key ministry priority as does designing new approaches and tools to better manage the cumulative effects of multiple activities."

In order to achieve this vision, my advice to the Minister will focus on the following strategic goals:

1. Develop a wildlife management program that recognizes the intrinsic and extrinsic value of all provincial wildlife. That program should consider wildlife population levels and wildlife population objectives, including species at risk.
2. Consolidate the authorization, planning, control and sustainable development of all natural resources in British Columbia.
3. Develop a landscape-level planning model that incorporates the natural resource features and environmental values that exist in a single watershed.
4. Improve and expand upon the results based management system
5. Harness the wisdom, talent and expertise of BC Wildlife practitioners[4] in wildlife/habitat management.

[2] Province of British Columbia Strategic Plan 2013/14 – 2015/16 pg
[3] Ministry of Forests, Lands and Natural Resource Operations 2015/16 – 2017/18 Service Plans, pg6: Multiple interests and overlapping demands
[4] Resident Hunters, BC Guide Outfitters, BC Trappers, BC Wildlife Federation, Wildlife Viewing Industry, First Nations

3. Strategic Advice to the Minister

3.1 Develop a wildlife management program that recognizes the intrinsic and extrinsic value of all provincial wildlife. That program should consider wildlife population levels and wildlife population objectives, including for species at risk.

Government and the resource sector in British Columbia have for decades, placed a value on "traditional" natural resources extracted from the Province. Commodities like precious metals, oil and gas, coal and wood fibre are valuated in order to provide a basis for government to assess royalties or other forms of benefit to the people of British Columbia, in addition to basic resource development considerations. Softwood fibre, a renewable resource, has an average regeneration cycle of 100 years (higher in the interior and 100 years or less on certain high productivity coastal sites). Wildlife, another renewable natural resource, give birth to young annually or every two to five years depending on the species. In order to make fully informed decisions respecting resource development, the annual value and the compounded value over time of wildlife and wildlife habitat in all forms needs to be considered. In addition, all resource development initiatives should be put in context of their impacts on wildlife habitats. Suggested steps to achieve this goal include:

1) Undertake a comprehensive valuation of BC Wildlife to determine full economic and environmental benefits:

a) establish values of wild meat, fish and game birds in comparison to domestic meat, fish and poultry products

b) establish the ecological value of species in the natural balance of wildlife populations

2) Complete wildlife inventories:

a) develop a comprehensive wildlife inventory program

b) develop a real-time reporting system for hunters and trappers to report harvest results

c) include First Nations harvest results

d) update passerine and flying insectivore population estimates

e) require industrial road users and railways operating within the province to report wildlife collisions

3) Create resource development plans that include objectives to ensure that minimum sustainable population levels of all resident wildlife species are maintained.

3.2 Consolidate the authorization, planning, control and sustainable development of all natural resources in British Columbia

The complexities of BC resource statutes, regulations and policies are cumbersome and expensive to administer. Current wildlife management practices are often species-specific requiring an inordinate amount of administrative time for both government and industry. Management practices for biodiversity and environmental impacts, equally applied to all resource development in the province and consolidation would facilitate a more effective and efficient system.

By designing new approaches and tools, with reference to the current Ministry Service Plan, the integrated delivery of a comprehensive natural resource management system can be created to better manage the cumulative effects of natural resource development. Suggested steps to achieve this goal include:

1) Undertake a comprehensive review of all resource statutes with a view to consolidation where it is determined to add value and benefit.

2) Consideration given towards developing an omnibus approach

3) Eliminate "species specific" regulatory processes (unless specifically required under species at risk legislation) and adopt a regulatory process that recognizes biodiversity values.

4) Establish a succinct definition of "sustainable" to guide all resource development.

3.3 Develop a landscape-level planning model that incorporates the natural resource features and environmental values that exist in single a watershed

There has never been a time in British Columbia's history where balancing the cumulative impact of resource development and biodiversity has been so complex. This balance is critical to ensure social, environmental and economic sustainability, particularly with the added complexities associated with climate change.

