



The erosion of the forest land base: a Canadian example

by L.G. Hayley, SR/WA

The British Columbia Ministry of Forest has estimated that the commercially operable forest land could be reduced by 25% by the year 2000.

L.G. "Len" Hayley, SR/WA, is the Supervisor of Property Administration for MacMillan Bloedel Limited Timberlands and Properties Division.

Hayley is a member of Vancouver Chapter 54. He serves as the Region 10 representative on the International Professional Development Committee. This paper was first given at the 1984 International Education Seminar.

The purpose of this paper is to shed some understanding of a serious problem developing in North America — the erosion of the forest land base. This lack of understanding stems primarily from two classes:

1. The forest industry has failed to adequately voice its concerns, and
2. The specialized single purpose parameters of an individual's career, (e.g. the R/W agent's job is to negotiate for and to purchase land for a specific purpose within the primary interests of his/her employer. The possibility of knowing the concerns regarding forest land loss would not be great.

In consideration of those who are not familiar with Canada, the Province of British Columbia, nor the importance of the forest industry to our economy, a brief geographic description and economic profile is warranted.

Canada's area of 3.8 million square miles makes it the second largest country on this planet. The Soviet Union is the largest.

Within Canada there are ten Provinces and two Territories. British Columbia is the third largest province. To emphasize the size of British Columbia we can compare it to approximately three times that of the State of California. California, however, has the approximate population equal to all Canada.

The landscape of British Columbia is dominated by vast, variegated forests, and is rich in natural resources that play a role in economic life and the natural environment unmatched elsewhere in the developed world.

Another conspicuous feature of this Province is its extreme terrain. The full range of topographic conditions is found.

Mountain ranges bracket extensive interior plateaus, major rivers bisect them; and, in the west, sinuous fjords cut deep into the coastal mountains.

These extreme topographical influences, combined with the climatic patterns of British Columbia, which can change from a coastal rain forest to semi-desert conditions in just a few miles, produce some of the most varied forest environment on the North American continent.

Importance of the forest industry to B.C.'s and Canada's economy

Canada's economy depends on the

exporting of its natural resources, and none have contributed as much as the forest resource.

When it comes to earning foreign currency through exports, forest products make the largest single contribution to Canada's trade balance. Its share is larger than metals, food and agriculture, fisheries and the automotive industry combined. Converting the timber into hundreds of useful products creates more incomes than any other Canadian manufacturing activity. The forest industry employs more people and pays more wages than any other sector of the economy.

British Columbia's forestland constitutes more than 50% of the commercially available timber reserves in all of Canada. This is primarily due to British Columbia being blessed with a forest resource which covers approximately 50% of the total land base, 75% of which is under sustained yield management. Sustained yield simply means managed for a perpetual supply of timber.

Nearly all the timber harvested in British Columbia is manufactured in the Province. Log exports average only about 2% of total production. By far the most important product in terms of the volume of timber logged is lumber. The pulp and paper industry is the next largest user of wood with approximately 2/3 of its raw material in the form of chips

produced as a by-product of sawmilling. The third major manufacturing process, considerably smaller than the other two, is the veneer and plywood industry.

To further illustrate the economic importance of the forest industry to British Columbia, let us examine MacMillian Bloedel Limited, an integrative forest products company. Formed in 1911, the company now directly employs 16,000 people worldwide. It is Canada's largest integrated forest products company.

Through major land acquisition and company merger programs, MacMillian Bloedel Limited developed a substantial raw material base. On British Columbia's West Coast we have over 400,000 acres of private fee simple land and 2.6 million acres of government granted long term forest tenures.

The Company, by integration over the years, has developed worldwide forest holdings, including converting and manufacturing facilities, transportation and marketing facilities, along with its own research department.

Today, the Company has the capacity to produce *annually*:

1. enough lumber to build 110,000 average sized homes,
2. enough newsprint to publish all of Canada's newspapers,
3. enough bales of pulp to reach more than 487 miles into the sky, (Mt. Everest is only about 5½ miles high),
4. enough corrugating medium to pave a road more than 9 feet wide and 423,000 miles long. The average distance to the moon is about 240,000 miles.

