FOREST SECTOR CONTRIBUTIONS TO WOODLAND CARIBOU RECOVERY

SEPTEMBER 2018

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FOREST PRODUCTS ASSOCIATION OF CANADA: PROJECTS AND INITIATIVES TO DATE

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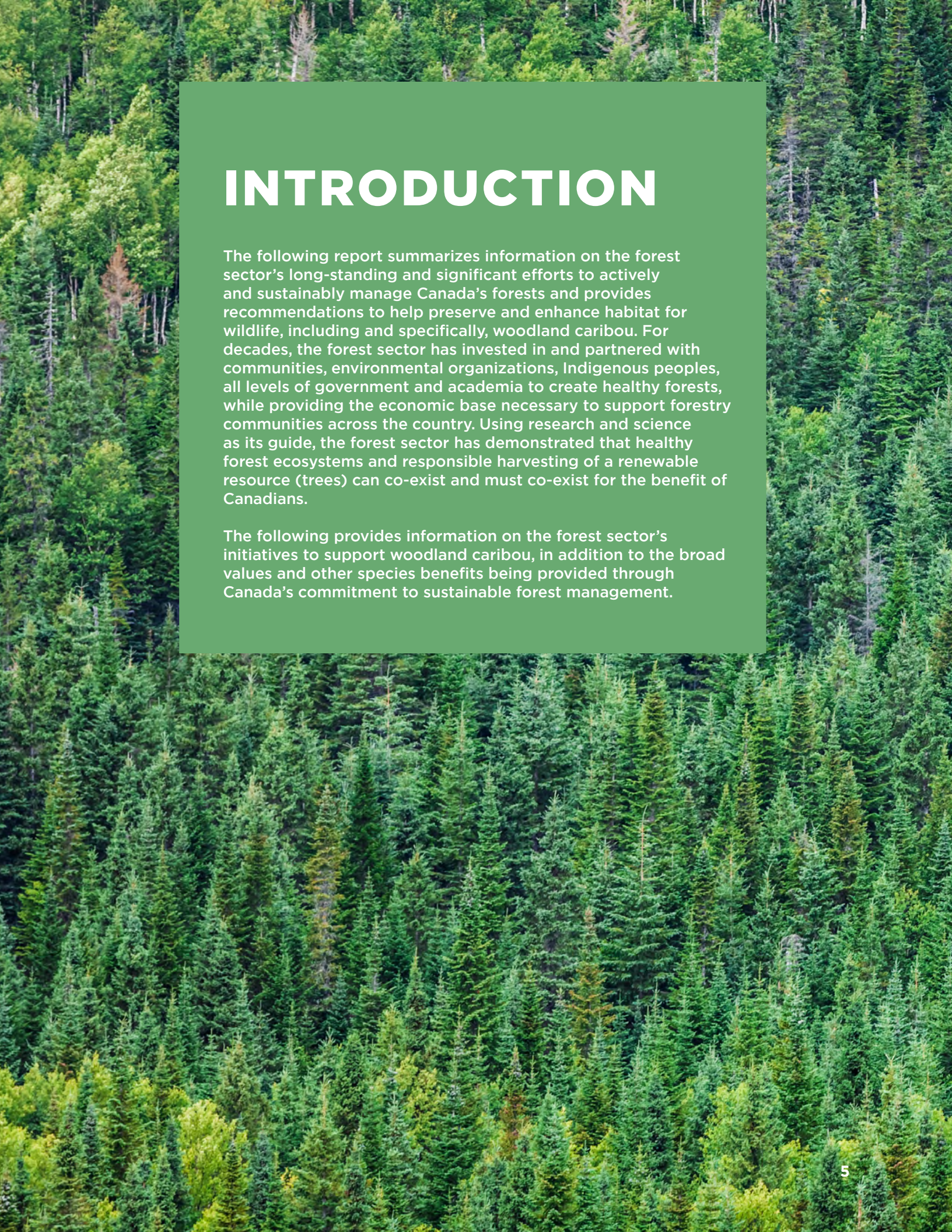
Our community and region believes that local solutions are needed to support caribou recovery. Throughout Alberta, we are seeing real benefits from a number of the innovative and diverse caribou programs which are being led by our province's forestry experts in conjunction with elected officials, the energy sector, and multiple other stakeholders. We must continue to support these initiatives, as a cookie cutter approach will not work. Collaboratively we can ensure the long term recovery of caribou, and support the economic and social growth of forest based communities across Canada."

MAYOR MARYANN CHICHAK
Whitecourt, Alberta



INTRODUCTION

The following report summarizes information on the forest sector's long-standing and significant efforts to actively and sustainably manage Canada's forests and provides recommendations to help preserve and enhance habitat for wildlife, including and specifically, woodland caribou. For decades, the forest sector has invested in and partnered with communities, environmental organizations, Indigenous peoples, all levels of government and academia to create healthy forests, while providing the economic base necessary to support forestry communities across the country. Using research and science as its guide, the forest sector has demonstrated that healthy forest ecosystems and responsible harvesting of a renewable resource (trees) can co-exist and must co-exist for the benefit of Canadians.

The following provides information on the forest sector's initiatives to support woodland caribou, in addition to the broad values and other species benefits being provided through Canada's commitment to sustainable forest management.

