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A Submission to the Government of British Columbia's Old Growth Strategic Review

AFTER 30 YEARS & MORE:


**Province of
British Columbia**
LEGISLATIVE ASSEMBLY

October, 1989

DAN MILLER, M.L.A. (Prince Rupert)

PARLIAMENT BUILDINGS, VICTORIA, B.C. V8V 1X4 – 387-6097

COMMUNITY OFFICES: 123 – 3RD STREET, PRINCE RUPERT, B.C. V8J 4C4 – 624-6007

QUEEN CHARLOTTE ISLANDS: 559-8379

Dear Friends,

Like most British Columbians, I'm sure you're proud of our unique wilderness heritage. And, like most people in the province, you're no doubt increasingly frustrated by the failure of the Socred government to provide the leadership necessary to protect that heritage, or to get tough with their corporate and industry friends who continue to damage our environment.

This failure of leadership is dramatically evident in the lack of protection for B.C.'s old-growth forests.

According to a recent study, only seven per cent of the province's old-growth trees have been protected within provincial or federal parks, and ecological reserves. The study also shows some tree species are nearing extinction in B.C.

We need immediate action - not the token gesture offered by the Socreds. Specifically, we need a logical, technical approach to identifying and preserving old-growth stands.

Both inside and outside the legislature, I have been calling for just such action. Yet the Socreds' reaction has been disappointing and neglectful. Once again they've shown just how out of touch they are with the rest of B.C. Even Environment Minister Bruce Strachan, in a debate with me, indicated that old-growth trees should be looked at in terms of "benefit" rather than preservation.

Enclosed for your information are transcripts of that debate, my recent news release dealing with this issue, and highlights of the recent government study on old-growth stands.

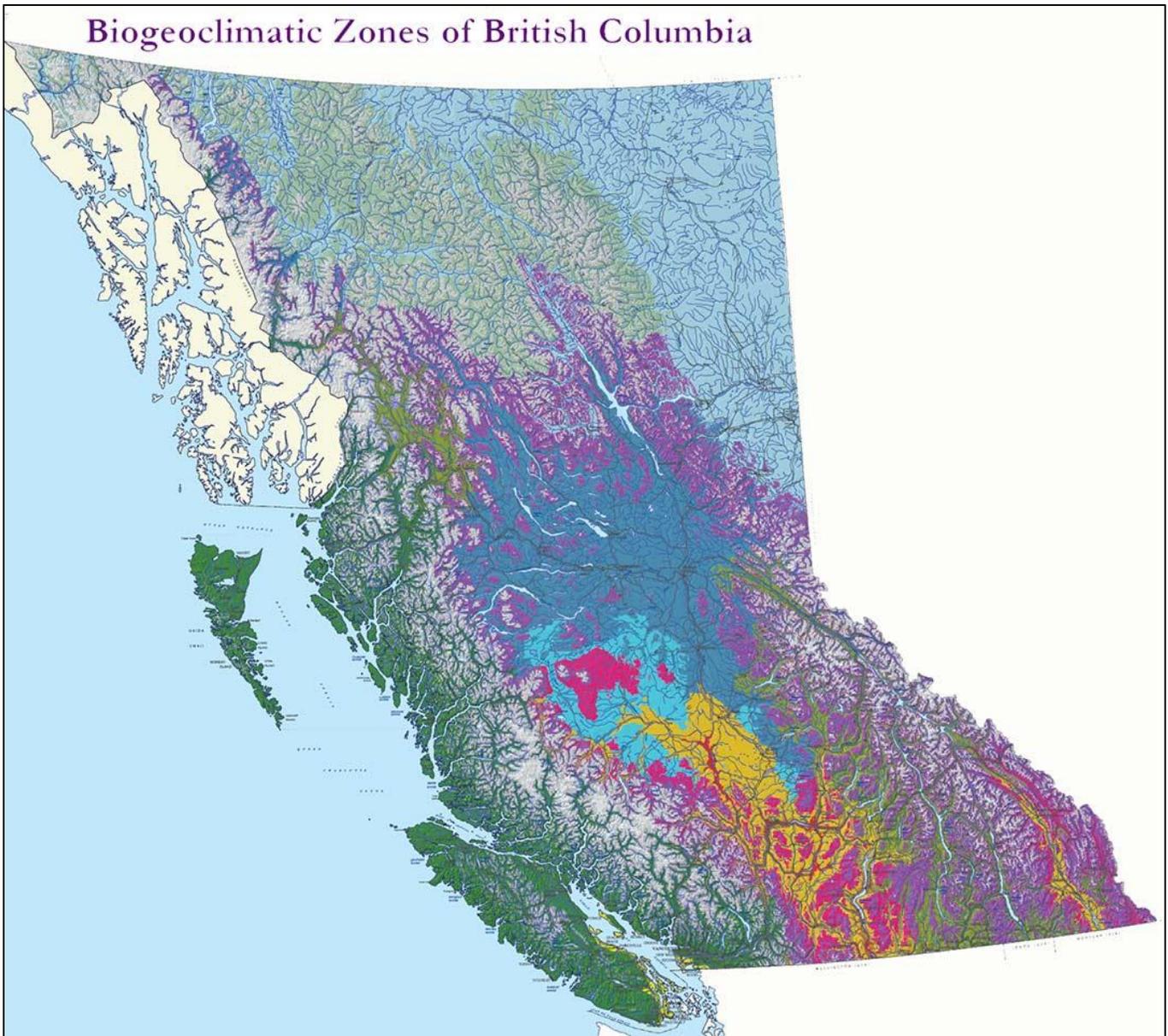
Sincerely,


Dan Miller, MLA
New Democrat Forests Critic

Slaughter and Liquidation of BC's Old Intact Forests

By Will Koop,
January 31, 2020

*“Forests that could be classified as “old growth”, occur throughout British Columbia. In British Columbia, old growth has become a political issue as the public’s focus on the environment, including forestry practices, has increased. A major debate concerns harvesting wood fibre and preserving remaining old-growth forests for other values such as ecological, economic, social and cultural (Juday 1988; Rolston 1989).”*¹



I am a life-long resident of British Columbia and have spent over 30 years struggling to defend, and helping many others to defend, the integrity of some of the waters, forests, species and lands within that colonial territory. During my lifetime I was fortunate to visit, investigate and document many places and vast landscapes extending from the temperate coastal forest lands to the interior dry and wet belt forestlands to the Canadian Rockies. I have both witnessed the awesome beauty and destructive slaughter of these recently intact forest lands,² participated in hearings, conferences, debates and tours concerning that slaughter, and have undertaken research and writing of numerous reports and video exposes.

¹ *Old-Growth Forests: Problem Analysis*, Ministry of Forests Research Branch, January 1990, page 1.

² From about the year 1900 onwards.

I have defended the public’s drinking water forested lands for much of that time and have come to understand the critical nature and fully functioning value that old intact forestlands have in providing the best water possible for both people and all creation’s creatures. That is primarily why I and others formed the BC Tap Water Alliance in February 1997. And, after nine years of efforts, that is why the Lower Mainland’s drinking water sources for Metro Vancouver residents were finally re-protected on November 10, 1999,³ wherein are still found remnant stands of low and higher valley ancient and old growth forests. The administrators, professionals and citizenry that originally fought to protect the forests for Metro Vancouver and Metro Victoria consumptive water use (1905 – 1927) also understood the rich value of the old forests, with provincial medical health officers also extolling the added virtue of community watershed protection for wildlife within these legislated havens.⁴



When the BC government used to have functioning research bodies / branches within the Environment and Forests Ministries, conscientious resource scientists and technicians provided insightful evaluation of our forest lands for the public’s decision makers, such as the following, and perhaps last, critical statement made in 1991 on “intact” forest cover:

Forests play a vital role in regulating water supply and maintaining pristine water quality in British Columbia. The relatively small percentage of the provincial forest land base that is within community watersheds combined with the high proportion of the population that depends on this type of water supply, indicates the high value of forests in watersheds.



Author’s 2002 photo of the intact Greeley Reserve, British Columbia’s oldest, intact community Watershed Reserve.

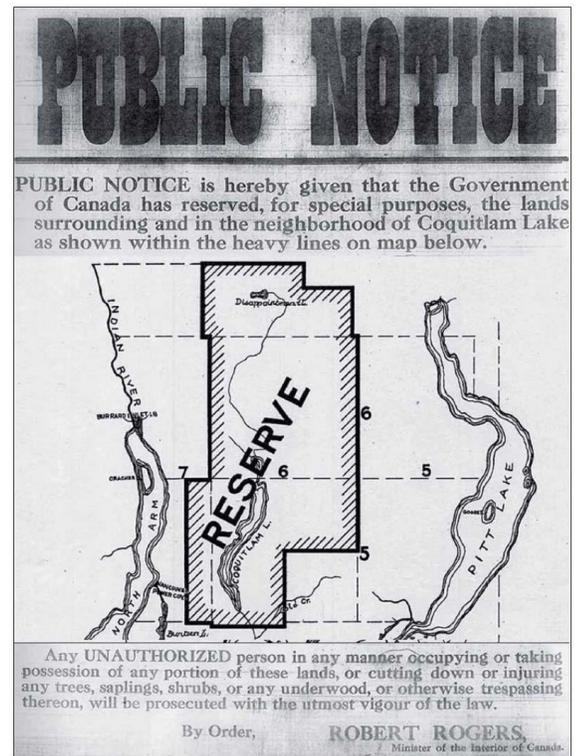
Photo of Greeley Creek watershed, Revelstoke City water supply, from Will Koop’s 2013 report, *The Big Eddy*.

³ After the Coquitlam watershed was protected through federal legislation in 1910, and after the Seymour and Capilano watershed were protected in 1927, the three watersheds were removed from their legislatively tenured protected states in 1967.

⁴ The concerns about wildlife protection extended to the establishment of “game reserves” in BC, which, by the early 1960s, seemed to have mysteriously disappeared.

The quality and quantity of water within a watershed is largely a function of the intact forest cover. Tree cover controls snow storage and melt rates by snow interception, shading, and wind ablation, influencing both yield and streamflow. Peak flows with their consequent high soil erosion rates are reduced by an intact forest cover.

Water quality is best maintained in forested watersheds. On the coast, forested watersheds have landslide rates many times less than comparable watersheds. Slope stability is enhanced by the tree roots anchoring the steeply sloped soils. An intact forest cover shields the soil from raindrop erosion, as do the organic soil horizons. Overland flow of water is extremely rare in forested watersheds because of the high surface infiltration through the well-structured forest soils, and because of the macro-permeability provided by earth-worm holes, borrows, and rotted root channels. As a consequence, rates of surface soil erosion are very low in forested watersheds.⁵



1910 Federal Order-In-Council for protection of Coquitlam watershed lands.

In 1991 is when the government’s Forest Resources Commission released its final report, which was one year before the 1992 world environment conference in Rio de Janeiro, and four years before government’s drafting of the *Forest Practices Code Act*.

Incorporation of the term “old growth” / “old-growth” and Old-Growth Review Processes

A review of the origins of the term “old growth” or “old-growth” seems to begin around the year 1975 in American science and research literature.⁶ By the early 1980s the term began to be widely incorporated as a new concept under pioneering research scientists such as Gerry Franklin⁷ who investigated the ecological and structural complexities and biological diversity of old Douglas Fir forest regimes. Prior, terms such as “old,” “mature,” “over-mature,” “decadent,” “stagnant,” “virgin,” “stagnated,” were used by professional foresters in British Columbia, while conservationists sometimes used alternate terms such as “primeval” and “ancient” to describe the same.

The new concept of “old growth” began to take shape in the 1980s set within the context of intense public concerns in Minnesota and in the Pacific Northwest where raging logging controversies were fought in

⁵ *Ecosystems of British Columbia*, Ministry of Forests Research Branch and Forest Sciences Section, February 1991. The quote is mentioned in the author’s 1996 book, *From Wisdom to Tyranny: A History of British Columbia’s Drinking Watershed Reserves*, in chapter 8.4.1.1, *The Ecosystems of BC Research Report Emphasizes and Affirms “Intact Forest Cover,”* page 125.