The vast areas affected by the mountain pine beetle have been subjected to significant hydrological impacts. These hydrological impacts as well as impacts on other resource values have been compounded by the cumulative effects of ongoing resource development. In addition, planning decisions are often taken in isolation by individual tenure holders without their full knowledge of the plans of multiple other tenure holders (same sector or other sector) in the same area or in nearby management units.

It is in light of these issues that a realignment of management zones that recognizes the natural resource features and environmental values that exist in a watershed will provide tenure holders the opportunity to collaborate at the landscape level. This will provide opportunities to mitigate impacts on biodiversity through better hydrological oversight, better access management, and better stakeholder engagement. The following suggestions outline how such restructure might take place:

1) Create a provincial "Resource Developers Guild" with a structure that:

    a) Provides a senior "qualified monitoring board" representative of all resource sectors and First Nations

    b) Provides provincial and regional representation from all tenure holders

        i) regional representation will depict shared watershed tenure holders and First Nations bands.

        ii) provincial representation includes one representative from each regional group

2) Design provincial resource management areas to reflect the natural resource features and environmental values that exist in a watershed

3) Develop access management plans to address cumulative impacts from resource road development

3.4 Improve and expand upon the results based management system

The Forests and Range Practices Act is a good example of a "results based" statute. As stated above in 3.2, consideration should be given to provide the entire resource sector the opportunity to flourish under a unified results based doctrine. There are weaknesses in this legislation however that first need to be addressed. Nebulous and ambiguous terms are prevalent throughout some of the current legislation. For example, parts of the legislation pertaining to Forest Stewardship Plans[5] employ words such as "material adverse impact", "adversely altered ecosystem", "must ensure", and "maintain fish passage". This language makes it impossible for monitors to clearly define outcomes and to measure progress and monitoring criteria. One of the key factors in a results based doctrine is a disciplined monitoring approach using established indicators and their measures as opposed to compliance monitoring which is a "rules based" approach. In addition, statements like "without unduly reducing the supply of timber from British Columbia's forests"[6] is a very subjective "default" term that significantly lowers the threshold protecting our biodiversity. This ambiguity has contributed to a degradation of biodiversity and ultimately, a reduced ability for professionals to meet the spirit and intent of the legislation.

Suggestions:

[5] FPPR, Part 2 Division 1

[6] Section 9 FPP Regulations – Objectives set by government for wildlife and biodiversity – landscape level

1) Review with industry, the original intent of results based resource management and realign current practices to meet the spirit and intent of the results based doctrine.

2) Clarify FRPA and accompanying legislation by removing nebulous and ambiguous terminology

3) Remove the provisions of the legislation that state “without unduly reducing the supply of timber from British Columbia’s forest” from FRPA and accompanying legislation

4) Give Natural Resource Compliance and Enforcement Officers the authority to monitor results by conducting performance audits on all resource sectors in the province as required. Consideration should also be given to renaming this unit to reflect the monitoring function of this group and increasing the number of monitoring officers.

5) Reconsider the implementation of area based tenures in the Forest Sector (the Forest Sector is the only Natural Resource sector that does not currently operate within an area based system.)

3.5 Harness the wisdom, talent and expertise of BC Wildlife practitioners in wildlife/habitat management

Government has traditionally relied upon internal professional resources – biologists, foresters, and range experts – to monitor and measure the results of seral development over time. With the increase in resource development and the geographical expanse of our province, government’s capacity to provide services in this area is often overwhelmed.

Many tenure and non-tenure holders as well as First Nations across the province have decades of intimate knowledge of the particular spatial area that their tenures cover, often spatial areas where they have fished, hunted, and resided. These unique individuals possess knowledge that will enhance the ability of government to accurately assess habitat, wildlife populations, and environmental changes associated to resource development and natural disturbances like forest fires and flooding.

