



A FOREST ETHICS REPORT

British Columbia's

Endangered Forests

What government and
industry aren't telling you.



FORESTETHICS

©2003 ForestEthics
All rights reserved

ISBN 0-9732688-0-8

ForestEthics protects endangered forests by changing the way corporations make, sell, and use wood and paper products and by supporting local forest communities.

This report is available on the ForestEthics website,
www.forestethics.org

Cover photo collage uses photos from Wilderness Committee, Tim McAllister, John Nelson and Al Harvey/Slidefarm.

Design and production by Brad Hornick Communications
Printed in Canada by Western Printers and Lithographers
Project Coordinator: Candace Batycki

All pages printed on 100% recycled and 50% post-consumer paper.
All inks vegetable based.

ForestEthics gratefully acknowledges the assistance of IMPACS, the Institute for Media, Policy and Civil Society, in the writing of this report. We are also grateful to Valerie Langer for her editing assistance. We thank everyone who reviewed the report at various stages, including Andrea Reimer, Aran O'Carroll, Bob Peart, Devon Page, Eva Riccius, Glada McIntyre, Gwen Barlee, Jim Cooperman, Joe Foy, Joe Scott, John Bergenske, John Nelson, Judy Stratton, Katarina Hartwig, Nadine Dechiron, Trevor Jones, and Tzeporah Berman.

www.endangeredforests.com

Table of Contents

This report is divided into ten sections. Section One provides an overview of BC's endangered forests and the threats to them. Sections Two through Five are regional overviews. They explain why certain forests in the Interior Wet Belt, the Central Plateau, the Peace Region, and the Rainshadow are endangered. Sections Six through Eight explore some of the over-arching problems confronting forest biodiversity everywhere in BC. Section Nine illustrates new directions for forestry in BC, and Section Ten sums up our recommendations.

EXECUTIVE SUMMARY	01
INTRODUCTION	03
PART ONE British Columbia's Endangered Forests	05
PART TWO Rarest of Rare: Endangered Inland Rainforests	09
PART THREE Going Buggy in the Interior	13
PART FOUR No Peace for the Peace	17
PART FIVE In the Rainshadow	21
PART SIX Species: The End Game?	25
PART SEVEN The Protection Sham	29
PART EIGHT The Rush to Deregulate: Is Anybody Out There?	33
PART NINE Opportunities	35
PART TEN Recommendations	39
Endnotes	41
Appendix A	42
Appendix B	43

Fishem Lake, in the Taseko River valley, Xeni Gw'etin First Nation Traditional Territory. Left unprotected when Ts'yl-os Provincial Park was created, this area is proposed for logging. (Photo: Bryan Evans)



British Columbia's Endangered Forests Executive Summary

We are faced with the sobering reality that only 22% of the world's original forest remains on our planet. Three countries - Russia, Canada and Brazil - hold 70% of that forest, and the accompanying responsibility to future generations. In Canada the western-most province of British Columbia (BC) is the most biologically rich. It is also the province that exports nearly half of Canada's pulp and wood products.

British Columbia is cloaked in about 45 million hectares (~112 million acres) of forest, about half of which is considered "operable."¹ Ninety-four percent of BC is publicly owned and managed by the provincial government, although unsettled native land title cases loom over the landscape. The majority of the forests have been allocated to timber companies through long-term licences, such as Tree Farm Licences and Forest Licences (TFLs and FLs). Large corporations control 87% of these licences.

In the late 1980s and early 1990s, conservation groups began campaigning in earnest for the protection of British Columbia's rapidly diminishing old-growth² forests and dwindling biodiversity.

The reward for that hard work was a commitment by the 1991 provincial government to expand the number of parks or "protected areas" in BC.

A decade later, while the area of land protected has indeed doubled, forest ecosystems throughout the province are at greater risk than ever before. Over-cutting and unsustainable logging practices are jeopardizing areas such as the Rainshadow Wilderness north and east of Vancouver, where some of the southernmost populations of grizzly bears still roam; the rare Inland Rainforest, upon which some of the most endangered caribou populations in the world depend; and BC's expansive boreal forest.

Despite political boasts, BC has not set a "global example" in protecting endangered forests. Many other jurisdictions have protected more of their land. Also, BC's 12% protected area goal has been shown to be political rather than scientific in origin, and is inadequate to protect biodiversity. This means that BC's parks system is incapable of protecting a wide array of plant and animal life. Meanwhile, continued

over-cutting³ of unprotected primary and old-growth forests is foreclosing our ability to turn things around.

Nearly one quarter of all Alpine Tundra areas are protected in parks, while the most biologically important forests remain open to industrial development. Nine of the province's 14 distinct ecological zones (64%) have far less than 12% protection. The list includes:

- Coastal Douglas-fir forests — only 2.7% protected.
- Ponderosa pine forests — only 4.4% protected.
- Interior Douglas-fir forests — only 4.8% protected.
- Sub-Boreal Spruce forests — only 6% protected.

At these woefully inadequate levels **fully half the wildlife species in these endangered forests will be lost.**⁴ Already the signs of ecosystem deterioration should be a clear warning to decision-makers:

- The northern spotted owl is heading rapidly for extirpation in BC; fewer than 25 breeding pairs may remain⁵, and the government is actively considering an emergency captive breeding program;
- Steelhead are perilously low on Eastern Vancouver Island, and the Thompson River⁶;
- At least 142 salmon runs have become extinct in BC and the Yukon, and at least another 932 runs are endangered⁴;
- Ongoing logging and fragmentation of old-growth forest breeding habitat has put three warbler species of north-east BC on the endangered species list⁷;
- Mountain caribou are in precipitous decline, with fragmentation of their habitat the primary threat;



Spotted owl habitat, southwestern BC
(Photo: Wilderness Committee)

BC timber companies and the provincial government can avoid costly future clashes in the marketplace by demonstrating renewed support for protection of endangered forests.

- Grizzly bears are no longer found in south-central BC; grizzlies are endangered in several other locations, including the Rainshadow and the Granby.

The BC government is further endangering forests by:

- Operating under a policy of over-cutting. Current policies require logging levels far higher than the amount BC's Timber Harvesting Land Base⁸ can grow each year. Liquidation of these forests, and their conversion to "managed" plantations, has been provincial policy since the 1940s. And the Liberal government has committed to raise the already unsustainable cut level.⁹
- Scrapping hard-fought-for land-use plans that offer a modicum of protection to endangered forests while still allowing logging.
- Failing to enact an endangered species law covering provincial Crown lands (the new Canadian *Species at Risk Act* only covers federal lands).
- Permitting logging in forests upon which some of the world's last remaining mountain caribou and spotted owls depend.
- Gutting Ministry of Forests and Ministry of Water, Land and Air Protection staff, making an already lax monitoring and enforcement regime even weaker.
- Slashing provincial parks staff by one third, while doubling the area of land they are responsible for.
- Rewriting forestry laws so that timber companies call the shots, not public servants.
- Actively promoting a doubling of natural gas developments in northeastern BC, an already seriously over-developed part of the province, resulting in severe fragmentation of the region's boreal forests.
- Failing to adequately penalize companies that break environmental laws.
- Sharply increasing logging rates in the Interior region.

These and other transgressions are certain to fuel renewed markets campaigns by conservation groups, campaigns that in the past leveraged conservation gains in Clayoquot Sound and the Great

Bear Rainforest. Already, some of the world's largest retailers, including Home Depot and Staples, have stated they intend to stop buying products that originate from endangered forests. And hundreds of other companies have made similar procurement policies (see *Appendix B*).

BC timber companies and the provincial government can avoid costly future clashes in the marketplace by demonstrating renewed support for protection of endangered forests. They can do so by:

- Supporting a scientifically-credible mapping of the province's endangered forests and then adequately conserving endangered forests that haven't been protected.
- Justly and expeditiously settling Aboriginal treaty and rights issues.
- Halting further road construction and logging in undeveloped watersheds.
- Halting the over-cutting of BC's forests.
- Passing laws that protect endangered species and their habitats.
- Diversifying control of the forests through fair forest tenure reform.
- Ensuring fair value for timber through the establishment of open log markets.
- Keeping public lands in public hands and abandoning moves towards privatization.
- Applying for Forest Stewardship Council certification of forestry operations.
- Legislating, and then rigorously monitoring and enforcing, strong environmental laws.
- Ending logging in community drinking watersheds.

While these recommendations may seem sweeping, they are either legally mandated, or form part of normal forest policy, for many jurisdictions in the world. They are also necessary if we are to meet 21st-century expectations of the world's populations, which no longer accept environmental destruction and species extinction as a part of business practices.

Conservation groups are united in their vision for BC forests: a protected areas system which truly protects biodiversity, and ecosystem-based management outside protected areas. Then British Columbia can rightfully claim to have set a "global example." But a lot must change if this vision is to become reality.

The Truth About British Columbia's Endangered Forests Introduction

In the following pages we provide case studies that show why British Columbia's approach to forest policy and practices is endangering forests, wildlife, and the province's economic future. But before turning to those case studies, let's quickly list some of the reasons why the province's endangered forests are at increasing risk. They are:

- Lack of comprehensive identification of endangered forests.
- Ongoing over-cutting: logging more wood each year than BC's forests can grow; and in some areas making this unsustainable approach even worse by awarding "temporary" logging licences over and above the Allowable Annual Cut (AAC)¹⁰.
- Ongoing and significant cutbacks to front-line provincial government staff tasked with monitoring and enforcing environmental laws.
- Ongoing lack of legislated protection for endangered species on provincial Crown lands.
- Escalating logging rates and other industrial activities (most notably oil and gas exploration and development) which negatively impact BC's forest ecosystems.
- Gutting of already-weak pieces of environmental legislation including British Columbia's Forest Practices Code and Waste Management Act, and the proposed introduction of new laws including Working Forest legislation which would enshrine logging priority on currently unprotected forests.
- Rollbacks of policies meant to protect wildlife species.

Conservation organizations believe that these and other developments will further fragment and endanger forests across BC.

To combat that, a number of organizations¹¹ have cooper-

ated in drafting mutually-acceptable working definitions of endangered forests. These definitions are being used in discussions with major wood and paper product buyers.

Four biological and ecological categories have been developed for identifying endangered forests. These categories are:

- naturally rare forests;
- anthropogenically rare forests;
- intact (frontier or near-frontier) forests; and
- other ecologically important forests.¹²



(Photo: Doug Radies)

For more information on these categories see the accompanying story *What do we mean by Endangered Forests?* on page 6. Please keep these categories in mind as you read the regional case studies later in this report.

Haven't the Controversies Been Resolved in BC?

In April 2001 a large area of British Columbia's central coast, called the Great Bear Rainforest, was temporarily protected and logging was deferred over an even bigger area. Twenty pristine valleys are slated to be protected and another 68 have been put into logging deferrals. After vigorous campaigns by conservationists in major forest product markets, the timber industry, coastal conservationists, First Nations and government leaders alike agreed to a truce to the "war in the woods." Protocols were developed to ensure that the resources and values of one of the most spectacular forest regions on the planet were not recklessly squandered, and that First Nations would have more control over their territories.

temporarily protected and logging was deferred over an even bigger area. Twenty pristine valleys are slated to be protected and another 68 have been put into logging deferrals. After vigorous campaigns by conservationists in major forest product markets, the timber industry, coastal conservationists, First Nations and government leaders alike agreed to a truce to the "war in the woods." Protocols were developed to ensure that the resources and values of one of the most spectacular forest regions on the planet were not recklessly squandered, and that First Nations would have more control over their territories.

“By the end of 2002, we will eliminate from our stores wood from endangered areas — including certain lauan, redwood and cedar products — and give preference to ‘certified wood.’”
— Home Depot, the world’s largest home improvement retailer.

With the announcement, conservation organizations including ForestEthics agreed to a temporary halt of “markets campaigns” targeting coastal timber companies. The message “Don’t buy rainforest destruction!” had entered public awareness, and end-users of wood products had pressured wood retailers like Home Depot to cancel or reconsider purchases from certain timber companies. When those purchasing decisions became known to industry and provincial government officials, they proved a powerful motivator to negotiate the truce.

A few years earlier, BC’s Clayoquot Sound region made similar front-page headlines around the world. After years of controversy major changes in forest management were set in motion in Clayoquot Sound, and new relations between timber companies and First Nations began to be negotiated.

These remarkable first steps towards developing a smart, responsible, and balanced way to manage those two forest landscapes gave markets, conservationists, and local communities cause for celebration.

Without doubt, the Great Bear announcement was a landmark, if for no other reason than it encompassed almost four million acres of one of the world’s rarest landscapes.

But there is a darker side to this story. For while the public and international markets have been lulled into believing the provincial government and timber industry are finally on the track to smart, truly sustainable¹³ forest management in BC, the truth is quite different.

The fact is that BC’s endangered forests are being cut down at unprecedented rates. It could be argued that the increase in protected areas masked the lack of real progress on reforming forest practices. Areas designated as Special Management Zones in the 1990s were never implemented, while the “trade-off” areas zoned for intensive industrial use certainly were. BC’s new Liberal government has also systematically gutted forestry and environmental policies. While the world looks the other way, 1950’s-style industrial cut-and-run forestry is back with a vengeance in BC.

Message from the Marketplace

The provincial government and timber companies may be opposed to proposals to adequately conserve unique forest ecosystems throughout the province, saying they would dampen industry investment and harm the provincial economy. But major buyers of forest products

are sending a different message, and maintaining the BC economy may well depend on conservation reforms.

In November 2002 Staples, the world’s largest

“By the end of 2002, we will eliminate from our stores wood from endangered areas — including certain lauan, redwood and cedar products — and give preference to ‘certified wood.’” ~ Home Depot, the world’s largest home improvement retailer.

“As part of Lowe’s ongoing commitment to environmental sustainability and social responsibility, it is our full intention to eliminate sales of wood from environmentally threatened forests, including old growth.” ~ Lowe’s, the second-largest lumber retailer in the United States and the 30th largest retailer in the world.

office retail superstore, joined a growing list of companies who have made such commitments. Staples’ new environmental policy, released November 12, 2002, states in part:

“Staples is committed to phasing out paper products sourced from endangered forests.”

Such statements are notable for their open-ended character. They don’t specify wood from a particular area. They apply to all endangered forests. Moreover, these companies are not alone. A growing number of wholesalers and distributors support conservation of endangered forests (see *Appendix B*).

Not only have executives of some of the world’s largest retailers made these statements, but they have met with senior officials in the British Columbia government and challenged government assertions that the only endangered forests in the province are on the coast.

This report is about lifting the veil. To adequately conserve the province’s rich natural heritage, ecosystem-based management and protection of endangered forests must happen in more than just a few areas on the BC coast.