BACKGROUND

All caribou and reindeer in the world belong to one species, *Rangifer tarandus*. In Canada, caribou are found in all provinces and territories except for New Brunswick, Nova Scotia and Prince Edward Island. Four subspecies of caribou are currently recognized: Peary Caribou (*R. t. pearyi*); Barren-ground Caribou (*R. t. groenlandicus*); and Grant's Caribou (*R. t. granti*; Banfield 1961); and the focal point of this report, the **WOODLAND CARIBOU (*R.T. CARIBOU*).** Caribou subspecies are further broken into Designatable Units (DUs) by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), see Figure 1.

The woodland caribou DUs include Newfoundland (DU5), Boreal (DU6), Northern Mountain (DU7), Central Mountain (DU8), and Southern Mountain (DU9). Topography, climate, and related winter feeding habits are factors that differentiate the DUs:

NEWFOUNDLAND (DU5) populations are identified as a separate DU as they **are isolated from the other populations**.

NORTHERN MOUNTAIN (DU7) populations experience **moderate-shallow snow depths** with **terrestrial lichens** being the primary source of food and spend their **winters in mature, low elevation lodgepole pine or black spruce forests**.

SOUTHERN MOUNTAIN (DU9) populations experience **deeper snow depths** and rely primarily on **long-strand arboreal lichens**.

BOREAL (DU6) populations are located east of the mountains and **inhabits large peatlands and forested areas** throughout the year.

CENTRAL MOUNTAIN (DU8) populations also inhabit regions with **moderate-shallow snow depths** and primarily feed on **terrestrial lichen** but spend the winter in **low-elevation pine, or boreal forest**.

The *Species at Risk Act* (SARA) has listed Boreal and Southern Mountain caribou as 'Threatened' and mandated the development of Recovery Strategies for Boreal (posted in 2012) and Southern Mountain (posted in 2014) woodland caribou. The 2014 Southern Mountain Caribou Recovery Strategy preceded the most recent COSEWIC assessment, such that DUs 7, 8 and 9 are combined as 'Southern Mountain Caribou'. In the future, it is anticipated that Environment and Climate Change Canada (ECCC) will revise Schedule 1 of SARA to recognize the new COSEWIC Designatable unit assessment, which separates Northern Mountain, Central Mountain, and Southern Mountain. This would require a separate and revised Recovery Strategy or Management Plan.

