

# Bill 70: All areas logged must be replanted

**Total Area of B.C.** 95 million hectares

Productive Forest Land 43 million hectares

Accessable Economic Forest Land 26.2 million hectares

Data Source: 1984 MOFL Resource Survey
Using historic results of re-survey ing NSR sites
for each region MOFL Silviculture Branch now
predicts that the NER 116 (not 3.6) million ha.

NSR & Stagnant 5.6 million hectares

Cleaning up the backlog

## **WSCA Members**

This list of the **paid-up** members of the WSCA will be published in each newsletter. If your name is deleted from the list you may need to attend to the payment of dues.

The list of members names and addresses is available to all members at no cost. This list is also sold to businesses that who wish to advertise their products or services through direct mailings.

(A) Indicates associate member.

#### Vancouver

Beaverfoot Resources Brinkman & Assoc Reforestation Cardinal Reforestation Cascade Resources Ltd. Coast Range Contracting Ltd. Emerald Forest Corp. (A) Forsite Contracting Green Mountain Services Highrigger Forest Mgmt. Loki Reforestation Mountain Reforestation Oliver & Giltrap Osprey Silviculture Operations Skookum Reforestation Western Reforestation Co-op Whiskeyjack Reforest. Ltd. Zanzibar Holdings

#### Kamloops Region

736-8660

Nu Growth Industries Ltd. (A)
Arland Reforestation Services
Crowpoint Enterprises Ltd.
Golden Raven Co-op
Grandy Reforestation
Hawkeye Reforestation
Mountain Pacific Forestry
Southern Okanagan Silviculture

#### Cariboo Region

Blue Collar Reforestation Cottonwood Reforestation Lid's Reforestation Likeley Reforestation Loxton Treeplanting Co.

#### Prince Rupert Region

Peiskar Contracting Roots Reforestation Summit Reforestation Ltd. Waterside Ventures Ltd.

#### Nelson Region

Arbolitis (A)
Cutler Contracting
Dark Star Forestry Ltd.
Evergreen Co-op
Fieldstone Resources Ltd.
Forestcover Resources Ltd.
Green Peaks Holding Ltd.
Jansma Reforestation
Mart Resources
Rothkop Contracting Ltd.
Siltech Reforestation Ltd.
Skyline Contracting Ltd. (A)
Talking Tree Forestry
Wildhorse Valley Treepl. Coop

#### Prince George

C.A.G. Holdings Inc. Celtic Reforestation Ltd. Folklore Contracting Integrated Silviculture Services Kahan Enterprises Mountain Top Reforestation Mudslide Contracting Ltd. Nechako Reforestation Services Nomadic Silviculture Seneca Enterprises Ltd. Serac Reforestation Ltd. (A) Shannon Silviculture Silvaram Holdings Ltd. Sundance Reforestation Tawa Reforestation Ent. Triple 8 Enterprises Twig Contracting Ltd.

#### Alberta

Next Generation Reforestation (A)
Tsuga Forestry Contracting

#### Ontario

Trees for Tomorrow Inc. (A)

## W.S.C.A. Membership Form

		•	
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		Donation \$?	
Post Code	Phone Phone		
Please send to:		Total Enclosed	. 1
W.S.C.A.		Total Ellologed	
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Vancouver, BC V6H	1E7		

# Western Silvicultural Contractors Association Newsletter Winter 1988

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## News Briefs...Brief News...News Briefs

## Section 88 off and on again

As we reported in the fall Issue, on Sept 15th (just as foresters advertised fall viewing) Parker announced that after October 1st the industry would not receive Section 88 credits. Advertising was no longer necessary, but it was too late for many foresters who had already advertised.

Preferred contractors immediately began to negotiate with clients who weren't already committed to open bids by having advertised them. Then at the end of October, Section 88 was resurrected for all projects **logged before** the Oct 1 deadline. Contractors who thought they had negotiated contracts found their work returned to the open market for competitive bidding.

This whirtwind of announcements made clear to many contractors the reticence of outside companies to invest in the politically volatile climate of BC.

## **M&B** Investigated

MacMillan Bloedel Queen Charlottes Division is being investigated by the RCMP for alleged falsifying of waste timber reports and for willfully overestimating its timber supply in order to increase its AAC. A recent series of articles in the Globe and Mail highlighted accusations by the Haida Council and some former M&B foresters. They also reported many analysts believe such "exaggerations" are common in the industry and that the provincial timber supply is vastly over estimated.

## Silviculture too high profile

The silviculture industry has finally come of age. Contractor equipment has attracted the attention of organized crime.

A few contractors in the Prince George Region have been subjected to what the RCMP describe as "stealing to order". Thefts that targeted trykes or other specific items while other valuables are left. The goods seem to be out of PG within hours.

## **Project Tender Guidelines**

The new project tendering guidelines announced by the Ministry (and reported in the last issue) have been extended to include FRDA contracts. In summary, the new guidelines allow direct awards for contracts up to \$25,000 and selective invitation for contracts up to \$150,000. On the other hand, the Ministry continues to insist that the new guidelines "should result in lower contract prices."

## PG industry crying wolf?

Members of the Northern Interior Lumber Manufacturers Association are claiming that stumpage increases combined with paying for regeneration will render their operations unprofitable. Several companies claim they will close their mills rather than operate under the new stumpage rates.

### **New Constitution**

Ross Styles and the Constitution Committee has presented a new WSCA constitution for consideration at the AGM. It contains many necessary amendments (e.g. provision for regional chapters) and innovative ideas. Copies of the proposed constitution will be available at the AGM working sessions on Saturday.

## **Nursery Fantasia**

In another surprise announcement, the Premier (true to his roots) declared that BC's seedling nurseries were for sale. Silviculture Branch Director Charlie Johnson and a group of nursery managers have made a bid for all of them. (See article on page 7 for more info.) To date there is no competing offer from Fantasy Gardens.

## **Newsletter Privatization**

Swept up in the frenzy of privatization the WSCA is considering "privatizing" this newsletter.

Proposals will be entertained (or entertaining) at the AGM.

### Silviculture Review

The Provincial Silviculture Review is now complete. The Steering Committee, Working Committee and key consultants will be meeting January 24th and 25th to review the reports and formulate reccomendations.

Stay tuned.

## **Truck Loggers**

From Jan 12th to 15th the WSCA has a booth at the Truck Loggers Convention.

This is a first for the WSCA.

The booth will promote the organization, solicit new members, illustrate the "World of Silviculture," and distribute information produced by the Association.

## **Editorial**

## **Transformation of Treeplanters**

To date we have been the Western Treeplanting Contractors Association.

Within the WSCA wolf-pack, survival of the fittest often appears to be the rule of the day. While survivors often experience it as hard work and luck, it is obvious to industry observers that the survivors are those who adapt to the changes of the times.

Our industry has been transformed under our feet. The WSCA itself must match this transformation. We can start by attracting the rest fo the Silviculture industry; the regen survey, the site-prep, the herbicide, the spacing and the consulting contractors.

#### An Illusion Suspended by Crisis.

While being a spokesman for contractors on the periphery of the events that shape our industry, I have been acutely aware of the ephemeral illusion of unity in our association.

The WSCA moments of unity were reactions to a crisis. Like a contractor racing around in a pickup writing notes while talking on the radiophone, the WSCA has been crisis management—reacting to changes after they are complete.

The present cataclysm of changes continues to increase membership.