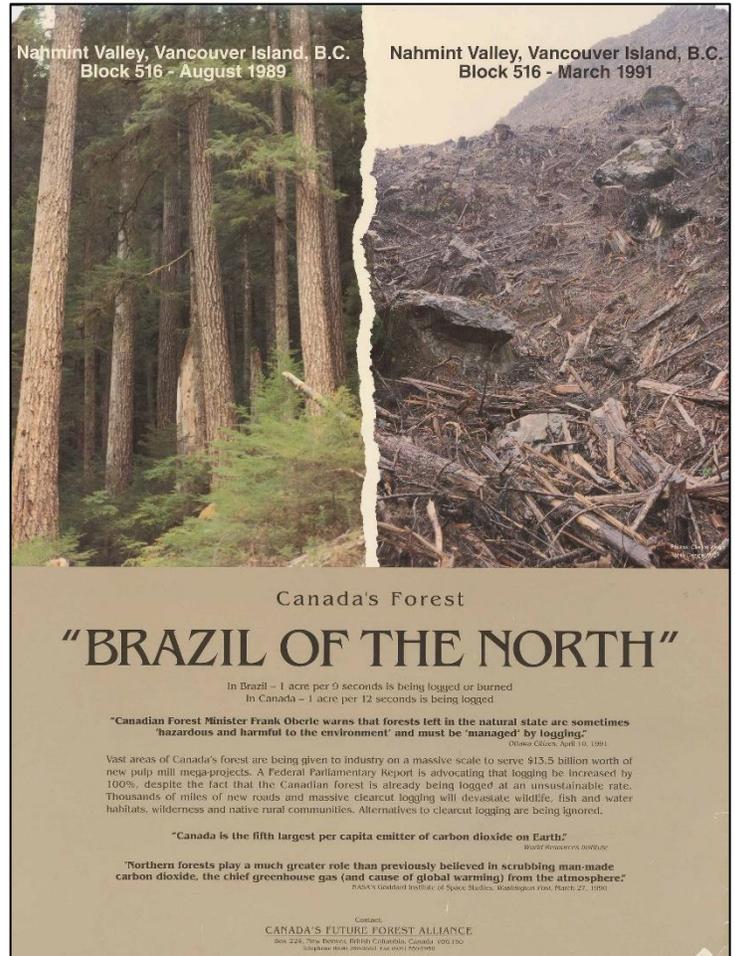
⁶ “In 1976 the research group associated with this work received a request from a National Forest planner for assistance in characterizing old-growth forests; as he put it: “We know that old-growth forests are more than just some big old trees, but we don’t know how else to describe them. Could your group provide us with a more complete characterization?” A workshop, convened at Wind River, Washington, in 1977, produced a synthesis entitled, “Ecological Characteristics of Old-Growth Douglas-Fir Forests” (Franklin and others, 1981). All current attempts at ecological definitions of old-growth Douglas-fir are based on the 1977 synthesis and subsequent research, much of it under the auspices of the Forest Service’s Old-Growth Forest Wildlife Habitat Program.” **Lengthy quote from, General Technical Report PNW-GTR, Issue 285, page 62.**

⁷ “Forest ecosystems that have developed over a long period essentially free of catastrophic (including human) disturbance.”

the courts. As a result of many converging circumstances concerning the mismanagement and clearcutting of American forest landscapes, in 1982 the United States federal Forest Service initiated an *Old-Growth Wildlife Habitat Research and Development Program Steering Committee*. Three years later in 1985, recommendations from that Steering Committee resulted in the formation of the *Old-Growth Definitions Task Group* in 1986.⁸ By 1988, the Forest Service created the *Old-Growth Task Group*, and a “reconstituted *Old Growth Committee*”⁹ in 1992.

As is the case for British Columbia in general, adoption of leading United States forest science research and development by the University of BC and government research departments lagged before the BC government finally adopted the Old-Growth Strategy process in 1989 when the term “Brazil of the North” was used by the concerned public to describe the slaughter of BC’s forests. Prior to the old-growth strategy processes, the provincial government initiated the formation of a Forest Resources Commission public process. In April 1991 it published its final report, *The Future of Our Forests*:

The messages they [the public] gave the Commission were as complex and varied as the people themselves, but one theme underlined virtually everything we heard - the status quo is not good enough. The way the forests and their many values are currently being managed by government and industry is out of step with what the public expects. It must change.



Driving the current level of dissatisfaction is a dramatic shift in society’s values. Once valued only for their economic worth, the forest resources now represent a much wider range of values - aesthetic, environmental, social, spiritual, and many more. That shift in values underlies much of the conflict that has dominated the debate over forest resources in the last few years.

Very early in the exercise, the Commission recognized that any changes in the way the forests are managed to reflect a full range of values will depend on an all-encompassing vision of what we want from our forests, and what are acceptable practices to get us there. That Vision Statement is a simple statement of principle that has led to many recommendations for change.¹⁰

⁸ “Concerns are emerging about old-growth forests and their various functions, such as providing habitat for wildlife. Consequently, disposition of old-growth forests has become an important and controversial issue in land-use planning on National Forests and Bureau of Land Management Lands.” Quote from the Old Growth Definition Task Group report, *Interim Definitions for Old-Growth Douglas-Fir and Mixed-Conifer Forests in the Pacific Northwest and California*, USDA Research Note PNW-447, July 1986.

⁹ *Eastern Old-Growth Forests: Prospects for Rediscovery and Recovery*, by Mary Byrd Davis, page 234.

¹⁰ Introduction, page 6.

Of interest, despite the prominent role from the old-growth strategy processes and research studies underway since 1989, the Sandy Peel Commission report said very little about old-growth forests, their function and future role. In fact, the final report references the words and term “old growth” only seven times. The following quote is where two of those seven instances occur:

The current timber endowment consists largely of “old growth” trees that have a greater volume of wood at harvest than will the “second growth” trees that replace them, under current management regimes. Those current timber management regimes and yield calculations are not designed to replace old growth inventories with an equal volume of wood. That means there could be a “falldown” of the inventory volume.

Where the Forest Resources Commission got its history facts wrong is that there used to be an embracing “vision statement” published in the Gordon Sloan Forest Resources Commission’s final report in 1945, albeit lacking some of the later refined science-based concepts and language.

A sustained yield policy, perpetuating our forest stands, will not only provide a continuity of wood supply essential to maintain our forest industries, primary and secondary, with consequent regional stability of employment, but will also ensure a continued forest cover adequate to perform the invaluable functions of watershed protection, stream flow and run-off control, the prevention of soil erosion, and of providing recreational and scenic areas, and a home for our wild bird and animal life.¹¹



Gordon Sloan

The perpetuation of the forest-cover for purposes other than the production of timber fall into a special category. I refer for instance to watershed protection¹² and other multiple forest uses. A tree is a plant and to secure an economic return from the soil producing its growth the tree must be harvested. At the same time, it must be kept in mind that a tree may be of more value in place in the forest than when converted into lumber.¹³

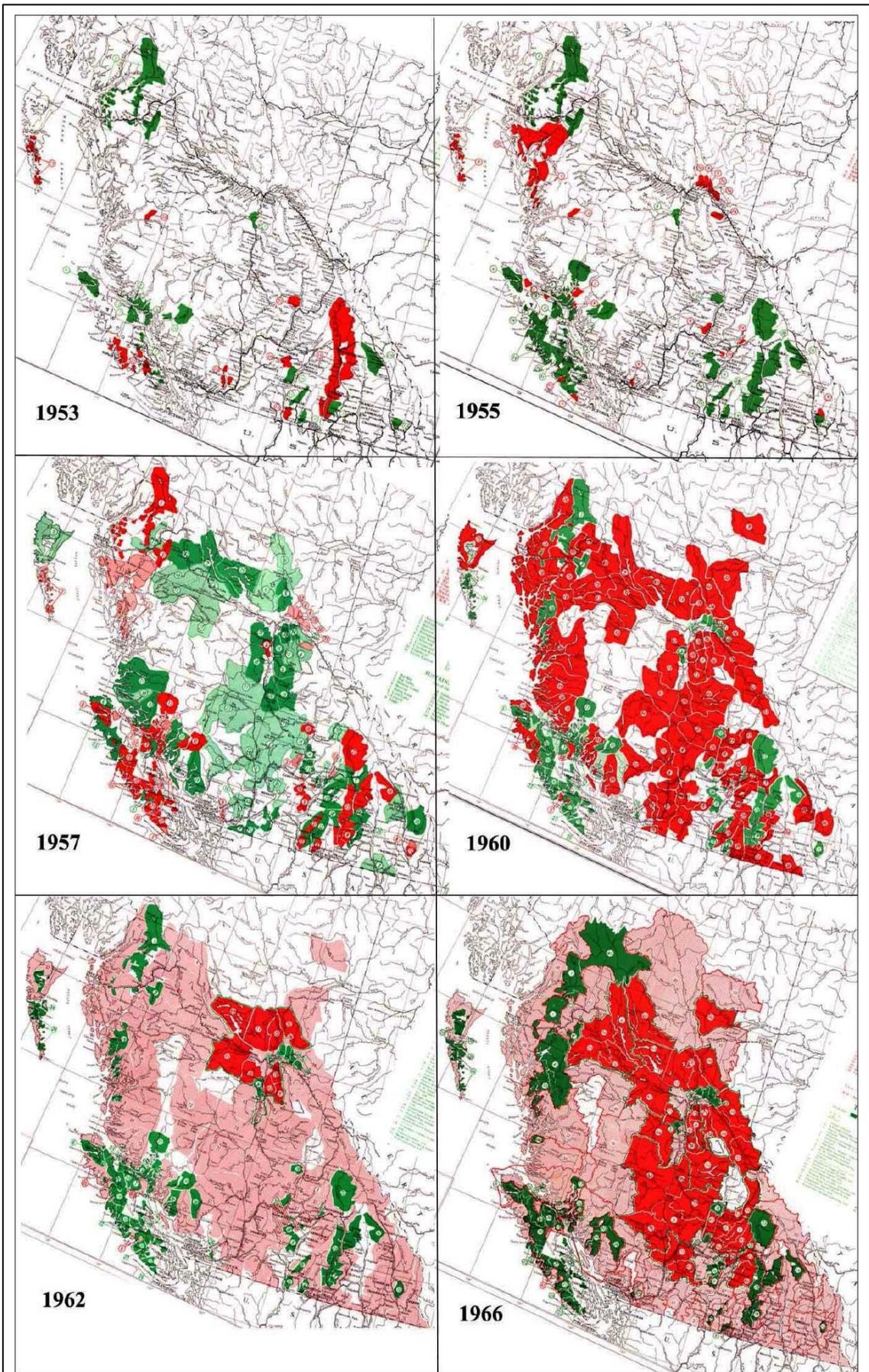
The root of society’s problems regarding the slaughter and liquidation of BC’s old forests began with what I will collectively refer to as ‘the corporate forest state’ which took shape by the early 1950s, at which time the Social Credit Party administration systematically dedicated and assigned forest lands in newly created timber supply planning area boundaries,¹⁴ the controversies about the Forest Minister taking bribes concerning the granting of “perpetual” Forest Management Licences (later, “25-year” Tree Farm Licences), and by the 1960s with the formation of a primary lobbying force, the BC Council of Forest Industries. The 1945 Sloan Commission ‘vision statement’ was wilfully ignored, abandoned, swept ‘under the rug,’ buried by ever-growing waves of greed, administrative mismanagement, and corruption, the tragic and sacrificial background behind the “50 cents on the dollar.”

¹¹ *Report of the Commissioner Relating to Forest Resources of B.C.*, 1945, page 128. Note: “watershed” denoted a “community drinking watershed.”

¹² The term “watershed” at the time denoted a “community watershed.” Refer to Chapters 2 and 4 in Will Koop’s 2013 report, *The Big Eddy*, for more on this history, at www.bctwa.org.

¹³ *Ibid.*, page 127.

¹⁴ Public and Private Working Circles, Tree Farm Management and License lands, created during a comprehensive inventory of BC’s forest lands as published in the 1957 *Continued Forest Inventory of British Columbia* document.



Evolution of Public Sustained Yield Units or Timber Supply Areas (in pink/red) and Tree Farm Licenses (in green/and red - 1957) in BC.

BC's Old Growth Strategy Process: An Inexcusable Failure

BC's "Crown" or public forest lands were formerly administered under the Lands administration (1912 – 1945), a department's function that was divided in two in 1945 at the end of the Sloan Forest Commission, renamed Lands and Forests. By 1962, the administration of BC's forest lands was still with the Lands Department but became integrated with another Department or Ministry: Lands, Forests and Water Resources. Resource developments and issues on public forest lands were to be cooperatively considered under an administrative umbrella Ministry where there was a semblance of a tripartite accountability. However, government records reveal that there had been a working schism in place within the Forest Service, whereby forest administrators would often carry the upper hand in decision making.

The stakes are high in B.C.

A1 - Oct-6/89.

By GLENN BOHN

Sun Environment Reporter

No other province in Canada has its political agenda so dominated by natural resource and wilderness conflicts as British Columbia.

And no other province has so much at stake, because B.C. has the widest range of ecological zones and wildlife habitats in Canada.

Here, too, are massive mineral resources, some of the world's richest salmon runs, a rapidly expanding tourism industry, vast untapped hydro-electric power, the nation's largest winter population of birds, and the forests that produce half the timber logged in Canada.

Ours is the province that still has the luxury of

deciding whether wilderness watersheds like Carmanah, Stein and Khutzeymateen should be "developed" or "preserved."

And it is home to a people with a deep love of nature, the province where Greenpeace, now a three-million-member, \$35-million-a-year international organization, was born.

Today, there are about 400 environmental groups in B.C. and the debate reverberates from the backwoods to the boardrooms, from native Indian villages to big-city suburbs. But this environmentally conscious population is losing its patience.

Sustaining the Living Land, a June 1989 report by a B.C. cabinet-appointed Task Force on the

Environment and Economy, warned that the debate over natural resource decisions is leading to "frustration, cynicism and concern."

It is an understatement in a province that has seen more than 200 demonstrators arrested in the past few years in South Moresby, Clayoquot Sound and Strathcona park.

Today, The Vancouver Sun's week-long series on the environment updates three major issues in B.C., and looks at the viability of sustainable development. And we give readers a chance to see where they fit when it comes to 7 environmental profiles identified by a national poll.

● Details, B3, B4, B5, A6, C1

COMING SATURDAY: SPECIAL 24-PAGE SUPPLEMENT

The final takeover by the Forest Service started during the second Social Credit administration (1976-1991) in 1978, with the creation of the first stand-alone Ministry of Forests, with its new legislative authority and terms. This is when the problems for BC's old growth forests began to fundamentally abound and shift, when the Ministry of Lands, the Ministry of Environment, the Ministry of Health were shunted off to the side. This is when the BC public began to organize itself into dozens and dozens of action-oriented groups and societies, with seemingly endless chain-reaction issues everywhere and every day. It was always in the news, especially in all of BC's newspapers, particularly the Vancouver Sun and Vancouver Province. By 1988, the Vancouver Sun began numerous full-page series on resource issue conflicts relating to forestry, fish, environment and First Nations, events which would lead to, among others, the creation of BC's Old Growth Strategy process. With the Council of Forest Industries contracting Burston Marstellar (1990-1991), the international public relations firm, to counter the public's opposition, anger and collective movement under the creation of the "grass roots" BC Forest Alliance, efforts were made to recondition the masses, to fit in with the forest industry's industrial paradigm under Ike Barber's "Working Forest" book title. Eventually under the BC Liberals administration (2001-2017) came the implementation of the "Not Unduly" restriction clause in the *Forest and Range Practices Act* that, as the forest industry had anticipated, helped trump public concerns and protests.