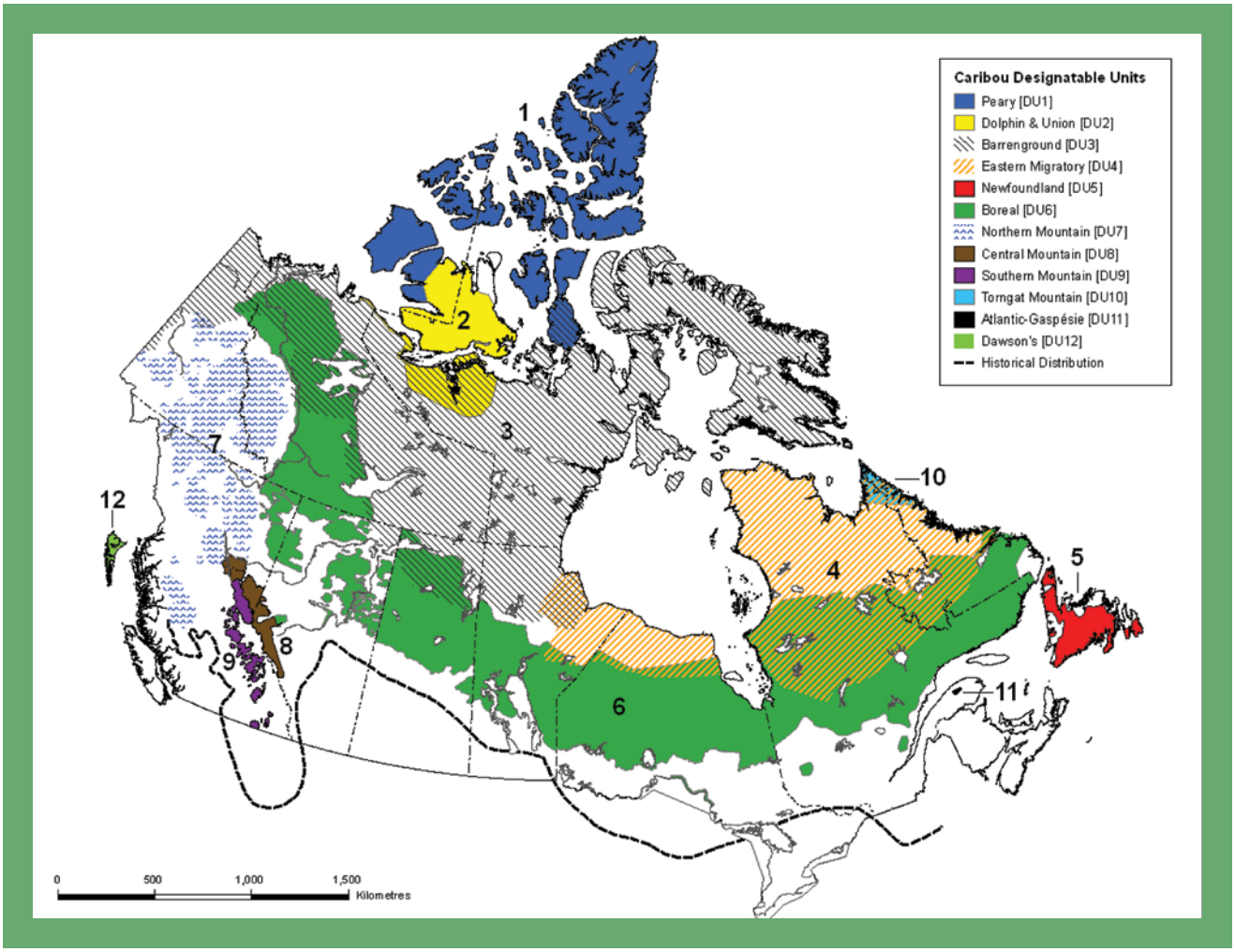


FIGURE 1 DESIGNATABLE UNITS FOR CARIBOU (RANGIFER TARANDUS) IN CANADA.

Source: canada.ca/content/dam/eccc/migration/cosewic-cosepac/4e5136bf-f3ef-4b7a-9a79-6d70ba15440f/cosewic_caribou_du_report_23dec2011.pdf

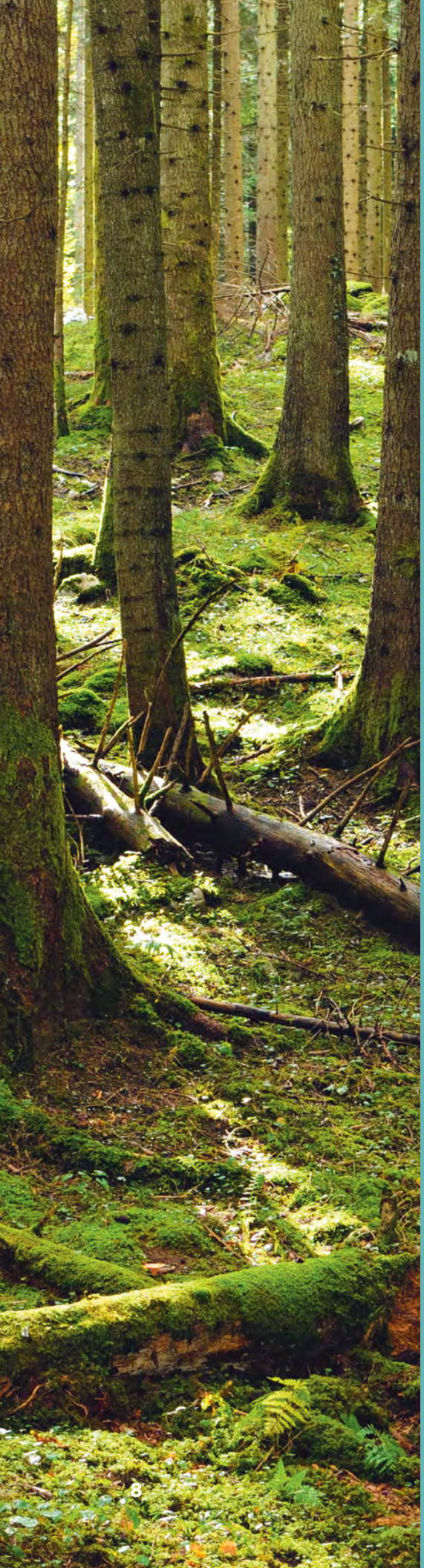
MORE INFORMATION

Species at Risk Public Registry - COSEWIC assessment and update status report on the woodland caribou Rangifer tarandus caribou in Canada

https://registrelep-sararegistry.gc.ca/default.asp?lang=En&n=F9E5752E-1&offset=7&toc=show

Caribou – Province of British Columbia

https://gov.bc.ca/gov/content/environment/plants-animals-ecosystems/wildlife/wildlife-conservation/caribou



LONG-STANDING RESEARCH ON CARIBOU AND HABITAT MANAGEMENT

Years before woodland caribou were designated as threatened, our industry started to invest substantially in programs across the country to improve our collective understanding of caribou habitat use. Believing that solutions must be science-driven, we have been conducting research, as well as directly supporting a range of initiatives in partnership with leading researchers, Indigenous communities, environmental groups, governments, and local partners over many years. The following are a number of examples of our industry's collaborative research activities, which go above and beyond standard practice in support of caribou conservation and management.

1

EVALUATING THE NUTRITIONAL VALUE OF SUMMER HABITATS FOR CARIBOU (NATIONAL)

FPAC members are also very involved with the National Council for Air and Stream Improvement (NCASI) Caribou Nutrition Research Project, along with a number of other organizations, academic institutions, and government. Led by Drs. John Cook and Rachel Cook, the study is researching nutritional ecology of caribou, exploring the opportunities for forest harvesting methods to help generate plant communities that will enhance the landscape's nutritional value for caribou.

MORE INFORMATION:
http://www.ncasi.org/Programs/Forestry/Canadian-Program/Wildlife-and-Biodiversity/Woodland-Caribou-Research.aspx

"The National Council for Air and Stream Improvement (NCASI) caribou research results to date show that nutritional limitations, particularly in summer, are important and should be considered in the design of caribou conservation programs. The results of our decade-long research program will be helpful to both government and industry as they seek ways in which to manage landscapes more effectively to enhance caribou population dynamics."