It is time to plan a collective course of action for our industry.

#### Like green planters who lost the line.

Leadership without informed consensus suffers from a lack of credibility, integrity and coherence.

While we have come a long way with a professionally administered central office, not enough contractors are actively involved in the new network.

Our AGM, newsletter, presentations, and committee participation do positively affect the industry, yet they remain the work of a few.

Commitment and involvement are need from all members to have a free-growing industry and a sustained Association.

The WSCA represents the best possibility to create our future. Participate!

## Reforestation Industry Transformation

Treeplanting is a creation of public legislation. It has not had a natural market driven existence in western economy (Except for Christmas tree growers.) The new legislation represents the birth of silviculture. The impending falldown in AAC could be the demand that makes the new silviculture market driven.

#### Reforestation as motherhood.

Mater, originally referred to the mother tree, the source of life.

Materia, to a dead tree, cut up for use and commerce.

Past governments responded to the public's vague reforestation-as-motherhood sentiment with "see, we planted over 100 million trees."

The new forest legislation lives up to the motherhood ethic by requiring that every hectare logged shall be replaced with a new free-growing crop. This ethic requires that the harvesters pay for regeneration from the harvest.

### Harvest falldown

Recently we have seen much speculation and evidence in the media that we are overcutting the accessible and economic forest. (e.g. RCMP investigations of M&B in the Queen Charlottes, the Southern Interior Truck Loggers report, the Ewing report on PG.) Soon the figures from the Silviculture Program Review TSA survey will add another shock. When the timber supply areas are realistically reassessed, many will face a major reduction in their AAC. At the current rate we will run out of mature forest long before the second growth forest is ready for harvesting.

Continued next page...

### Reforestation Industry Transformation continued...

## Sustaining the Supply

Enormous increases in basic and intensive silviculture are the only way to reverse the rapid depletion of the forest supply without cutting the AAC.

The magnitude of the required silviculture program to stock the NSR & NCB (four million hectares) and space the overstocked second growth (two and a half million hectares) and brush the brushed-in plantations (? hectares) is beyond the ability of the forest industry to finance.

A dynamic that would sustain the supply in each timber supply area through intensive silviculture is not embodied in current legislation.

A policy initiative that could drive the silviculture industry with the need of the forest industry to sustain a supply of raw materials requires the integration of early plantation performance assessments with the stand yield tables.

## **Integrating Performance & Yield**

Currently, an accurate assessment of the contribution of a new plantation is made at age twenty one. Integrating the benefits of alternate levels of basic and intensive silviculture into the volume and AAC calculations is not possible. Creating incentives for high performance plantations is not considered feasible. Consequently, many companies are talking about simplifying their programs to meet the minimum standards—grow a tree; plant a tree; cut the extras (site prep., screefs, shading, fill-planting, etc.).

The incentive for excellent silviculture could be the opportunity to adjust the AAC upward from its possible new minimums.

## Industry should maintain AAC.

The companies should be made responsible to sustain the AAC in their timber supply area along with current regeneration. They should restock the backlog area on their tenured lands and plan and manage the intensive programs.

Some companies have been very diligent in

reforesting the cutover and do not have much backlog, some have enormous backlogs. The financial burden for maintaining the AAC will vary enormously from TFL to TFL.

## The Province's FRDA promise

One clause in the FRDA agreement states that the federal funds to reforest the backlog are not available for backlog created during the life of the agreement. The forest industry is being required to reforest everything logged after Oct 1st. The province committed to reforest all backlog areas created between April 1st 1982 and Oct 1st 1987. The leaves the pre1982 backlog and intensive treatments of the second growth still in need of financing. Intensive silviculture will produce the quickest (20 years) return in increased volume.

## FRDA pickup for falldown.

The FRDA was part of DREE that existed to support troubled economic sectors.

Massive Federal and Provincial funding will be necessary to sustain the harvest (and the forest industry). The current FRDA agreement is restocking the backlog at a rate of less than 2% per year is insufficient to mitigate a major reduction in the AAC.

With the funding of a major new FERDA the industry could sustain the harvest at the highest silviculturally feasible level.

The beneficiaries of intensive silviculture are provincial and federal governments (who receive the multiplier effects of increased economic activity) and the companies who will benefit from increased wood volume.

All three groups should share the cost of sustaining the AAC.

## Does silviculture pay?

The New Zealand companies aggressively moving into B.C. fueled by the national forests planted in the 1930's and 1940's. are a graphic example that silviculture does pay.

## Bill 70 - The New Forest Policy

Dirk Brinkman

On Dec 17th the silviculture portion of the new forest policy legislation was passed, requiring licensees to pay for regenerating all areas harvested after October 1, 1987. The U.S. Lumber Coalition pressured the government to pass Bill 70 before rebating the federal export tax to Forest Industry. Pressure also came from the Forest Industry who was being taxed twice: first by increased stumpage (plus regeneration costs) and again by the export tax. Excerpts from the sections of the Act that affect the Silviculture Industry appear later in the newsletter.

#### Default

Bill 70 contains a number of penalties if a company does not regenerate each area logged in compliance with an approved Pre-harvest Silviculture Prescription (PSP). After a written warning, the MOFL uses the Licensees cutting deposit to carry out the required silviculture work.

If this work depletes the deposit it must be replaced and penalties equal to the deposit are assessed. The costs associated with the inspections that determined non-compliance can also be billed to the licensee. Finally, the AAC will be reduced by 5% of the volume harvested from the area not restocked.

#### Preharvest Silviculture Prescription

A company that does not follow their Preharvest Silviculture Prescription will receive steep penalties. The Forest Industry will have to be careful that they can live up to their promises. MOFL will have to ensure that the promise is adequate to produce a free-growing crop.

#### Free Growing Crop

The regulations to enforce the new forest legislation are currently being written. These regulations will define "a healthy crop not impeded by competition" for each biogeoclimatic zone. A legal definition of free-growing is going to change the number of areas.

#### Regeneration Delays

Timing is essential in establishing a commercial crop of healthy trees that are not impeded by competition from other vegetation. Plantations become exponentially more expensive to establish with each year of delay after logging. Some companies are adopting the policy of regenerating all sites rather than waiting to see if there will be sufficient natural regeneration.

#### Future Volume

The regulations must clearly define regeneration deadlines and require a stocking survey to ensure that a plantation is established. Otherwise, many licensees may delay their obligations, gambling on an improved financial picture, or a miracle of natural regeneration. Such delays would be disastrous to the future of the forest industry and to the provincial economy. (Some analysts are predicting severe wood shortages in 17 years.) For silviculture contractors, this "wait and see" game would mean a decrease in the total silviculture program. On the other hand, strong regulations could increase planting by up to 300,000,000 seedlings per year.

#### Comparative Value System

The legislation that defines the Comparative Value Pricing System will be submitted to the legislature in February. The picture of industry's silviculture responsibilities is not complete because the cost for silviculture part of the Comparative Value (according to the Sept. 15th Forest Policy Announcement). The industry is currently lobbying for relief from the combined burden of increased stumpage rates and having to pay for regeneration. This lobby may yet change the character of the future silviculture industry.

The Adjusted Value Formula determines a certain level of revenue that the forest must produce. This has the effect of increasing the stumpage for the survivors when mills close down or are phased out. The reduced volume is required to produce the same revenue. Shut-downs during a poor market will rapidly increase costs for those still harvesting creating a snowballing of closures. Inefficient operators will be very rapidly weeded out.