Endangered Vancouver Island Marmot (Photo: Wilderness Committee files)



PART ONE: British Columbia's Endangered Forests

British Columbia is Canada's most biologically rich and ecologically diverse province. It is famous for holding one quarter of the world's ancient temperate rainforest, rarer than tropical forests. It is also home to many other endangered forest types (for a description of what constitutes an "endangered forest" see page 6).

All across BC, from the remote rainforests of Haida Gwaii to the boreal forests of the distant Peace region, forests continue to be logged at a rate of about half a million acres per year,¹⁴ a rate even the BC government admits is not sustainable. Nine times out of ten the logging method of choice remains clearcutting, a method that is extremely destructive. Clearcuts may be acceptable under certain very limited circumstances, but clearcutting is not ecologically appropriate in wet forests such as coastal and inland rainforests, and is clearly inappropriate at the scale it is currently practiced province-wide.

Despite the much-touted 1995 Forest Practices Code, logging practices in BC have actually improved little. Logging companies are still cutting right down to the banks of streams, including salmon-producing streams in the Great Bear Rainforest.¹⁵ Key regulations such as the Biodiversity Guidebook have never been implemented. And unlike in the US, there are no legal provisions for citizens to bring lawsuits to enforce existing laws when public agencies don't or won't.

Roads present a major threat to wildlife. As of 1999 road density was greater than 1km/km² in approximately 30 percent of watershed groups mapped. At this density many wildlife populations are compromised; grizzly bears are affected by

densities as low as 0.4km/km².¹⁶ The Ministry of Forests Annual Report 2001/02 found that 20 percent of forest service roads were not maintained to legal standards.

BC produces nearly half the value of all the wood produced annually in Canada. But that production comes at a terrible cost. Unsustainable logging rates, coupled with destructive logging practices, are endangering unique forest ecosystems across the province.



Merran Smith of ForestEthics addresses reporters at the signing of the Great Bear Rainforest agreement. Behind Smith (L-R) are Art Sterritt of the Gitga'at First Nation, Miles Richardson of the BC Treaty Commission, and Ujjal Dosanjh, then-premier of British Columbia. (Photo: Scott Rehmus, 2001)

Planned Destruction

There is no legislated plan or over-arching vision that would conserve the fantastically diverse web of life in British Columbia. There are, however, imposed limits on how much land can be protected through the official land-use planning processes. This has resulted in a failure to adequately safeguard biodiversity. Many of the new protected areas are not large enough to conserve animal and plant life. And the areas that are protected are

All across British Columbia, from the remote rainforests of Haida Gwaii to the boreal forests of the distant Peace region, forests continue to be logged at a rate of about half a million acres per year. Nine times out of ten the logging method of choice remains clearcutting.

Logging rates in sizeable areas of BC are climbing sharply, with attendant risks to fish, wildlife and plant life, as well as to human communities through landslides and impacts to drinking water.

What do we mean by Endangered Forests?

Naturally rare forests: Naturally rare forests are restricted in occurrence and extent globally. A combination of climatic, geological, topographic, and ecological factors limit certain forest types to extremely small areas of the globe. These forests contain many unique species adapted to the conditions found in these rare forest types. The most commonly cited examples of naturally rare forests are Mediterranean climate forests, temperate rainforests and tropical cloud forests. Keep in mind this definition when reading Part Two of this report, *Rarest of Rare: Endangered Inland Rainforests*.

Anthropogenically rare forests: Anthropogenically rare forests include remaining areas of forests that are globally or regionally rare as a result of historical human activities. They include forests in regions where at least 70 per cent of the original forest type has been converted. Current ecological theory states that as natural habitats decline in area, extinction rates increase and vital ecological and evolutionary processes are jeopardized. Many scientific analyses indicate the 70 percent threshold as a cut-off at which biological losses will steadily increase. Keep in mind this definition when reading *Going Buggy on the Central Plateau*, Part Three of this report.

Intact (Frontier or Near-frontier) forests: Intact forests are basically large, unfragmented blocks of natural forests. Intact forests are unaffected by habitat fragmentation and other large-scale human activities over time periods long enough to allow natural forest structure, composition and functions to be determined primarily by naturally occurring ecological processes such as fires. Intact forests are dominated by indigenous tree species, are naturally seeded, and are large enough to support viable populations of indigenous species associated with that forest type. Keep in mind this definition when reading *No Peace for the Peace*, Part Four of this report.

Other ecologically important forests: In ecoregions where less than 30 per cent of the original forest remaining is intact old-growth or primary forest, this category includes remnant patches of undeveloped primary forest, as well as secondary forests that serve as core habitat, movement corridors or buffer zones for highly threatened and vulnerable native species. Keep in mind this definition when reading Part Five of this report, *In the Rainshadow*.¹⁸

Typical of many land-use decisions in the 1990's, the upper Tchaikazan Valley and adjacent alpine was protected, but the lower watershed with its heavy forest cover was left out of the new Ts'yl-os Provincial Park. (Photo: Johanna Nelson, 2002)



What Government and Industry Aren't Telling You

often isolated from one another rather than connected by wilderness corridors. Inadequate protected areas, over-cutting and destructive management practices are a deadly combination for forest ecosystems.

For example, the failure to adequately protect the narrow bands of vitally important riverside forests known as riparian zones is resulting in catastrophic declines in habitat for spawning salmon. Once the salmon diminish or disappear, there is an almost immediate decline in other species including grizzly bears, black bears, bald eagles, wolves, marten and ravens.

There are many reasons why British Columbians and others around the world should care about scenarios like this. In 1997, the World Resources Institute issued a report entitled *The Last Frontier Forests*. The report's three authors — Dirk Bryant, Daniel Nielsen and Laura Tangley — noted that 46 per cent of the world's original forests had been converted to other uses. Just under 80 per cent had been so severely cut into small patches that their viability as storehouses of great biological diversity was now in question.¹⁷ Only 22 per cent of the world's original forests then remained in large and relatively natural parcels. Those areas hold the key to protecting the web of life on our planet. And some of the biggest and best of them are found in Canada.

The report concluded by noting that just three countries on Earth house 70 percent of those remaining large forests. They are, in order, Russia, Canada and Brazil. Given BC's importance as Canada's most biologically diverse province, WRI's findings are doubly important.

British Columbia contains some of the world's rarest and most endangered forests, including the world's only inland temperate rainforests. They need protecting. This does not mean an end to logging. On stable slopes outside of endangered and threatened species habitat,

there is still room for an ecologically-based, value-added logging industry. But we have an international responsibility to take stock of what we have not adequately protected, and to seek new ways of working in the woods.

Around the world, timber companies are showing a greater willingness than ever before to do that. Perhaps these companies see the writing on the wall, and reason that they have more to gain by aligning themselves with "green" forces. Whatever the motivation, governments would be wise to facilitate those moves in whatever ways they can.

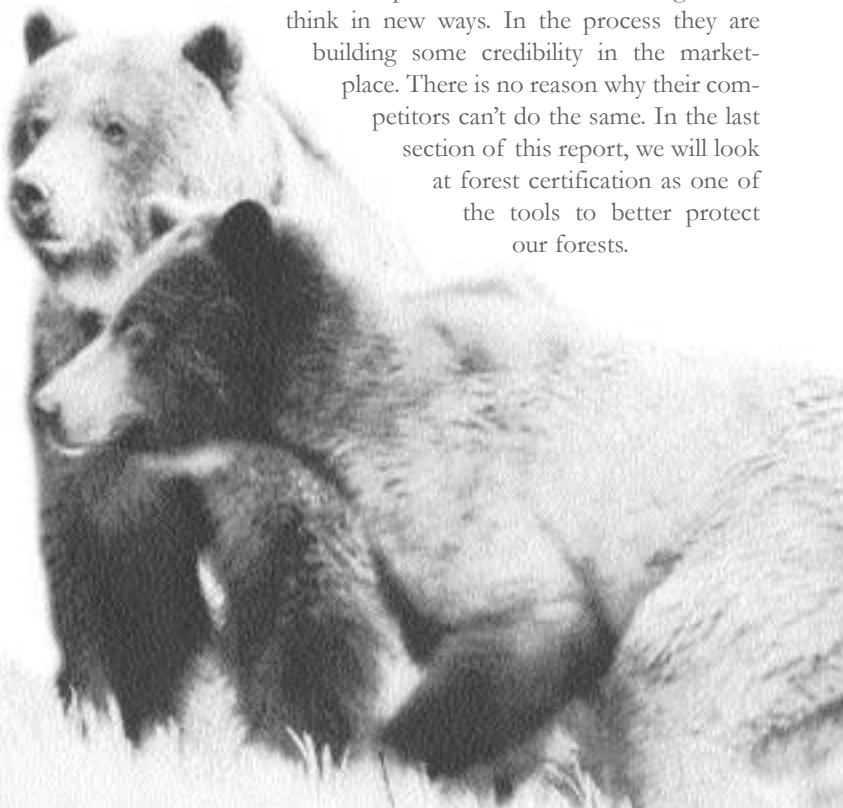
Here in Canada, the sixth-largest forest company in the country, Tembec, says that by 2005 it plans to have all of its forestry operations certified by an independent third party through the Forest Stewardship Council (FSC). If it succeeds, its operations in four provinces — Quebec, Ontario, Manitoba and BC — will carry the FSC seal of approval. Tembec has a long way to go to meet this goal — for example, it is still logging in provincial parks in Manitoba — but its willingness to work towards FSC certification shows it is positioning itself to take advantage of the greening of the marketplace.

In the forests of western Vancouver Island one of the world's largest forest corporations, Weyerhaeuser, is a junior partner with local Nuu-chah-nulth First Nations in Iisaak Forest Resources. Iisaak has achieved FSC certification for forestry operations in what was the environmental hot spot in North America only ten years ago — Clayoquot Sound.

These companies have shown a willingness to think in new ways. In the process they are building some credibility in the marketplace. There is no reason why their competitors can't do the same. In the last section of this report, we will look at forest certification as one of the tools to better protect our forests.

British Columbia contains some of the world's rarest and most endangered forests, including the world's only inland temperate rainforests. They need protecting.

Grizzly bears, listed as "vulnerable" to extinction, need ancient forests for their principal food supply of plants, berries and wild salmon.
(Photo: O'Neill/Greenpeace)





Inland Rainforest. (Photo: Wilderness Committee)



PART TWO: Endangered Inland Rainforests

Rarest of Rare

The Inland Rainforest is found nowhere else in the world but in BC, where it runs in a north-south belt from Prince George to just over the border in Central Idaho. Variouslly called the Interior Cedar-Hemlock Zone, Inland Rainforest, Interior Temperate Rainforest or Interior Wet Belt, this area's abundant precipitation makes for some of the most biologically rich and diverse plant life in the entire province.

There are more tree species found here than anywhere else in BC. They include western red cedar, western hemlock, mountain hemlock, ponderosa pine, Douglas-fir, western larch, lodgepole pine, western white pine, subalpine fir, three species of spruce, western yew, trembling aspen and paper birch trees. Beneath their canopy grow a mix of shrubs such as devil's club, Pacific yew, and mountain box. A rich variety of ferns and mosses carpets the forest floor.

Only two areas in the province are home to this global ecological treasure. The largest runs in a broad band from central BC southeast to central Idaho. The second occupies lower and middle elevations in the Nass River valley and portions of the Skeena, Iskut, and Stikine River basins. The latter is considered by some to be simply an extension of the globally rare coastal temperate rainforest. But the former, which we will refer to as the Inland Rainforest, is hundreds of kilometers inland, with features that seem utterly out of place for their geographical location.

The Inland Rainforest owes its unique character to heavy precipitation falling when prevailing easterly-flowing air masses encounter the big interior mountain ranges — the Monashees, Selkirks and Purcells — which lie just west of the Rockies.

BC's Ministry of Forests has recognized the ecological

Just the facts

- In just ten years nearly half of the Inland Rainforest's oldest trees have been logged.
- Government ecologist warns remaining oldest forest at risk.
- Mountain caribou more rare than black rhinos.

importance of this area, in particular the fact that parts of its forest are extremely old and valuable to wildlife.



Ancient cedars in East Creek, south of Revelstoke. (Photo: Wilderness Committee)

“Here, trees grow to great sizes and ages, rivaling the giant trees of the British Columbia coast. Forests in this zone contain many standing dead trees (called snags) and large accumulations of fallen logs and other woody debris. These features of old forests provide valuable habitat for a wide variety of life forms, from seedlings and fungi, to birds and bears.”²¹⁹

According to Susan Hall, a conservation biologist with Parks Canada, these forests “support more than 50 species of cavity nesting birds and denning small animals.”²²⁰ Some of the bird species found in this forest, the pileated woodpecker and several types of owls, “do best in mature or old forests.”²²¹

Lichenologist Dr. Trevor Goward has coined the term “antique” forests to describe forests that have been free of

It took only ten years for corporate logging interests to cut down half of the Inland Rainforest's oldest trees.

"catastrophic disturbance" for longer than the age of the oldest trees within them.²² In inland rainforests trees grow up to 1500 years old and up to 40 feet in circumference.

The BC government considers any forest older than 250 years to be old-growth; no distinction is made for these much-older "antique" forests, meaning they have no specific legal protection. For example, in the Incommapleux River valley south of Revelstoke, antique forests are slated for logging by the US-based timber company, Pope & Talbot.

"The oldest old-growth rain forests of inland British Columbia are at risk," André Arsenault, a plant ecologist with the Ministry bluntly warned in 1999. "More specifically, their future contribu-



The Penfold Valley was pristine until 1995, when the government decided to allow logging instead of protection. West Fraser Timber has since logged the valley's forests, including early winter caribou habitat, and built a road the entire length of the Penfold. (Photo: John Nelson, 2002)

Spin vs. Fact

Spin: *"British Columbia...is fortunate to have large amounts of natural forest, including old growth forest, and it's expected that will always be the case."* ~ "Growing Together", a web site maintained by British Columbia's Ministry of Forests.

Fact: *"...The oldest old-growth rainforests of inland British Columbia are at risk."* ~ André Arsenault, Ministry of Forests plant ecologist, Kamloops Forest Region.

tion to biological diversity may be diminished as a result of several interacting factors including: . . . their past and ongoing fragmentation as a result of timber harvesting, natural disturbance and flooding for dam construction."

Cutting Down the Rarest of the Rare

It took only ten years for corporate logging interests to cut down half of the Inland Rainforest's oldest trees.²⁴

The upper Cariboo River, located upstream of Bowron Lake Provincial Park, was left unprotected by the land-use planning processes of the 1990's. This unlogged section of the watershed is a magnificent example of inland rainforest, where six feet of precipitation falls in an average year. (Photo: John Nelson, 2002)





Today, the Inland Rainforest's mountain caribou can claim the dubious distinction of being as rare as Africa's black rhinos.