KIRSTEN VICE
Vice President, Sustainable Manufacturing & Canadian Operations, Montreal, QC

2

MATERNAL PENNING (BC)

The **Klinse-Za Maternal Penning Project** is an initiative of West Moberly First Nations and Saulteau First Nations in partnership with the technical expertise of Wildlife Infometrics Inc. and a number of industrial partners including West Fraser and Canfor. The project was developed to help assist the Southern Mountain Klinse-Za herd recovery efforts by protecting pregnant cows and calves in temporary maternal pens to avoid excessive predation during the calving season. This project has contributed to a slow and steady increase in caribou population numbers over many years.

Similarly, some FPAC members have supported other penning projects such as the **Revelstoke Maternal Penning Project**.

3

NO HARVEST ZONES/WOLF DENSITY MANAGEMENT WITHIN FOREST MANAGEMENT AREAS (BC)

Protection of 2.2 million hectares of BC identified Mountain Caribou range from forest harvesting and road building, captured 95% of the caribou's high suitability winter habitat established within the **Mountain Caribou Recovery Implementation Plan (MCRIP)**. MCRIP was implemented in 2007-2009. Limited predator and alternate prey management is conducted in some of these regions (by the province).

PHOTO CREDIT: KAYLA MCNAY

4

ANALYSIS AND IMPROVEMENT OF LINEAR FEATURES TO INCREASE CARIBOU FUNCTIONAL HABITAT (AB)

Sustainable Forestry Initiative (SFI), Daishowa-Marubeni International (DMI) Ltd., Millar Western, Tolko, West Fraser, and Weyerhaeuser are supporting research on using direct and indirect methods to **determine how caribou respond to linear features** at different stages of re-vegetation.

5

LICHEN TRIALS/COLLARING (AB)

Two decades ago, West Fraser (then Weldwood) and Weyerhaeuser established permanent lichen sample plots and undertook various forest thinning techniques to promote lichen growth within caribou habitat. Companies have also purchased GPS collars in some caribou herds as part of a larger research program to evaluate long-term caribou conservation planning techniques.

6

ASSESSING PATHOGEN PREVALENCE AND THE HEALTH OF UNGULATES IN WEST-CENTRAL ALBERTA CARIBOU RANGES (AB)

fRI Research is partnering with four forestry companies (Alberta Newsprint Company (ANC), Canfor, West Fraser, and Weyerhaeuser) operating in central Alberta to work on a project that will help establish a health baseline for ungulates that occur within caribou ranges in west-central Alberta. This baseline information can be used to identify ungulate populations that may be at risk from cross species disease transmission and establish health baselines in ungulate species that may be used to track future changes under alternate scenarios (i.e. climate change, and habitat fragmentation) and to identify areas where caribou could be affected by pathogen-mediated apparent competition (disease transmission).

7

IDENTIFYING HIGH RESIDENCY HABITAT/MOVEMENT PATTERNS (AB)

Canfor, West Fraser, and Weyerhaeuser are involved in supporting a project, which aims to identify high-quality habitat patches, and functional movement paths that will be used to prioritize areas for restoration.

8

SASKATCHEWAN RESEARCH COUNCIL (SRC) CLIMATE CHANGE AND CARIBOU CONSERVATION PROJECT (SK)

SRC undertook an analysis on the **implications of climate change for regional caribou and conservation planning**. The report included an analysis of climate change adaptation considerations when conducting and implementing land use planning for caribou and conservation.

9

DYNAMIC CARIBOU HABITAT SCHEDULING (ON)

As early as 1996, Resolute Forest Products and other companies operating in northwestern Ontario have implemented the Ministry of Natural Resources and Forestry (MNRF) **Dynamic Caribou Habitat Schedule** (DCHS) as part of existing Forest Sustainability Plans (Ontario approved forest management plans). A DCHS concentrates harvest areas (aggregates disturbance), minimizes road densities, implements road decommissioning strategies, and develops silvicultural prescriptions to promote conifer-dominated stands (preferred caribou habitat). This strategy is consistent with the Caribou Conservation Plan developed by the Ontario government and recent data suggests that caribou range retraction in northwestern Ontario has ceased within the last few decades and caribou are returning to previously harvested areas.

10

ADDITIONAL PROJECT FUNDING AND OTHER INITIATIVES (ON/QC)

Beyond following provincial regulations, our members have also gone above and beyond to participate in several caribou-related projects. The following are a list of projects that either one or more of our member companies have participated in:

- Reports on Climate Change and Caribou Habitat **(ON)**
- Caribou Range Occupancy in Ontario – Collaboration with MNRF Research **(ON)**
- Research on Spatial Utilisation and Habitat Selection by Dwelling Caribou in A Disturbed Landscape Of The Boreal Forest **(QC)**
- Research on Fine Scale Habitat Selection by Dwelling Caribou in a Disturbed Landscape **(QC)**
- Research on Impacts of Habitat Loss and Fragmentation on Site Fidelity by Dwelling Caribou in the Managed Forest **(QC)**
- Research on Evaluation of a Habitat Management Strategy for Dwelling Caribou **(QC)**
- Research on Impacts of Anthropic Activities on Dwelling Caribou in the Managed Boreal Forest **(QC)**
- Collaboration with Word Wildlife Fund (WWF) Project Identifying High Conservation Value Forest **(QC)**

11

PROTECTED AREAS TO PROMOTE CARIBOU RECOVERY (QC)

The Government of Quebec has announced the commitment to create the Manouane-Manicouagan Woodland Caribou protected area. The forest industry in participating in stakeholder meetings with the province on ongoing caribou plan implementation.