## FRDA Forest Sector Advisory Committee

The WSCA was invited to participate in a new committee established to provide input to the FRDA management process. The first meeting was held September 22, 1987. Other organizations represented on the committee include: PRWA, MOFL, BC Forestry Association, Canadian Forestry Service, Northern Interior Lumber Manufacturers, Forest Nurseryman's Association, Cariboo Lumber Manufacturers, UBC Faculty of Forestry, BC Wildlife Federation, BC Cattleman's Association, Ministry of Environment and Parks, Federal Dept. of Fisheries and Oceans, Forest Engineering Research Institute of Canada, Association of BC Professional Foresters, and the Council of Forest Industries.

(An update on the current FRDA agreement appears later in this issue.)

#### Committee Terms of Reference

To provide an avenue for communication between those responsible for managing the FRDA agreement (the Management Committee) with those whose occupations or industries or other resource management responsibilities are most affected by the activities and by the outcome of those activities conducted under the Agreement (the Forest Sector).

#### Committee Chairperson

The Committee has elected Bob Cavill of the BC Forestry Association as chairperson for subsequent meetings. Mr. Cavill indicated that they will be preparing to respond to the FRDA Management Committee.

Mr. Cavill asked the committee members to submit a paragraph on what they expect from this Forest Sector Advisory Committee.

Table

Distribution of NSR Area by Forest Region (Good and Medium Sites Only)

Forest Region	Hectares
EL EL JAVOI	00.400
Vancouver	20 400
Prince Rupert	40 500
Prince George	488 700°
Kamloops	51 400
Nelson	93 700
Cariboo	43 400
Total	738 100

#### \* Includes 348 419 ha of non-commercial brush

## WSCA priorities for the FRDA Advisory Committee

Dirk Brinkman

#### **Current FRDA**

- Update the records for the backlog according to the recommendations for revised definitions of the backlog that are expected from the Silviculture Review.
- Research inexpensive reforestation systems (such as direct seeding) to reforest the extensive poor sites in the province.
- Let contracts encompassing all phases of the rehabilitation of some of the backlog areas in the present FRDA agreement as models for the first end-results contract.
- Identify the effects of existing (and potential) stock handling, field storage, and planting quality regimes on growth and performance.
- Examine the effect of site preparation on planting productivity and seedling growth.
- Support further research into the ergonomics of silviculture workers and the development of new equipment and techniques.
- Identify the kinds of jobs created by the basic and intensive FRDA silviculture work and priorize jobs that extend the silviculture worker's season.
- Identify the social and economic benefits to isolated, single forest industry communities of the FRDA agreement.
- Identify how many FRDA dollars creates a full time job. (I guess \$20,000-\$30,000 per job.) This may be the cheapest job creation instrument the government has.
- Estimate the total forest value created by the present FRDA.

#### Future FRDA Agreements

- Develop a comprehensive plan for the complete elimination of the backlog:
  - Regenerate 80% of the good and medium sites and 20% of the poor sites in the next two phases of FRDA (goal the year 2000).
  - 2. Regenerate the remaining 80% of the poor sites and 20% of the good and medium sites in the following two phases of FRDA (goal the year 2010).
- Crank up a green machine to raise public and political awareness of the urgency and value of regenerating the backlog.

# Privatizing the Nurseries

Dirk Brinkman

The Director of Silviculture Branch, Charlie Johnson and the head of private nurseries, Ev VanEerden, in concert with the management teams of six of the nine Provincial Nurseries have bid for a province wide fleet of nurseries. If successful they will become the largest private nursery operation in Canada producing 55 million seedlings (See the table for comparison with other private nurseries). Each of these nurseries was designed to be expanded and has enormous capacity for increased volume.

The Ministry has announced that existing sowing contracts with private nurseries will be phased out over the next five years (see the accompanying report). Existing private nurseries are concerned that the sale will create a sudden overcapacity in the market. This could have an undesirable effect on the long-term stability of this crucial phase of silviculture. Another concern is that the selling price will be artificially low and devalue existing private nurseries in the eyes of their bankers.

The interesting question for lean contractors is whether these bureaucrats who served in the cozy mansions of government for so many years can survive our bleak arctic of cruel competition.

If the current negotiations fail to come to an agreement with the employees, the nurseries will be offered for public tender in February. It appears that the Duncan and Green Timbers nurseries may be available in any case.

## Private Nursery Contracts

B. E. Marr, Deputy Minister of Forests & Lands

The Ministry of Forests and Lands will not terminate any current commercial nursery contracts. At a minimum, these contracts will be maintained at the committed level, which allows for expiry of existing contracts over the next five years, as shown on the attached table.

Secondly, the Ministry will continue to allocate sowing to licensee nurseries, for a period not exceeding five years, to eliminate the particular licensees' outstanding obligations for those areas denuded prior to October 1, 1987. The total allocation will be up to twenty-five (25) million seedlings per year, subject to budgeting. Seedlings from all types of nurseries will be paid for at commercial rates.

		SOWING LE MILLIONS OF BY FISCAL	P TREES		
NURSERY	88/89	89/90	90/91	91/92	92/93
ARBUTUS GROVE	3,300	2,000	1,200	900	0
H 4 B	300	300	300	. 0	0
SYLVAN VALE	3,600	3,300	0	0	ō
VALENTINE	500	0	0	0	0
HAMMER	900	900	900	500	٥
HYBRID	5,200	5,200	3,200	1,200	Ď
PELTON	21,400	17,100	13,800	0	ŏ
REID COLLINS	7,800	6,400	6,000	0	ň
UBC	1,000	1,000	0	0	ň
CROWN	800	800	800	Ď	ŏ
DAVERON	4,800	4,800	2,800	0	ő
MOUNTAIN VIEW	800	800	800	800	ň
K & C	7,100	3,300	0	0	ň
HI-GRO	2,000	2,000	1,000	Ď	ŏ
IFS	8,000 *	3,700	2,200	600	ň
RUFF'S	2,800	2,500	800	400	ň
SUMMIT	2,500	2,500	0		ő
WOODMERE	4,800	4,800	2,300	ō	ō
TOTAL	77,600	61,400	36,100	4,400	0

<sup>\*</sup> INCLUDES 3 MILLION TRANSPLANTS FOR 1988/89 ONLY

#### And the seeds...

The regions have been asked to quantify their needs for a 10 year seed supply of Interior Spruce, Douglas Fir and Western Larch and a five year supply of other species.

The remaining Ministry inventory will be available for purchase by licensees. First refusal will be given to Licensees who collected the cones. Licensees are now responsible to maintain an adequate supply of seed for their planting program, otherwise they may be unable to fulfill

their regeneration requirements. This could create an opportunity for private seed dealers. Licensee seed will have to be tested, registered, stored at the Provincial Seed Center in Surrey. The Ministry's Tree Seed Register and Inventory System is essential to ensure the genetic integrity of seed being used for Crown lands.

(This information is summarized from a letter

(This information is summarized from a letter from Dave Wallinger, Silviculture Branch Forester responsible for Cone Collections.)

## Adjustment Committee Report

Dr. Bill Wedley

Chairman of the Silviculture Joint Adjustment Committee

Economic and other benefits resulting from B.C.'s rapidly growing silviculture and reforestation industry may be in jeopardy unless improvements are made in recruiting and training the necessary work force. The consultants' report of the Silviculture Joint Adjustment Committee that examines human resource issues has now been tabled.