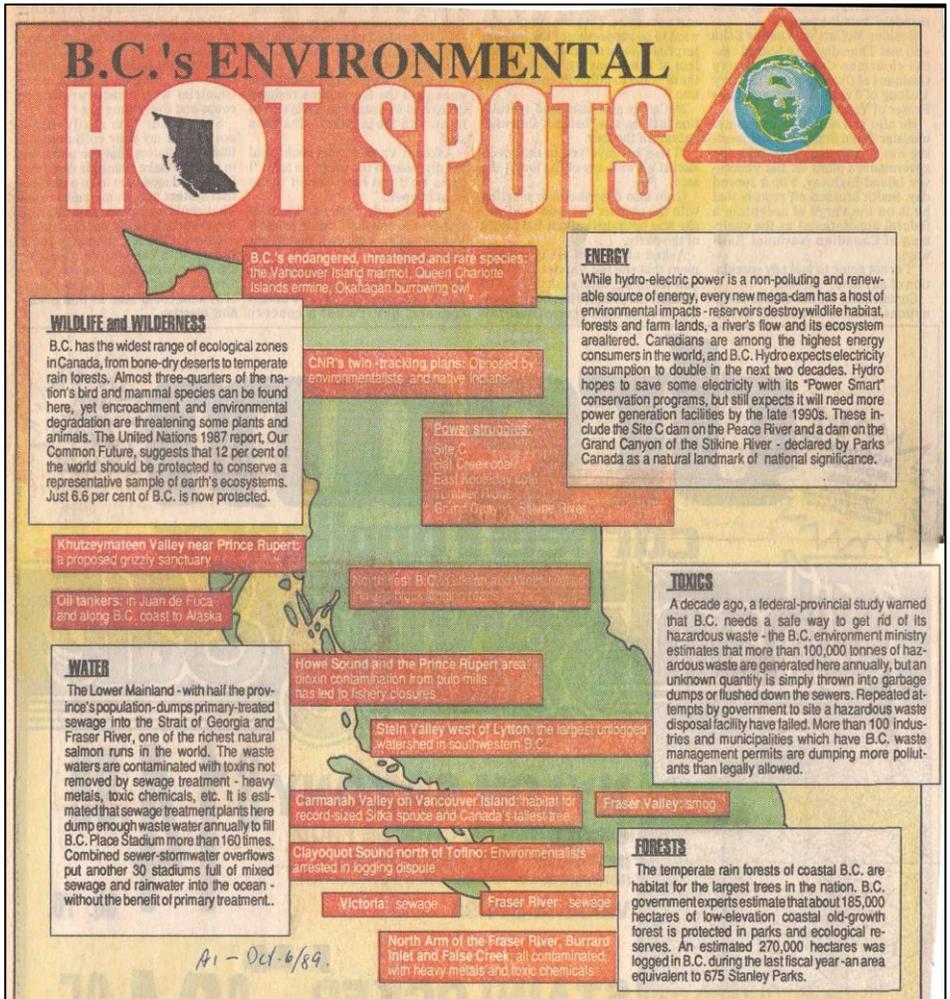
Meeting Notice

Old-Growth Workshop

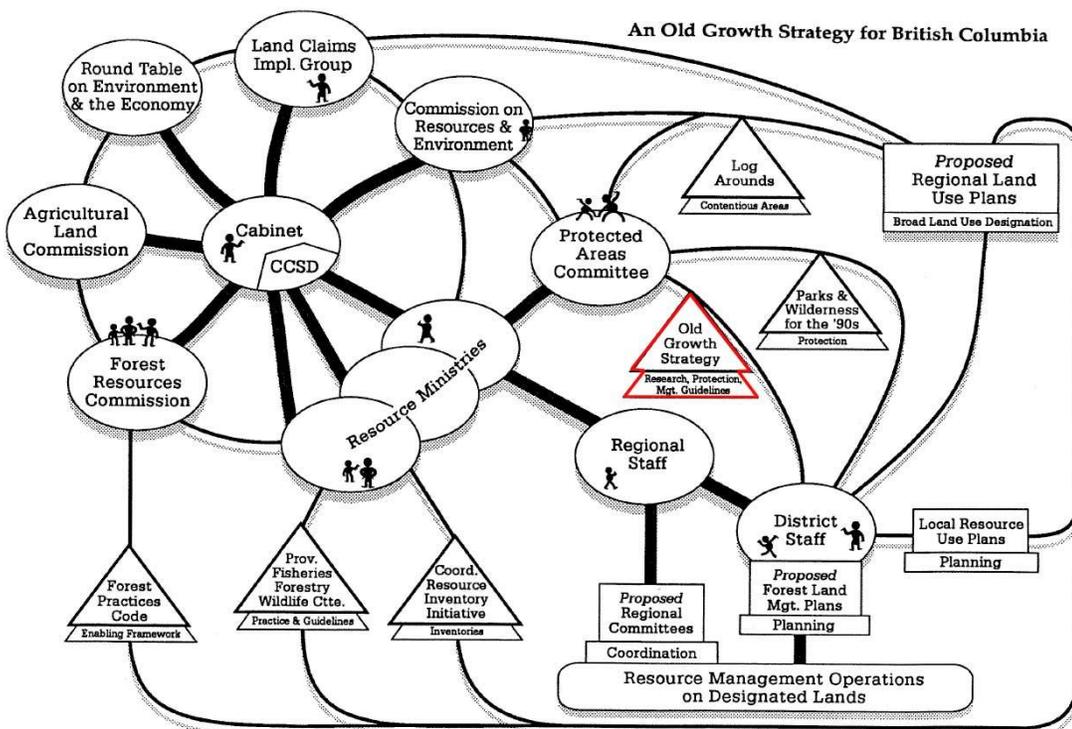
The Forest Service is sponsoring a "by invitation only" workshop on the subject of "Towards An Old-Growth Strategy" to be held in Parksville, November 3-5, 1989, at the Bayside Inn. Invitations were issued by the Ministry in September.

The workshop is being organized by Dr. Bruce Fraser's Salasan Associates Inc. and in-house public involvement specialist Gordon Erlandson. Speakers include Tom Spies who will speak on the U.S. old-growth experience, Bruce Devitt of CPFPP on the technical questions of old-growth inventory, Hamish Kimmins of UBC on old-growth definitions. John Cuthbert, provincial Chief Forester will speak on the Ministry of Forests commitment to achieve an appropriate old-growth strategy and the process to be used to generate it.

And while the workshop is intended to design a first draft of a provincial strategy paper, this effort must also be "consistent with the mandate of the Ministry of Forestry," according to introductory materials provided for the workshop. The current *Forest Act* and *Ministry of Forests Act* make no mention of old growth. Legislative changes are likely necessary before an old-growth strategy can be fully considered.



Above left: Forest Planning Canada journal information about the first Old Growth Strategy public meeting in Parksville, on Vancouver Island, November 1989.



Left: Decision making and planning process flow chart from the 1992 Old Growth Strategy document.

Plate 2: Land and Resource Use Planning Structures in British Columbia including initiations and projects (shown in triangles), May 1992.

An agonizing period of internal program re-evaluation has begun for the Ministry of Forests in British Columbia. And for those ministry officials with even a rudimentary grasp of political realities, there is an awareness that not much time is left. Not much time, that is, to attune their long-established policies to the reality of broad public interest in all aspects of forest management — an interest which is not likely to fade with time. The Forest Service risks drastic reorganization imposed upon it from elsewhere in government if it doesn't immediately take steps to reduce the high level of discomfort many Cabinet ministers and MLAs are feeling about forest issues as a result of widespread dissatisfaction expressed from constituents.

Today, it is the public at large, not just so-called environmental groups, who are demanding fundamental changes to provincial forest policy. The time for talk is over, the time for innovative solutions is at hand.

But on the one hand, there are those within the Ministry who simply dismiss almost all public concerns over forest management as simply a tool or smokescreen of special interest elements whose real objective is to stop all logging. These individuals are easy to identify. They have great difficulty holding up their end of a rational discussion with members of the public. If Forest Service staff with this kind of rigid attitude continue to give the impression that they run the Ministry, then the New Zealand solution to resolving public concerns about forests cannot be far behind.

In New Zealand, in response to their Forest Service's lack of action on public forest concerns, government stripped the ministry of all but the most basic of timber management duties. Lip service to integrated management, instead of leadership in meeting public demands, cost the New Zealand Forest Service its status as a senior ministry within government. However, a majority of our own forest ministry employees — and I've talked to many of them — are ready, indeed anxious, for meaningful change.

Up to this point, too many public concerns have been dismissed because foresters have seen themselves as rational and scientific, while the public was considered to be, at best, misinformed. The answer, from the industrial foresters' point of view was to redouble public education efforts. If the scientific truth were told, or so the argu-

ment went, then the public would come around to support the correct viewpoint.

But now, even the foundation of science is beginning to elude the grasp of some foresters. As a result of over a decade of old-growth research in the U.S. Pacific Northwest, forest science has begun a new leap forward. And the new data challenge the views and beliefs of many operational foresters to the point that it is difficult for them to accept the new information as being a product of science.

I offer the above observations after attending a historic workshop sponsored by the B.C. Ministry of Forests, November 3-5, 1989, which was a first attempt by the Forest Service to begin grappling with the public policy issue of old-growth forest preservation and management. The Parksville gathering included about 80 individuals drawn from the timber industry, Forest Service, a few from other government ministries, and those other interests who value the old-growth forests for tourism, recreation, wilderness, native uses, trapping, ecological values, academic values, etc. The meeting was historic because it signaled for the first time that the ministry recognized the legitimacy of public interest in old-growth forests for purposes other than maximizing their liquidation.

John Cuthbert, Forest Service Chief Forester, said the subject of old growth has been discussed extensively, and that public advocacy groups have made old growth a special agenda. Everybody, and John named a number of agencies, is keeping abreast of the old-growth research and management efforts in the United States. He said it was time "to turn our common store of information into an action agenda that will lead to the development of a strategy for the management of old growth in British Columbia."

Cuthbert says we need "...to make real progress in dealing with old growth, to invent more effective definitions to give direction to inventories, develop much more discriminating methods for identifying what sizes of old-growth stands are necessary to sustain the values people wish to conserve, to match the full range of public objectives for old-growth forests with appropriate management strategies, to refine the (existing) administrative mechanisms which integrate the efforts of all land use agencies," and perhaps most important

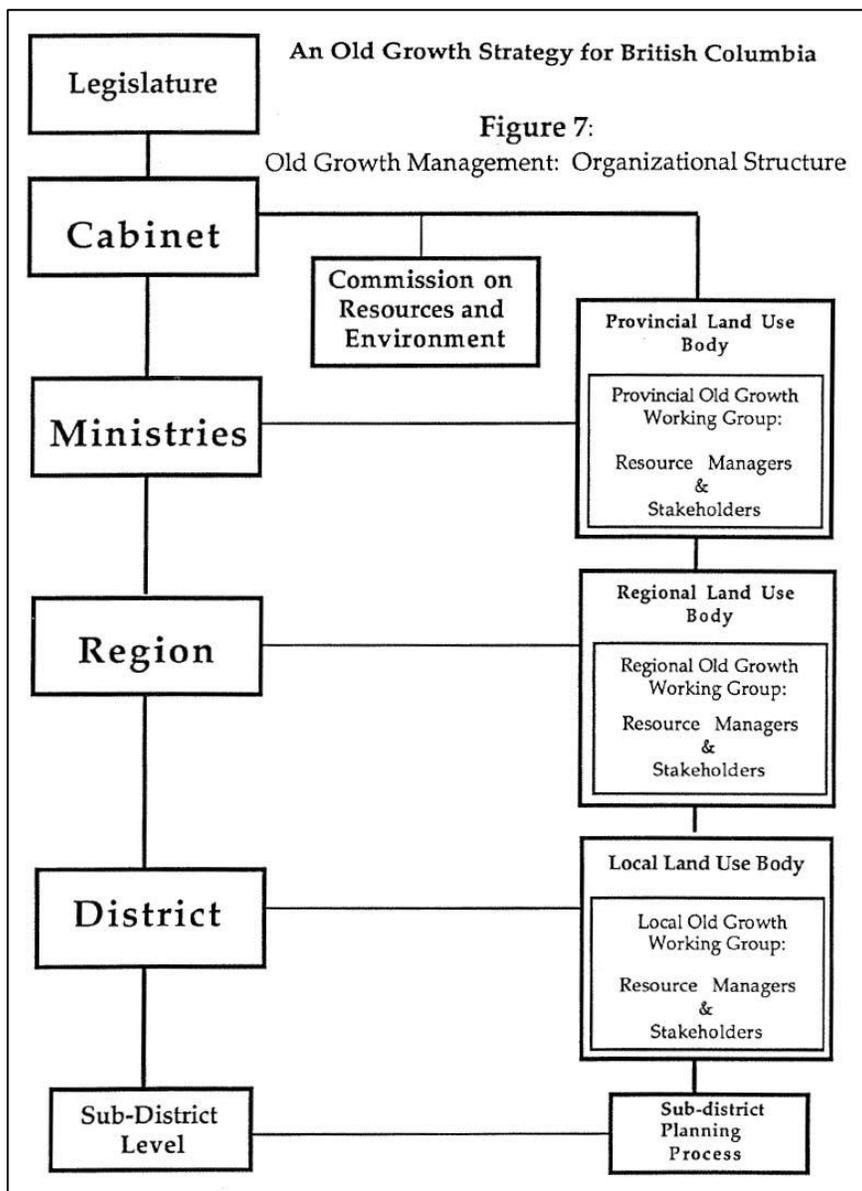
of all, we need "a timetable for development of an old growth strategy which recognizes that the options are declining and may be lost by excessive delay for further studies. We must strike a balance between economic obligations based on current forest uses and the new demands being made by an environmentally engaged public."