12

SPATIAL UTILIZATION AND POPULATION DYNAMIC IN MANAGED LANDSCAPES (QC)

Starting in 1998, Resolute Forest Products was involved in caribou collaring projects with the Quebec government and the Quebec Lumber Manufacturers Association. The objective was to investigate how different managed landscape patterns would affect caribou behaviour and population dynamic in the Saguenay-Lac-St-Jean region. Resolute was also among the first Quebec companies to voluntarily implement a comprehensive caribou habitat management plan in 2009 in that region.

“I see the multiple factors impacting caribou in and around my community and the commitment of our forestry workers to do their part to support caribou recovery. Complex problems require creative solutions. These solutions must consider impacts on multiple-species and other values like mitigating fire risks, while supporting good natural resource and tourism jobs in B.C.”

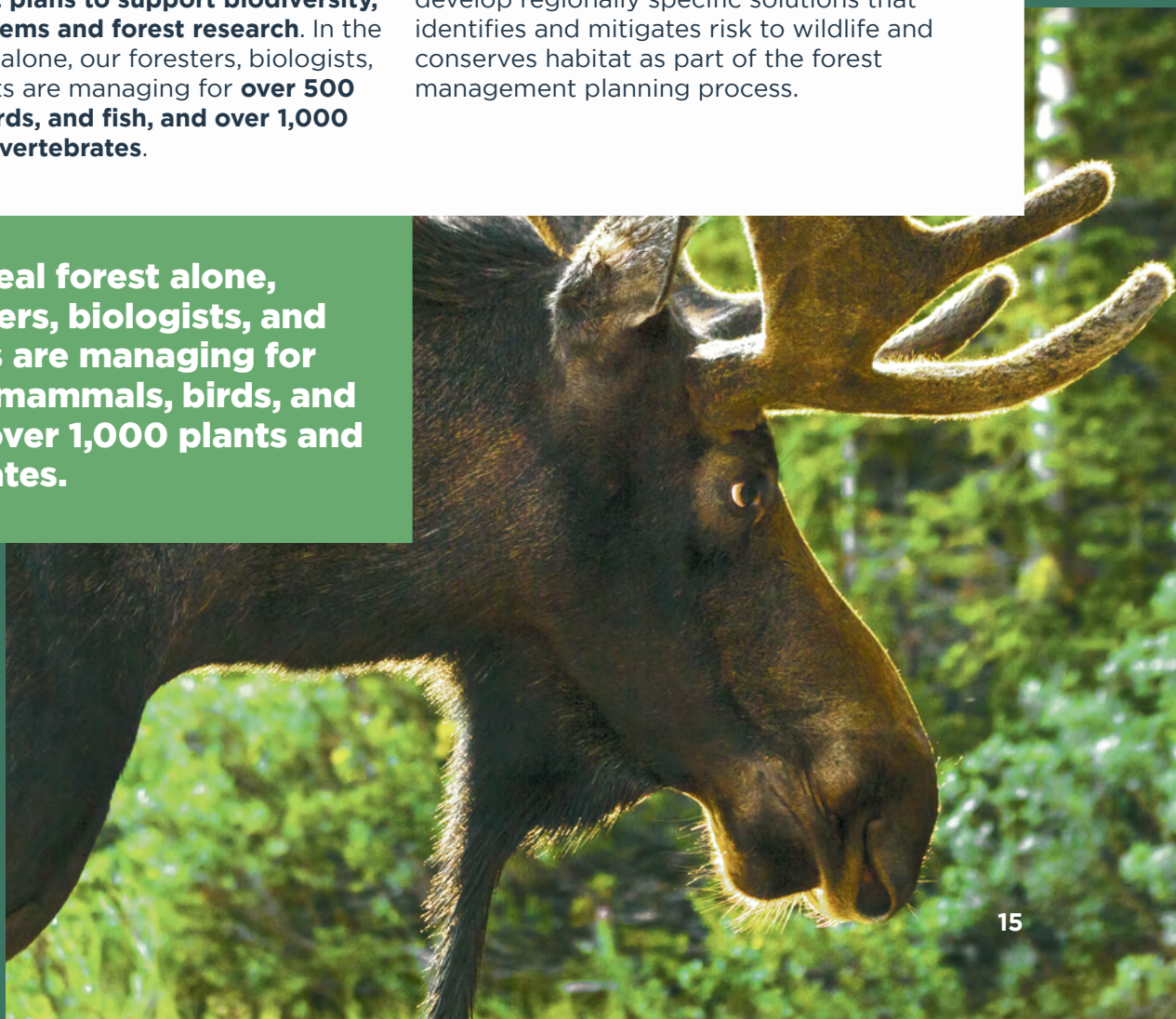
MAYOR MERLIN NICHOLS
District of Chetwynd, B.C.

LANDSCAPE-SCALE APPROACH TO FOREST MANAGEMENT PLANNING

Before forest operations can begin, a forest management plan is developed. Specific objectives, indicators and targets are established, incorporating an evidence-based approach based on best-available science. The planning process also requires consideration of forest value interests identified through consultation and is done for long term planning horizons (150+ years) and extensive landscape scales—something that is unique to the forest sector in Canada. Our sector also invests significant resources every year developing **forest management plans to support biodiversity, local ecosystems and forest research**. In the boreal forest alone, our foresters, biologists, and ecologists are managing for **over 500 mammals, birds, and fish, and over 1,000 plants and invertebrates**.