There have been dramatic increases in reforestation activities, but serious questions have been raised about both the availability of workers and the ways in which they are used. Under new forestry policy implemented last September, costs and responsibility for replacement of trees shifts from the government to the companies who hold timber harvesting licences. This places a greater degree of responsibility on the contractors, but also offers them new opportunities.

The consultants' report shows small contractors still find it easy to establish themselves in the industry. But as the industry matures, only those with good managerial and supervisory skills will survive. These firms will help make reforestation and silviculture as important as the harvesting function.

Problems facing the industry include an extremely high rate of employee turnover, lack of stability and poor regulation of camp standards.

The work is strenuous and can be hazardous. We know little about long term effects of working among herbicides, pesticides and slash burnings, and there is always the risk of accident when working with dangerous tools in rugged terrain.

Yet in spite of the uncertainties, people continue to enjoy working in the industry. They like the pay, and the outdoors.

Improving management practices has a direct result on quality and productivity of the work. Length of the work day, crew size, number of consecutive days worked, types of tools and work methods, and fatigue management all affect both quality and productivity.

Workers seem relatively satisfied with the piece rate system but there are complaints about nonpayment, late payments and quality fines. In many cases, pay practices were not in accordance with B.C.'s legal standards, nor did workers always get what they were promised.

Contract quality fines and planter penalties are illegal but some contractors do pass on all or part of the fine when there are dollar penalties to the contractor. Another complaint is that most planters do not receive their full pay until one to four weeks after a contract ends.

Workers are not usually paid for time lost due to travel, camp set-up, or postponed or cancelled contracts and there are few medical or dental programs available to planters.

Many problems grew out of the previous system of awarding government contracts to the lowest qualified bidder. The new policy allows forest companies to consider additional criteria besides cost, and to establish more stable working relationships with contractors. The low-bid system left contractors unable to plan ahead and this resulted in unstable worker relationships with high labor turnover, and encouraged cutting corners in quality and in camp improvements.

Contractors wanted either multiple-year or multiple-phase contracts, but were less willing to accept end results contracts, because they believed too many non-controllable variables, such as weather and deer grazing, affect plant growth.

Surveys show women are presently working at silviculture, but better recruitment procedures could make the industry more readily accessible to them and to other potential employees.

A recent profile of silviculture workers shows that 88 per cent of tree planters ar under 35 years of age, 78 per cent are single, 33 per cent are female and 57 per cent have attended university. Silviculture is the sole source of income for over half of all planters, with earnings from a work season of 11 to 15 weeks per year.

Employee surveys showed workers were most concerned with sanitary conditions and camp comfort, rates of pay, improving communication, cutting fewer corners, and safer means of travel.

To obtain a copy of the committee please contact:

Professor William C. Wedley Faculty of Business Administration Simon Fraser University Burnaby, BC V5A 1S6 (604)-291-4528

## Tree Talk

Carl Loland

Note: Speech given to Western Forestry and Conservation Association, Portland, Oregon, December, 1987.

The guiding theme for this series of talks, is how can we do a better job in silviculture. I could give you a list of complaints contractors are famous for, and I haven't completely given up that idea. However, I'll start with a discussion of how to improve both growth and survival of seedlings for a minimal cost.

The formal definition of silviculture: the art and science of growing trees does not fit practical silviculture. In field practice, silviculture is 10% art, 10% science and 80% people management, but many contract administrators know about only the science part of the equation. They can measure to the 10th of a millimeter, but have no understanding of why the growth and survival is good or bad. I fault the universities and technical colleges who emphasize the science aspect of silviculture but ignore the critical area of people management and communication.

In my experience 25% of government and company field administrators have no interest in silviculture and even less in the people performing the work. This lack of interest is very quickly picked up by the crews and contractor, and no one likes to do a job that is not appreciated. An alienated contract crew will never give you their best. The job may appear satisfactory, but hidden damage (such as poor tree handling) may affect future growth and survival. I estimate that 1 to 3% of tree mortality is due to crew alienation.

We must recognize that many people still view silviculture as dull and uninspiring. A person who has no interest in silviculture, and whose primary objective is a promotion into harvesting should never be forced into silviculture.

One of the important factors influencing contractors' costs, is change. Change means unknown risk and increased costs. The silvicultural industry in B.C. is still very young and change is the norm. Almost every year the government makes

major policy changes in stock handling, stock type, checking or planting volumes. Every change brings costs for retraining and for additional risk in the first year. Until some form of stability is achieved prices will continue to fluctuate.

The contract itself often contains clauses that seriously affect a contractor's efficiency. Some contracts have unrealistic time constraints: the contract must be finished in five days at a production rate of 30,000 to 40,000 trees a day. Camp set up and breakdown, start up and clean up mean lost production time and that can increase costs drastically. Seven days should be the minimum duration of any contract.

A related problem occurs on high production contracts (40,000 or 50,000 trees/day) where the contract administrators do not have the organizational structure to deal with such large volumes. Time is lost because of problems with tree deliveries and inadequate areas opened. The use of large crews on small blocks is very inefficient because every second day is a clean-up or moving day. The contract administrators must be realistic in their demands and be sure they have the infrastructure to handle the volume.

We talk about efficient contractors yet we bring all contractors down to the lowest common denominator by adding contract clauses that specify the number of supervisors (or checkers or tree carriers) required, crew organization, or the number of working days in a week. My job as a contractor is to make the most efficient use of my manpower, so don't tie me down to an inflexible system of 1 foremen for every 10 planters. I have foremen capable of looking after 20 people and foremen who can handle only 6 people. Such restrictive clauses are usually conceived because of poor contract administration in the past. Don't penalize all contractors because of one bad experience and the administrator's failure to deal with it.

If you are serious about reducing costs and obtaining a quality product, you must hire reliable contractors. An administrator who knowingly

hires a poor contractor must take responsibility if the project is a failure. Year after year many poor contractors struggle through because of a great deal of help from contract administrators. I know of a case where the contractor sent in a large crew with no foremen or supervisors. The company supplied the foremen and training for the crew. I don't have much sympathy for that approach.

Reputable contractors have certain expenses that cannot be cut, yet they are expected to meet the price of contractors who are prepared to cut essentials. Choosing the lowest price for one small step of the process may make the total cost much higher.

An encouraging trend in the field is the increased emphasis on microsite selection instead of a rigid spacing regime. In theory we are always planting to microsites, however, in practice spacing is easier and cheaper to supervise because you can use relatively unskilled people to measure distances. The contractor must meet the spacing standards while utilizing the best microsites available. In most cases the plot system still emphasizes spacing over site selection, but signs of change are evident.

More care must be taken when doing site prescriptions, especially as contractors become responsible for fulfilling the prescription requirements. I know of a contract where the finished block took only half the trees flown in. Instead of flying them out the contractor was instructed to interplant at 4' spacing. This was on a contract with very strict spacing requirements being enforced. It was some time before that crew could take reforestation seriously.

I have outlined several areas where I think that it is possible to cut costs and lower prices. I want to emphasize that communicating in a positive manner with a contractor and his crew will bring many benefits: better tree handling, better survival, better utilization of the site and, last but not least, fewer sleepless nights.



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## **Cariboo Chapter Report**

Susan Lovejoy & Doug Potkins

While no careful analyses have been done comparing 1988 bid prices with 1987, we can draw general conclusions. The trends were similar in all the districts, though they were more clearly drawn in the northern Cariboo.