Suggestions:

1 Expand the Integrated Resource Management Planning (IRMP) model as a province wide model, and expand the current role of the Forest and Range Evaluation Program (FREP) into a Resource Stewardship Monitoring program covering all resource sectors province wide by;

a) Combining FREP with the Cumulative Effects Framework program

b) Updating the Resource Stewardship Monitoring Objectives

c) Ensuring data collection processes are robust and sufficient

2 FREP/Cumulative Effects Framework resources participate as a member of the "Resource Developers Guild" at each level

3 Develop a program that utilizes the knowledge, wisdom and experience of long term wildlife tenure holders and wildlife practitioners including resident hunters

4. Conclusion

There is an urgency and heightened concern amongst resident hunters, guide outfitters, trappers, the wildlife viewing industry and conservationists that the province is not acting quickly enough to address the decrease in wildlife populations and the degradation of wildlife habitat. As I have noted in my introduction, accelerated forest harvesting practices and activities are having a significant impact in this area. The anticipated decrease in the annual allowable cut will help mitigate the loss of wildlife habitat, however the changes that I have suggested are necessary to ensure we maintain and grow wildlife populations and find that critical balance between healthy biodiversity and sustainable resource development.

Appendix 1

Associations and Organizations

Association of BC Forest Professionals

BC Cattleman's Association

BC Fishing Resorts and Outfitters Association

BC Wildlife Federation

BC Trappers Association

Canfor

Coast Forest Products Association

College of Professional Biologists

Council of Forest Industries

Forests Practices Board

Forests and Range Practices Advisory Council

FP Innovation

Interior Lumber Manufacturers' Association

Mining Association of BC

Oil and Gas Commission

Professional Employees Association

Provincial Hunting and Trapping Advisory Council

Private Landowners Association

Resource Works

Tolko Industries

West Fraser

Western Silviculture Contractors Association

Wildsight

Yellowstone to Yukon Conservation Initiative

Appendix 2

Professional Individuals/Government Officials

Addison, Chris. Director, *Northeast Resource Management and Major Projects*; Ministry of Forests, Lands and Natural Resource Operations.

Dale, Alex. Executive Director, *Ecosystems Branch*; Ministry of Environment

Edquist, Kevin and Towsend, Gary. *Compliance and Enforcement*; Ministry of Forests, Lands and Natural Resource Operations

Either, Tom and staff. Assistant Deputy Minister; Ministry of Forests, Lands and Natural Resource Operations

Gorley, Al. Former Chair, Forest Practices Board

Hackman, Arlin. Alberta Environmental Monitoring Evaluation and Reporting Agency

Haddock, Mark. Faculty of Law, University of Victoria

Hunter, Charles. Director, *First Nations Relations*; Ministry of Forests, Lands and Natural Resource Operations

Jensen, Tom and staff. Assistant Deputy Minister, *Residue and Waste Program*; Ministry of Forests, Lands and Natural Resource Operations

Konkin, Doug. Former Deputy Minister; Ministry of Forests, Lands and Natural Resource Operations

Kriese, Kevin. Assistant Deputy Minister, *Northern Operations*; Ministry of Forests Lands and Natural Resource Operations

Morel, David. Assistant Deputy Minister, Ministry of Energy and Mines

Nicholls, Diane. Chief Forester and Executive Director, *Resource Stewardship*; Ministry of Forests, Lands and Natural Resource Operations.

Parnell, Grant. Assistant Deputy Minister, Ministry of Agriculture

Pederson, Larry. Former Chief Forester and Deputy Minister, Ministry of Agriculture

Piccinino, Ines and Staff, Assistant Deputy Minister, Ministry of Natural Gas Development

Rauscher, Ben. Environmental specialist, Oil and Gas Commission.

Rawling, Greg and staff. Regional Executive Director, *Omineca Regio*n*;* Ministry of Forests, Lands and Natural Resource Operations

Sheldon, Tim. Deputy Minister; Ministry of Forests, Lands and Natural Resource Operations.

Sielecki, Leonard. Wildlife and Environmental Specialist; Ministry of Forests, Lands and Natural Resource Operations

Snetsinger, Jim. Former Chief Forester; Ministry of Forests, Lands and Natural Resource Operations

Stewart, Doug. Director, *Forests Tenures Branch*; Ministry of Forests, Lands and Natural Resource Operations

Thompson, Derek. Chair, *Haida Gwaii Management Council*. Former Deputy Minister, Ministry of Environment

Visser, Rod. Former Member, Forests Practices Board

Wyatt, Peter. Director, *Engineering Branch*; Ministry of Forest, Lands and Natural Resource Operations

Zacharias, Mark. Assistant Deputy Minister, *Species at Risk;* Ministry of Environment.