At least two of the foresters representing major logging corporations at the workshop seemed to have difficulty with the fact that the issue of old growth goes far beyond preserving small, representative samples of old trees. Especially difficult for them was the reliance which the American old-growth research places on science in their investigations. Not only are there special attributes or values associated with old growth which warrant preservation in wilderness and ecological reserves, but a new breed of forester is providing the scientific research foundation allowing all forests to be managed to maintain old-growth attributes in the managed or "working" forests.

This is an exciting discovery from the recent old-growth research. For it appears that if we are to maintain a healthy second forest, we'll probably need to ensure that we manage the cutting in the remaining old growth in such a way as to preserve old-growth forest values. This includes maintaining a high level of woody debris (large standing and downed logs), leaving standing green trees within a traditional clearcut area in the order of 10-12 trees, or more per hectare, and perhaps entirely eliminating the old approach to clearcutting and instead doing more of a shelterwood cut with the aim of creating a new forest with two or more canopies (age classes) within the same stand.

These are brand new ideas never really tried in British Columbia. We'll need to adjust our cutting or harvesting techniques to incorporate this "new forestry." This is the cutting edge of science in modern forest management, and it has dramatic implications for the way we now manage our forest lands.

I applaud John Cuthbert for supporting the Parksville workshop efforts, but I'll wait to see if he is prepared to go as far as the U. S. Forest Service which has declared old-growth forests, under a new national policy, to be so valuable that a "significant share of them deserve to be protected and managed for posterity." — *Bob Nixon*



The first stage of BC's old growth strategy processes occurred from 1989 to 1992. Following this, the old growth strategy was more, or less, parcelled out, spilling over into Regional and Local Land Use planning forums, where, as a result, came the introduction and implementation of Old Growth Management Areas (OGMAs). With the implementation of the *Forest Practices Code Act* in 1995 came "objectives for old-growth retention" which "were established as higher level plan orders." (*Conserving Old Growth Forests in BC*, Forest Practices Board Special Investigation report, page 12)

In its special investigation of the British Columbia's OGMAs, the Forest Practices Board stated that about "70 percent of the 55,000 OGMAs have no legal status ... and the remaining 30 percent have been declared legal under the Land Act." (Pages 3-4)

3. INTRODUCTION

3.1 THE ISSUES

Members of the public, public interest groups, professional resource managers and representatives of industry have expressed increasing concern about the management of old growth forests in British Columbia. Not only does the forest industry depend heavily on old growth for its current wood supply, but many new demands are being placed on the remaining old growth to satisfy a broad range of forest values. In parts of the province, meanwhile, opportunities to reserve representative samples of old growth are dwindling rapidly. These pressures are leading to increased instances of conflict among supporters of competing land uses.

Above: Excerpt from 1992 Old Growth Strategy document. *Below:* Excerpt from Appendix 1, in January 1990 *Old-Growth Forests: Problem Analysis* document.

APPENDIX 1. The value of old-growth forests

Ecological Value

Old growth is important to wildlife, including fish, and ultimately to the overall variety of life in an area ("biological diversity"). Many animals have evolved, taking advantage of the specialized habitats and unique stand structure in old-growth forests (Meslow et al. 1981). The Northern Spotted Owl is the most well known of these specialized vertebrates in the Pacific Northwest. Seventeen other bird and mammal species have been identified (Meslow et al. 1981) as finding optimal habitat in coastal old growth Douglas-fir forests. This compares with 29 species of bird and mammals finding optimal conditions in old-growth forests of California (Verner and Boss 1980). In addition to animals, some plant species (e.g., arboreal lichens) find optimal habitat in old-growth forests (Nyberg et al. 1987).

Although individual species such as the spotted owl have served to focus attention on the issue of liquidation of old-growth forests, the most important role of these forests is in maintaining biological diversity. It is the policy of the U.S. Forest Service and the Bureau of Land Management to manage for viable populations of all species of native wildlife (Meslow et al. 1981; Anderson 1988). Old-growth forests are important to maintaining biodiversity because they are biologically diverse (Franklin and Spies 1983; Heinrichs 1983) and provide critical habitat for many species (Meslow et al. 1981).

Old-growth forests also provide many of the requirements essential for good fish streams (Sedell and Swanson 1984). Streams in old growth have considerable amounts of large woody debris; this debris is important for trapping sediment and providing a diversity of spawning and rearing habitat. Old forests also provide ample food through litterfall, and the pools resulting from the downed logs keep the organic material in the stream long enough to be processed.

1.1 THE OLD GROWTH STRATEGY MAKES OVERALL RECOMMENDATIONS FOR:

- The values represented by old growth that should be recognized and protected.
- The public involvement and decision-making process that should be used to ensure that the old growth values are incorporated in land use planning and resource management.
- The conservation framework that will ensure both protection of representative stands of old growth and the application of suitable resource management practices that conserve old growth values outside of protected areas.
- The research and inventory and socio-economic analyses that should be done to inform all parties responsible for implementing the strategy.
- The organizational structure and planning processes of administrative bodies, along with the stakeholder involvement to deliver the strategy.

Forest Sector forms old growth committee

The B.C. Forest Sector Old Growth Committee was formed in recognition of the overwhelming importance of the old growth issue to the people, communities and businesses that depend on the use of British Columbia's forest resources. Well over half of the province's forests are old growth and for the next half century the province's forest industry will rely on old growth in the working forest as the transition is made to the harvest of managed second growth.

There simply isn't any other choice. If we forego the logging of old growth, we will have to stop logging in B.C. for a long time.

So the issue is not one of whether we log old growth, but rather what we do through management to conserve old growth values.

The committee members include the IWA Canada, the Truck Loggers Association (TLA), Canadian Women in Timber, Share B.C., the Council of Forest Industries (COFI), the Northern Interior Lumber Sector (NILS), Cariboo Lumber Manufacturers' Association (CLMA) and the Interior Lumber Manufacturers' Association (ILMA). These organizations are all represented on the provincial government sponsored Old Growth Strategy Project.

Since it was formed in mid-1990 the Old Growth Committee has supplied information on old growth issues to the forest sector, provided a forest sector point of view on development of the provincial strategy and learned a great deal about other points of view regarding old growth forests, their use and conservation.

Above and below: Excerpts from the 1992 Old Growth Strategy document. Left: Excerpt from the forest industry's B.C. Forest Sector Old Growth Committee promotional 8-page paper, *Old Growth: What is at Stake?*

During the Old Growth review processes, the forest industry kept up political pressure to maintain the status quo liquidation of the old growth forests, as summarized in the excerpt to the left.

OLD GROWTH STRATEGY IMPLEMENTATION SCHEDULE

	1989 - 1991	1991 - 1992	1992	1992 - 95
STRATEGY DEVELOPMENT	Write the strategy.	Publish for public and professional review.	Incorporate feedback into revised strategy.	Implement full 3 year plan.
RESEARCH AND INVENTORY	Initiate research and improvement of definitions and inventory.	Begin work on ecological, social and economic research. Develop inventory.	Continue R & D work to support reserves and management practices.	Commission major ongoing research and inventory projects.
WORKING GROUPS	Establish and support the 5 Old Growth Project teams.	Establish the Specialist Task Force to prepare support system.	Develop O.G. Working Groups at provincial, regional and local levels.	Support work of O.G.W.G.'s conducting reserve framework and management practices introduction.
RESERVES	Develop criteria for reserve selection. Identify and defer limited number of critical areas.	Re-define criteria for reserves and brief field staff.	Work with O.G.W.G.'s to ensure operational function to identify and propose reserves.	Incorporate deferrals and new proposals into long term framework.
MANAGEMENT PRACTICES	Review existing management practices and develop new alternatives.	Re-define management practices guidelines and brief field staff.	Introduce landscape planning and management practices guidelines.	Field test and assess planning and practices.

New Democrats

NEWS RELEASE

For Immediate Release
October 2, 1989

Subject: MILLER CALLS FOR IMMEDIATE OLD-GROWTH FOREST PROTECTION

Victoria -- The Socred government has left 93 per cent of B.C.'s old-growth forests unprotected, and New Democrat forests critic Dan Miller is calling on the government to begin researching ways of identifying and saving those stands.

And as part of that process, he says, the government must seek participation from a wide range of interested organizations for its upcoming conference on old-growth forests. The government is expected to announce the conference for some time in November in order to develop a position paper on the issue.

Miller says that a study conducted by government officials shows that in B.C. only 185,600 hectares of old-growth forests lie within the protected areas of provincial or federal parks and ecological reserves. That figure pales in comparison with the estimated 2.57 million hectares of unprotected coastal old-growth, he says.

Miller says that comparison points out the token gesture the Socreds have made towards preserving B.C.'s old-growth stands.

"The Socreds look at our trees in terms of benefit for business, even if those trees are 600 years old," said Miller (Prince Rupert).

"What we need to see is a logical, technical approach to identifying and preserving old-growth stands for future generations instead of just waiting around for the axe to fall on them."

Miller says that during a July debate on this issue in the legislature, Environment Minister Bruce Strachan told him that preservation had to be balanced "with the fact that (old-growth) trees are...going to be harvested by bugs, fire or man, and can we get maximum benefit out of them."

Miller says it's pathetic that B.C.'s environment minister is looking at old-growth trees in terms of "benefit" rather than preservation.

"It's these kinds of comments that show the Socreds for the sham environmentalists they really are," Miller said.

"If this is the kind of attitude we get from our environment minister, it's clear we need a completely new and independent approach to protecting old-growth stands."

-30-

Contact: Dan Miller, MLA
(624-6007 - Prince Rupert)

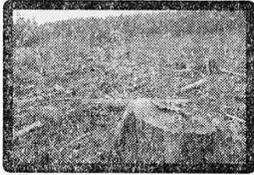
Office of the Official Opposition New Democratic Caucus of B.C. Legislative Buildings, Victoria, B.C. V8V 1X4 Ph. 387-3655

Despite the promises and rhetoric made by some NDP MLAs, such as Dan Miller above, who would become Forests Minister in late 1991, and then depart by way of a conflict-of-interest charge, and by 1999 would advocate the privatization of public forestlands, old growth forests continued to be liquidated. And, under the NDP administration, community watersheds, whether protected under the *Land Act* as Watershed Reserves, or those that had no protection, were logged and butchered. (For an explanation, please refer to the author's 2019 YouTube video on Watershed Reserves, under the title "Legal Logging Moratorium History and Government Secrets in the Peachland Community Watershed.")

World class logging or broken promises?

PROMISE "Wide chunks of forest the size of football fields are no longer cut" [a football field is less than one hectare]

MINISTRY OF FORESTS IN THE WASHINGTON TIMES, JULY 2, 1996

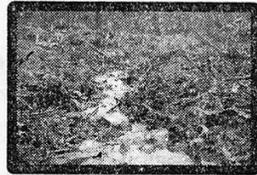


Klanawa River, cut block #7699, approved Jan. 29, 1996, MacMillan Bloedel

REALITY 92% of logging in B.C. is still clearcutting, in the coastal rainforest 97% of logging is clearcutting.

PROMISE "There will be enough of a protection zone that we are confident that the kind of damage we have seen in the past will not occur again in B.C."

ENVIRONMENT MINISTER MOE SHOTA, VICTORIA TIMES COLONIST, APRIL 12, 1995.



Cut block NAM 104, CP 672, approved March 28, 1996, MacMillan Bloedel

REALITY 83% of streams in an audit of coastal cutblocks were clearcut right to their banks.

PROMISE "Allowable annual cut determinations are moving B.C. systematically towards long-term harvest rates."

B.C. GOVERNMENT PROMOTIONAL BROCHURE, SECURING OUR FUTURE, JANUARY 1997



Near Stoltmann Wilderness, block #7155, CP 6, approved May 21, 1996, International Forest Products

REALITY Since 1991 the volume of cut has been reduced by less than 1%.

PROMISE "Our objective is to dramatically change the way B.C.'s forests are managed and to better protect both environment and wildlife."

PREMIER HARCOURT, VANCOUVER SUN, NOVEMBER 10, 1993.



Coastal Grizzly and salmon

REALITY The B.C. government refuses to introduce an endangered species act so species like grizzly bears, woodland caribou and hundreds of others are still at risk.

For the past few years the government and industry of B.C. and the B.C. forest industry have been trying to reassure the public that all is well in the woods.

But the facts are:

- Less than 6% of our low-elevation old-growth forest has been protected.
- We are overcutting our forests - the rate of logging is still tens of millions of cubic metres above the government's own estimates of the sustainable rate.
- The current government policy is to liquidate B.C.'s old-growth forests outside of parks (95% of all current logging is in old-growth forests).

If you too are concerned about these broken promises call Premier Clark and add your name to the list of "Friends of B.C." Call 660-2421 in Vancouver, 387-6121 in Victoria, or toll free 1-800-663-7867. Ask for Premier Clark.

A message from friends of British Columbia.

Bear Watch

BC Wild

BCEN Forest Caucus

Canadian EarthCare Society

Canadian Parks and Wilderness Society

Caribou Chilcotin Conservation Society

Carmanah Forestry Society

Clayoquot Island Preserve

David Cadman (S.P.E.C.)