Endangered mountain caribou. (Photo: J. D. Taylor)

As those old trees go, so too will some of this region's most endangered species. Today, the region's mountain caribou, dependent on old-growth forests for food and for refuge from predation, can claim the dubious distinction of being as rare as Africa's black rhinos. Mountain Caribou are dependent on lichens, a defining species of the Inland Rainforest, and logging removes lichens. The Inland Rainforest's caribou populations have plummeted from 2450 in 1997 to less than 1900 today, and many herds have decreased by half.

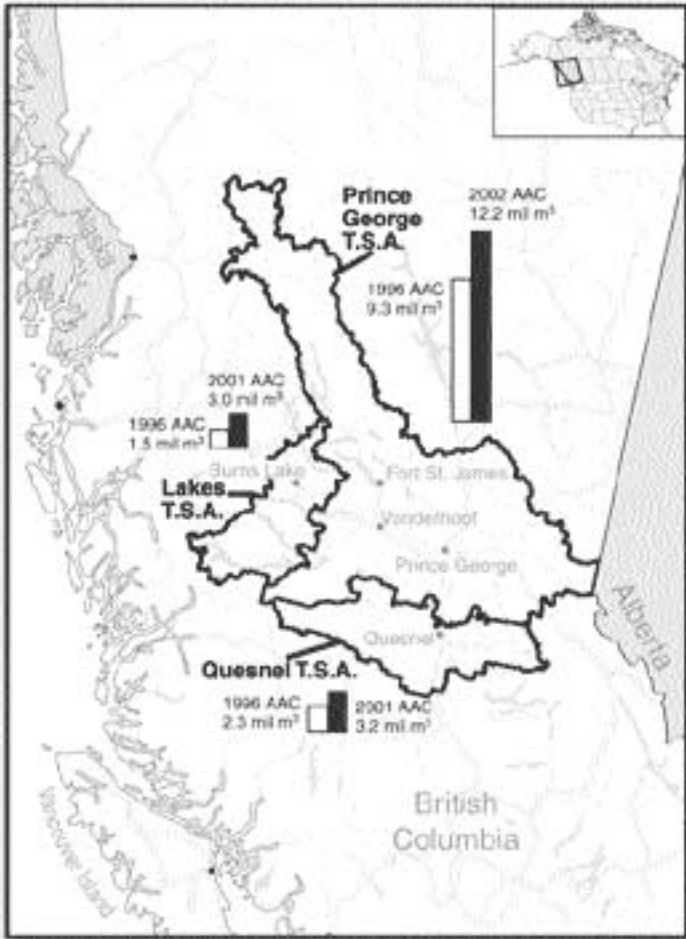
Confronting the Myth of Protection

The provincial government says BC will always have "large amounts" of old-growth. Yet only 9.2 percent of the Interior Cedar-Hemlock zone is protected, and more than half of the forest types found in this zone have less than 4 percent protection. With the oldest trees in the region on the chopping block, and old-growth dependent species in severe decline, one wonders just where those "large amounts" of old-growth will be found.

It's time to end all clearcutting of the Inland Rainforest's endangered antique and old-growth forests, and protect more of this globally unique ecosystem.



Giant cedar in the Duncan River valley, south of Revelstoke. If one were blindfolded and dropped off in the Inland Rainforest, one could be forgiven for thinking they were standing in a coastal valley. (Photo: John Nelson, 2002)



The map above illustrates the planned logging increases over and above normal cutting levels (which are already unsustainable) in BC's interior. Below, a 1997 clearcut in a special development zone near the Itcha-Ilgachuz Mountains, in woodland caribou winter range. (Photo: Garth Lenz)



PART THREE: Going Buggy on the Central Plateau

Unsustainable Logging

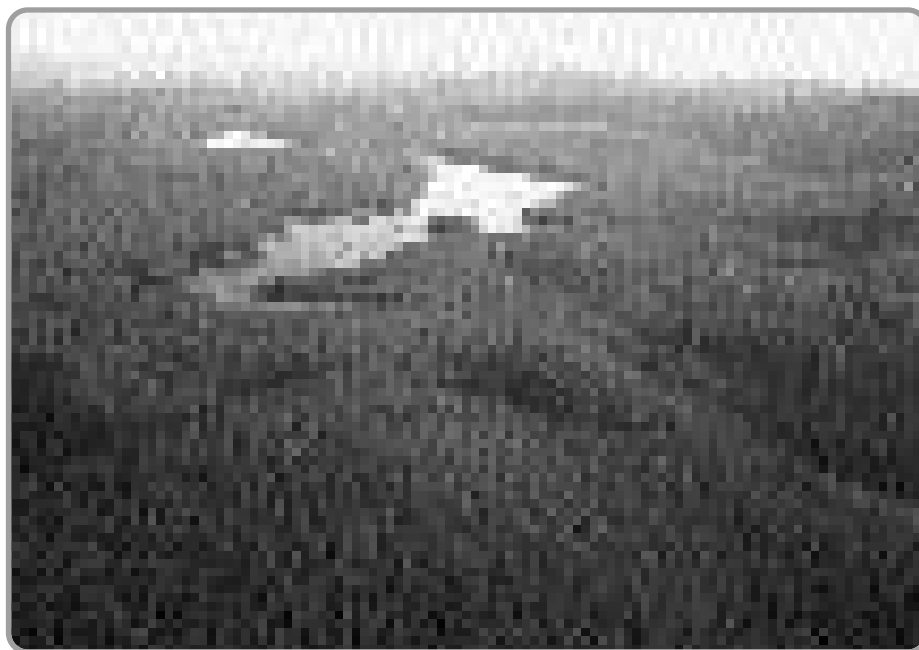
The British Columbia Ministry of Forests sets an Allowable Annual Cut (AAC) for each company's logging licence on Crown (public) land. The rate is set at higher than the annual growth rate of the forest.

The Ministry of Forests publicly acknowledges that there will be a drop in available timber volume with the conversion from old-growth original forests to second-growth managed plantations. They predict that the rate of cut will drop. This is often referred to as the "falldown effect." This policy of 'cut, convert and decrease' was developed in the 1940s, before the word biodiversity existed. It has terrible implications for the environment and for regional economies.

Going Buggy on the Central Plateau

According to BC's Forests Minister, Mike de Jong, few things pose as grave a risk to the province's forests as a large army of small beetles that has killed a startling number of lodgepole pine trees throughout the central interior.

Mr. de Jong told the BC public that the beetles have



The Miner Lake area was the scene of a mountain pine beetle infestation over 20 years ago. While the beetles are long gone, both government and local logging companies are cutting these trees as part of a "salvage program."
(Photo: John Nelson, 2002)

Just the facts

- Unsustainable over-cutting.
- "Temporary" logging increases amounting to a line of loaded logging trucks bumper-to-bumper from Juneau, Alaska to Los Angeles and back again.
- Good trees sold to timber companies by the millions for a paltry 25 cents a cubic metre (approximately one telephone pole).
- Massive logging rate increases approved through 2007.

infested 600,000 hectares (1.5 million acres) of trees, an area larger than the state of Delaware. The outbreak is not continuous, but rather in dispersed pockets throughout the affected area. He placed the value of the attacked trees at \$4.2 billion, and said that the economic well-being of no less than 30 communities was at risk if something wasn't done. "This forest health emergency threatens the jobs and livelihoods of

Imagine a line of loaded logging trucks lined bumper to bumper from Fairbanks, Alaska to Los Angeles and back again. That's how much "extra" wood has been taken out of the forests around Williams Lake since the salvage program began.

communities all across the North and Interior. As such we are implementing strong measures to protect our forests and the jobs they sustain," said de Jong.²⁵

Strong measures indeed. But are they wise?

This is not the first time nor

Over-cutting has serious consequences for both the environment and the economy. When wood runs short, mills shut down.

will it be the last time that beetles attack BC's interior forests. Yet each response to try and curb the beetles' spread threatens to do more harm than good to forests, communities and wildlife.

Temporary logging increases?

In the mid 1980s, the Williams Lake area in central BC experienced what commentators then called one of the worst ever beetle outbreaks. The needles of millions of trees had turned a rusty red, a sure sign that mountain pine beetles had burrowed into the bark, spreading a fungal infection that would eventually kill the trees.

A new word quickly gained cachet in provincial Ministry of Forests offices. It was a cleverly chosen word, meant to convey the idea that a valuable good was in danger of being lost forever. The word was "salvage."

In short order, the provincial government awarded new salvage licences to a handful of companies operating some of the biggest lumber mills in North America. The companies began chopping down an additional 50 per cent more trees each year. The lumber mills in Williams Lake worked around the clock profitably processing the added wood.

The government of the day said the sharp logging increases would last four years before being scaled back to earlier levels. "Sustainable"



In the Chilcotin, mechanized logging is done exclusively by the feller buncher, which can be run two shifts a day, 22 hours a day, even at night under the glare of spotlights. (Photo: John Nelson)



Logs stockpiled in the Central Interior. (Photo: Garth Lenz)

forestry, after all, had to be respected.

But once the corporations gained access to the additional trees, for which they paid next to nothing (25 cents a cubic metre in most cases, or about \$10 a logging truck load), they didn't want to give them up. And the BC government quickly reconsidered.

Seventeen years after the first "temporary" licences were granted, the "salvage" continues. By the end of 2002, the cumulative effect of all this additional logging activity was the removal of more than 17.3 million cubic metres of trees over and above "normal" cutting levels for the area. And "normal" cutting levels set out in the Allowable Annual Cut assume that liquidating all old-growth outside protected areas, and converting the forest to managed plantations, is acceptable.

17.3 million cubic metres is enough to fill logging trucks parked bumper to bumper from Fairbanks, Alaska to Los Angeles and back again. That's more than seven times the normal cutting rate for the Williams Lake area.

The massive clearcuts which scar the Chilcotin Plateau have endangered unique ecosystems such as the region's Sub-Boreal Pine-Spruce forests. A scant 8.6 per cent of this distinct biogeoclimatic zone is currently protected.

Over-cutting has serious consequences for both the environment and the economy. As more than one "resource-dependent" community in BC can attest, when wood runs short, as it always does with unsustainable logging, mills shut down.

Compounding problems, the provincial government has settled on a new round of salvage logging. For at least the next five years (and the Williams Lake experience suggests far beyond that) there is to be another huge increase in logging rates in several interior Timber Supply Areas.

In the course of the next five years, 26.5 mil-

What Government and Industry Aren't Telling You



Industrial clearcutting has far more impact on forest regeneration than pine beetles, which are actually part of the natural life cycle of the lodgepole pine. (Photo: John Nelson, 2002)

lion cubic metres of additional wood will be logged. An already over-cut forest is poised to be cut even more. The outcome? More endangered wildlife, and more endangered resource-dependent communities.

Some in government and the timber industry

say that there is nothing to be done about this. The trees are dead and if they're not logged now they'll burn down in some future forest fire.

But there is another side to the story, one not often heard. Initially at least, beetle-attacked trees suffer no loss in quality. In fact, they may have more value than their live counterparts. For example, the wood of a beetle-attacked tree is naturally dry. That means the lumber does not have to be placed into a kiln for drying. For another, the wood of many beetle-attacked trees has a distinct light blue stain, which some customers are willing to pay a premium for.

But beyond this there is a more fundamental and troubling question. Is it possible that by seeking to control beetle outbreaks through escalated logging activities, we are actually creating the conditions for future outbreaks by turning massive tracts of forest into new homogeneous tree plantations? No one has good answers to that question — which is why all concerned should proceed with extreme caution.

A far more prudent approach to this outbreak and to future outbreaks would be to permit industry to cut down the attacked trees, but require it to leave the healthy forests alone. As it stands now, government and industry are doing nothing short of liquidating both.

Direct logging activities to beetle-attacked wood and save healthy trees.

An unsustainable Allowable Annual Cut has left a legacy of large clearcuts throughout the Williams Lake Timber Supply Area. (Photo: John Nelson, 2002)



An already over-cut forest is poised to be over-cut even more. The outcome? More endangered wildlife — and more endangered “resource dependent” communities.



Mayfield Lake and boreal forest, Muskwa-Kechika Management Area.
(Photo: Wayne Sawchuk)



No Peace for the Peace

From the northern Rocky Mountain trench east to Alberta is an expansive land of rolling plains and foothills called the Peace, after the 380-mile river that begins here and ends in the Arctic Ocean.

Here are found the boreal forests of British Columbia, part of a vast forest ecosystem that stretches around the entire northern hemisphere. These forests include extensive stretches of low-lying black spruce and tamarack (larch) trees, as well as mixed forests of trembling aspen and spruce. These forests are regenerated by frequent fires every 30 to 70 years.

Isolated and threatened populations of woodland caribou move through these forests, as do elk, moose, black bear, grizzly bear and wolf. Mountain goat and wild sheep roam the higher country.

In the river valleys which burn much less frequently are found white spruce forests up to 500 years old. These river valley forests are home to an incredible diversity and abundance of small mammals and birds. Bird-watching's "grand slam" of warblers — the combined sighting of blackburnian, Cape May, black-throated green, and bay-breasted warblers — is only possible in the older mixed-wood boreal forests of the Peace.

These biologically rich and diverse forests sprawl across 15.1 million hectares (~23 million acres) of BC, an area nearly two-thirds the size of England.

The largest concentration of natural gas deposits in BC is found in the Peace. This is also where a handful of timber companies are cutting into the boreal forest like never before, turning trees into lumber, pulp and wood panel products.

In the 1990s the region gained notoriety as conservationists campaigned for protection of lands in the northern Rocky Mountain trench and adjacent areas. One northern wilderness region, known today as the Muskwa-Kechika, is described by conservation biologists as having the greatest abundance and

Just the facts

- Widespread deforestation by energy companies as well as logging companies.
- Repeated violations of forestry and environmental laws.
- Projected doubling of environmentally damaging natural gas developments.

diversity of large wild mammals in North America. The area supports thousands of moose, elk, and caribou, along with the continent's largest concentration of Stone sheep —

mountain sheep with beautiful curled horns — and hundreds of grizzly bears.

Thanks to conservation efforts at two planning tables, the provincial government-announced in October 1997 that it would create one million hectares (2.5 million acres) of new parkland in the region.

An additional three million hectares (7.5 million acres) of land around the new parks was declared a "special management area." Four years later, that

management area was further increased to 6.3 million hectares (~16 million acres) including 477,560 hectares of new parks. But as has been the case across BC, it's often hard to find the "special" in the management being applied here.