Now I have just thrown at you a number of statistics which should indicate the economic importance of forestry to Canada, and particularly British Columbia.

Of course we can make statistics do anything we want, statistics are like bikinis — what they reveal is suggestive — what they conceal is vital.

But these statistics should not hold any surprises for us in British Columbia and other forest dependent regions of North America. We can see what ripple effect the economic downturn within the forest industry has had on British Columbia, it has seriously affected most

sectors of the economy, especially government revenues.

With guarded optimism, the forest industry should reach stability again by the end of the decade. We must remember, though, that external economic influences will continue to dictate the level of activity within our forest industry.

Assuming we will again be a vibrant industry, the long term future of our forest economy depends upon the careful management of the forests. These factors will help to ensure a healthy forest economy in the years to come:

1. Principle of sustained yield,
2. Realistic tree harvesting specifications,
3. Increased forest protection against insects, disease and fire,
4. Prompt regeneration of logged-over lands,
5. Improved genetic and silvicultural techniques, and
6. *Protection of the forestland base for future harvests.*

Erosion of the forest land base

In this area of "high tech" and electronics it is easy to overlook the economic importance of this industry.

The future of forestry hinges upon our ability to meet the challenge of developing effective means of reconciling industry forestry with other forest uses and social objectives. To realize the full range of potential values requires improved public understanding.

We also have to recognize that as we plant forest crops that will take a century to mature, history contains many examples of technological and other change that have undermined economic dependence upon a particular natural resource, e.g. Sugar.

But, there is a growing problem that has to be nipped in the bud. If not, it has the potential of a disastrous effect on the mainstay of the Canadian economy, especially that of British Columbia. It is the loss of prime forestland to single purpose uses. Examples include parks and hydro lines.

Forest values and pressures for change

MacMillian Bloedel recognizes that the forests of British Columbia produce many products and service other than timber:

DICK AVAZIAN
PRESIDENT

GENE SCHMOLL
VICE PRESIDENT

RIGHT OF WAY ACQUISITION • SURVEYING •
TELEPHONE ENGINEERING • MINERALS LEASING •
ENVIRONMENTAL IMPACT STATEMENTS •

NFS

NATIONAL FIELD SERVICE CORP

NATIONAL BLDG., 162 ORANGE AVE.
SUFFERN, N.Y. 10901 914-368 1600

- they support wildlife
- they comprise watersheds that produce flows of hydro-electric power
- they provide vegetative cover essential for the protection of rich sports and commercial fisheries
- they represent a vast recreational resource.

In our Province today up to 400,000 acres of forests, previously undisturbed by man, are being logged each year. Logging is increasingly taking place on environmentally sensitive sites on steeper terrain where soils are often unstable, at high elevations where regeneration and growth are slow, and on rugged ground where road building leaves deep scars on the landscape. If we are to lessen the impact of logging on these particular lands then it is most important to protect and preserve the better growing lands occurring in fertile valley bottoms and in less environmentally sensitive areas.

There is also every reason to expect the demands for outdoor recreation, protection of fish and wildlife and preservation of the aesthetic quality of the natural landscape to increase.

Satisfying these demands via ecological reserves, parks, etc. reduces the resource base available for forestry.

Now we all support new parks, farm land expansion and the like, but, we must appreciate that if the land involved is productive forest land, the benefit obtained is at a cost of future timber supply. In other words, there is *no free lunch*.

In the initial planning for major land projects which affect forestland, we as R/W Agents and Land Managers, must accept and respond in a positive way to the pressure for increased involvement by interested parties such as forest companies and professional associations representing forest interests.

1. We can accept the pressure for change and recognize it as a constructive, positive force,

or

2. like King Canute — we can stand on the foreshore and order the waves to retreat.

To deny or attempt to resist the pressure for change would be futile. Our choice is very simple.

Now that we have the human aspect of our concerns sorted out in theory, in reality we still have a problem.