David R. Boyd

East Kootenay Environmental Society

Ecotrust Canada

Elizabeth May

Forest Action Network

Friends of Clayoquot Sound

Greenpeace

Kevin Scott

Linda M. McDonell

Manuel Erikson

Paula M. Khan

Quesnel River Watershed Alliance

Raincoast Conservation Society

Rod Marining

Sean Reel

Shuswap Environmental Action Society

Sierra Club of B.C.

Sierra Club of Canada

Sierra Legal Defense Fund

Silva Forest Foundation

Slocan Valley Watershed Alliance

Vahalla Wilderness Society

Western Canada Wilderness Committee

AKS - May 8/97.

In its investigation of Old Growth Management Areas, the Forest Practices Board stated the following:

The investigation found that government's [BC Liberal Party administration] lack of a coordinated and uniform approach for tracking and monitoring old-growth retention is a significant problem. In many management areas, particularly those where non-legal OGMA have been identified, government does not know the extent of OGMA incursions or if licensees have appropriately replaced harvested areas with other areas having equal or better old growth attributes. In some management areas where old-growth retention is achieved non-spatially, government does not always provide ongoing oversight to ensure that OGMA requirements are being met. Also, 15 years after land use planning commenced, government has not yet started to assess if its objectives for old-growth retention are effective—even though it has a program to do so (the Forest and Range Evaluation Program).

Another potentially significant problem relates to how government addresses retention in OGMA's for the non-forestry Crown land tenures that it grants. The investigation found that government's approach is inconsistent; some tenure holders are required to address old-growth retention (i.e., avoid or mitigate impacts to OGMA's) while other tenure holders are not. The Board notes that while the *Environmental Protection and Management Regulation* under the *Oil and Gas Activities Act* provides for the responsible minister to legalize OGMA's, thereby ensuring their protection from the impacts of oil and gas activities, this has not yet happened.

Rebuke to Foresters

FOREST PRESERVATION AND OLD GROWTH FORESTS

Despite concerns about the long-term wood supply, half (52%) of Canadian foresters believe that the right amount of "reserved" forest land is currently set aside in their province. Three in ten (31%) say this amount of land is too little, while another 12 percent say it is too much.

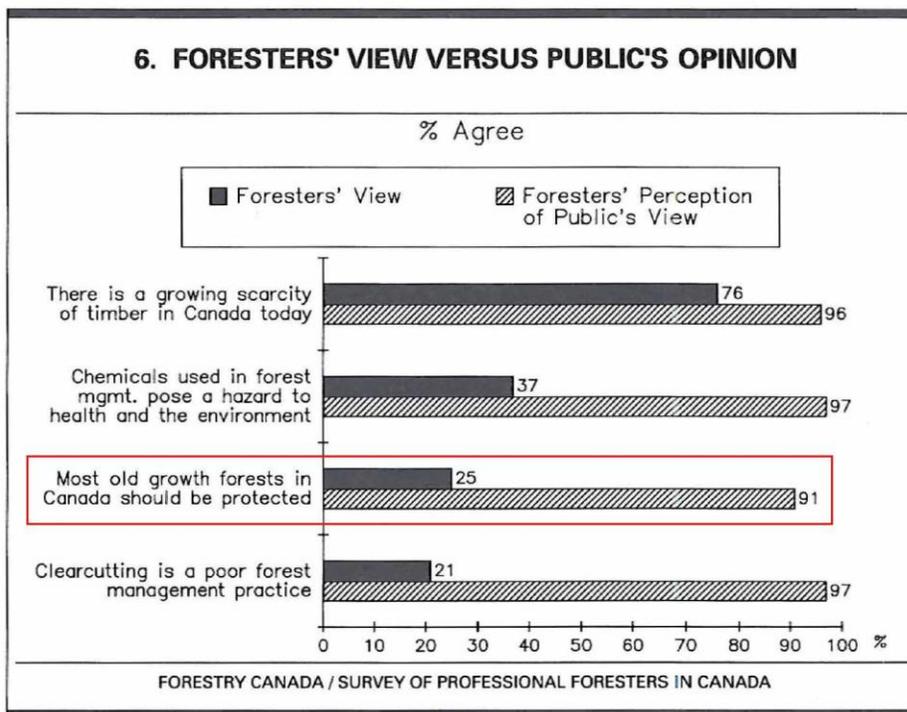
More than seven in ten foresters across Canada strongly (39%) or somewhat (34%) disagree with the view that "most old growth forests in Canada should be protected." Most (66%), however, also believe that the current controversy over old growth forests in Canada is primarily a function of conflicting values and priorities concerning the role old growth forests should play in society and ecosystems, while one in four (25%) attributes the controversy to misunderstanding and confusion about such forests.

What I have learned over all of the years is that the persistent problems that the public faces here in British Columbia concerning the fate of our forests is directly attributed to the role of the professional / technical forester through his/her mandate with the Association of BC Forest Professionals,¹⁵ contractually dispersed in numerous public, private, government and higher learning sectors. If anyone or any collective body is to be held accountable for the cumulative, unethical slaughters and mismanagement of our old intact forests, it is this organization through its policy and lobbying advocacy capacities (committees, sub-committees, annual meetings, newsletters, journals, publications, etc.). Had this organization been collectively 'ethical' or conscientiously 'accountable' our:

- community or domestic drinking watershed sources would have been kept in a protected intact state, as many once were;
- hundreds of our forgotten recreational forest reserves, or UREPs, would still be intact;

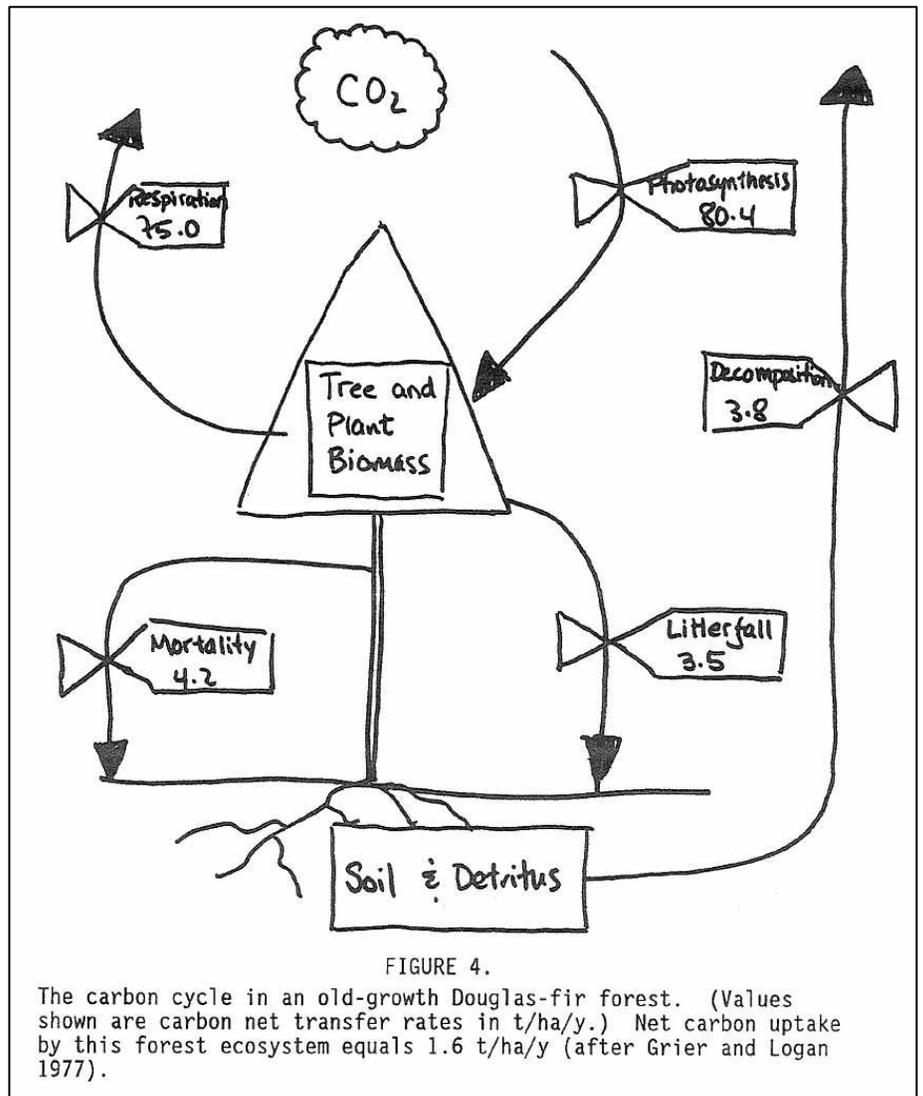
THE STATE OF FORESTRY IN CANADA

1990 REPORT TO PARLIAMENT



¹⁵ Formerly, the Association of BC Professional Foresters.

- our mid to high elevation “headwater” forestlands ¹⁶ would perhaps still be largely off limits, as they once were:
 “The permanence of the merchantable forest is, however, not the only question to be considered in the problem of re-afforestation These in their turn will depend upon the maintenance of forest cover upon the mountain slopes, the cover that holds up the snow and holds back the floods, sustaining a spongy soil for the storage of the water supply and the regulation of the flow of rivers The protection from fire of these Reserves and also of all forest growth at high altitudes should be a serious duty of the Department of Forests, not only for the sake of the water supply but also for the prevention of soil erosion and of catastrophes, by land and snow slides, such as those that marked the spring of 1910;” ¹⁷
- our wildlife and fish populations would not be threatened or obliterated;
- much of our older forests would be prized intact assets because of their roles to mitigate global warming for ‘free’ carbon dioxide capture, warnings which were imparted to professional foresters since the 1960s following.



¹⁶ “Headwater” watersheds and forestlands were considered more or less sacred on United States federal forestlands, and by way of the 1910 BC Royal Commission on Forests, here in BC as well. The role of headwater forests in the United States is aptly summarized in the 1933, two-volume, 1,600-page, federal Copeland Report, *A National Plan for American Forestry*.

¹⁷ *Final Report of the Royal Commission of Inquiry on Timber and Forestry, 1909-1910*, page D-66.

Logging Old Growth Will Not Help Solve Greenhouse Effect

U.S. Forest Service

Some Forest Service and industry types have attempted to misuse data used in global warming studies to allege further justification for cutting down old-growth forests. The following new release issued by the U.S. Forest Service, dated November 14, 1989, deals with this abuse, and is a real eye-opener. For further information: Forestry Sciences Laboratory, P.O. Box 20909, Juneau, Alaska, 99802-909. Contact: Sherri Richardson, (503) 326-7132, or Dr. Paul Alaback, (907) 586-7807.

“Forestry practices can only significantly contribute toward reducing atmospheric carbon and combating the greenhouse effect when forests replace agricultural or denuded landscapes...”

Logging old-growth forests in the Pacific Northwest and Alaska will not counteract the greenhouse effect by reducing the amount of carbon released into the atmosphere, according to a recently published study by research ecologist Paul Alaback, USDA, Forest Service, Forestry Sciences Laboratory, Juneau, Alaska. Carbon — now being emitted into the atmosphere primarily by fossil fuels — creates a shield trapping heat in the atmosphere. Most climatologists now believe this heat shield could cause a rapid warming in the earth's climate, with dire effects on the economic and ecological functioning of the planet.

In a study released in February 1989, the U.S. Department of Energy (DOE) concluded that if trees were planted on non-forested land in the temperate zone over an area 1.5 times the forested area of the U.S., these trees could absorb the carbon emitted globally each year by the burning of fossil fuels. Extending the claims of the DOE

study, the timber industry, and some policy makers have argued that logging old-growth forests in the Pacific Northwest and Alaska and replacing them with faster growing young trees would also provide a short-term solution to the greenhouse effect. Up until the release of the Forest Service study this claim has not been studied scientifically.

In the Forest Service study Alaback found that although young-growth forests grow faster and absorb more carbon from the atmosphere under ideal conditions, these gains are lost when trees are cut down and processed into short-lived products like paper and chemicals. Processing, burning, and decaying of these products and associated waste will emit carbon back into the atmosphere. In addition, old growth contains more carbon than young forests, and it takes at least 5-10 years for young forests to begin accumulating carbon. So in both the long term and short term, logging of old-growth will lead to a slight increase in

atmospheric carbon. Forest practices in the Pacific Northwest and coastal Alaska are unlikely to significantly influence global carbon in the atmosphere because of the small land area relative to other forest types on the planet and because of the large rates of carbon emission from both fossil fuels and tropical deforestation.

Forestry practices can only significantly contribute toward reducing atmospheric carbon and combating the greenhouse effect when forests replace agricultural or denuded landscapes — not when mature forests are replaced with young forests. Increasing the productivity of forested lands (for example, by converting old growth to second growth, or through thinning, fertilization or genetic improvement) would only be effective in combating the greenhouse effect if it occurred on much of the world's existing forest land (over 7 billion acres) and resulted in improving average forest productivity by at least 60 per cent. It is unlikely this scale of global increase in forest productivity is possible given current economic and social constraints on forest land by competing land uses.

The recently released Forest Service study is the first scientific study to specifically address the question of old growth and the greenhouse effect. Alaback has been studying the ecology of both old-growth and second-growth forests in temperate rain forests across the globe for the past 15 years.



Climate Change and Reforestation

Although the contribution The Netherlands can make towards a net fixation of carbon in forests is minimal, it was decided by this small European country to start a reforestation program. Tentatively a total area of about 25,000 hectares is targeted in the period till 2000. Since over the next decade more than 15 million hectares of

land in the European Community (EC) will be taken out of farming in view of overproduction, such a program is certainly feasible. If all this EC land would be used for creating wood fuel plantations on a recycling basis this could contribute towards an additional carbon fixation of approximately 2 per cent of the annual global carbon re-

lease. Source: The Dutch Policy on Global Warming — testimony before the Standing Committee on Environment, House of Commons, Ottawa, January 23, 1990, by Dr. Bert Metz, Counselor for Health and Environment, Royal Netherlands Embassy.