In 1997, the British Columbia government boasted that the new "protected" area was larger than Switzerland. But three-quarters of the allegedly protected land remains open for development. Area resident and long-time conservation campaigner, Wayne Sawchuk, says six natural gas well sites have already been developed in the special management area and more are certain to follow as the BC government



Black spruce and aspen boreal forest in the Liard Valley on the BC/Northwest Territories border. (Photo: Garth Lenz)

In this neck of the woods oil and gas corporations pose even greater risks to endangered forests than do timber companies.

encourages a doubling of natural gas exploration and development activities in the region.²⁷

New techniques such as helicopter transport-ed drilling technology, which removes the need for roads in drilling natural gas wells, are used around the world, but are not used in BC, even within the sensitive wildlife areas of the Muskwa-Kechika. And ice roads constructed of snow offer the promise of substantially lowering the damage of natural gas development. They have been demonstrated to work, and should be required.

Cutting Lines Through the Forest

Five years ago, 400 wells were drilled each year in the Peace. More recently, that number has climbed close to 800. With the prospect of 1,600 wells being drilled annually in the next few years, a lot more forest will be fragmented, with a corresponding loss of wildlife. All of this will be on top of the hundreds of thousands of trees logged annually for pulp, lumber and oriented strand board (OSB) panel products.

Most people don't know it, but in this neck of the woods oil and gas corporations pose even

greater risks to endangered forests than do timber companies. To find underground deposits of natural gas, corridors are commonly cut through the



This damaging oil and gas road is located on the north end of Butler Ridge, just south of the Muskwa-Kechika, west of Fort St. John. (Photo: Wayne Sawchuk)

forest. Known as seismic lines, these corridors used to measure up to 10 metres in width and several kilometres in length. Today, the width has come down by about half, but the length has changed little. The technology is available to build much narrower, hand-cut seismic lines which cause substantially less impact on the environment, but it is not often utilized outside of the special management areas.

To create the best possible picture of what may be underground, companies may cut several different seismic lines in a grid. But the push for greater clarity comes at the expense of more forest loss.

On average in the late 1990s, the oil and gas

Moose cow and calf at Mayfield Lake, Muskwa-Kechika. (Photo: Wayne Sawchuk)



What Government and Industry Aren't Telling You

industry carved 8,000 to 10,000 kilometres (5,000 to 6,000 miles) of seismic lines per year in the Peace, in addition to building 1,900 to 3,200 kilometres (1,200 to 2,000 miles) of new roads and permanently denuding up to 750 hectares (1800 acres) of forests for new well sites.

An estimate based on the proposed doubling of industry exploration and development activities is that close to 35,000 hectares (over 85,000 acres) of forest will be consumed annually in the Peace region by energy companies alone.

A Record of Poor Performance

Industrial activities also seriously threaten fish. A recent audit by the BC Oil and Gas Commission found a history of toxic spills, as well as non-compliance with the *Forest Practices Code* in construction of roads. In 1995, the oil and gas industry made about 9,000 stream crossings, a number that may double or triple in the years ahead.

Every time a stream is crossed, chances increase that fine sediment and debris will enter the water. At risk: spawning and rearing habitat for a wildly diverse array of fish species including rare bull trout, walleye, arctic grayling and northern pike. The above-mentioned audit suggests strongly that the risks are far from abstract and may increase over time.²⁸

In short, gas companies are responsible for a great deal of deforestation that negatively impacts wild sheep, grizzly bears, woodland caribou, elk and other wildlife species.

Remember the “grand slam?” Three of those four warblers — the bay-breasted, black-throated green and Cape May — are listed as endangered or threatened. In fact, these warbler populations are more threatened by forest loss in BC, their breeding habitat, than in their wintering habitat in the tropics.²⁹

Marching North

Logging in northern British Columbia is a relatively new phenomenon. But it is gaining in scale and scope thanks to southern forest depletion and emerging technologies that have made it possible to log once-undesirable tree species such as trembling aspen.

Today, huge numbers of logged aspen trees are taken to one of the largest industrial complexes in BC — Slocan Forest Products' Oriented Strand Board (OSB) mill on the outskirts of Fort Nelson.

Nine football fields in size, the mill annually produces about 400 million board feet of OSB panels, consuming 600,000 cubic metres per year (a cubic metre is roughly equivalent to one tele-



Seismic line corridor. (Photo: Wayne Sawchuk)

phone pole's worth of wood, which is more useable wood than some aspen trees produce in their lifetime).

In recent years, more than 100 clearcuts and 800 kilometres of new logging roads have been required to keep the mill operating. It takes more than 2,100 cubic metres of aspen trees per year to sustain one job at the mill, more than double the wood required to sustain the average timber industry job in BC's Interior. Elsewhere in Canada two jobs are generated for every 1,000 cubic metres of wood, while in the U.S. and New Zealand the average is respectively 3.5 jobs and five jobs for every thousand cubic metres.

From an environmental perspective, this is a losing scenario. Huge areas of habitat are being logged to provide a sub-standard number of jobs.

Adequately protect boreal and sub-boreal forests.

Legislate and enforce strong road and seismic development standards.

Five years ago, 400 wells were drilled each year in the Peace. More recently, that number has climbed close to 800. With the prospect of 1,600 wells being drilled annually in the next few years, a lot more forest will be fragmented, with a corresponding loss of wildlife.



Alpine wildflowers in the South Chilcotin Mountains. (Photo: Michael Wheatly)



In the Rainshadow

It is a sign of the staggering diversity of British Columbia's landscape that in the space of a few hours you can pass from rainforest to near desert environments, with spectacular dry pine and fir forests providing the transition.

One dry forest area centers on the community of Lillooet, north and east of Vancouver. The BC government and the timber industry refer to this 1.12 million hectare (2.8 million acre) area as the Lillooet Forest District. Others call it the Rainshadow Wilderness.

Whatever name you choose, the area is an ecological treasure. With the east face of the Coast Mountains forming its stunning backdrop, this area supports rare grasslands, wetlands, lakes, wildflowers, meadows, mountain goats, fisher, lynx, dry ponderosa pine and Douglas fir forests, and deserts.

The Rainshadow is also one of the southernmost grizzly bear ranges in BC. These populations are the only link between more northern grizzly populations and the North Cascades grizzly recovery zone in Washington State. But two of the three grizzly populations in the Rainshadow are already designated as threatened.

Critically-endangered northern spotted owls also occur in the Rainshadow, the northern extent of their range. The Rainshadow also has important populations of California bighorn sheep and mule deer, and one of the highest concentrations of mountain goats in BC. But loss of forests is degrading migration corridors and the winter range that is critical to these species' survival.

The Rainshadow is also culturally diverse, containing four distinct First Nations: the Stl'atl'imx, Nlaka'pamux, Secwepemc and Ts'ilhqot'in. Several of these bands have blockaded or opposed logging in recent years. Melvin Creek in Stl'atl'imx territory is the site of an ongoing occupation

Just the facts

- New Liberal government scuttles years of negotiations and rescinds land use plan.
- Mining industry lobbies to gut Spruce Lake Provincial Park, oldest park proposal in BC.
- Timber companies cut down public forests for a song.

in protest of planned logging and ski resort development.



First Nations blockade logging in the Rainshadow. (Top Photo: Will Koop, Bottom Photo: Wilderness Committee files)

In the 1990s the BC government initiated land-use planning talks in the Rainshadow region. The talks took place at the Lillooet Land and Resource Management Planning Table or LRMP. The talks were often heated, and at the end of the day mining and logging interests could not agree with conservationists and other table participants. As a result, government received two separate proposals.

Just prior to the last provincial election the NDP government chose the proposal submitted by individuals representing conservation, recreation, tourism and community

interests. It also created a 72,000-hectare (190,000 acre) provincial park in the Rainshadow's South Chilcotin Mountains, including an area around Spruce Lake, one of the longest-standing park proposals in BC.

Upon election in 2002, the new Liberal administration began undoing the agreement.

The LRMP table, which was to work for another year finalizing the land-use plan, was disbanded, casting doubt over the

future of the Spruce Lake Provincial Park and 13 other proposed wilderness areas, and the possibility of shifting to progressive land-use practices.

Mining

Two industries were particularly aggressive in lobbying the Liberal government — the timber industry, led by Ainsworth Lumber Company, and the mining industry. The latter asked that the new Spruce Lake Provincial Park be reduced in size by over 95 percent. Curiously, the mining industry's influence on government was sharply at odds with its economic significance in the region. Mining and mineral processing accounted for only 16 jobs in the region in 1996 - one per cent of total personal income.³⁰ Moreover, a report commissioned by the BC government strongly suggested that there

was little prospect for increased mining activity in the area because of "continuing low metal prices" which had "depressed metallic mineral exploration effort in British Columbia over the past decade."³¹

In a *Vancouver Sun* article in July 2002 John McInnis, Executive Director of the Environmental Mining Council of BC, noted:

"There is a distinct lack of evidence that the industry has a tangible economic interest in the South Chilcotin Park area given the fact that the region has been well explored for more than a century and nothing close to an economic mine has been discovered. There are

times and places where the industry's legitimate interests are at stake, but this does not appear to be one of them."³²



Perfectly legal under the *Forest Practices Code*, these 600+ year old trees were cut in a Riparian Management Zone in the high elevation forests of Truax Creek. (Photo: John Nelson, 2002)

Reynolds Creek, near Nine-Mile Ridge, logged by Ainsworth Lumber in 1998. From 1997 to 2001, Ainsworth paid the province only 25 cents/cubic metre for 66 percent of the trees it cut on public land, including these ones. (Photo: John Nelson, 2002)



The mining industry's influence on government policy in the Rainshadow Wilderness is sharply at odds with its economic significance. Mining and mineral processing accounted for only 16 jobs in the region in 1996 - one per cent of total personal income.



Shulaps Creek: Block 6, Cutting Permit 114 is 75 hectares in size, despite the “rule” under the *Forest Practices Code* that cut-blocks are to be no larger than 40 hectares. Under the new *Forest and Range Practices Act*, it is likely that giant clearcuts will become even more common. While government considers the future of the Rainshadow, Ainsworth continues clearcutting. (Photo: John Nelson, 2002)

Subsidizing Logging

Any time a logging company cuts down trees on publicly-owned land in BC it pays the government a fee known as stumpage. Stumpage payments vary depending on the value of the timber and on operating costs.

An independent analysis notes that in 2001 logging companies in the Kamloops Forest Region paid on average \$23.12 in stumpage payments to the BC government for each cubic metre of timber logged in the region. During that same time, the average paid in the Lillooet Forest District (home to the Rainshadow Wilderness and part of the Kamloops Region) was only \$4.24 per cubic metre. As for Ainsworth Lumber Co., the average stumpage paid was \$1.30. Over a four-year period from 1998 to 2001, Ainsworth paid only 25 cents/cubic metre on more than three quarters of the wood it cut.³³

A socio-economic analysis commissioned by the BC government in September 2001 notes that timber companies operating in and around Lillooet have traditionally paid far below what their counterparts in the wider region pay by way of stumpage. This same analysis revealed that the

commercial tourism revenue and job numbers far outweighed those for mining and forestry.

“Rents have been mostly negative in the Lillooet TSA [Timber Supply Area] since early 1998,” the authors of the report say. “If these marginal economics were to continue into the future . . . it is likely that the local industry could not be sustained at its present level since it would be making below an acceptable level of return.”³⁴

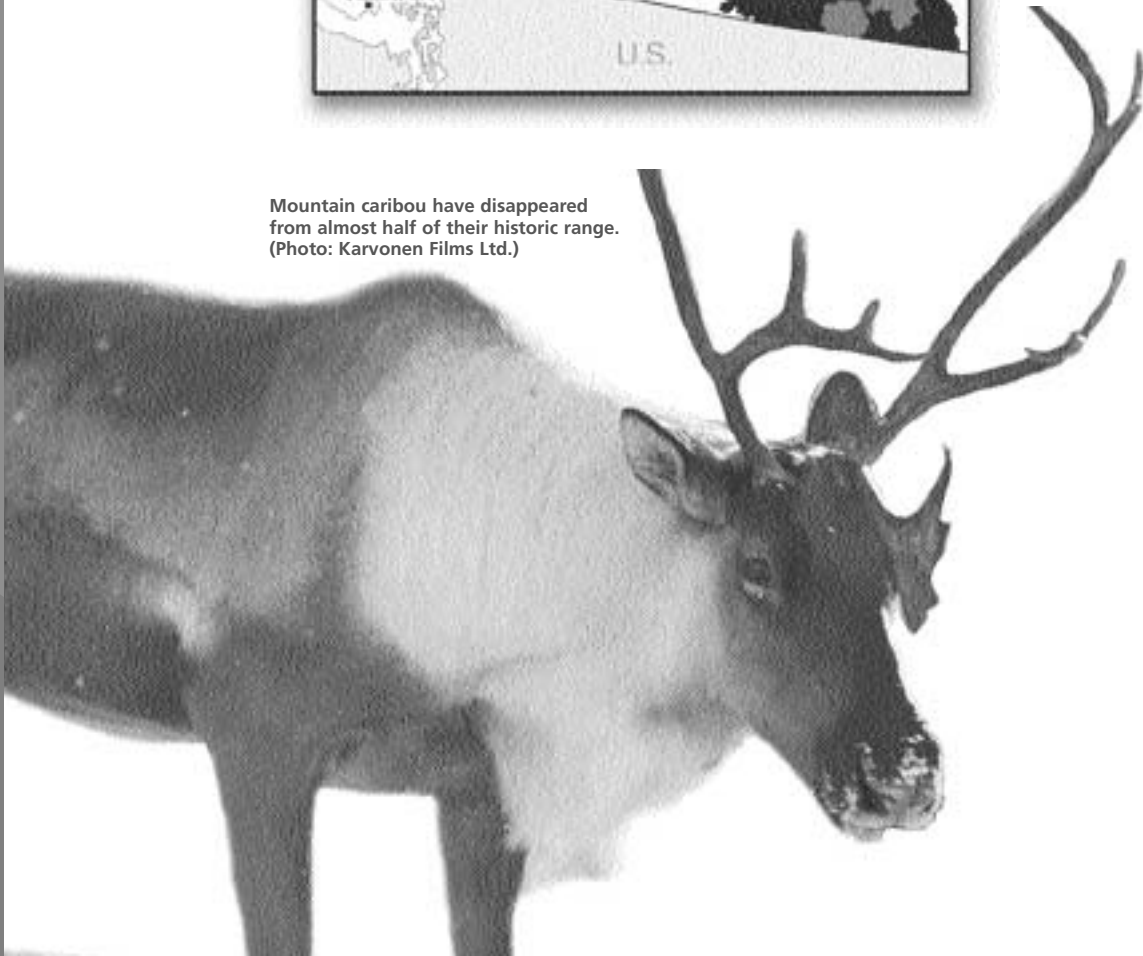
The same analysis suggested that if the government were to protect everything outlined in the original (now overturned) LRMP decision, the annual losses in stumpage revenue would amount to \$256,000, a paltry 34 cents per BC household. That’s a small price to pay for protecting diminishing dryland forests, the South Chilcotin Mountains, and critical habitat for threatened grizzly bears, mountain sheep, spotted owls, and bull trout.