In utilizing science-based, **landscape-level approaches** time-tested and modeled **over many years**, forestry can help maintain the integrity and health of functioning ecosystems. To incorporate the dynamic nature of forests, **adaptive management**, and **continual improvement** strategies are utilized through monitoring performance and with capacity to adjust to potential long-term impacts of climate change, fire or other naturally occurring events. This unique planning approach provides that opportunity for Canada's forest sector to develop regionally specific solutions that identifies and mitigates risk to wildlife and conserves habitat as part of the forest management planning process.

In the boreal forest alone, our foresters, biologists, and ecologists are managing for over 500 mammals, birds, and fish, and over 1,000 plants and invertebrates.



“The recovery of the boreal caribou is a very complex issue. I am really impressed with the engagement of our foresters who are working on solutions which take into account local considerations. I believe that, when protective plans are being developed, communities must be consulted to find the best solutions and understand the impacts of the plans on our communities.”

MAYOR PASCAL CLOUTIER

Dolbeau-Mistassini, Quebec

CARIBOU ADAPTIVE EXAMPLES

Results and learnings from years of long-standing caribou research has resulted in changes to forest management regulations as well as voluntary adaptive practices for caribou habitat management. In addition, the forest sector has played a leadership role in working collaboratively with partners to implement the federal recovery strategies for woodland caribou. Recently, FPAC shared with the federal government a summary of the caribou projects underway with partners. The projects document various forest management planning regulations, operational practices, and forest certification programs and how they relate to species conservation, with a focus on caribou recovery planning and implementation.

1

LINEAR FEATURE RESTORATION (NE ALBERTA)

TransCanada Pipelines Ltd., Alberta-Pacific Forest Industries Inc. (Al-Pac), and Alberta Environment and Parks have been restoring legacy seismic lines in caribou habitat in the newly formed Dillon River Wildlands Park in northeastern Alberta.

2

IMPLEMENTATION OF ZONATION STRATEGY IN FOREST MANAGEMENT PLAN (NE ALBERTA)

Al-Pac, along with other forest companies on Al-Pac Forest Management Area (FMA), have collaborated to implement a zonation approach which defers harvest from the vast majority of major caribou ranges of northeastern Alberta (for example almost 70% in the East Side Athabasca range and close to 80% for the West Side Athabasca range). These deferrals provide a **window of opportunity** for Government of Alberta-led range planning to develop long term caribou conservation strategies.

3

SCENARIO- BASED INITIATIVE IN THE CHINCHAGA TRANSBOUNDARY RANGE (NW ALBERTA)

Daishowa-Marubeni International (DMI) Ltd. is leading an initiative that developed and is testing a scenario-based comprehensive modeling tool designed to test range-scale solutions. It aspires to support capacity for decisions during exploratory local planning by providing modeled performance at 1-100 years across multiple (67) indicators as a diverse array of range level interests (caribou, other species, landscape condition, social, economic impacts and benefits). Accommodating spatial and indicator-metrics, it is transferable in utility and adaptive to other ranges for both range planning and post-plan implementation monitoring stages.

4

IMPLEMENTATION OF ZONATION STRATEGY IN FOREST MANAGEMENT PLAN (WEST CENTRAL AB)

Weyerhaeuser (WY) leading a multi-stakeholder caribou range planning process with Aseniwuche Winewak Nation (AWN), environmental groups, and the energy sector for integration with Government of Alberta for southern mountain populations Narraway and Red Rock Prairie Creek. Several management strategies were tested using modelling techniques to find a strategy that would meet biophysical habitat requirements and not lead to significant socioeconomic impacts.

5

MULTI-INTEREST CARIBOU PLAN (WEST CENTRAL AB)

Using regional, science-based information, West Fraser, ANC, Millar Western, Canfor, energy sector partners, fRI research and Indigenous partners are collaborating to develop a draft range plan, with forest harvest sequencing, adapted practices, regional integrated access plans, and restoration plans to help inform the Government of Alberta's Little Smoky/A la Peche range plan.

6

VARIABLE BUFFER CARIBOU PLANNING (SK)

In collaboration with environmental groups, a caribou habitat plan has been developed for Weyerhaeuser's operations on Pasquia Porcupine Forest Management Area (PP FMA) including recommendations for a new protected area in adjacent boreal forest.

7

BRIGHTSAND RANGE PROJECT (ON)

Resolute is collaborating with partners including; Weyerhaeuser, Indigenous communities, Lakehead University, and the Government of Ontario to test the Ministry of Natural Resources and Forestry (MNRF) caribou conservation plan, referred to as the Dynamic Caribou Habitat Schedule (DCHS) with updated research and disturbance mapping.

8

ADAPTED MANAGEMENT PILOT-PROJECTS (QC)

Resolute and other forest companies are collaborating with the Government of Quebec in implementing a caribou habitat adapted management approach in the boreal that aims to reduce long-term disturbance and accelerate suitable habitat recovery.

“Canada’s forestry workers are proud stewards of our working forests. We need governments to support caribou recovery in a way that looks comprehensively at all factors and doesn’t unfairly threaten family-supporting Canadian jobs.”