For most MOFL contracts, the number of bidders increased dramatically from last year (30% to 100%). In the few of instances of drastic low bidding, out-of-province or new local contractors were responsible. Less than half of the licensee contracts in the Cariboo were offered to a restricted number of invited bidders. The remaining licensee contracts also had an increased amount of bidders.

Most foresters responsible for processing the bids maintain that the prices they received were "roughly what they expected," i.e. they haven't changed much since'87 (and'87 prices weren't up much from'86 either). A couple of them have said that on contracts with invited bidders, the prices tend to be 2 to 3¢ higher than their ministry counterparts.

Where '87 and '88 prices can be compared for the same contractor, they tended to drop slightly (5 to 10%) or to jump considerably (30 to 40%). These latter prices were, of course, much higher than the prices being accepted. Although there were occasional mild increases in price and a few examples of drastic decreases, the average in the Cariboo appears to be a decrease of 5% to 12% from spring '87.

Cariboo contractors have the same concerns as others regarding the effects of the new forest policy. For example: the probable inconsistency in licensee contracts and camp standards enforcement, how to keep a rein on errant licensee checkers without MOFL monitoring, and how to get invited to bid on all the juicy contracts.

## **Nelson Chapter Report**

Dave Jenkinson

At a recent chapter meeting we drafted some resolutions to present at the AGM.

#### Resolution #1

The WSCA draft a letter to the MOFL and all licensees stating the WSCA position on the need for accurate stocking density information at the time of viewing. Stocking density clauses in all planting contracts should be based on recent surveys (completed less than 7 months prior viewing or 1 year prior to planting). These surveys should be 90% confident and state this on a survey form that is distributed at the time of viewing.

#### **Supporting Statement**

Recently contractors have suffered problems due to inaccurate, non-existent or out of date survey data. Current information is vital for bidding accuracy (especially on area-based contracts). The contractor is often is at the mercy of survey data on whirlwind viewings. Inaccurate data caused at least one termination in 1987 in the Nelson Region.

#### Resolution #2

WSCA membership dues based on a percentage of gross contract revenue. We recommend between 0.2% and 0.3%.

#### **Supporting Statement**

The WSCA is maturing and achieving a much higher profile than it had a few years ago. With this higher profile comes the opportunity to affect meaningful change in our industry. In order to take advantage of the opportunities that exist we need to increase our involvement in those processes that create the rules of our game. A very small percentage of gross will not affect our competitiveness.

#### **Assumption**

The WSCA represents approximately 85% of the trees planted in B.C. or 150 million trees. At an average price of 28¢ that means \$42 million gross revenue.

- At .2%, dues would be \$84,000
- At .25%, dues would be \$105,000

#### Possible budget allocation

\$21,000	Current budget (from dues)
\$5,000	Additional for newsletter
\$40,000	Full time manager/coordinator
\$5000	Office rental
\$5000	Travel expenses
\$5000	Part-time staff: special projects
\$81,000	Total

Some contractors think they cannot afford to pay more dues. Many of us think we can't afford not to.

#### Resolution #3

The WSCA hire a full-time paid coordinator and manager. This person would be responsible directly to the executive.

#### Supporting statement

We feel that it is time for this organization to become more meaningful and effective. We must increase our presence where it counts. No one can deny that there are a myriad of tasks for a person in this new position, including:

- Sustaining and increasing membership
- Lobbying government and industry
- Liaison with other professional associations
- Assist on the newsletter
- Research into funding
- Distribution of information to members
- Physical presence in the office
- Public relations

and many more...

#### Resolution #4

The WSCA heartily endorse and support the MOFL's new invitation guidelines. Members should not complain if they are not invited to a viewing.

#### **Supporting statement**

There is some concern among Ministry personnel that use of the new guidelines will result in complaints from contractors who were excluded. As a result they refuse to take advantage of this opportunity. Continued complaints may make the MOFL cancel the guidelines.

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# **Contractor Performance System**

Brian D. Storey
Silviculture Branch

The Silviculture Branch has replaced last year's "Variable Security Deposit System" with a more extensive system covering all major aspects of silviculture contracting. Data on contract performance has been assembled from several sources and compiled into one data base. The data lists the contractor's name, administration numbers of all contracts signed and the number of hectares successfully completed, mutually cancelled or failed (including dropped, or noncompleted units).

The percentage of successfully completed hectares is calculated from the total of successful plus failed and is used to determine the contractor's overall performance in each of the four areas. A separate performance class is calculated for planting, site preparation, stand tending and surveys.

#### PERFORMANCE CLASS "A"

"A" Class Contractors must have a weighted average percent success equal to or greater than a cutoff level. These levels are 97% in planting for each of the last two years, 97% in site preparation with a minimum 50 ha. completed in 1987, 95% in stand tending with a minimum of 50 ha. completed in 1987 or 98% in surveys with a minimum of 1000 ha. completed in 1987. (Note as data has been collected for one year in site preparation, stand tending and surveys, these minimum hectarages will be required for this year only.)

This group of contractors is eligible for a 50% reduction in the amount of the security deposit which must be posted (i.e. from the normal 10% to 5% of the total contract value). This list will be published. Class "A" contractors may also post a performance bond rather than a cash security

deposit.

#### PERFORMANCE CLASS "B"

"B" Class Contractors have a weighted average percent success of less than the above limits for either of the last two years. This list is not published and contractors are required to post the full 10% security deposit.

#### PERFORMANCE CLASS "C"

"C" Class Contractors have been contracting for less than two years. This list is not published and contractors are required to post the full 10% security deposit.

#### PERFORMANCE CLASS "D"

"D" Class Contractors are ineligible for government funded contracts due to non-compliance with Employment Standards Act, WCB, Ministry of Health or other bona fide complaints from government agencies. Contractors in this class must clear up their business dealings with the appropriate agency and inform the Silviculture Branch of the resolution of the situation. This list will be published and amended as necessary.

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## **Camp Standards**

C. M. Johnson

Director, Silviculture Branch

As you are well aware, minimum standards for silviculture camps were introduced last year to reverse the rapidly deteriorating living conditions found in field camps. These standards are intended for use in all silviculture camps, not just planting camps. Contract administrators did a good job in enforcing the standards last year. The result was an improvement in living conditions and worker health well above the expectations of either Silviculture Branch or the Ministry of Health. You are all to be congratulated for a job well done!

As per the original "Memorandum of Understanding" signed with the Ministry of Health, the standards have been reviewed with some changes and improvements. The most important of these is the inclusion of refrigeration, showers and dry rooms as mandatory.

The Ministry of Health argues that both legally and morally there is no reason why workers in a field camp should be subjected to higher health risks than in a normal living environment. They have told us that their long-term goal is to have food handling and sanitary facilities in camps as close to restaurant standards as possible.

Practically, this means kitchens and showers in trailers, full-time trained cooks, and dining rooms with proper floors. We can expect their demands to increase annually until this standard is achieved. The Ministry of Forests and Lands' has no objection to this long-term goal provided there are practical means of compliance at reasonable cost. Contractors would be wise to keep this in mind when deciding on camp equipment purchases.

#### Licensees

As per W. Cheston's memo of August, 1986, your continued support in this program is requested. As licensees do the lion's share of silviculture contracting in B.C., no program such as this can be successful without your participation.