Appendix: Excerpts from Forest Planning Canada; Old growth workshops.

Old-Growth Workshop Marks Start of Vital Policy Review

Two of the principal researchers of old-growth forests are Dr. Jerry F. Franklin and Dr. Thomas A. Spies. Franklin is Chief Plant Ecologist, USDA Forest Service, Pacific Northwest Research Station, and Bloedel Professor of Ecosystem Analysis, College of Forest Resources, AR-10, University of Washington, Seattle, Washington, 98195. Spies is Research Forester, USDA Forest Service, Pacific Northwest Research Station, 3200 Jefferson Way, Corvallis, Oregon, 97331, (503) 757-4631.

The following highlights are from a presentation which Thomas Spies made to the British Columbia old-growth workshop held in Parksville on 3 November 1989. After these highlights, we present an overview of a paper prepared by both Spies and Franklin entitled "Ecological Definitions of Old-Growth Douglas-Fir Forests, first draft, dated August 5, 1989, and included in the Parksville workshop materials.

Thomas Spies at the Parksville workshop:

The United States is experiencing a crisis in forest management. In western Oregon and Washington, about 20,000 hectares of old growth are cut each year. At that rate, it will be gone in from 30-50 years. Of the 2.5 million hectares of old growth remaining on the National Forests, some 300,000 hectares are currently protected.

The current debate would not have been possible if it were not for the passage of the 1974 *National Forest Management Act* which mandated that foresters account for long-term forest productivity and were required to maintain viable populations at the landscape level.

In northern California, for aesthetic reasons alone, the region has all but abandoned clearcutting due to tourism pressures. Achieving tourism goals is a valid objective of forest management.

So far, research has told us very little about below-ground relationships in old

growth forests. But research has now shown us that old-growth forests can be net producers of timber volume, shattering the view that old growth, by definition, is decadent. These studies were conducted over a 10-12 year period. Research has also found that Dogwood and Pacific Yew are much more abundant in old growth. Understory diversity is also higher. We once thought of old growth as unchanging, this is not true.

The lowest forest diversity is found in young stands. And the losses of bio-diversity in stands of less than 80 years age are of serious concern.

Peak biomass for Douglas-fir occurs at about 200 years, not 70-80 years.

"Our management is changing toward leaving 10-12 standing green trees per hectare. We now clearcut because it's nicer and easier to replant, but wildlife values are dependent on the debris and keeping a canopy after cutting is a major concern."

Research has also discovered that the most significant natural influence on the Douglas-fir old-growth region is not large, massive, catastrophic fires, but rather many, smaller, more intermediate sized fires. Also, natural disturbances often did not wipe the slate clean as we currently do with clearcutting and removal of most wood material.

Gaps, or holes within old-growth forests enhance diversity of stands and are important to certain species.

Our management is changing toward leaving 10-12 standing green trees per hectare. We now clearcut because it's nicer and easier to replant, but wildlife values are

dependent on the debris and keeping a canopy after cutting is a major concern.

Research has also shown that rotations of 100 years do not allow for the retention of very much woody debris.

Currently, clearcut size is limited to 20-30 hectares, and traditionally, foresters have focussed on the culmination of mean annual increment (CMAI) of about 70-80 years as the proper time to harvest. But many species and attributes of old-growth forests are dependent on later stages of forest development — ages over 200 years.

If you don't inventory an attribute of an old-growth forest, then it doesn't exist at the operational level with foresters. The U.S. Forest Service has mandated that a new old-growth inventory will be completed within one year. This inventory will include attributes of the old-growth forests not included in current inventories.

There are three options at the stand management level:

- No active management — defer cutting or create set asides and provide for their eventual replacement.
- Manipulate to create old-growth attributes.
- Leave live trees, snags, etc., when harvesting takes place in existing old-growth stands.

We can maintain the old-growth network and improve structural diversity in managed stands adjacent to intact old growth. We can leave shelterwood overstory trees and never harvest this protective canopy. We can create two or more layers of vegetation vertically. We can modify our current approach of staggering clearcuts of 20-30 hectares.

An alternative to consider is to aggregate our cuts over time, leaving larger intact blocks of old growth. But at the current rate of cut, even the larger intact blocks would have to be cut within 30 years. This, of course, raises the larger rate-of-cut issue.

In conclusion, there are silviculture alternatives. They are feasible. The problem of implementing alternatives rests upon building consensus — the human factor.

Ecological Definitions of Old-Growth Douglas-fir Forests

Highlights

One of the questions posed by a Forest Service forester at the Parksville workshop was about just how applicable this new research was to the forest types found in British Columbia. Spies suggested that the foundation of fundamental ecological principles upon which the Douglas-fir work is based are, of course, applicable within B.C. One B.C. researcher echoed this view, stating that his research to date demonstrates that the ecological principles observed within the U. S. Douglas-fir/western hemlock old-growth region of the Pacific Northwest is applicable in B.C. Readers should keep in mind that this is the only systematic research yet available on an old-growth forest region. However, knowledge of the approach taken by Spies and Franklin should spur communities and individuals in Canada as we attempt to develop our own old-growth strategies.

Old-growth forest is a biological and ecological concept which presumes that ecosystems systematically change over long time periods. An ecosystem has a series of linked life stages, progressing from origin (birth) to old age (senescence), which vary in composition, function, and structure.

Structurally, old-growth forests are characterized by a wide within-stand range of tree sizes and spacing and includes trees which are large for the particular species and site combination. Decadence is often evident in larger and older trees. Multiple canopy layers are generally present. Total organic matter accumulations are high relative to other development stages. Functionally, old-growth forests are characterized by slow growth of the dominant trees and biomass accumulations which are constant over long periods. Respiration reduced net annual additions of living organic matter to low levels relative to earlier successional stages despite high gross primary productivity in old-growth stands. All climax forests — forests which appear to have stable

composition and structure in the absence of a major disturbance — qualify as old growth although most old-growth forests are not climax: i.e., they still contain seral species and are undergoing slow directional changes in composition and structure. Not all virgin or primeval forests are old growth and not all old-growth stands are totally free of human disturbance. Old-growth forests could theoretically originate following either human or natural disturbance since they are defined by composition, structure, and function and not by origin or "naturalness."

Whereas general characterizations of old-growth forests are conceptually important, specific definitions are essential to forest land management.

"The values and services represented by old-growth ecosystems will be placed at ever greater risk if we perpetuate our current high level of ignorance about these ecosystems."

Old-growth Douglas-fir forests (200 to over 1000 years age) can vary substantially in their degree of "old-growthness," i.e., the degree to which they express the various structural and functional features which are associated with these forests; this variability must be considered in efforts to define and manage old growth.

Starting in 1976, research efforts have clarified key compositional, structural, and functional features of old-growth forests and, perhaps even more important, the complexity of most naturally regenerated forests which develop following wildfire, windstorm, or other catastrophic events in the Pacific Northwest, regardless of their successional stage. [The key word here is "complexity," referring to the complex composition and structure of a stand even after natural fire, which contrasts to "wiping the slate clean" when clearcut removes all timber and most residual woody debris.] For example, the structural complexity of young natural forests is high due to the carryover of large snags, down logs, and even large live trees from the predisturbance stands; conditions in these natural stands obviously contrast with the simplified structure of most young forests managed for timber production.

Toward an Old-Growth Definition

Among individual attributes, density of large trees best differentiates old growth from young and mature stands of natural origin; coarse woody debris (snags and down logs) does worst. This is true of all versions of the definitions and reflects the substantial similarities between natural stands of all classes. It is also consistent with the finding that the best classification success in discriminant analysis is achieved using an equation based upon overstory attributes.

Further development of old-growth definitions should probably be directed toward development of more site-specific definitions, such as for specific habitat types and/or geographic locales. In fact, it is our belief that all classificatory work, whether as discrete types or along gradients, should receive local fine tuning for maximum value. The Area Ecology program of USDA Forest Service Region 6 provides an excellent opportunity to carry out local-specific efforts of this type — i.e., to quantify more specifically the characteristics of old growth with much more intensive sampling.

We hypothesize based upon the high levels of structural variability in old-growth Douglas-fir forests that there are multiple developmental or successional routes to old-growth-like forests. If this hypothesis proves correct it could have important management implications. Specifically, stands appear to vary widely in density and other structural features as a consequence of varied histories. Hence, development of multi-aged and -sized stands through partial cutting may be one alternative to long rotations in recreating stands which resemble existing old-growth forests functionally and structurally. These could be created by retaining selected green trees, as well as large snags and down logs, at the end of each harvest cycle.

Our failure to study old-growth forests as ecosystems is an increasingly serious concern in considerations of the old-growth issue. Without adequate basic knowledge of the ecosystem we risk losing track of its totality in our preoccupation with individual attributes or species. Definitional approaches to old-growth based on attributes, including those that we have presented here, predispose us to such myopia. The

values and services represented by old-growth ecosystems will be placed at ever greater risk if we perpetuate our current high level of ignorance about these ecosystems. It will also increase doubts about our ability to manage for either old-growth ecosystems or individual attributes (e.g., species and structures) associated with old-growth. We must increase the level of ecosystem understanding and management emphasis on holistic perspectives as we plan for replacement of old-growth forests — how can we presume to maintain or recreate what we do not understand? While some individuals may presume that ignorance is bliss with regards to the ecological values of old growth, this attitude creates a high risk that managers will continue to be blindsided by subsequent discoveries.

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U. S. Forest Service Announces National Policy on Old Growth

Washington, October 19, 1989, (News Release). Old-growth forests are valuable as diverse and productive ecosystems and will be managed as such under a new national policy announced today by the U.S. Department of Agriculture's Forest Service. "For the first time as an agency, we are recognizing the importance of old growth on a national level," Forest Service Chief F. Dale Robertson said. "Old-growth forests are important ecosystems that we are just beginning to understand. We've learned enough to know that a significant share of them should be protected and managed for posterity."

The Forest Service has developed a position statement embracing the many significant values of old growth. The statement includes guidance on old-growth definitions, land-use decisions, silvicultural practices, and research. "For example, we will reduce the use of traditional clearcutting methods," Robertson said. "Instead, we will increase the retention of residual trees,

"For example, we will reduce the use of traditional clearcutting methods..."

*— Dale Robertson
Chief of U.S. Forest Service*

snags, dead-and-down material, and logging debris."

Other actions include:

- Reducing the fragmentation of old-growth forests;
- Maintaining future options for significant old-growth forests until more is learned about them by selectively locating timber sales;
- Managing some forest stands on extended rotations in order to develop their old-growth values as well as provide for timber products;
- Creating future old-growth forests through management activities as well as natural events;

- Getting a better idea of how much old growth exists and where it is located;
- Increasing research efforts directed to old-growth ecosystems and their management. For example, in fiscal 1990 a \$1.051 million increase is funded for old-growth research.

"We do not anticipate an immediate impact on our timber sale program since our forest plans provide for many old-growth values," Robertson said. [Of the Pacific Northwest National Forests, some 2.5 million hectares remain in old growth, with 300,000 already in protected status.] "However, there will be an impact when we complete the final forest plans in California, Oregon, and Washington, and as we amend or revise other forest plans due to a greater emphasis on old-growth values."

The Forest Service also has developed a national ecological definition of old-growth forests based on structural attributes that can be identified and measured. "This

generic definition will guide the development of specific definitions by forest types and provide consistency in identifying the extent and location of old-growth forests through our forest inventories," Robertson said.

U. S. Position Statement on National Forest Old-Growth Values

The Forest Service recognizes the many significant values associated with old-growth forests, such as biological diversity, wildlife and fisheries habitat, recreation, aesthetics, soil productivity, water quality, and industrial raw material. Old growth on the National Forests will be managed to provide the foregoing values for present and future generations. Decisions on managing existing old-growth forests to provide these values will be made in the development and implementation of forest plans. These plans shall also provide for a succession of young forests into old-growth forest in light of their depletion due to natural events or harvest.

Old-growth forests encompass the late stages of stand development and are distinguished by old trees and related structural attributes. These attributes, such as tree size, canopy layers, snags, and down trees, generally define forests that are in an old-growth condition. The specific attributes vary by forest type. Old-growth definitions are to be developed by forest type or type groups for use in determining the extent and distribution of old-growth forests.

Where goals for providing old-growth values are not compatible with timber harvesting, lands will be classified as unsuitable for timber production. Where these goals can be met by such measures as extending the final harvest age well beyond the normal rotation or by using silvicultural practices that maintain or establish specific old-growth values, lands will be classified as suitable for timber production. In making these determinations, consideration shall be given to the extent and distribution of old growth on National Forest lands that are Congressionally or administratively withdrawn from timber harvest, as well as adjacent ownerships.

Old-growth values shall be considered in designing the dispersion of old growth. This may range from a network of old-growth stands for wildlife habitat to designated

areas for public visitation. In general, areas to be managed for old-growth values are to be distributed over individual National Forests with attention given to minimizing the fragmentation of old growth into small isolated areas. Old growth on lands suitable for timber production and not subject to extended rotations is to be scheduled for harvest to establish young stands which more fully utilize potential timber productivity and also meet other resource objectives.

Regions with support from Research shall continue to develop forest type old-growth definitions, conduct old-growth inventories, develop and implement silvicultural practices or maintain or establish desired old-growth values, and explore the concept of ecosystem management on a landscape basis. Where appropriate, land-manage-

"Where goals for providing old-growth values are not compatible with timber harvesting, lands will be classified as unsuitable for timber production."

ment decisions are to maintain future options so the results from the foregoing efforts can be applied in subsequent decisions. Accordingly, field units are to be innovative in planning and carrying out their activities in managing old-growth forests for their many significant values.