JERRY DIAS
National President, Unifor the Union

CANADA LEADING THE WAY IN SUSTAINABLE FOREST MANAGEMENT

Canada's forest products sector prides itself in being Canada's greenest workforce with sustainability being core to our management planning.

In fact, we are recognized globally as a model for sustainable forest management, conservation, species at risk protection, and being leaders in the fight against climate change.

Recognizing Canada's leadership in sustainability, an international report released last year by Nature Economy and People Connected (NEPCon), an international not-for-profit organization, found that *"Canada has a robust system of procedures to ensure its forests are governed in the public interest. Several reports and studies have confirmed that Canada's forest management policies and practices are* ***among the most stringent in the world****."*

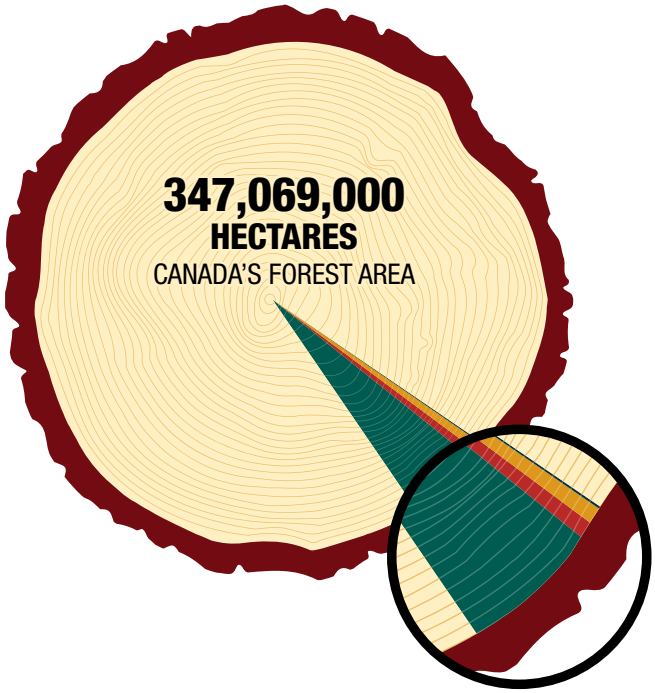
The forest sector is working with governments and decision-makers in contributing to the broader suite of international commitments that Canada is working towards, such as the Convention on Biological Diversity (CBD), the Climate Change Paris Accord, the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) as well as the United Nations Sustainable Development Goals (UNSDG).

Canada is a signatory to the Convention of Biological Diversity (CBD), which includes global goals and targets for biodiversity conservation. The current goals and targets, referred to as the 'Aichi targets' include 20 targets, spanning a period from 2011-2020. The forest products sector is proud to have made significant contributions to the current network of protected and conserved areas across Canada, and looks forward to working with partners, Indigenous peoples and governments in supporting future potential Indigenous Protected and Conserved Areas (IPCAs) and Other Effective Area Based Conservation Measures (or OECMs).

Specific to the Paris Accord, Canada's forest products sector was the **first sector in Canada to make industry-wide commitments** to support the federal government in reaching its national climate change goals. We are poised to help the Canadian government deliver on 13% of its overall goal under the Paris Agreement through more efficient forest management practices, further innovation at our mill operations, and through the carbon-storing wood products we sell (many of which can be an alternative to more fossil fuel intensive ones).