The Problem

The rugged terrain and historical settlement patterns within accessible valley bottoms has created an intense competition for every piece of available land.

British Columbia began this century with vast tracts of land, an abundance of unallocated natural resource, and a pioneer ethic. The scale of everything was large and the population sparse. Nature required taming by the pioneering efforts of men and women with a taste for adventure.

Resource allocation took place in those days without much inkling of what it might be like in the 1980's.

We granted enormous ranching lands. We gave half of Vancouver Island to a railroad. We established enormous parks by the stroke of a pen. We burned off thousands of acres merely to expose mineral outcrops for exploration. Salmon were limitless, homesteading land was there for the asking, and a saw-filer was an advanced technologist.

Of course, like everywhere else in North America, B.C.'s pioneer era has slipped away. With the inevitable maturing of the Province from wilderness to settlement comes tremendous pressure on the forest land base.

Timber interests are forced to give way to community watersheds, recreation, range lands, and the list goes on and on.

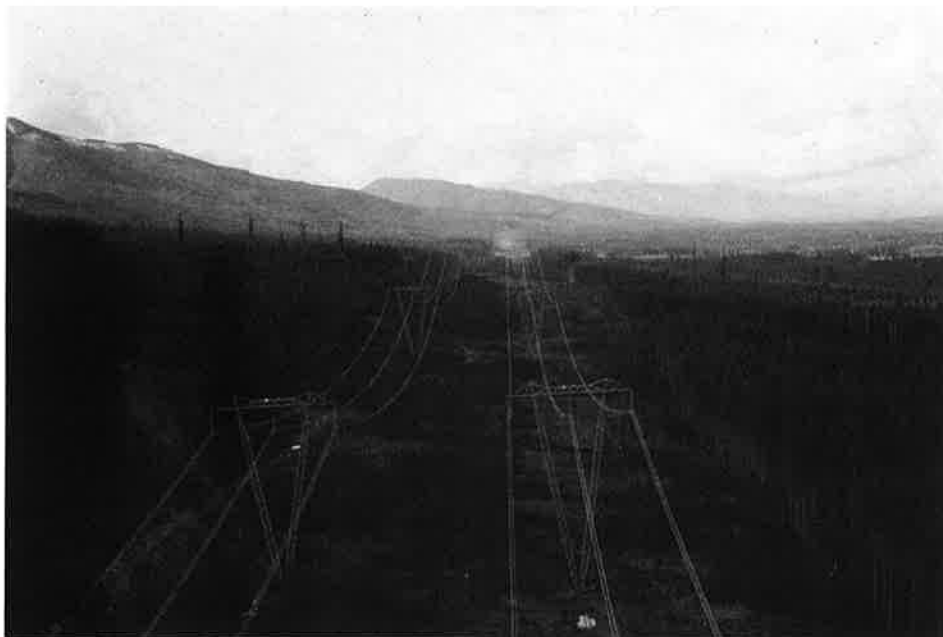
It is difficult to open a diary and flip through the pages of logging history and pinpoint the exact day B.C. stopped being a forested frontier and became a modern industrial province. This frontier did not fall apart in one day, it disappeared a bit at a time over the last 40 or 50 years.

We, in the forest industry, have long since had to realize that our forest resources in the province of British Columbia, and worldwide for that matter, are finite. The days of just packing up and moving to the next valley are long gone.

Oddly enough, this message may not have gotten across to the general public. It is ironic that the same public that for years has accused the forest industry of raping, robbing and pillaging the wilderness may, in this era, turn out to be the forest's worst enemy.

There is no single villain one can point a finger at and say, "Ah, hah — there's the culprit — the guy who's stealing the forests." It is not nearly that simple. In the world of Pogo: "We have met the enemy and it is us."

Throughout the Province, places that used to be rural villages have grown up. Up into cities of 30,000 to 70,000 people. All of these people need homes, of course, (which, incidentally, is good for the forest industry) and other life giving necessities. So, the forests give up more hundreds of acres in order that boule-



wards, crescents, access roads, highways, waterlines, powerlines, gas transmission lines, communication right-of-way, can sprawl and span over some of British Columbia's most valuable forest land. Then the people in these houses need lakes, rivers and parks for recreation and still another belt — often including thousands of acres — is removed from forestry to service those needs.