**Protect the Rainshadow’s forests,
and approve the agreed-to conservation
plan.**

If the government protected everything conservation groups asked for in the Rainshadow Wilderness, annual losses in stumpage revenue would amount to only \$256,000, a paltry 34 cents per BC household.



Mountain caribou have disappeared from almost half of their historic range. (Photo: Karvonen Films Ltd.)



Species: The End Game?

When it comes to protecting endangered species in British Columbia the gulf between words and actions grows wider all the time. According to the BC government's 2002 State of the Environment report, 28 percent of BC's mammal species, 21 percent of its breeding birds, 64 percent of its reptiles, 37 percent of its amphibians, 39 percent of its freshwater fish, and 29 percent of its vascular plants are now threatened or endangered. The BC Conservation Data Centre lists logging as by far the highest risk factor, threatening 46 percent of all threatened and endangered species.

A look at the plight of the northern spotted owl, one of 128 wildlife species listed as endangered or threatened by the BC government, is a timely case in point.

Putting the End in Endangered?

The Ministry of Forests web site *Growing Together*³⁵ notes that "special management practices are in place to help conserve habitat for old-growth dependent species such as the spotted owl."

These reassuring words do not, however, dovetail with reality. The government is doing the exact opposite of what it says, approving clearcut logging in the last remaining forests known to be home to this endangered species.

In almost every case where a wildlife species is at risk of extinction, the reason for its precarious position is loss of habitat or living space. This includes the northern spotted owl.

Only about two per cent of BC's sprawling landmass is considered to be suitable range for this endangered species. And much of that area no longer has the kind of forest that is needed to sustain the owls. In 1998, the BC Wildlife Branch reported: "Within that area, only about 30 percent of the original low-elevation old-growth remains."³⁶

In 2002, BC's Ministry of Water Land and Air Protection published *Population Assessment of the Northern Spotted Owl in British Columbia*. The report's authors found that: "(I)he number of spotted owls in BC....has declined sharply over the last ten years. We estimate that fewer than 50 breeding pairs occur within British Columbia."

Ten years ago, given the precarious state of the owls glob-

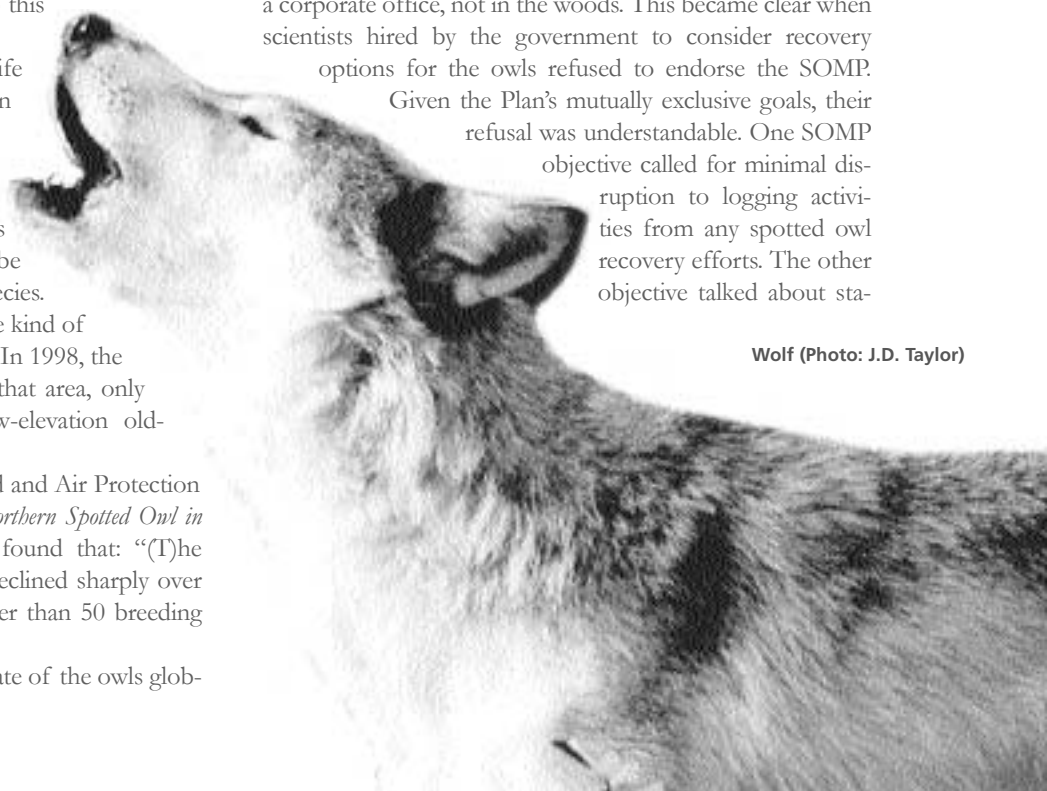
Just the facts

- No law protecting endangered species on provincial public lands.
- Government-approved logging plans accelerating species extinction.
- Nearly 130 wildlife species listed as endangered or threatened.

ally, the BC government developed a "Spotted Owl Management Plan" (SOMP). But like so many plans aimed at saving a species, it seems the species to be saved resides in a corporate office, not in the woods. This became clear when scientists hired by the government to consider recovery options for the owls refused to endorse the SOMP.

Given the Plan's mutually exclusive goals, their refusal was understandable. One SOMP objective called for minimal disruption to logging activities from any spotted owl recovery efforts. The other objective talked about sta-

Wolf (Photo: J.D. Taylor)



Like so many plans aimed at saving a species, it seems the species to be saved resides in a corporate office, not in the woods.



bilizing and possibly enhancing the spotted owl population.³⁷

In 2001 Sierra Legal Defence Fund, acting on behalf of the Western Canada Wilderness Committee, went to court to challenge the awarding of logging permits in known spotted owl habitat. A review of government records showed that Environment Ministry officials had grave concerns about where the logging was taking place.

The court temporarily suspended logging pending a review by a senior member of the Ministry of Forests who had had no hand in the earlier logging approvals by the Chilliwack Forest District office. She upheld a logging ban in two areas but allowed logging to proceed in a third on the questionable grounds that the logging would actually improve conditions for the endangered bird species.

Sierra Legal and the Wilderness Committee challenged that decision as well. But in August 2002, BC Supreme Court Justice James Shabbits dismissed the challenge, saying that although he found that the spotted owl was at grave risk of extinction, there was nothing in BC's forestry laws to prevent continued logging of the owl's endangered habitat. "The [BC] legislature could have enacted legislation that protects

the Owl from the risk of extirpation caused it by harvesting of old growth forests,"

Shabbits ruled. "In my opinion, it did not do so with the enactment of s.41 (1)(b) of the *Forest Practices Code*."

Sierra Legal is appealing the case on behalf of the Wilderness Committee.

Meanwhile,

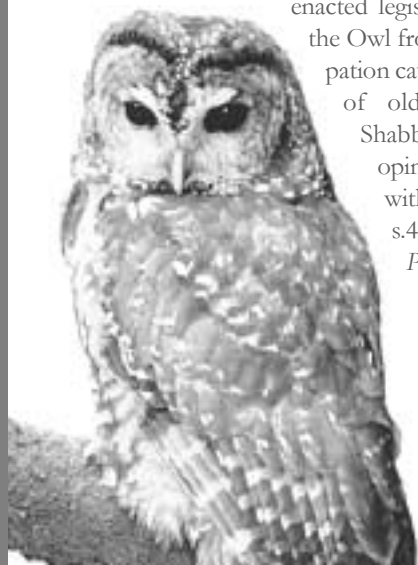
new surveys suggested that previous estimates were optimistic, and as few as 25 breeding pairs of owls may remain. Only four juveniles were known to be born in 2002, and two of them had disappeared. In desperation one of the two remaining chicks was captured in order to increase its chance of surviving the winter. The chick remains in captivity.

Spin vs. Fact

Spin: "Special management practices are in place to help conserve habitat for old growth dependent species such as the spotted owl."

- "Growing Together", a web site maintained by British Columbia's Ministry of Forests.

Fact: In a recent study, 280 cut blocks were identified in critical spotted owl habitat, inside of or adjacent to "Special Management Zones" established for the protection of the owl. ~ "Logging to Extinction: The Last Stand of the Northern Spotted Owl in Canada", a Global Forest Watch Canada report.



After extensive campaigns, including market pressure, two timber companies, Interfor and Canfor, agreed to temporarily withdraw from logging in contentious spotted owl habitat.

Biologists are concerned that other owl species in the southern interior may also disappear over the next decade if the forests on which they depend are logged as planned.

A host of other species including northern goshawks, Vancouver Island marmots, marbled murrelets, wood bison, mountain caribou, wolverine, certain populations of grizzly bears, bull trout, steelhead and coho salmon are all threatened with

Northern spotted owl. Only 25 breeding pairs may remain. (Photo: C.Swift/First Light)



Mountain caribou numbers in BC are plummeting, with many herds having shrunk by half in recent years.

Recent logging in the Siwash Creek drainage of southwestern British Columbia occurred in an area “managed” for spotted owls by the BC government. (Photo: Wilderness Committee)

localized extinction. And much of their demise is attributed to the loss of endangered forests.

Woodland caribou are another example. Their continuing decline has international implications.

Woodland caribou are found throughout Canada. But their numbers are dropping pretty much everywhere, including parts of BC, and forest loss and fragmentation is the major reason why.

Like other widely dispersed species, caribou have evolved to adapt to local conditions. In BC, some populations have become known as mountain caribou, in recognition of their almost total dependence on high-elevation old-growth forests for survival.

Mountain caribou live almost all of their time at high elevations, moving down slope only in

the early winter. Once winter snow packs deepen and harden, the animals move back up slope. Standing on top of the snow, they feed on arboreal lichen hanging from overhead tree branches. Arboreal lichens are greater in variety and abundance in older forests.

Once again, the BC government’s own words are as good as any to use in describing the plight of this species. From another government publication we learn:

“Mountain caribou depend upon large tracts of old-growth forest in the Interior Wet Belt. Over the

past century, old forests in this high snowfall zone of southeastern British Columbia have become far less abundant. Habitat has been lost to fires, timber harvesting, hydro-electric reservoirs, and human settlement. In many places, the remaining habitat occurs in small patches. The loss and fragmenta-



Mountain caribou (Photo: Wayne Sawchuk)

tion of old-growth forests may cause caribou to abandon some areas. It also increases the risk that caribou will be killed by predators or poachers, or disturbed by outdoor recreationists. Resource management guidelines have been developed for all herds of mountain caribou in British Columbia, and most herds are being monitored, but habitat alteration continues to pose a threat.^{22,38}

A major threat indeed. Mountain caribou numbers in BC are plummeting, with many herds having shrunk by half in recent years.

Mountain caribou are restricted to a narrow

There is no provincial endangered species legislation and the new Canadian *Species at Risk Act* only covers the four percent of Canada that is federal land.



Coho Salmon. (Photo: Barry Kovish)

mountainous region running southeast to northwest in the southeastern part of the province. This band has been cut up into isolated islands of forest surrounded by logging. Despite widespread agreement that forest fragmentation leads to the decline of certain species, the major timber industry association in the region - the Interior Lumber Manufacturers' Association - has actively lobbied the provincial government to abandon certain guidelines aimed at protecting mountain caribou, and scrap plans to recover the international South Selkirk herd.³⁹

Significantly, British Columbia's mountain caribou are a lifeline to the only remaining caribou in the Lower 48 U.S. states. Caribou used to be abundant in the Lower 48, but are now restricted to a tiny corner of Idaho and Washington states, where they are protected under the US *Endangered Species Act*.

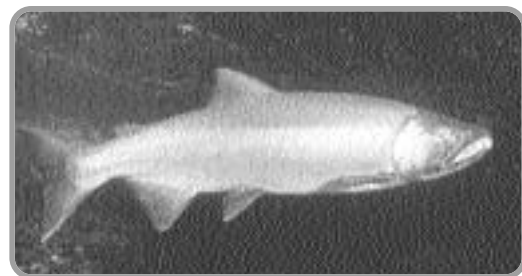
It is only because of the deliberate capture and relocation of Canadian caribou to Idaho and Washington that caribou continue to exist in the mountainous terrain of those two states. But the

(Photo: Barry Leif Grandell)



British Columbia's Endangered Forests

relocation efforts will not be enough to prevent the extinction of the only population of these animals south of the 49th Parallel. Without serious efforts to reverse the tide of endangered forest loss in BC, the outlook for this endangered species appears grim. There are fewer than 1900 mountain caribou remaining in the world, making them as rare as the



Steelhead. (Photo: Barry Kovish)

black rhino. About 98 percent of these animals live in BC. The province has an international obligation to protect this species but there is no provincial endangered species legislation and the new Canadian *Species at Risk Act* only covers the 4 percent of Canada that is federal land.

Without legislated and mandatory habitat protection on all lands — provincial, territorial, federal and private — the northern spotted owl, mountain caribou, and a host of other species are in a lot of trouble in BC's endangered forests.

Enact a provincial endangered species law that legally protects the habitat of endangered species.

The Protection Sham

In the dying days of fall 2000, then British Columbia Premier Ujjal Dosanjh and his Environment Minister Ian Waddell proudly boasted that the government had fulfilled a longstanding commitment to protect 12 percent of the provincial land base as parkland.

“Nine years ago, we said we would double our parks and recreation areas,” Dosanjh said. “We have met our promise, protecting over 12 percent of BC’s diverse and beautiful environment for today’s as well as tomorrow’s families.”

“Protecting 12 percent of our province and meeting the United Nations goal sets a global example and it’s good for our economy,” added Waddell.

Unfortunately, BC’s vaunted protected areas system is full of holes. Far from setting a global example, the province is behind a host of other jurisdictions in the area of land it has protected. No wonder so many of BC’s wildlife species are threatened and endangered.

More importantly, BC’s parks tend to be heavily skewed

Just the facts

- BC lags far behind Alaska, Equador and Belize in wilderness protection.
- Many forest types have less than 2 percent protected, or no protection at all.
- With current “protections” close to half of BC’s wildlife species will vanish.⁴⁰

to high mountainous terrain. Rock and ice are far more likely to be “protected” than are biologically rich old-growth forests. And that’s no accident, because the low-elevation forests are where the money is to be made.