MORE INFORMATION:
http://www.fpac.ca/sustainable-forestry/30by30/

THE STATE OF CANADA'S FORESTS

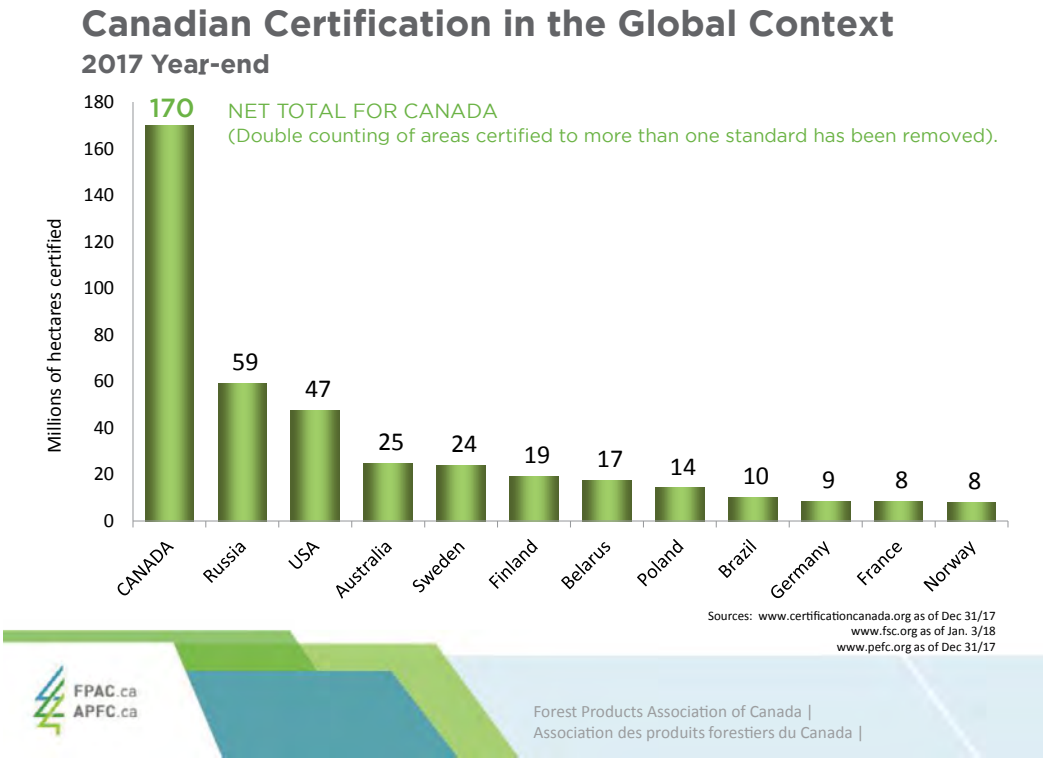


5.0%	0.4%	<0.5%	<0.02%
17,631,825 HECTARES AREA DAMAGED BY INSECTS (2015)	1,404,655 HECTARES AREA BURNED BY FIRE (2016)	779,577 HECTARES AREA HARVESTED (2015)	34,100 HECTARES AREA DEFORESTED (2015)

SOURCE: The State of Canada's Forests Annual Report 2017. Natural Resources Canada, Canadian Forest Service, Ottawa.

FOREST CERTIFICATION

All FPAC members are required to be certified by one of three recognized forest certification schemes in Canada: the Canadian Standard Association's Sustainable Forestry label (CSA), the Forest Stewardship Council (FSC), and the Sustainable Forestry Initiative (SFI). All three standards are recognized globally and provide guidelines on protecting biodiversity, preserving high conservation value forests, protecting water quality, ensuring prompt reforestation, continual improvement, and providing the assurances of a third-party audit. Notably, all standards promote responsible forest management through the conservation of biological diversity and the maintenance of wildlife habitat and species diversity, including woodland caribou. Canada is recognized for having the **largest number of third-party certified and audited forests in the world, and mandated forest regeneration** into our forest management strategies. Only about 10% of the world's forests are independently audited and certified, thus making Canada a trusted source of legal and sustainable forest products. Sustainability is the law in Canada and it is the industry's practice.



SOURCE: Canadian Certification in the Global Context 2017 Year-end. certificationcanada.org

COMMITMENTS TO CANADIAN COUNCIL OF FOREST MINISTERS' FRAMEWORK

We remain committed to deliver on the aspirations of the Canadian Council of Forest Ministers (CCFM) in their standing vision for Canada's forest legacy, as is embedded within collective provincial forest policies across the country. The CCFM framework for **Sustainable Forest Management** strives to meet this historic national accord and Canada's international obligations rooted in biodiversity convention and the multiple values emphasis flowing from sustainable development dialogue originating at the Rio Earth Summit (1992) and The Montréal Process (1994). The living framework does accommodate curative issues (e.g. at-risk species), but more importantly is structured to deliver proactive outcomes under a preventative lens regarding ecosystem health at a multiple species, multiple values scale. The framework uniquely blends local and global ecosystem context, as well as social, environmental and economic considerations into forest planning.

“Our northern and rural communities can ill-afford to see a repeat of what happened in the U.S. Pacific Northwest in the late 1980s/ early 1990s when thousands of jobs were lost to protect spotted owl habitat. Years later, after forestry communities were devastated by shuttered mills and massive job losses, the spotted owl population continued to decline because of other factors like the barred owl and wildfires. This is an example of where bad science and poor planning has hurt families, small businesses, and communities. We owe it to our workers to get the science right and do the appropriate socio-economic analysis. It has to work for caribou and it has to work for our people.”

MAYOR DAVE CANFIELD

Kenora, ON

CONCLUSION AND RECOMMENDATIONS

Canada's forests are made up of diverse and dynamic ecosystems that are home to thousands of plant and animal species, including people. Decisions around land-use and habitat protection must be informed by accurate regional science, local and traditional knowledge and an understanding of the associated socio-economic impacts and benefits. In the absence of a regionally informed evaluation of the contributing factors affecting caribou health and population dynamics, a broad-brush approach to protecting large-swaths of land or a single-species approach may have unintended and negative impacts on communities, and the broader forest and ecosystem health we are all striving for.

To help support the viable implementation of Canada's Species at Risk Act (SARA) and Recovery Strategies (Boreal and Southern Mountain Caribou), FPAC recommends the following approaches are utilized and recognized moving forward by the federal government:

Recognition and use of the most recent and complete science and knowledge in caribou plans and further commitment to address knowledge gaps

Regional flexibility is acknowledged in caribou planning (e.g. disturbance thresholds, buffer widths and habitat definitions)

Recovery Strategy implementation requires that a thorough **socio-economic assessment** be done with the engagement of impacted parties as well as integrated approaches that balance needs of other species on the landscape

Recognition of progressive recovery contribution to date – Utilize more tools within the SARA, which could include the use of Conservation Agreements and codes and standards (section 56) to support caribou recovery and allow for **greater certainty** for our sector to make investment decisions

Inclusion of the forest sector, Indigenous communities, practitioners, and municipalities in the development of caribou plans

Canada's forests and forestry workers create real environmental, social, and economic opportunities for our country. We believe it is critical to recognize solutions that will work for wildlife species across our forests (including caribou), will keep our forests healthy for generations to come, and will sustain communities and livelihoods across Canada.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