The growing pressure of the needs and requirements of the people in those towns, and the people crowding out of those towns and into the parks on weekends, in turn crates pressure on the wildlife of the forests for thousands of acres beyond the park boundaries.

The forestland bases throughout North America, perhaps considered to be frontiers, like old soldiers, don't die, they merely fade away. This may be a sad process, but it is hardly an unexpected one. In fact, it is the most natural process in the world. Since 1970 the forest land base in British Columbia has been reduced from 143,000,000 acres to 109,000,000 acres.

The British Columbia Ministry of Forest has estimated that the commercially operable forestland base could be further reduced by 25% by the year 2000. And, don't be fooled by that far way sounding date. The year 2000 is only 15 years away — which make it considerably closer than the payout date on half the residential mortgages in our province.

Gradually, one acre at a time, one day at a time, the different and conflicting interest that want to make use of the forests' resources find themselves jostling and elbowing each other for space.

Too often the forest industry is the loser in this tug of war. As we move toward the 21st century, the governments will find it necessary to pass stronger legislation that preserves forest lands for future harvests in precisely the same way they have now protected agricultural land from the developers' bulldozers.

It will have to be every bit as hard to build a subdivision, or even a five acre hobby farm, on forest land, as it is now to build a highrise condominium in the middle of a provincial or state park.

It is not just the moose or the bear and the alpine meadows that need protecting from the forest industry. The forests themselves may well become an endangered species unless tough protective legislation is passed and enforced.

We can no longer parcel out the forestland for separate uses as the demand for all of them grow.

Loss of forestland due to hydro projects

One of our major concerns in the forest industry today is the loss of valuable forestland to various single purpose rights-of-way (e.g. hydro lines). Since the population of British Columbia depends

generally upon hydro-electric power for its energy supply, foresters and other land managers must focus their attention to the present mode of transporting this energy (i.e. transmission lines).

Foresters are becoming increasingly concerned with the need to minimize the loss of prime productive forestland to transmission lines and water reservoirs as these withdraw significant amounts of land on a permanent basis. Hydro development certainly isn't the only force impacting on available forest land, but it is a major force.

It appears B.C. Hydro has found it much less hassle and cheaper to go through large blocks of forestland, both private and public, rather than negotiating a number of smaller separate land deals.

With the costs of transmission lines being \$480,000 to \$640,000 per mile, with right angle corners costing \$1,000,000 each, and underground powerlines costing ten times as much as overhead lines, you can appreciate the financial concerns of B.C. Hydro.

For these particular reasons, the Association of B.C. Professional Foresters prepared a report to the Provincial Government who ultimately is responsible for B.C. Hydro.

The report underlines that B.C. Hydro's mandate deals solely with the supply of energy and is therefore too narrow to properly consider the full range of land use issues involved in hydro-electric developments.

B.C. Hydro needs a broader perspective than merely energy production. Land management planning must be developed with social and economic goals defined on a provincial level.

Sure we need electricity, but are these huge hydro developments the most efficient way to generate it when all the "real cost," including lost forestry lands, are added in? Has anybody ever calculated all those real costs? If not, it's about time somebody did.

It may be that when all the numbers are added up we would still find that the huge hydro developments are the way to go. And, then again, maybe we wouldn't.

Until a solid independent analysis is done, the questions relating to real costs will go unanswered.

The fact remains, though, that sectors

playing a part in eroding the forestland base must be tackled on an individual basis. There is no point whatsoever in pointing the finger vaguely at a broad range of industries, park authorities, conservationists and the like and expect to get a universal hearing.

Hydro-electric power, no doubt, plays a vast and very important role in the industrial and social well being of B.C. It is extremely important though, that further withdrawals of land from forestry should be undertaken *only* after the most careful scrutiny. We must ensure that the province's social needs are the utmost important factor for withdrawing the land from use as forestland.