Many ecologically unique areas of the province remain very poorly represented in the current “protected areas system.” According to data compiled by BC’s Ministry of Sustainable Resource Management and released in 2002, many of the province’s distinct biogeoclimatic zones have well below 12 percent protection. By comparison, the amount of Alpine Tundra protected is 22.8 per cent. In the Kootenay-Boundary region, the biologically-rich southeast corner of the province, 49 percent of the area protected is non-forested.

Beyond 12 Percent

Not only has the BC government failed to protect 12 percent of each biogeoclimatic zone in the province, but reaching 12 percent will not do the job of conserving endangered forests and the species that require those forests to survive.

The 12 percent target is acknowledged by leading scientists to be an arbitrarily chosen, politically motivated number. It is not a number that stands up to scientific scrutiny.

Conservation biologists believe a figure at least double that will be required at a minimum to protect biological diversity in temperate regions such as BC. Realistically, BC needs to protect *representatively* somewhere between 25 percent and 45 percent of its land base if it truly wishes to maintain biological diversity.⁴¹ It is estimated that to recover grizzly bear pop-

Where BC Stands

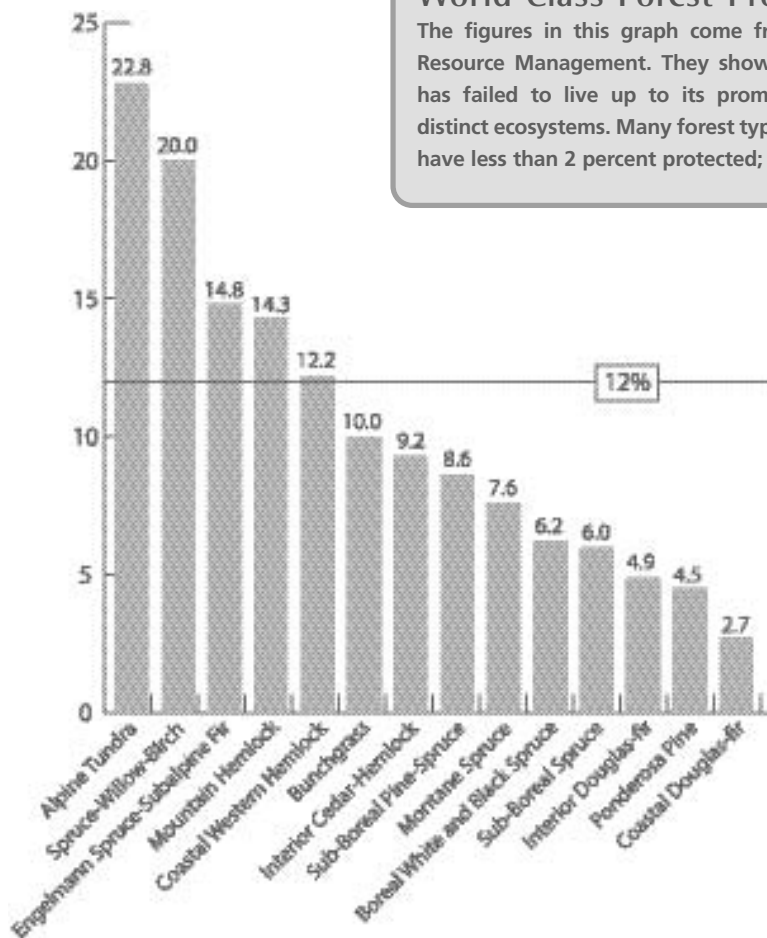
Following is a ranking of jurisdictions by percentage of land base protected. The source for this information is the International Union for the Conservation of Nature (1997). Where single asterisks appear beside numbers, the countries have further protected lands since 1997. The figure for British Columbia represents the area protected as of 2001.

Percentage of Land Base Protected

Alaska	37%	Slovakia	18%
Denmark	28%	Guatemala	17%
Ecuador	26%	Antigua	15%
Norway	23%	Israel	15%
Belize	21%	Tanzania	15%*
Bhutan	21%	Bolivia	14%
Brunei	21%	Costa Rica	14%*
Chile	19%	Rwanda	14%
New Zealand	19%*	Thailand	14%
Botswana	18%	Sri Lanka	13%
Panama	18%	British Columbia	13%

The 12 percent target is acknowledged by leading scientists to be an arbitrarily chosen, politically motivated number. It is not a number that stands up to scientific scrutiny.

World Class Forest Protection?
 The figures in this graph come from BC's Ministry of Sustainable Resource Management. They show that the provincial government has failed to live up to its promise to protect 12 percent of all distinct ecosystems. Many forest types found within these ecosystems have less than 2 percent protected; some have no protection at all.



trarily chosen and ecologically indefensible 12 percent target, it can expect to see nearly 90 percent of its original forests in the Timber Harvesting Land Base converted to tree plantations, with the attendant loss of half of the wildlife species in those forests.⁴³

Protected Areas: Setting a New Course

We believe that a scientifically-driven mapping of BC's forests would confirm that the existing protected areas system will not sufficiently protect ecological values. We also believe that many areas currently defined as special management zones should in fact be reclassified as protected areas.

ulations in the Lower 48 States to a point where there are 500 breeding bears and a total grizzly population of 2000 individuals, a connected landscape of protected habitat on the order of 129,500 square kilometers (50,000 square miles) is required.⁴²

As the province continues to stick to its arbitrary

Protected areas must be expanded so that all distinct landscapes are adequately conserved. They must also be connected so that wildlife species can move freely from place to place.

BC cannot claim to be a world leader in con-

Clearcuts next to Pacific Rim National Park on Vancouver Island. BC's parks are becoming islands surrounded by industrial development. (Photo: John Nelson, 2002)



What Government and Industry Aren't Telling You

servation until such time as a proper accounting of what is and is not adequately protected is completed. Currently, far from setting a global example, BC remains an environmental laggard.

Roadblock to Protection: Working Forest Legislation

In January 2003 the BC government released a white paper on its proposed "Working Forest" legislation, thereby delivering on a key election promise.

The main thrust of the Working Forest idea is to guarantee "certainty" to the timber industry by legislating logging as the priority on all forest land which has not yet been protected. Conservationists fear that this legislation will make it next to impossible to protect endangered forests in BC.

The new designation would apply to the 48% of BC that is forested: 45 million hectares (111 million acres). The existing Timber Harvesting Land Base (THLB) makes up about half of this area. The THLB is already being over-cut at great expense to endangered forests and species at risk. The timber industry has now set its sights on increasing the land to be cut over, increasing threats to biodiversity.

Industry's objective is to entrench "timber targets" into planning, rather than taking an ecosystem-based management approach of first deciding what values need to be protected, then logging sustainably in the remaining forests.

The outlook? More logging in steep areas,



BC's oldest park, Strathcona Provincial Park, has been logged, mined, and flooded since it was created in 1911. In 1999, TimberWest received a permit to build a logging road inside the park to access their adjacent private land next to the park. During logging, TimberWest accidentally logged 3/4 hectare of old growth Douglas fir inside the park, for which they were not penalized. (Photo: John Nelson, 1999)

community watersheds, and endangered species habitat. Protection of biodiversity and other values increasingly relegated to high elevations and inaccessible areas. And even less meaningful public participation in forest management decisions.

Identify, map and protect
endangered forests.

Itcha-Ilgachuz Provincial Park. Almost 23% of BC's Alpine Tundra is protected. BC should protect all biogeoclimatic zones and forest types to at least this level. (Photo: John Nelson, 2002)



Conservationists fear that the proposed "Working Forest" legislation will make it next to impossible to protect endangered forests in BC.

(Photo: Doug Radies)



PART EIGHT: The Rush to Deregulate Is Anybody Out There?

Public servants call it “Black Thursday.” That’s the day in January 2002 when the British Columbia government announced that close to one out of every three public servants, nearly 12,000 in all, would lose their jobs over the next three years.

Some of the deepest cutbacks occurred in the ministries of Forests, Energy and Mines, and Water, Land and Air Protection. Employees in the latter were told to expect staffing reductions of one-third and budgetary reductions of one-quarter. This was on top of major funding and staffing reductions in the 1990s. For example, over five years from 1995 to 2001, the Ministry of Forests lost 30 percent of its budget.⁴⁴

The result is that far fewer public servants will be on public lands keeping watch over public resources, which constitute 94 percent of British Columbia’s land base. Other industries — for example the wilderness tourism industry valued at \$1.5 billion annually — depend on keeping at least some of that land in a relatively pristine state in order to sustain a projected annual growth rate of 11 per cent.⁴⁵

The cuts are also certain to place the current Parks Program at risk. In recent years, a number of new provincial parks were created as various land-use plans were completed. But while the area of parks doubled, the latest cutbacks will mean 63 fewer Parks staff. When the cutbacks are completed, there will be one field worker in the Parks Program for every seven parks.

In total 727 jobs will be eliminated at 20 Ministry of Forest offices. No position will be left untouched. Forest ecologists working in the field to measure animal and plant life before and after logging will be gone. So will “check scalers”, who work to ensure that timber companies properly account for the trees they cut down and pay a fair price for them as well. So too will soil specialists and hydrologists,

Just the facts

- Government promises tougher enforcement but cuts nearly 12,000 public employees.
- Closure of 20 Ministry of Forests offices.
- Parks program cut by one-third. Jurisdiction per employee doubles.

who work to ensure that companies log in ways that do not trigger landslides and damage waterways. And so will auditors whose job is to ensure that companies comply with provincial forestry laws.

It is worth noting that well before these cuts were even announced a large majority of government workers (80 per cent) had expressed alarm at the fact that the counting and valuing of publicly-owned trees was becoming more and more a company responsibility.⁴⁶ How could this be allowed when the companies doing the counting stood to profit by under-reporting or misrepresenting what was being logged?

Cutbacks to other Ministry of Water, Land and Air Protection staff will be equally severe.

Because of the cutbacks, administrative regions are merging; meaning the area of ground to be covered by field workers is ballooning. For example, one team with responsibility for investigating all industries to ensure that they comply with provincial environmental laws must cover the entire Omineca-Peace region. This region covers 70 per cent of the provincial land base, or roughly 66 million

hectares (165 million acres). The investigative team consists of only three officers and a supervisor, half of what it once was.

Parks Employees Before and After “Black Thursday”

Park Field Staff	Total Areas Protected	Protected Area Per Park Employee
183 (before cuts)	12296851	one employee per 67,195 hectares
120 (after cuts)	12296851	one employee per 102,473 hectares

Far fewer public servants will be on public lands keeping watch over public resources.

While frequent violations of environmental laws were noted by public servants, companies were usually ordered to pay fines of only \$200 to \$600 — not much more than a motorist pays for a speeding violation.

Making the team's work more difficult, similar staff reductions have occurred elsewhere in the Ministry. Because of this, there will likely be a decline in the number of requests for team investigations. For example, the latest cutbacks mean there are now 45 per cent fewer conservation officers and support staff in the Peace region. Without support staff, the remaining conservation officers will be spending less time in the field monitoring oil and gas companies to ensure that they comply with the Waste Management Act. The result is almost certain to be fewer referrals to the investigating team.

The government's response to criticism that these cuts will have long-lasting negative consequences is to say that it is streamlining regulations and placing more onus on corporations to figure out how to meet various pieces of provincial legislation. This is called deregulation. It's been tried in Ontario. And it failed to protect the environment.

In May 2002, Sierra Legal Defence Fund and Forest Watch of British Columbia issued a report called *Who's Minding our Forests?: Deregulation of the timber industry in British Columbia*. Their audit notes that in the 1990s, when the Ontario government gave timber companies wide discretion to interpret environmental regulations and to determine how to meet them, there was widespread failure to protect streams and wildlife.

Perhaps the most troubling spin in the provincial government's deregulation drive is the argument that enforcement of various environmental rules and regulations has proven too costly for business, and that if regulations aren't eased up business investment in the province will dry up. But this argument is belied by the facts. Take the *Forest Practices Code* as one example.



(Photo: Doug Radies)

"Since the Code was introduced in 1995, the Ministry of Forests has collected only \$5.68 million in violation tickets and penalties under the Code, a rate that puts it on par with the Vancouver Public Library's collections for overdue book fines," Sierra Legal and Forest Watch reported.

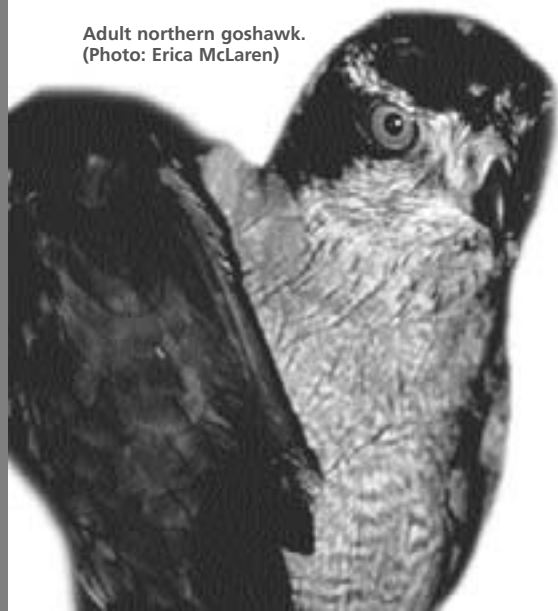
Undermining the Law, a lengthy analysis by the Vancouver-based West Coast Environmental Law comes to a similarly sobering conclusion. WCEL reviewed five years worth of data pertaining to BC's *Waste Management, Water, Pesticide Control and Forest Practices Code Acts* as well as Canada's *Fisheries Act*.

While frequent violations of these acts were noted by public servants, the end result was that companies were usually ordered to pay fines of only \$200 to \$600 — not much more than a motorist pays for a speeding violation. In only 197 instances over five years were criminal charges pursued for violations of those five acts. Fully two-thirds of the resulting fines were under \$10,000. Only one exceeded \$75,000.⁴⁷

With such a low incidence of fines and such low fine amounts, it's safe to say that many companies view this as a fairly marginal cost of doing business in BC.

There's good reason to believe that the same companies look ahead to reducing that business cost even further. It's hard to issue penalties to companies when people aren't there to watch what's going on.

Adult northern goshawk.
(Photo: Erica McLaren)



Redirect adequate funding back into resource ministries.

Sharply increase fines to companies violating environmental laws, and use fine revenues to hire more monitoring and enforcement staff.

PART NINE: Opportunities

As the preceding chapters make clear, all is not well in British Columbia. Forests and wildlife are endangered throughout the province. Yet positive changes are also afoot. If supported and replicated, they could reposition BC as a world leader in conservation.