The local Public Health Inspector would appreciate a copy of some form of notice that a camp will

be set up in the area similar to the Ministry of Forests and Lands' "Notice to Commence Work". They may also request assistance in locating camps during the field season to satisfy themselves that camp standards are being met. Your cooperation is appreciated.

#### **Contractors**

Improvements in camps have been significant in this first year of the minimum standards. However, to quote Ministry of Health officials, "there is still a long way to go".

Their major complaints were in the areas of water supply, reporting of illness, cleanliness of kitchens, and storage of food. Some changes have been made to the standards to improve the sanitary condition of food service areas. Refrigeration, dry rooms, showers and privies in minimum numbers have also been made mandatory.

One of the Ministry of Health's greatest concerns is with reporting of communicable diseases. This is required under law (B.C. Reg. 4/83 of Communicable Disease Regulation). They assure us that they can and will trace camp operators who do not report illnesses, and lay charges.

#### **Contract Administrators**

The Ministry of Health has agreed that one notification of a contract is sufficient. A copy of the "Notice to Commence Work" must be forwarded to the local Public Health Inspector. The onus is on him to contact the district regarding camp locations, inspections or other details. Your continued cooperation is appreciated.



## Giardia

from an article by Mark Frank, M.D.

At one time you would think nothing about bending over to sip water from a "fresh" mountain stream coming directly out of a glacier above timberline. But the risk of Giardia infection is changing that.

Giardia lamblia is classified as a protozoan with a two-stage life cycle. First, it is an encapsulated cyst, the infective form and most difficult to eradicate. After the cyst is ingested by a suitable host (the organism has been found in humans, beaver, deer, elk, sheep, goats, dogs and cats) it proceeds to the upper portion of the gastrointestinal tract where it becomes a pear-shaped, multi-flagellated trophozoite (a protozoan in a vegetative state) that can multiply by simple fission. It is very active and will attach to the intestinal wall to begin rapid multiplication, forming new organisms until the upper portion of the gastrointestinal tract is densely populated. Then, some organisms will form cysts that are passed in the stool. A stool from an infected animal can contain hundreds of thousands of cysts and an infection can be acquired from ingesting as few as one to 10 cysts.

#### **Symptoms**

In humans a diverse spectrum of symptoms can result from an infection. A severe infection is characterized by the onset of diffuse abdominal discomfort and distention, colic, flatulence, and frequent loose, explosive, foul-smelling stools. This may occur one to three weeks after ingestion of contaminated material. In less severe cases. the initial phase may be milder and is followed by a more chronic phase of nausea, flatulence, abdominal cramping or distension, or watery diarrhea, which may create a malabsorption-like syndrome. There also are cases where the infection may be asymptomatic. In certain areas of the U.S. five to 10 percent of the people harbour the infection without recognizable symptoms, making it very difficult to eradicate. Currently, the World Health Organization lists giardia among the top 10 human parasites; it is now

recognized as the most common parasite of man in the world today.

#### Prevention

From the backcountry user's standpoint, prevention is the most important consideration. First, all water in the backcountry must be considered suspect. Cysts in animal feces may survive in glacial snow and springs can be contaminated by animal droppings. Second, all water that is ingested, used in cooking or in preparing a meal should be treated. Finally, human contamination of water should be prevented. Human waste should be buried six to eight inches deep at least 150 feet from any water supply and not upstream of that supply. The topsoil should be returned to its original position afterward.

#### Water Treatment

Currently, there are three recognized forms of treatment for contaminated water. One involves the use of a disinfectant such as iodine tablets or tincture of iodine, halozone, or hydroperiodide. A second method is to boil the water. Dr. Don Monzingo, a parasitology doctorate graduate at Colorado State University (CSU), has documented that giardia cysts are killed at temperatures of 131 F. Dr. Charles Hibler, director of CSU's Wild Animal Disease Center, believes it is sufficient to bring water to a rolling boil at whatever altitude. This should destroy the Giardia cysts as well as infectious bacteria (water boils at 194 F at 10,000 feet). A final option for water treatment is filtering. The cysts average eight by 12 microns long and six to eight microns thick (a micron is one millionth of a meter). Three EPA-registered filters, the Katadyn, First-Need and H20K, are available. The H20K requires use of a disinfectant as well as filtering. but the less than two microns (Katadyn has a 0.2 micron pore size and the First-Need has a 0.4 micron pore size). The expense, durability and techniques vary among these units. Although they are bulky and heavy, filters provide a 100 percent margin of safety if used correctly.

## **Local Giardia Notes**

Peter Talbot

As a follow up to this article on Giardia, I made a few inquiries about the hazards in our local mountains. Unfortunately, little is known about the areas frequented by us mountain folks. Most studies tend to concentrate on major water sheds, and those in the Vancouver area are still regarded as very safe. Some interior towns have had out-breaks in the past, but these are few and far between. According to the biologists at the Environmental Health office there are several different strains of Giardia, and each have different survival rates in a host and when in a water supply. Testing for the presence is difficult because it can't be grown in a lab situation, only in a host animal, so it's no use bringing in a bottle of water from your favourite alpine haunt.

So far we have been very fortunate with our alpine water sources. Snow melting off ridges is still likely the safest source, as well as small drips above the domain of animals. Potential risk increases with the frequency of animal presence. Still no alpine areas are considered to be high risk in the coast range.

As users of the backcountry we can help preserve our pure water sources. On Club trips it is only logical to locate the "pot" in a non-drainage area away from small streams. Perhaps it would be a good idea for trip leaders to indicate an appropriate area at a camp and for all to follow suit. A few moments work with an ice axe, or moving some rocks will render an adequate biffi. The location can even be chosen to take in the view if desired. Simple landscaping upon leaving the area will restore the appearance.

#### Silviculture Branch Note:

Despite Dr. Frank's water treatment recommendations the only method of treatment acceptable under the Silviculture Camp Standards is boiling or hauling from a community water system. The Ministry of Health advises that disinfectants are not effective against Giardia cysts in cold water unless high concentrations are used and filters work only for a short time before they become plugged and break down.

# Licensee Reforestation Responsibilities

B. E. Marr
Deputy Minister of Forests & Lands

This directive clarifies recent policy decisions with respect to industry responsibilities for areas harvested prior to October 1, 1987.

The Ministry will finance licensee basic silviculture responsibilities for the period prior to October 1, 1987. Licensees will perform the required work with only direct costs, exclusive of overhead, being compensated. Direct costs will be adjudicated according to present Section 88 procedures.

District Managers must approve those blocks which are to be considered as pre October 1, 1987, obligations. Further details on this approval process, budgetary limits, sowing requests and contract/payment procedures will be forwarded to you as early as possible.



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## **Worker Transport Requirements**

This material was obtained from W.C.B. and is dated February 18, 1987. It outlines their vehicle requirements for transportation of farm workers and applies to silviculture workers as well. Contract officers may find it useful when they find what appear to be dangerous vehicles used to transport workers. Contract officers do not enforce W.C.B. regulations but are obliged to report infractions to W.C.B. Industrial Safety Officers.

#### Industrial First Aid Regulation #1.26

Any conveyance used to transport workers shall meet the requirements shall be equipped with first aid kits as follows:

Seating Capacity	Size of Kit
Including Driver	
1 - 3 workers	#01 Unit Kit
4 - 6 workers	# 1 Unit Kit
7 or more workers	# 2 Unit Kit

#### Industrial Health and Safety Regulation #28.06

- No materials, tools, or equipment shall be carried in any portion or compartment of any conveyance where workers are riding, unless these are so placed or secured as to prevent them from injuring workers.
- No animal shall be transported in the operator's cab or passenger compartment of any vehicle transporting workers, except in special facilities provided for the purpose.