U.S. Forest Service Generic Definition and Description of Old-Growth Forests

Purposes and Scope

The following describes the ecologically important structural features of old-growth ecosystems. Measurable criteria for these attributes will be established in more specific definitions for forest types, habitat types, plant associations or groupings of them. The intent of the generic definition is to guide design of specific definitions and new inventories that include measurement of specific attributes. Although old-growth ecosystems may be distinguished functionally as well as structurally, this definition is restricted primarily to stand-level structural features which are readily measured in forest inventory.

Definition

Old-growth forests are ecosystems distinguished by old trees and related structural attributes. Old growth encompasses the later stages of stand development that typically differ from earlier stages in a variety of characteristics which may include tree size, accumulations of large dead woody material, number of canopy layers, species composition and ecosystem function.

Description

The age at which old growth develops and the specific attributes that characterize old growth will vary widely according to forest type, climate, site conditions and disturbance regime. For example, old growth in fire-dependent forest types may not differ from younger forests in the number of canopy layers or accumulation of down woody material. However, old growth is typically distinguished from younger growth by several of the following attributes:

1. Large trees for species and site.
2. Wide variation in tree sizes and spacing.
3. Accumulations of large-size dead standing and fallen trees that are high relative to earlier stages.
4. Decadence in the form of broken or deformed tops or bole and root decay.
5. Multiple canopy layers.
6. Canopy gaps and understory patchiness.

Compositionally, old growth encompasses both older forests dominated by early seral species, such as fire-dependent species, and forests in later successional stages dominated by shade-tolerant species. Rates of change in composition and structure are slow relative to younger forests. Different stages or classes of old growth will be recognizable in many forest types. Sporadic low to moderate severity disturbances are an integral part of the internal dynamics of many old-growth ecosystems. Canopy openings resulting from the death of overstory trees often give rise to patches of small trees, shrubs, and herbs in the understory.

Old growth is not necessarily "virgin" or "primeval." Old growth could develop following human disturbances. The structure and function of an old-growth ecosystem will be influenced by its stand size and landscape position and context.

Joining Forces to Manage Our Old-Growth Forests

A speech by George M. Leonard, Associate Chief, Forest Service, U.S. Department of Agriculture, at the Audubon Convention, Tuscon, Arizona, September 13, 1989.

This summer, Forest Service Deputy Chief Jim Overbay stood in a grove of ancient trees on the Gifford Pinchot National Forest with Aleksandr Isaev, Chairman of the State Forest Committee of the Soviet Union. Jim asked Chairman Isaev how he felt about that ancient grove and what he'd do with it. You'll appreciate his response: Chairman Isaev said the grove was beautiful and unique. He said he'd leave it just as it was. Let me assure you that the U.S. Forest Service cares about the many values of old-growth forests and has similar feelings about ancient forests.

And that signals a change in our agency. New scientific information and changing public values are to have a significant influence on how we view these ancient forests.

Historically, this nation viewed forests — the original old growth — as something to be harvested and cycled to younger forests or converted to farms. Folks did this pretty thoroughly in New England, the South, and the Midwest. As a result, most of the remaining old-growth forests are found primarily in the West — mostly in our parks and National Forests.

Reservation of National Parks and National Forests in the late 1800s and early 1900s reflected a shift in the view that forests were inexhaustible. Significant areas of forests were held back from harvest and conversion, and some cutover lands were acquired for restoration (for example, much of the national forests acquired in the East lacked forest cover when placed into the National Forest System).

In the mid-20th century, demand for timber caused acceleration of harvests from the National Forests because private forest lands were unable to fully meet the demand; the harvest had to come from old-growth forests in the West because that was predominantly what was available.

By the late 1960s, concern over how those harvests were occurring in National Forests, i.e., clearcutting and other inten-

sive management practices, led to controversies that resulted in the National Forest Management Act and directions to prepare forest plans. By the early 1980s, scientific evidence had accumulated that showed old-growth forests to be more diverse and productive ecosystems than originally believed.

And their proven value as habitats for many wildlife species caused all of us to reassess public forest policy. Critters like spotted owls took center stage. This reassessment is what we're all caught up in now. It's a bit like turning a battleship, things are changing direction but it's going much slower than many would like — it's also going much faster than some others would like.

“By the early 1980s, scientific evidence had accumulated that showed old-growth forests to be more diverse and productive ecosystems than originally believed.”

The Forest Service on Old Growth

Here's how the Forest Service views the old-growth issue right now: We recognize that old growth is something different; it's not like younger forests in appearance, ecology, or diversity of values. A significant share of it deserves to be protected and managed for posterity. We recognize old growth as an integral part of forest landscapes may be crucial to the long-term health of younger forests and could even be vital to site productivity. We recognize that old growth is vital to the diversity of wildlife; many species would probably cease to exist in a forest that lacked a significant old-growth component.

At the same time, we recognize that old growth remains a significant resource for production of highly valued wood products and is closely tied to the economic and social well-being of thousands of people in timber-dependent communities throughout the West. This nation must have old-growth forests as a perpetual resource, one that is sustained for all its values: timber, wildlife, fisheries, esthetics, and ecological functions — about which we have much to learn.

This nation must find alternatives to simple preservation of old-growth forests or intensively managed tree farms. We also need to integrate the ecological and esthetic values of old-growth forests into stands that are managed for multiple uses and values. There is no better place than the National Forests to provide that alternative.

A Time of Transition

Right now, we're all struggling to make a transition. Traditionally, National Forest lands capable of growing commercial volumes have been largely managed with a focus on individual stands and what they could yield, especially a sustained or increasing yield of timber. Now the focus is shifting to integrated ecosystems with a larger landscape perspective that is designed to assure the sustainability of all resources.

During the past decade, we have witnessed much greater recognition of, and emphasis on, values and uses other than timber, such as fish and wildlife, recreation, and biological diversity, and on public involvement in our decision-making processes. You might say we're still learning how to do full multiple-use management. It's a tough transition, and old growth is right at the center of fierce debates and controversies. Estimates of existing inventories of old growth vary widely, some due to different definition, some due to old inventories, some due to lack of any inventories.

Scientific knowledge about how to perpetuate old growth is lacking. It should be possible to create or recreate old growth because nature has done it thousands of times. But, how do we perpetuate it in the managed forest landscape: Through retention of green trees in cutover areas? Through selective harvest silviculture? Through very long rotations? Through carry-over of old-growth forest elements, such as snags and fallen trees in younger forests? There's a lot to be learned here, and we are trying hard to do that!

We can perpetuate old growth in many ways. Some of it we just need to delineate on a map and protect. And a lot of this has been done. In other cases, we need to plan and managed for old-growth elements in managed forest landscapes. It's not a matter of either/or, but one of how to use all the tools at our disposal.

Many timber mills and their associated jobs and economic effects still depend on old growth for wood supply. Is it prudent public policy to shut them off "cold turkey," or can we make a more gradual adjustment as managed stands come on line? The answer will probably be influenced by many factors, including the strength of timber markets, the degree of dependence on National Forest old growth, the scarcity of old growth in given areas, and the urgency of protecting various environmental values.

The Forest Service is caught in the middle of the issue, as you all know. We want to do what is right by the land and what is right by people. We believe there is room for a balance between perpetuation of some old-growth forests for all their values, and harvest of some to meet timber-supply needs. We also see a need to explore new approaches to managing national forests for multiple uses and values, diversified forestry if you will.

An Outstretched Hand to Join in the Solution

I'd like to suggest some ways we can work together in crafting an equitable public policy for the future of old-growth forests. First, let's find common ground on definitions and classifications. Drs. Jerry Franklin and Tom Spies have given us a start in the Pacific Northwest; let's build on

that in other parts of the country. Second, let's build a common, consistent, high quality inventory of how much and where the different kinds of old growth remain. We may need more than one map for the different kinds of old-growth forests, but we don't need more than one accurate map for each distinct class of old growth. Third, let's pool our resources in developing technologies for managing forested landscapes to include old-growth forests as integral parts, not just 300 acres set aside in the corner of each 10,000-acre watershed, but as vital ecological elements that are woven throughout the fabric of landscapes that sustain multiple values and uses. Fourth, let's join intellects and energy in carrying out comprehensive research to peel away the unknown about old growth and its ecological roles in maintaining biological diversity and forest productivity.

We, you and us, collectively have a tremendous pool of talent, knowledge, and energy to develop an equitable public policy. But we're spending most of it fighting one another over what should be common interests and concerns. We love this nation's forests every bit as much as you do. Let's pull back from the brink and see if we can make more progress by working together.

The (U.S.) Forest Service is offering an outstretched hand. I invite you to join us in exploring some new ways of doing busi-

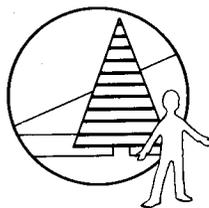
ness. I am prepared to ask our people to earnestly search for ways that we can include your concerns and meet your goals in our decision-making. I am willing to ask our people to let some other goals soften a bit so we can find a reasonable and prudent balance of uses and values that addresses your concerns on the forests. I am willing to ask our people to make a greater effort to open up their deliberative and decision-making processes so that others can feel like they own a piece of the solution, rather than feeling that they must stand off to the side and throw stones. I am willing to ask our scientists and technicians to develop some new partnerships in research and technology development. I am willing to ask our inventory specialists to ensure that Forest Service inventories and maps address the things you want answers to.

With old growth and spotted owl issues, we now have a public forest policy crisis on our hands. I fear that my agency should have been more responsive in responding to changing public opinion. Perhaps others share some blame. But assigning blame won't resolve the crisis. It's time to get the past behind us and work together on reasonable and prudent solutions. I want all the people in the Forest Service to be a positive force in crafting national forest policies for the future that will meet the needs of many generations of Americans. I hope you share my wish.



NSR Catch-All Eliminates Wildlife Habitat Categories

In their rush to promote spending of more public monies on reforestation, B.C. Ministry of Forests' inventories now include all shrub lands as NSR (Not Sufficiently Restocked). According to the B. C. Wildlife Federation, this means that lands which should be kept in shrub cover for wildlife habitat are now slated for reforestation. The intent of this move by the Forest Service appears to be designed to assist in keeping FRDA (federal/provincial forest funding) dollars flowing for reforestation expenditures. This also means more herbicide use as foresters attempt to replace brush sites with conifer plantations. The FRDA is a five-year agreement which is now due for renewal.



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Misuse of Consensus Approach Causes Failure to Establish Criteria for Protection of Old-Growth in B.C.

"At least we've taken the first step toward developing a long-term strategy for old-growth forests." But Dr. Bruce Fraser, who has coordinated British Columbia's year-long Old-Growth Project, says "time is running out for preserving samples of the province's original forests. Areas of old growth forest are rapidly dwindling. The biggest problem still facing us in our attempts to grapple with forest problems is lack of political commitment to finding solutions."

The Project's latest published report, prepared by their Conservation of Areas Team, recommended 17 areas for possible deferral as critical old growth as a result of a year of work. The 17 candidate areas recommended by the committee, meant to encompass old-growth forest protection needs for the entire province, may total less than 3,000 hectares.

Eighty-nine areas were considered by a committee of environmentalists, scientists, and industry lobbyists. The committee was charged with a terms of reference requiring consensus. But a consensus method only works where all parties have agreed to fully commit to the mediation process, which was not the case here.

Industry representatives even went so far as to block the adoption of scientifically valid criteria for assessing candidate areas. As a result, even the 17 areas recommended for deferral have no size indicated. The determination of how big each area might be will be left entirely up to the province's chief forester John Cuthbert, who will privately 'negotiate' with industry. Cuthbert chairs an Inter-Ministry executive committee which will at some point make a decision on whether to create any old-growth protection areas.

The 17 locations referred to Cuthbert for consideration include

"In contrast, B.C.'s review process was designed to allow industry to block the adoption of scientific criteria by the simple method of objecting to most of the criteria proposed."

Greendrop Lake, Sowaqu/Karen Creek, Liumchen Lake, north slope of Sumas Mountain, Eagle Mountain, Celista Creek - McNomee Creek, Upper Seymour River, Ecological Reserve Proposal #263 - east of Kokanee Creek, Morkill river-Hellroaring and Forget-Me-Not Creeks, West Twin Old Growth Reserve, Sikanni Chief River, Prophet River/Fort Nelson, Catherine Creek, Oliver Creek Trail, Hanna Ridge, Nahmint, Klaklakama Lake - Nimpkish Valley, Government Creek, Laggings Creek - Long Inlet. Other areas were either not considered because logging would not occur within two years, agreement could not be reached, or the areas were already being discussed by other Forest Service planning committees.

In a covering letter accompanying the public release of the list of deferrals, chief forester John Cuthbert says "For the next few weeks, the Ministry of Forests will withhold all approvals for development on areas recommended for deferral and, where possible, those referred to planning processes or technical study. During this time, impact analyses and advice to government on the report's recommendations will be prepared. Areas which were not recommended for deferral because they were not under development plans, will be placed under 'map notation' by the Forest Service. This will ensure that they will not be considered for approvals during the next two years without prior reference to the Old Growth Strategy process."

But Cuthbert also says, "the Ministry of Forests will assess the implications of both the recom-

mended deferrals and referrals to other public planning processes or studies." "This," he says, "will involve communication with affected licensees and review of any potential impacts and ways to provide alternative operating areas if required." What Cuthbert seems to be implying here is that there will be no reduction in the annual allowable cut even if old growth is actually protected. This is a traditional approach holds that the forest environment can only be protected so long as the cut allocated to industry is not affected.