Following are some of the more important developments that could help achieve a remarkable transformation in the province's endangered forests.

Aboriginal Title

In the first week of March 2002, members of the Haida Nation made a much-anticipated announcement to aboriginal leaders from across British Columbia.

At a ceremony following a meeting of the First Nations Summit in Vancouver, Haida leaders announced they had filed a Writ of Summons in BC Supreme Court, seeking a ruling that they hold Aboriginal title to all of Haida Gwaii, the archipelago of islands that is their ancestral homeland, including seabed resources up to 320 kilometres (~200 miles) from the shoreline. This may prove to be one of the most important aboriginal title cases yet argued in BC.

Also known as the Queen Charlotte Islands, Haida Gwaii is where some of the most significant disputes between the timber industry and a First Nation have taken place in BC.

In 1986 members of the Haida Nation blockaded a logging road on South Moresby Island. The South Moresby dispute resulted in the creation of a Haida Heritage site and National Park Reserve in Gwaii Haanas, the southern half of the archipelago.

In the years since those seminal events, Haida leaders have pushed for further reforms. Among other things, they declared certain other parts of the archipelago Haida Protected Areas and lobbied hard for their exclusion from industrial logging. They also worked with other residents in the communities of Massett, Skidegate, Port Clements, Sandspit and Queen Charlotte City to achieve sustainable logging rates and to explore new ways of creating community-based forest tenures. Such tenures, it was hoped, would allow for reduced logging rates *and* an increase in on-island wood products manufacturing. In short, something that would benefit all islanders.

Like many people living in regions far removed from the

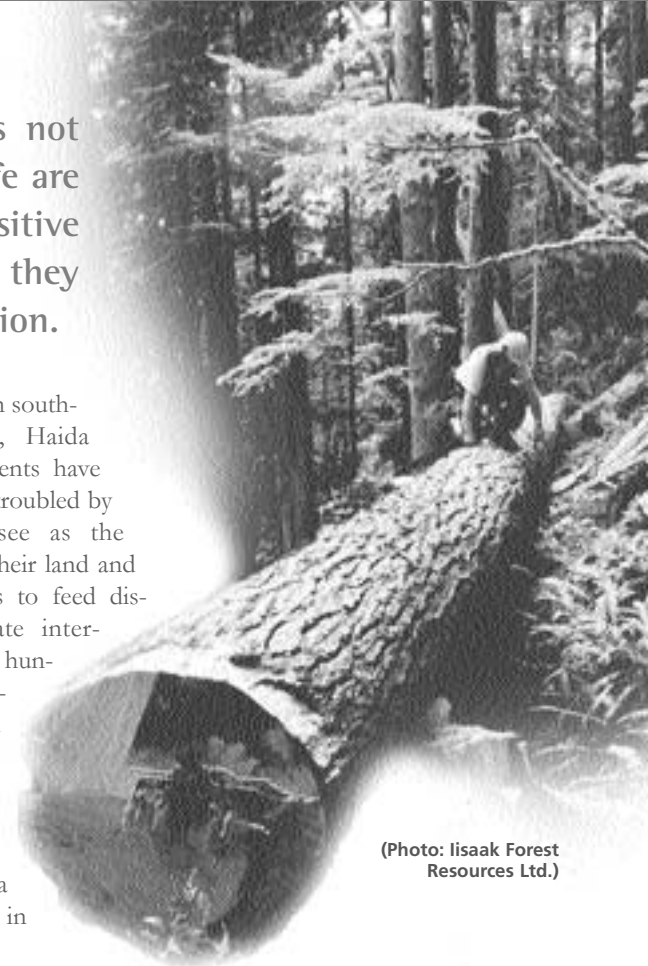
major cities in southwestern BC, Haida Gwaii's residents have been deeply troubled by what they see as the draining of their land and sea resources to feed distant corporate interests. In 2002, hundreds of non-Aboriginal residents on the islands joined the Haida in calling for a reduction in logging rates.

The launch of the title case came just a week after the Haida Nation won a major legal victory against the BC government and Weyerhaeuser, one of the largest timber companies in BC and the biggest logger on Haida Gwaii. That ruling by the BC Court of Appeal found that the government and Weyerhaeuser had a legal duty to consult the Haida over the renewal of a tree farm licence. (Tree farm licences are area-based forest tenures granted by the provincial government giving timber companies exclusive rights to log trees on defined areas of land.)

In that ruling, Justice Lambert wrote that, "(I)n my opinion there is a reasonable probability that the Haida will be able to establish Aboriginal title to at least some parts of the coastal and inland areas of Haida Gwaii."

Weyerhaeuser has had to take the Haida's court actions seriously, announcing a halving of its logging rates on the archipelago.

It's important to remember that in addition to launching its title case, the Haida Nation is seeking a ruling that would



(Photo: Iisaak Forest Resources Ltd.)

Demands for ecosystem-based forestry are becoming more and more common, both in the province and from out-of-province forest product buyers.

quash all licence, lease, permit and tenure agreements that are incompatible with Aboriginal rights and title. The Haida are also seeking an accounting of all profits, taxes, stumpage (timber-cutting) dues, royalties and other benefits government and industry have derived from decades of resource extraction on Haida Gwaii. And they are further seeking damages and compensation for what the writ describes as the "defendants' unlawful conduct." Fighting words, if ever there were.

There is a growing sense that when it comes to the future of forestry and other land uses in British Columbia, Aboriginal title looms large.

Ecosystem-Based Forestry

One significant outcome of the protracted disputes over logging the ancient temperate rainforests of Clayoquot Sound was the appointment of the Clayoquot Sound Scientific Panel for Sustainable Forestry Practices. The Panel's recommendations laid out

principles for ecosystem-based management which later were to guide discussions in the Great Bear Rainforest and influence the actions of Weyerhaeuser, as it moved to phase out clearcutting from its BC operations. The basic approach is to first determine and set aside what forest must be left standing in order to maintain natural ecological functions, and then plan how to log the remaining forest sustainably. This turns industrial forest planning on its head.

The Panel had five objectives for the forests of Clayoquot Sound. They were to:

- Maintain watershed integrity.
- Ensure managed forests support and maintain biological diversity, structural diversity, and ecological function.
- Protect areas and sites significant to First Nations.
- Maintain scenic, recreational, and tourism values.
- Provide for a sustainable flow of products from the ecosystems of Clayoquot Sound.

Clayoquot Sound is also the first place where

First Nations control a Tree Farm Licence (Interfor still controls the other Tree Farm Licence in Clayoquot Sound). Nuuchahnulth First Nations own 51 percent, and Weyerhaeuser has the 49 percent minority share, in a joint-venture company called Iisaak Forest Resources.

Iisaak's web site states that the company is "committed to making Clayoquot Sound a leading global example of ecologically sensitive forest management. The implementation of the Clayoquot Sound Scientific Panel recommendations forms the technical basis for Iisaak's approach to forest management in Clayoquot

Sound." Iisaak Forest Resources has further committed, in a Memorandum of Understanding with environmental organizations, not to log in the pristine valleys within their tenure.

With the temperate rainforest encompassing so much more of British Columbia than just the Clayoquot Sound area, it is only natural that people question

why this brand of forestry does not apply elsewhere.

Indeed, demands for ecosystem-based forestry are becoming more and more common in the province and from out-of-province forest product buyers. This shift has not gone unnoticed by the province's timber industry, and is a major reason why one of the biggest companies in the province, MacMillan Bloedel (now Weyerhaeuser), announced in 1998 that it was phasing out clearcutting in all of its BC logging operations.⁴⁸

Significantly, demands for ecosystem-based forestry are dovetailing with calls for greater consultation and shared decision-making on land-use planning between First Nations and the provincial government. In April 2001, for example, leaders of the Council of the Haida Nation, Gitga'at First Nation, Haisla Nation, Heiltsuk Nation, Kitsoo/Xaixais First Nation, Metlakatla First Nation, Old Massett Village Council and Skidegate Band Council signed an historic protocol agreement with the BC government.

This protocol on land use planning included the following language:



(Photo: Michael Wheatly)



Since cover is a prerequisite for cougar survival, the loss of habitat and forest cover to human activity is the main threat to their long-term viability as a species. (Photo: Adrian Dorst)

Land use planning recommendations will be developed in an inclusive planning forum in which First Nation(s), British Columbia, communities and stakeholders are all participants. The inclusive planning forum will operate on the principle of shared decision-making with the objective that all participants will commit to seek a consensus on land use recommendations.

The First Nation(s) in the development of their land use plans will be guided by the Ecosystem Based Management Framework . . . British Columbia will also be guided by the Ecosystem Based Management Framework . . . for future land use plans covered by this agreement.

The protocol agreement goes on to describe the overarching principle of ecosystem-based management this way:

Healthy, fully functioning ecosystems provide the basis for sustaining communities, economies, cultures and the quality of human life, therefore ecological sustainability is fundamental to land and marine management.

Support for ecosystem-based management is also mounting in another arena that will have a positive influence on progressive forestry reform. That area is forest certification and in particular one certification program that appears to hold most promise for forests and First Nations. That

system is administered by the Forest Stewardship Council, or FSC.

Forest Stewardship Council Certification

The Forest Stewardship Council's forest certification system is different from most others. FSC will label a forestry operation as sustainable only if it has been subject to — and passed — field scrutiny by an independent third party and received the full and informed consent of First Nations. FSC's international Principles and Criteria, and Regional Standards, guide certifiers in their work. These criteria incorporate environmental, social, and economic values.

Other certification programs such as the Sustainable Forest Initiative (SFI) and the Canadian Standards Association (CSA) appear more popular with logging companies, but they lack the broader public support enjoyed by the FSC because they are less rigorous and do not ensure sustainability.

Despite the relatively small number of FSC certifications in Canada to date (only a dozen forestry operations across the country were FSC-certified as of 2002), there are reasons to believe that this is changing.

For example, Canada's sixth-largest forest company, Tembec, has announced its intention to have all of its forestry operations FSC-certified by

“Healthy, fully functioning ecosystems provide the basis for sustaining communities, economies, cultures and the quality of human life, therefore ecological sustainability is fundamental to land and marine management.”
– from the April 2001 protocol agreement between BC government and coastal First Nations.

While various conservation groups agreed to a temporary halt to market campaigns focused directly on BC coastal companies, work continues in the marketplace to address the conservation needs of a broad range of endangered forests.

2005. If it achieves its goal (and as mentioned earlier in this report there are hurdles to be overcome) Tembec will be the largest forest company in the country to do so. It will also set a standard that other companies may have to match if they wish to retain the support of an increasingly large number of buyers who say they do not want to buy wood products that originate in endangered forests.

Iisaak Forest Resources was the first Tree Farm Licence holder to receive FSC certification.

There are many significant aspects to the Iisaak venture. Here are a few:

- Certification of forest operations in 88,000 hectares (220,000 acres) of primary forest, the largest tract of old-growth forest yet to be certified in Canada.
- Significant involvement of First Nations through majority ownership of the company.
- Public commitment to adhere to the rigorous conditions laid out by the government-appointed Clayoquot Sound Scientific Panel.
- A pledge by environmental groups to promote markets for Iisaak's products.

One of the major reasons that Iisaak and other companies have incurred the expense to become FSC certified is that they believe it will help them maintain or build market share. This is as sure a sign as any that market pressure on logging companies can result in positive conservation-oriented changes on the ground.

Markets Campaigns

Nothing can stop the marketplace from evolving in a greener direction. Users of wood and paper products are making it clear to producers, wholesalers and retailers that they do not want their purchases to support the continued loss of endangered forests of all types. Most recently Staples, the world's largest office supply superstore, signaled a significant shift in the paper market by pledging on November 12, 2002 to "phas(e) out paper products sourced from endangered forests."

These buyers want improvements in the way forests are managed in British Columbia, across Canada, and elsewhere in the world.

While various conservation groups agreed to a temporary halt to market campaigns focused directly on BC coastal companies after the BC government's Great Bear Rainforest announce-

ment, work continues in the marketplace to address the conservation needs of a broad range of endangered forests. No agreements bind any conservation organizations from conducting markets campaigns on non-coastal issues. More and more buyers are phasing out wood from endangered forests, and phasing in more ecologically sustainable products.

Here's what various conservation groups are already doing in the marketplace:



Markets campaigns have been successful in convincing buyers of BC forests products to change their purchasing policies. A two-year campaign focussed on office superstore Staples ended in November 2002 when Staples released a ground-breaking environmental policy. (Photo: ForestEthics)

- ForestEthics, along with the Rainforest Action Network and the Natural Resources Defence Council, works with US customers of BC forest products to encourage them to first make, and then implement, endangered forest-free commitments.
- The Friends of Clayoquot Sound work to educate Japanese customers about the impacts of Interfor's logging in Clayoquot Sound and elsewhere.
- The Markets Initiative — a coalition project of Friends of Clayoquot Sound, Sierra Club of BC, and Greenpeace — works with the Canadian publishing industry to dramatically reduce the use of ancient forest fibers in Canadian books and magazines.
- Greenpeace continues a 21-country global campaign for the world's endangered forests, including working with customers such as IKEA.
- Many organizations, including the Western Canada Wilderness Committee, provide education to the marketplace about logging operations in endangered Canadian forests.

For a list of leading companies supporting conservation of endangered forests see *Appendix B*.

Recommendations

What do we want to see in British Columbia?

A conservation economy, where sustainable land-uses are decided and implemented, within a sustainability framework, by the people who are most directly affected by those decisions: rural communities and First Nations. In short, those people who rely on the forests for their livelihood, recreation, spiritual renewal, clean air and water, fish and game. To realize this we need ecologically intact forest ecosystems, and new economic models based on adding value rather than extracting and exporting raw resources.

Such a transition is impossible without:

- Protecting endangered forests.
- Reducing logging rates to truly sustainable levels.
- Shifting to “ecoforestry” practices.
- Justly and expeditiously settling First Nations title and rights issues.
- Overhauling a forest tenure system that rewards the big at the expense of the small. That means establishing local log markets where wood is open for all to bid on and dedicating far more wood to woodlot operators, communities, and ecological forestry operations.
- Transition funding for workers and communities, to ensure social stability and encourage innovation.

These are not new ideas. They have been recognized as necessary in Clayoquot Sound and the Great Bear Rainforest. They have been implemented in some form in jurisdictions across Canada and around the world. They have been echoed in forest policy reviews and commissions for decades. We now need to apply those solutions across British Columbia.