#### Industrial Health and Safety Regulation #28.12

Compliance should be achieved on all points with the exception of #28.12(i).

- Vehicles regularly or primarily used to transport workers shall:
  - a) be of design and construction acceptable to the Board
  - b) have bodies strong and rigid construction, securely fastened to the vehicle chassis
  - c) have rear or side doors, equipped with latches operated from the inside and outside. Side doors, where fitted, shall be located on the right side of the vehicle. All doors shall be closed and latched while the vehicle is in motion.
  - be fitted with at least one emergency exit, located on the left side or rear of the vehicle, fitted with a latch operator from inside and outside.

- e) not employ curtains in lieu of side walls or doors.
- be fitted with a window or means of communication when a bulkhead exists between the operator and passengers.
- g) be provided with safe means of access and egress, by way of adequate steps, having nonslip treads. Functional handholds shall be installed.
- h) have adequate illumination of passenger space by means of electric lamps.
- have well constructed and properly secured seats, providing at least 16 inches seating width for each passenger.
- j) have adequate means of ventilation independent of the doors.
- be fitted with adequate service brakes and a mechanical parking brake. The latter shall be engaged when the vehicle is left unattended.
- 3) Vehicles shall be properly maintained, and shall be thoroughly inspected each day before used to transport workers. Any defects which might affect the safety of workers shall be corrected before workers are carried in the vehicle.
- 4) Such vehicles shall be operated by competent drivers licensed in accordance with the provisions of the Motor Vehicle Act of British Columbia and, if required, the Industrial Transportation Act of British Columbia:
  - a) Drivers transporting workers must have:
     Class 4 licence to operate a vehicle having a seating capacity of not more than 24 passengers.

    Class 1 or 2 licence to operate a vehicle of any

Class 1 or 2 licence to operate a vehicle of any seating capacity.

Note: Does not include a motor vehicle equipped with air brakes unless specifically permitted in the licence.

- Drivers seat belt required on 1973 and newer vehicles.
- d) Drivers with a Class 5 licence are not permitted to transport workers other than members of their own family.
- e) Do not permit center bench seats in vans and panels.
- 5) Such vehicles shall be operated in accordance with the requirements of regulations 28.04 and 28.06, covering the carriage of harmful materials, tools and equipment.

Economic and social aspects of tree planting in B.C.

Note: The Candian Forest Service conducted this survey of workers and contractors in 1985. The stooped seventy year old planter on the cover prepares the reader for the depressing statistics inside. This is a must read for Foresters who believe they can squeeze a lower price out of their contractor. The following points are the Conclusions.

- Planting is a relatively unorganized activity. While some contractors belong to the Western Silviculture Contractors Association and some workers are unionized or belong to the Pacific Reforestation Workers Association, no widespread form of organization was apparent.
- 2) In terms of accommodation, tent camps predominate. Workers either provide their own food and accommodation, or the contractor provides these and charges the workers for the service.
- 3) The vast majority (86%) of workers are British Columbia residents. About 37% of the workers were hired in the area local to the project; the rest were hired elsewhere in British Columbia and Canada.
- 4) The workers are young and educated. Over 70% of the workers are 30 years of age or younger, and 37% are students. Of the workers who are not students, 89% have graduated from high school and 23% have at least one university degree.
- 5) The workers are generally experienced in silviculture work. About 70% of the workers had previous silviculture experience and 52% had at least three seasons of experience.
- 6) The duration of employment in planting is short, with long work days and weeks common. Planters worked an average of 12 weeks during the year, about 10 hours per day and 6 days per week. An estimated 1700 planters were employed during the 1985/86 fiscal year.
- 7) Workers' income from planting was modest, but accounted for a significant portion of total income. Planters income from planting appears to average about \$6,000 to \$7,000



per year, representing about two-thirds of all income. Student workers are more dependent than nonstudent workers on income from planting.

- 8) Wages are the most significant element of a contractor's costs. About 75 cents of each dollar paid by a contractor is for labour services.
- Further work in this area would be useful. In particular, similar studies of other labourintensive silvicultural activities should be considered.

The study is available from: Pacific Forestry Centre Canadian Forestry Service 506 West Burnside Road Victoria, B.C. V8Z 1M5

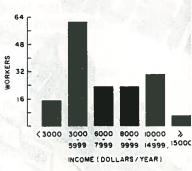


Fig. 2. Income from silviculture work by incomelass.

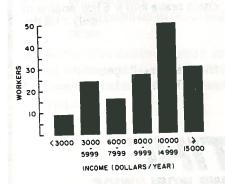


Fig. 3. Total income from all sources by income

## **WSCA** meets COFI

Dirk Brinkman & Tony Harrison

Note: The following is a summary of the presentation made to COFI by the WSCA.

#### TO THE COUNCIL OF FOREST INDUSTRIES

This is the first official interaction between our two organizations.

The new forest policy gives the forest industry the responsibility to regenerate all areas they harvest.

The WSCA has been charged by its members to address chronic issues in contract reforestation. In the past we have discussed problems with Silviculture Branch. Our discussions resulted in new clauses for the MOFL contract. We now require the cooperation of the forest industry to maintain solutions we have found to these is-

The WSCA believes that through dialogue with COFI we can improve the professionalism and cost effectiveness of the silviculture industry. Cooperative prevention can eliminate some chronic problems plus develop our industry professionally.

We have priorized the following four issues:

- 1) Stock shortfall and late delivery.
- 2) Pre-viewing contract specifications.
- 3) Camp Standards.
- Settlement of unresolvable disputes.

For the first three, we recommend that industry include the relevant MOFL clauses in all their silviculture contracts.

Our fourth recommendation is that contractors and the forest industry settle unresolved disputes using silviculture professionals rather than the courts.

The WSCA will present a draft procedure for auditing quality standards to COFI at a later date.

We look forward to a positive working relationship in the future.

## Meeting results

Note: The urgency of these discussions was relaxed by the extension of Section 88 funding to all lands harvested before October 1st, 1987.

WSCA presented the hope that a forum of Industry and Contractor representatives will create an improved climate for the silviculture industry.

COFI representatives reserved agreement on any of the issues until they heard from their members.

It was clear from the discussion on stock shortfall that the issue is too complex to use the MOFL clauses in their contracts (especially for coastal sites).

The COFI foresters generally agreed about including contract specifications (issue #2).

There was confusion about responsibility for camp standards. We pointed out that lack of enforcement will cost more in the long run because the Ministry of Health will abandon the agreement to allow reduced standards and insist on full industrial camp standards.

The COFI foresters weren't convinced of the need for a clause on settling unresolved disputes.

We recommend that there be a joint committee formed to deal with these complex issues and uniform application of agreements. The time and energy required to put a province wide industry agreement together before contract signing is beyond the WSCA's unanimity and the energy funding these ideas.

The WSCA regional chapters should meet with their respective timber industry associations to initiate dialogue on these and other issues.

Bill Dumont requested that the WSCA take a position on FRDA money spent on TFLs. Under the present forest policy, government money spent improving yield does not result in a higher AAC for TFL holders. This is a disincentive to doing intensive silviculture.

We recommended that all the four manufacturers associations select representatives to meet with the WSCA on silviculture issues. We may want to discuss further meetings at our AGM.