Appendix 3
Legislation Reviewed

Bill 8 – 2008, Forests and Range Statutes Amendment Act, 2008

Coal Act [SBC 2004] c.15

Environmental Management Act [SBC 2003] c.53 (Part's 1, 4, 5 and 9)

Forest Act [RSBC 1996] c. 157

Foresters Act [SBC 2003] c. 19

Forest and Range Practices Act [SBC 2002] c. 69

Forest Planning and Practices Regulation

Forest Practices Board Regulation

Fort St. John Pilot Project Regulation

Government Actions Regulation

Hunting and Fishing Heritage Act [SBC 2002] c.79

Land Act [RSBC 1996] c. 245

Mines Act [RSBC 1996] c.293

Mining right of Way Act [RSBC 1996] c.294

Oil and Gas Activities Act [SBC 2008]

Range Act [SBC 2004] c.71

Range Planning and Practices Regulation

Species at Risk Act [S.C. 2002] c. 29

Wildfire Act [SBC 2004] c.31

Appendix 4
Literature Reviewed

Office of the Auditor General of British Columbia Reports

An Audit of Biodiversity in B.C., *Office of the Auditor General of BC,* Report 10: February 2013.

An Audit of the Environmental Assessment Offices' Oversight of Certified Projects, *Office of the Auditor General of BC,* Report 4: July 2011.

An Audit of the Ministry of Forests, Lands and Natural Resource Operations' Management of Timber, *Office of the Auditor General of BC,* Report 11: February 2012.

Building Momentum for Results-Based Management, *Office of the Auditor General of BC,* Report 13: 2004/2005.

Conservation of Ecological Integrity in BC Parks and Protected Areas, *Office of the Auditor General of BC,* Report 3: August 2010.

Managing the Cumulative Effects of Resource Development in BC, *Office of the Auditor General of BC,* May 2015.

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Salmon Forever, *Office of the Auditor General of BC.* Report 5: 2004/2005.

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A Decade in Review: Observations on Regulation of Forest and Range Practices in British Columbia, FPB/SR/46: May 2014

Biodiversity Conservation during Salvage Logging in the Central Interior of BC, FPB/SR/35: November 2009.

Conserving Old Growth Forests in BC, FPB/SIR/36: June 2012

Monitoring Licensees' Compliance with Legislation, FPB/SIR/37, July 2013

Timber Harvesting in Beetle-Affected Areas, FPB/SR/44: March 2014.

Timelines, Penalty Size and Transparency of Penalty Determinations, FPB/SIR/41: October 2014

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Addressing Cumulative Effects in Natural Resource Decision-Making: A Framework for Success: February 2014.

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Mid-Term Timber Supply Report, Association of BC Forest Professionals: Revised January 24, 2012.

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Are Free-Growing Stands Meeting Timber Productivity Expectations in the Lakes Timber Supply Area? FREP Report Summary #16: April 2008.

Assistant Deputy Ministers Resource Stewardship Report: Results and Recommendations of The Forest and Range Evaluation Program: December 2013.

Baseline Datasets for Evaluating Wildlife Tree Patches, FREP Report #1: November 2004.

Chief Forester's 2010 Annual report on the Forest and Range Evaluation Program: February 2011.

Conceptual Models for Wildlife Effectiveness Evaluations: A Recommended Approach, FREP Report #24: May 2010

Cover Requirements and Habitat Needs of Grassland-Nesting Birds in the Cariboo-Chilcotin – FREP Report #36: November 2013.

A Guide to Wildlife Resource Value Effectiveness Evaluations, FREP Report #37: February 2014.

Northern Interior Forest Region: Analysis of Stand-Level Biodiversity Sampling Results in Six Predominant Bioclimatic Subzones, FREP Report#28: March 2011

Stand Level Biodiversity Monitoring In 44 Large Cutblocks in the Central Interior of British Columbia, FREP Report #10: September 2007

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