Regardless of what resource decisions will be made, if we are to maintain the resource based economy at its present level, and still allow an uncontrolled influx of population, we must conserve space. Why not utilize the space we already occupy in a more efficient manner?

The corridor concept

One method is to adopt a provincially accepted and controlled "Corridor Concept."

In simple terms, a corridor can be defined as a strip of land of sufficient width designed for the transportation of energy, commodities and communications.

I realize that there are operational problems in considering a corridor concept but, where physically possible, the idea must be promoted.

Because of accelerating land acquisition costs of major capital projects, we can no longer, as a society, afford highly desirable lands devoted to one agency's individual rights-of-way. The corridor concept has to be given serious consideration.

Conclusions and recommendations

The application of the Corridor Concept becomes almost impossible without the *formation of a single corridor authority backed by effective legislation.*

In the meantime, until such an authority is formed, the Forest Industry should explore two avenues:

1. Stronger legislation is required for the preservation of forestland. The Provincial Forest status does not afford

the needed protection from population growth and associated urban pressures.

2. An educational program (i.e. advertising, public meetings, etc.) for government, transportation and energy agencies, private business and industry and the general public to inform them of the need for preservation of our forestland.

Despite serious pledges by the Provincial Government to halt the erosion of the forestland base in British Columbia, one only has to travel the province to see the erosion continuing.

The government and its many facets has been compared to a beehive that has been hit with a stick — lots of activity by many nectar gatherers, warriors and drones, and somewhere in the background, a queen offering a focal point to the hive.

Unfortunately, we in industry often wonder what happened to the Queen.

While the political leaders appear to be aware of the issue of forestland withdrawal and the impact it will have on the future timber supply, jobs, markets, and government revenues, the voting public is not. Nor is the public aware that if properly planned, many of these alternative uses slated for forestland, such as parks, can be compatible with timber production and harvesting.

For most of us, discarding old ideas, favorite policies and philosophies, or, in the case of governments, a highly polished regulation is like performing your own appendectomy. The thing you are taking out is useless, and possibly even dangerous, but it hurts like hell to get rid of it.

It is going to be the forest industry that will have to identify and create public interest with the issue of forest land preservation. This, hopefully, will provide our politicians with the incentive they need to do something about it.

The forest industry, along with its respective professional associations, must create the mood of public opinion in which commitment to long term land use planning and effective resource management is seen as a priority. We need everyone's co-operation and understanding.

It is a challenge that must be met if our forest resources are to be properly managed for future generations.

Nashville in '85 Seminar Committee

Nashville in '85 promises to be a special event. You may read about the activities in our last three issues of RIGHT OF WAY. But, what of the men and women who have volunteered their time, energy, and talents to put together an event of this magnitude. It is our pleasure to introduce them.

Carol Croft is the Seminar Chairwoman. Her motto, "Nothing is ever accomplished without enthusiasm," has infected the entire Seminar committee. The results show.

Carol is a Regional Chief Appraiser for Tennessee Department of Transportation and has been with Tenn DOT for six years.

In her six years as an IRWA member, she has put together the Chapter newsletter, been recognized as chapter professional of the year, won the Chapter's Membership Award and President's Sphere Award, and is a SRWA candidate.

Rex Jenkins, Seminar co-chairman, has stated that IRWA is the finest professional organization he has ever been in, and that it is with a great deal of pride that we in Chapter 32 finally have the opportunity to show our gratitude for the confidence that you placed in us to host the Seminar.

Rex joined Tenn DOT in 1979. Today, he is the Chief Review Appraiser. He also joined the Association that year and has held virtually every office, including President of his chapter. He was selected as Chapter Professional of the Year in 1983.

Others who make up the Committee are Mrs. Shirley Adkins, MAI (Registration), John Hahn, Jr. (Arrangements), Steve Harper, Jr. (Transportation), James Comstock (Finance), Jerry Miller (Program), Martha Hahn (Spouse and Youth), Robert Martin (Exhibits), and Norman Hall, SRWA, MAI (Publicity).