To facilitate the transition to a conservation economy, which protects endangered forests and preserves community stability, the BC government should:

- **Identify and protect endangered forests:** Support conservation groups in their work of identifying and mapping endangered forests in BC, including through the provision of data and funding. Once endangered forests are identified and mapped, they must be recognized in, and legally protected under, Sustainable Resource Management Plans. Endangered forests must be protected not only from logging but also from road-building, mining and oil and gas exploration, all of which negatively impact wildlife.
- **Reduce the cut:** Reduce BC’s rate of cut. Cut reductions should be informed by first having an independent science team conduct ecosystem-based plans at the landscape level (as recommended by the Clayoquot Sound Scientific Panel) and then calculating a sustainable rate of cut.
- **End logging in community drinking watersheds:** Protect the foundation of life.
- **Legislate ecological objectives:** Appoint an independent scientific committee to set landscape-level biodiversity objectives, such as preservation of old-growth forests, and maintenance and recovery of species. Legislate these objectives.
- **Protect biodiversity:** Pass provincial endangered species legislation which makes mandatory the designation and protection of endangered species and critical habitat, and the writing and implementation of recovery plans. Eliminate existing legislative roadblocks to biodiversity protection, such as Biodiversity Emphasis zoning.
- **Apply ecosystem-based management,** as defined by the Clayoquot Sound Scientific Panel and by the Coast Information Team, across the landscape. In particular, protect riparian areas and critical habitats.
- **Diversify control of the forests:** After cut reductions are made, redistribute half of existing tenures to ecologically-based community forest tenures, First Nations, woodlot operators, and small businesses.
- **Keep public lands in public hands:** The government must abandon its plan for Working Forest legislation, which would constrain future conservation decisions. It must uphold the Parks Act and keep BC Parks under public, not private, control. The awarding of commercial backcountry tenures must be subject to meaningful public review. Legal mechanisms must be created by which the public can prosecute violations of forestry laws, when the government is unable or unwilling to do so. Meaningful ways to increase public participation in forest management must be provided. Sustainable Resource Management Plans, and Defined Forest Management Areas, should have environmental and community representation on their governing boards. Environmental protection measures arrived at through multi-stakeholder processes such as LRMPs must be implemented.
- **Enforce the law:** Ensure enforcement of forestry laws by removing the compliance and enforcement function from the Ministry of Forests, and creating instead a

Adequate conservation of all forest ecosystems lays the crucial foundation for a sustainable industry. It's time to make real sustainability both a priority and a reality in British Columbia.

empowered independent body with citizen representation on its Board of Directors. Make one percent of BC forest revenues available to private citizens to bring their own compliance and enforcement actions before this body.

- **Ensure fair value for timber:** Establish competitive regional log markets to sell all logs from public land through open auction. Log markets should operate in conjunction with expanded raw log export controls and incentives to manufacture wood locally.
- **End all new road construction and logging in undeveloped watersheds.**

The BC timber industry also has a role to play in the transition. The industry should:

- **Identify and stay out of endangered forests:** As above, industry must support government and private citizens in their work of identifying and mapping endangered forests in BC, including through the provision of data and funding. Industry must also ensure endangered forests are recognized in, and

protected under, Sustainable Resource Management Plans.

- **Move decisively towards FSC certification outside of endangered forests.**

If the provincial government and timber companies endorse this report's recommendations, BC will emerge as a world leader in the conservation of biological diversity. And its protection of endangered forests and wildlife will earn it respect in markets the world over.

If, on the other hand, industry and government reject these recommendations and continue on the path of confrontation with First Nations, rural communities and conservationists, the price paid may well be market rejection.

Nobody is calling for an end to logging in British Columbia. But a vibrant and diversified timber industry is only possible where the forests themselves are healthy. Adequate conservation of all forest ecosystems lays the crucial foundation for a sustainable industry. It's time to make real sustainability both a priority and a reality in British Columbia.

(Photo: Bryan Evans)



What Government and Industry Aren't Telling You

ENDNOTES

- Operable lands are defined by the BC government as those lands suitable for timber production now and in the foreseeable future by virtue of their elevation, topography, accessibility, and timber value, and that are not designated as parks, wilderness areas, or other uses incompatible with timber production.
- There are many definitions of "old-growth", some based on age alone and others which utilize ecological attributes. The BC government considers certain forest types to be old-growth at 120 years of age, others at 250+ years.
- This report defines "over-cutting" as logging above the BC government's Long Term Harvest Level (LTHL), the amount of wood that the government estimates the forest can provide perpetually. Over-cutting is provincial policy in all but three of BC's 37 Timber Supply Areas. In some cases cut levels are over 200% higher than the LTHL. LTHL projections themselves have been heavily criticized as being inflated and unrealistic.
- Soule, M.E., Sanjayan, M.A., 1998, Conservation Targets: Do They Help?, *Science*, 279:2060-2061
- I. Blackburn, A. Harstead et al, Population Assessment of the Northern Spotted owl in British Columbia 1992-2000, BC Minister of Water, Land and Air Protection, July 2001
- In 1996 the American Fisheries Society reported that 142 genetically unique stocks of salmon have gone extinct in B.C. and the Yukon, 624 runs were at high risk of extinction, and 308 runs were at "moderate risk" or "of serious concern." Worse, the health of 43% of the known salmon stocks in B.C. and the Yukon could not be classified at all by the AFS due to the lack of adequate Department of Fisheries and Oceans (DFO) data.
- The bay-breasted and Cape May warblers are considered Endangered, and the black-throated green warbler Threatened, by the British Columbia government's Conservation Data Centre.
- About 45 million hectares (~112 million acres) of BC is forested, however only about half of this (23 million hectares) is considered "operable"; this is the Timber Harvesting Land Base (THLB). Because the THLB tends to include lower elevation and more accessible forests, it is also where the highest biodiversity values are found.
- Gordon Campbell and the BC Liberals, A New Era For British Columbia, 2001.
- AAC (Allowable Annual Cut) is defined by the BC government as the provincially determined rate of annual wood removal from a specified area of land.
- ForestEthics, Global Forest Watch, Greenpeace International, Natural Resources Defense Council, Rainforest Action Network, World Resources Institute.
- Additionally, purchasers are strongly recommended to also apply purchasing screens that evaluate whether human and/or indigenous rights are being violated and whether the wood is derived from an illegal logging operation. Consideration of these factors will also dire
- The most common definition of "sustainability" is: "The ability to meet the needs of the present without compromising the ability of future generations to meet their own needs."
- Council of Forest Industries 2000 Factbook, p. 47.
- David Suzuki Foundation et al, 2003, Clearcutting Canada's Rainforests.
- BC Ministry of Water, Land and Air Protection, Environmental Trends in British Columbia 2002.
- Bryant, Dirk. et. al. 1997. The Last Frontier Forests: Ecosystems and Economies on the Edge. World Resources Institute.
- The Lillooet Forest District overall has at least 50% undeveloped primary forest; however there are specific forest types in the eastern section of the district where less than 30% of the original forest remains.
- Egan, Brian. 1996. The Ecology of the Interior Cedar-Hemlock Zone. Ministry of Forests, Government of British Columbia.
- Hall, Susan. Mount Revelstoke & Glacier National Parks: Inland Rain Forest. 1999. Canadian Heritage Parks Canada. For further information see: <http://parkscan.harbour.com/glacier/forest.htm>.
- Egan, Brian. op. cit.
- Goward, Trevor. 1994. Notes on oldgrowth-dependent epiphytic macrolichens in the humid oldgrowth forests in inland British Columbia. *Acta Botanica Fennica* 150:31-38.
- Arsenault, Andre. Goward, Trevor. 1999. Ecological Characteristics of Inland Rain Forests. *Proc. Biology and Management of Species and Habitats at Risk. Kamloops, BC* 15-19 Feb. 1999.
- Arsenault, Andre. Goward, Trevor. op. cit.
- de Jong, Mike. 2001. Province attacks mountain pine beetle: action plan released. Province of British Columbia, Ministry of Forests, November 2, 2001.
- Province of British Columbia, Ministry of Sustainable Resource Management data. 2002.
- Sawchuk, Wayne. November 2002. Personal communication.
- Report on the Oil and Gas Compliance Review. January and March, 2001. Province of British Columbia, Ministry of Water, Land and Air Protection, Ministry of Forests, BC Oil and Gas Commission. 29. BC Ministry of Environment, Lands and Parks, 1998, Rare Warblers of Northeastern British Columbia, ISBN 0-7726-7621-6.
- Robinson Consulting & Associates, Ministry of Employment and Investment, Eliot Terry (R.P. Bio), Keystone Wildlife Research Violet Komori. 2001. Lillooet Land & Resource Management Plan (LRMP): Socio-Economic & Environmental Base Case Final Report. Province of British Columbia. January, 2001.
- Enemark, G., Ministry of Sustainable Resource Management, E. Terry (R.P. Bio), Keystone Wildlife Research. 2001. Lillooet Land & Resource Management Plan (LRMP): Socio-Economic Assessment of Phase 1 Framework Proposals: Final Report. Province of British Columbia. September, 2001.
- McInnis, John. 2002. Mining industry out of step on Chilcotin Plan. *The Vancouver Sun*. July 24, 2002.
- Jones, Trevor, 2002. Subsidy in Lillooet Forest District.
- Enemark, G., op cit.
- See: http://www.growingtogether.ca/facts/old_growth.htm.
- ibid.
- For more information on the Spotted Owl Management Plan visit the following web site: <http://www.luco.gov.bc.ca/news/spotowl/owlsumrp.htm>.
- Kinley, Trevor. 1999. Mountain Caribou: This caribou ecotype depends on large tracts of old-growth forest for its survival. Province of British Columbia, Ministry of Environment, Lands and Parks, Wildlife Branch. February, 1999.
- Interior Lumber Manufacturers' Association (ILMA) July 5, 2001 Delegation Letter for the Higher Level Plan Order for the Kootenay-Boundary Land Use Plan- Implementation Strategy, submitted to BC Ministers of Sustainable Resource Management, Forests, Water Land and Air Protection and Energy and Mines.
- Soule, M.E., Sanjayan, M.A., 1998, op. cit.
- Soule, M.E., Sanjayan, M.A., 1998, op. cit.
- Soule, M.E. Sanjayan, M.A. 1997. Moving Beyond Brundtland: The Conservation Value of British Columbia's 12 Percent Protected Areas Strategy, A Preliminary Report. June 1997.
- Soule, M.E. Sanjayan, M.A. 1998. op. cit
- BC Ministry of Forests 1999/2000 Business Plan, cited in BC Government and Service Employees Union The Inside Story of BC's Great Outdoors, June 2000
- Parfitt, Ben. 2002. Running Wild: BC wilderness tourism is a \$1.5 billion dollar business; wildlife is at risk. *The Georgia Straight*. October 3-10, 2002.
- BC Government and Service Employees Union The Inside Story of BC's Great Outdoors, June 2000
- Campbell, Karen. Sumi, Lisa. Young, Alan. 2001. Undermining the Law: Addressing the Crisis in Compliance with Environmental Mining Laws in BC. West Coast Environmental Law Association. December 2001.
- Agence France-Presse. 1998. MacMillan Bloedel to stop clearcut logging. Agence France-Presse. June 11, 1998.

Appendix B

A sample of leading companies demonstrating support for the conservation of endangered forests:

3Com Corporation	Happy Planet Foods	Nahempco
3M Corporation	Harcross Limited	National Geographic Society
84 Lumber Company	Have Thumbs, Will Travell	Neil Kelly
Affordable Housing Construction Corp.	Haxan Films, Inc.	New Leaf Recycled Paper
Aid Association For Lutherans	Hayward Lumber	NIKE, Inc.
Allstate Insurance Company	Hewlett-Packard	Nordstrom
Alta Vista	Home Base, Inc. / House2Home	Norm Thompson Outfitters, Inc.
AMD - Advanced Micro Devices	IBM Corporation	Northwest Airlines, Inc.
Andersen Windows	IKEA	Ornamantum Furniture
Apple Computer	IKON Office Solutions	Otto
Arjo Wiggins Appleton PLC	Intel	Pacific Gas & Electric Company
AT&T	Jefferson Smurfitt Corporation	Parr Lumber
B & Q PLC	Jeld-Wen, Inc.	Patagonia
BASF Corporation	Johnson & Johnson	Payless Cashways
BBC Worldwide Limited	JS & AP Jewson	Pella Corp
Beiersdorf	KB Home	Penguin Books Canada
Bell Canada International Inc	Kellogg Company	Pitney Bowes
BellSouth Corporation	Kimberly-Clark	Pulte
Bethlehem Steel Corporation	Kinko's, Inc.	Quaker Oats Company
Bristol-Myers Squibb	KNAUF	Quantum Corporation
Case Corporation	Kodak	RadioShack
Centex Corporation	Land's End Inc.	Random House of Canada Limited
Citizens Bank of Canada	Lanoga Corporation	RBI
Clairol Incorporated - Canada	Larch-Lap Limited	Roots Canada
Compaq Computer Corporation	Lenzing Lyocell & Co.	Rubbermaid Incorporated
Coop America	Levi Strauss & Co.	Ryland
Courtaulds Fibers Inc.	Liz Claiborne	Sainsbury's Homebase
Crane & Company	Lockheed Martin Corp.	Schwank
Dell Computer Corporation	Lowe's Home Improvement Warehouse	Seventh Generation
Delta Air Lines, Inc.	Magnet	Solomon Inc
Do It All Limited	Marriott International, Inc.	Staples, Inc.
Domtar Inc. Domtar Specialty Fine Papers	Marvin Windows and Doors	Starbucks Coffee Company
Douglas & McIntyre Publishing Group	Masco Corporation	Stone Container Corporation
Dow Chemical Company	Mattel	Texas Instruments
Dupont Canada Inc	McClelland & Stewart Ltd.	The Body Shop
E*Trade Group	McDonald's Corporation	The Body Shop Canada
E.I. DuPont de Nemours	McGraw-Hill	The Home Depot
Eagle Window & Door, Inc.	MD Papier GMBH	The Rugby Group PLC
Estee Lauder	Menard's	Tom's Of Maine
Federal Express	Merck	Union Carbide Corporation
Gap, Inc. (Banana Republic/Old Navy)	Meyer International PLC	United Stationers Supply Co.
General Electric Company	Microsoft	USAA
Golden State Lumber	Mitsubishi Electric Corporation	Utne Reader
Great Mills (Central) Ltd.	Mitsubishi Motors Sales of America, Inc.	Wallace
Green Mountain Energy	Moore	Wickes Lumber
Haindl Papier GMBH	Mother Jones Magazine	Woodwins
Hallmark Cards Inc.	Mountain Equipment Co-op	Wybert
	Mutual of Omaha	Xerox Corporation

In addition, more than 700 companies are members of the Global Forest and Trade Network (affiliated with World Wildlife Federation International). GFTN builds a membership of companies committed to the production, purchase and advocacy of certified forest products around the world.