Meanwhile, the President of the United States confirmed recently that the U.S. Forest Service will reduce the annual allowable timber cut in northwestern old-growth forests by some 20 per cent, or 1.2 million hectares, to preserve habitat for just one old-growth dependent value — the northern spotted owl. The U.S. decision was based upon an analysis of spotted owl needs by a blue-ribbon scientific panel which developed scientific criteria by which habitat needs were evaluated. In contrast, B.C.'s review process was designed to allow industry to block the adoption of any scientific criteria by the simple method of objecting to most of the criteria proposed.

The B.C. committee's report failed to make any deferral recommendations on:

- remnant intact watersheds
- forests within water districts;
- forests where logging is not planned for two years;
- Western Red cedar and Douglas fir stands;
- Forests where Spotted Owl may be present;
- forests where the Marbled Murrelet may be present;
- the Robson Valley, with its eight deferral proposals; and
- forests where other Forest Service planning processes are active.



include the phrase "sustainable development" in legislation, Forestry Canada must now live up to public expectations for, according to the departments recently released Strategic Plan, "more environmentally friendly forestry practices."

But the road toward sustainable development is expected to be rocky. Forestry Canada's Strategic Plan, known to have been watered down in final review by Deputy Minister Jean Claude Mercier, downplays the need to work in cooperation with conservationists, but instead places overwhelming emphasis on industrial uses of forests and the need to remain competitive in world markets.

The Strategic Plan lists four primary challenges for the new department: national leadership, forest sector development, forest environmental quality, and science and technology.

The litmus test for the new department will come when attempts to balance its traditional emphasis on industrial uses of forests with what senior Forestry Canada staff term the "new reality" — the need to find a workable balance between the traditional economic/development

approach to forest use and the "new reality" need to balance for the use and conservation of all forest values.

Native forestry task force begins work

Harold Derickson came up with the idea, and the province of B.C. has agreed to establish a task force on native forestry, to recommend — within 10 months — ways to increase native participation in the forest sector. The six-member task force will be chaired by Derickson, who is president and manager of the Intertribal Forestry Association of B.C.

Members of the Task Force are Earl James, chief of the Ehattesaht Band in Campbell River; Don Moses of the Lower Nicola Band; Jack Toovey, Fletcher Challenge Canada; Bob Christie, chief foresters for Gorman Bros. Lumber in Kelowna; and Peter Levy, manager of native affairs with the B.C. Forest Service.

Their mandate is to document the current level of native participation in the forest sector, identify and assess constraints to native participation, examine existing govern-

ment forestry-related programs for native people, and recommend ways to increase native participation in the forest sector.

Job conversion strategy for spotted owl withdrawals

Up to 75 per cent of jobs threatened by the creation of Habitat Conservation Areas for spotted owl in northwest old growth forests can be saved by a jobs conversion scheme, according to an editorial in the *Seattle Post-Intelligencer*, Seattle, Washington, July 28, 1990. The plan includes: 1) a ban on all exports of Northwest raw logs (15,000 jobs); 2) a federal program to help job seekers find work, match skills with jobs, retrain (7,100 jobs); 3) a new fisheries management program in spotted owl areas (600 jobs); 4) a program to count and monitor spotted owls (350 jobs); 5) a program to tear up roads in spotted owl preservation areas (1,000 jobs); and 6) a program to employ more people preparing Forest Service timber sales (1,500 jobs).



Old-Growth Strategy Alternative Proposed

Little doubts remains about the failure of the B.C. Forest Service's "Old-Growth Project." [See p. 7, this issue.] Its inability to effectively deal with broadly-based public interest in preserving areas of old-growth forest is well recognized, even within the forest industry. Here's an example:

A paper which circulated in June, written by a MacMillan Bloedel forester familiar with the now year-old Forest Service "Old-Growth Project," called for the formation of a Premier's Advisory group which would provide advice on broad strategy dealing with old growth. A second element in the plan calls for local Community Forestry Advisory Boards (CFABs).

The Premier's Advisory Group, according to the proposed replacement plan, would be composed of environmentalists, biologists, and resource managers, together with representatives from special interest groups and Community Forestry Advisory Boards. The objective of this group would be to advise the Premier and his cabinet on global, national, and provincial concerns relating to old growth and forest land management practices and policies.

The CFABs would be composed of elected representatives (or their appointees) from city councils and regional districts of local communities directly affected by manage-

ment decisions on old growth and forest land management. The objective of CFABs would be to advise, and have direct input in, any decisions which affects local communities.

The proposed plan also calls for CFABs to fit into the existing 5-year logging plan referral process and to function as any other agency in that process.

The objective of the proposed plan was to 1) achieve and retain favorable public opinion; 2) develop community support for government and industry policies, and improve communication and understanding regarding old growth.

Industry Plans Demise of B.C. Old-Growth Project

FPC Staff Analysis

The British Columbia forest industry has created a new organization to coordinate industry action on old-growth forest issues. Calling itself the B.C. Forest Sector Old-Growth Committee, membership includes the Council of Forest Industries, Northern Interior Lumber Sector, Cariboo Lumber Manufacturers' Association, Interior Lumber Manufacturers' Association, IWA Canada, Share B.C., and Canadian Women in Timber. Long-time industry activist Pat Armstrong, operating under a company called Moresby Consulting has been chosen to be the "secretariat" for the new committee.

In November of 1989, the provincial government formed "The Old-Growth Project." This attempt at a comprehensive review of provincial old-growth forest issues, according to the Ministry of Forests, was as a result of "concerns raised in the public submissions to the 1989 (Dave Parker) Ministerial review of the proposed conversion of forest licences to tree farm licenses..." Some 1500 oral and written presentations were received by the Forest Service during a series of eight province-wide information sessions personally chaired by former forests minister Parker. The subsequently created Old-Growth Project was given approval by the Cabinet Committee on Sustainable Development, with funding approved by Treasury Board. (See also *FPC* 6:6, p.7; 6:1, p.40. The Old-Growth Project has clearly been interpreted by industry as a half-hearted commitment of the provincial government toward using a consensus model. Within a consensus model, participants are expected to at least first to attempt to settle their disputes within the consensus group. However, the industry committee launched its new initiative, highlighted below, without even having discussed its concerns with the other participants of the Old-Growth Project. The industry brief was sent to Deputy Forests Minister Philip Halkett without first being presented to other participants of the Old-Growth Project for consideration. This action confirmed to others in the Project, that the forest industry sought to undermine the Project.

Industry's B.C. Forest Sector Old-

Growth Committee, which for purposes of clarity will be referred to here as the Armstrong Committee, was formed in early October. First reports of its existence were rumored in connection with industry dissatisfaction of efforts by the Forest Service's Research Branch to undertake unbiased scientific research on a variety of old-growth forest issues. Participation in the Forest Service-sanctioned Old-Growth Project, totalling nearly 89 people, was sponsored by the Ministry of Forests, with membership balanced to reflect a wide cross-section of representation from industry, community groups, scientists, academics and government agencies. During the past year, the Old-Growth Project examined some 85 candidate old-growth forest protection areas submitted for consideration by various public groups and individuals. Of these, 17 of unspecified size were recently forwarded to a Interministry Management Committee (IMC) for further review and possible approval. The IMC is chaired by provincial Chief Forester John Cuthbert.

The Armstrong Committee, formed after the Old-Growth Project has been meeting regularly for nearly a year, has prepared a brief outlining a lengthy list of concerns which were submitted to the Ministry of Forests' Deputy Minister Philip Halkett on October 15, 1990. The brief says if industry concerns are "not addressed, (it may) prejudice the Old-Growth Project's findings and prevent a *workable* old-growth strategy from being developed." (Italics in the original Armstrong Committee brief). Here are the main points raised in the brief:

- The brief objects to the fact that "The Old-Growth Project is largely pursuing the establishment of old-growth reserves and wilderness areas while at the same time altering silvicultural practices across the board."

However, the industry brief acknowledges that written direction given to Old-Growth Project participants by the Ministry of Forests includes precisely these two prime directives: "Identifying recommended areas for old-growth protection (e.g., as an ecological reserve, park or wilderness area); and identifying possible changes to forest practices to maintain important old-growth attributes and areas in which this is most important."

The brief says that industry does not believe the terms of reference provided by the Ministry of Forests will "balance with the economic and social requirements of the province, and regions of the province..."

- The brief says the "Project also has an imbalance of representation," claiming the "bulk of participants in the Project come from environment groups, academe and government." The brief calls for the addition of "two community representatives" from unspecified forest-sector-dependent communities."

- The brief also says the Project has operated without informing or seeking input from forest-sector communities.

- The brief asks that "no further substantive decisions be made" by the Project until an acceptable definition of old-growth is agreed to by the Armstrong Committee.

- Once agreement is reached on an acceptable definition, the brief says the definition "should be applied to a thorough inventory of old growth in the province." The inventory, the brief says, should focus initially on forests within provincial and national parks, ecological reserves and lands outside the 20-year planning horizon of commercial forest harvest. [Emphasis

"Identifying recommended areas for old-growth protection, and possible changes to forest practices to maintain important old-growth attributes and areas in which this is most important."

Forest Service mandate to Old-Growth Project

added] [FPC: Were this recommendation accepted by the Ministry of Forests, the original two-fold intent and purpose of creating the Old-Growth Project to 1) "identify areas for old-growth protection, and 2) identify possible changes to forest practices, would be completely negated. And, as originally proposed by former forest minister Parker, the overwhelming majority of views expressed by the public in the eight 1989 information meetings would be ignored. The *raison de etre* of the Old-Growth Project is to deal with areas of old-growth forest under immediate threat of logging.]

- The brief asks the Forest Service to research "alternative management options for the maintenance of biological diversity" in order to ensure that "large-scale landscape reserves" are unnecessary.

- The brief asks the Forest Service to "create an old-growth fund" to compensate "affected parties... in the event that action results in damage to a stake holder."

- The brief asks the Forest Service to ensure that no old growth is protected unless the Forest Service guarantees that the rate of logging by industry is unaffected.

- The brief asks for the Inter-ministerial committee chaired by provincial Chief Forester John Cuthbert to become an "appeal process." The "appeal process," according to the brief, would only allow appeals from 1) the person or group which originally proposed one of the 89 candidate areas for protection, or 2) from licensees, affected communities and workers. All other citizens would be excluded from access to the "appeal process."

- The brief complains that "There has been a tendency to select research consultants for the project without first canvassing a broad range of candidates within a given discipline." "While this may be related to the need to expand research," the brief says, "it should be noted that the choice of consultants may bias the outcome of research." "The forest sector committee recommends that the process for choosing project consultants be reviewed with the goal of balancing the variety of scientific views held on the conservation of old growth. Requests for proposals should reflect this objective."

Further information on the work of the B.C. Forest Sector Old-Growth Committee is available via their Secretariat: Patrick Armstrong, Moresby Consulting, 6573 Southampton Road, Nanaimo, B.C. V9V 1A5, (604) 390-2020, or (Fax) 390-3556



A Mechanism that Involves Community Participation in the Settlement of Environment Disputes

Research Branch, Library of Parliament
(With Emphasis on the Timber, Fish and
Wildlife Agreement of Washington State)

Highlights of a 18 May 1990 paper prepared by the Research Branch, Library of Parliament, Political and Social Affairs Division

The Canadian Bar Association (CBA) Task Force Report, *Alternative Dispute Resolution: A Canadian Perspective* (1989, p. 18) makes the point that environmental disputes have certain qualities that differentiate them from more traditional disputes. They include 1) irreversible ecological effects may be involved, 2) the nature and boundaries of the dispute are often indeterminate, 3) one or more parties to most environmental disputes lack defined legal or contractual rights, and 4) implementation agreements may pose special problems.

In light of these characteristics and the fact that judicial and quasi-judicial mechanisms have had limited success in mitigating conflict, **alternative dispute resolution approaches** have been used increasingly to find solutions to disputed environmental cases.

"Given the extensive use and apparent great potential of negotiation in settling environmental disputes in Canada, it is remarkable how little research has been undertaken to evaluate its productivity and guide its development. It is extremely difficult to be analytical about the experience to date because of the limited number of case studies that have been written up, the diverse and partial frameworks that have been applied in those that have been studied and the lack of analytical framework appropriate to the systems of natural resources governance in Canada." (Dorcey and Riek, 1987).

The above quotation is intended to highlight the fact that, with a few exceptions, there is a paucity of generalizations that can

be derived from the environmental dispute resolution literature in Canada, as well as in the United States. The scanty literature that does exist provides voluminous descriptive facts without analysis. And, it is noteworthy that it fails to give prominence to the role of community involvement and representation. **One of the key points advanced in support of alternative dispute resolution is that it provides access to community groups to participate in environmental conflicts unlike the traditional approaches.** Yet, this is given short shrift or simply ignored in the literature.

In spite of these significant limitations, this paper will attempt to bring some conceptual order to the literature and to provide the reader with an overview of research findings with respect to dispute resolution approaches in environmental issues. The role of the public in environmental dispute resolution processes is discussed in the conclusion of the paper. The paper highlights environmental mediation, negotiated rule-making and negotiated environmental assessment. It also describes the case study of the mediated Timber, Fish and Wildlife agreement in Washington State. This agreement incorporates mediation, negotiated rule making and negotiated assessment dispute-resolution approaches.

The CBA identifies the primary ways disputes can be resolved to be negotiation, mediation, and adjudication. The role of a third party, in general, accounts for the differences between these dispute resolution processes. Briefly, negotiation involves parties in a dispute coming together to resolve their dispute without resort to an imposed decision rendered by a third party. Mediation involves a neutral third party who assists parties to negotiate an agreement but who does not have the power to render a binding resolution. Adjudication involves a neutral third party who after