Although no solutions emerged, we feel it was positive to have initiated an examination of silviculture issues with COFL

To date there is no further reply from COFL

# FRDA Progress Report

Note: The following information is summarized from the FRDA progress report and from presentations made to the FRDA Forest Sector Advisory Committee.

The objectives of FRDA in B.C. are to:

- Manage part of the backlog of NSR lands
- Manage selected forest stands intensively
- Support forest research by government and non-government organizations
- Assist the forest industry through studies related to utilization, marketing and product development, technology transfer, and training.

#### FRDA funding and administration

The current five year FRDA agreement has three components: a cost shared program (\$240 million), a Provincially administered program (\$30 million), and a Federally administered program (\$30 million).

#### Cost shared program

The cost shared program has the following emphasis:

- Backlog reforestation
- Intensive Forest Management
- Implementation, Communications, Evaluation

A Backlog Reforestation Extension Demonstration Research and Development subprogram has been established to develop information necessary in addressing backlog problems.

#### Provincial program

The Provincially administered program involves work in the following areas:

- Research
- Nurseries
- Seed Production
- Pest Management
- Implementation

All work is incremental to ongoing Ministry programs and results will be available before the end of the agreement.

#### Federal program

The Federally administered program has the following components:

- Private Lands Program
- Indian Lands Program
- Research Program
- Implementation Program

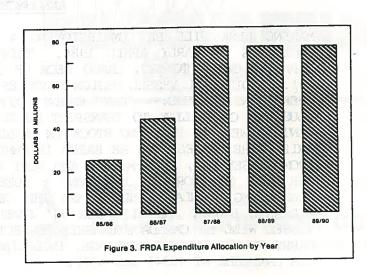
The Research Program specifically addresses problems associated with Backlog Reforestation and Intensive Forest Management.

#### FRDA Update

The complexity and fiscal constraints in managing FRDA has meant that a small portion of the funding has lapsed. The FRDA Management Committee is reviewing the opportunities to reprofile these allocations over the remaining two years.

The FRDA Progress Report can be obtained from:

Pacific Forestry Centre Canadian Forestry Service 506 West Burnside Road Victoria, B.C. V8Z 1M5



## **FRDA Recommendations**

Dirk Brinkman

Note: The following recommendations were made to the Federal Minister of Forests, Gerald Merrithew.

At federation the provincial governments were made stewards of the forest, inheriting both the rights to harvest and the responsibility to conserve and renew that resource. All the provinces have neglected their forest renewal responsibility by creating large backlogs of not sufficiently restocked lands.

A primary role of the federal government in the forests has been to assist the provinces in financing the reforestation of this backlog. Through the FRDA agreement the federal government can take more of a leadership role in enhancing the effectiveness of restocking the backlog.

I recommend the following:

- Commit the federal government to matching Provincial funding to achieve complete stocking of all of Canada's not sufficiently restocked sites by the year 2010.
- 2) Make the steady state level of current reforestation a condition for the renewal of present FRDA agreements.
  Do not renew FRDA Agreements of provinces adding to the backlog by inadequate reforestation of current logging and wild-
- fires.

  3) Make the amount of FRDA funding contingent on the results of previous FRDA programs.
  - Increase funding for Provinces that have effectively established free-growing plantations through the FRDA program.
  - Decrease funding to Provinces that have wasted FRDA monies on unsuccessful forest renewal.
- 4) Measure results in percentage of treated hectares that are well stocked with free-growing, healthy trees of the appropriate species.

In future FRDA agreements include incentives for plantation performance.

5) CFS assist the provinces in the biogeoclimatic zoning of their provincial forest base and correlate the zoning for all provinces (i.e. use a similar system of site classification).

A crude indicator of the value of renewing the

backlog is:

- a) Total NSR in Canada is 18-24 million hectares.
- b) B.C.'s productive forest base is only 23 million hectares.
- c) B.C.'s forest base generates \$7 billion GNP annually.

#### Forest Resource Development Agreements (FRDA)

The governments of Canada and all 10 provinces recognize the importance of the forest resource and the forest sector to the economic development of this country. Further, they recognize that there are problems with the forest resource that could jeoper dize the long-term stability of the forest sector.

Forest Resource Development Agreements (FRDA) establish cooperative programs to sustain and increase the torest resource and to strengthen the employment potential of the forest industry. Agreements exist with every province in Canada; however, the specific objectives, value, and cost-sharing arrangements vary from province to province.

The federal government is contributing \$571 396 000 to FROA programs while the provinces, collectively, are contributing \$519 234 000, for a total of \$1.09 billion.

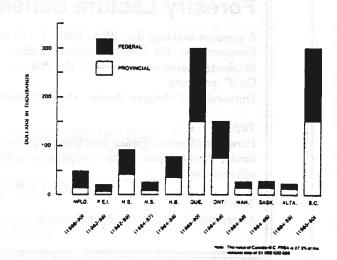


Figure 1. Forest Resource Development Agreements Across Canada

## BILL 70 - Amendments to the FOREST ACT

Note: The following excerpts from Bill 70 include most of the sections that concern silviculture

contractors.

#### **Definitions**

Section 1 of the *Forest Act* is amended by adding the following definitions:

basic silviculture means such harvesting methods and silviculture operations including seed collecting, site preparation, artificial and natural regeneration, brushing, spacing and stand tending and other operations as are prescribed to be required for the purpose of establishing a free growing crop of trees of a commercially valuable species

free growing crop means a crop of healthy trees, the growth of which is not impeded by competition from plants, shrubs or other trees.

**incremental silviculture** means silviculture other than basic silviculture;

#### major licence means

- a) a timber sale licence that has an allowable annual cut greater than 10,000 cum.
- b) a tree farm licence,
- c) a woodlot licence,
- d) a timber licence,
- e) a forest licence,
- f) a timber sale harvesting licence;

professional forester means a professional forester as defined in the Foresters Act.

#### Plan

Where in this Act a person is required to carry out basic silviculture, that requirement shall be construed as requiring the person to carry out the basic silviculture within an optimum time frame that is specified in the applicable pre-harvest silviculture plan.

#### Increase of Allowable Annual Cut

Where the holder of a forest licence or timber sale licence carries out incremental silviculture on Crown land the regional manager may increase the allowable annual cut authorized under the licence by a volume equal to the determination of the potential gain in timber production from the Crown land attributable to the incremental silviculture.

## **Duty of Crown Respecting Basic Silviculture**

Where harvesting of timber that yields small business revenue is carried out on Crown land, basic silviculture shall be carried out on the land by the Crown in accordance with the regulations.

### Duty of Major Licence Holders Respecting Basic Silviculture

- A holder of a major licence who harvests timber under the licence shall, at his own expense and in accordance with a pre-harvest silviculture prescription approved under this section, carry out during harvesting, and continue without interruption after harvesting, basic silviculture on the land from which the timber is harvested.
- 2) Before harvesting timber under a major licence, the holder of the licence shall prepare and submit to the district manager for approval a pre-harvest silviculture prescription for the land from which timber is to be harvested setting out measures for the carrying out of basic silviculture.
- The district manager shall not approve a preharvest silviculture prescription under this section unless:
  - a) the prescription is signed and sealed by a professional forester,
  - b) the prescription complies with the regulations, and

 the district manager is satisfied that the measures included in the prescription are adequate to ensure the carrying out of basic silviculture.

#### Destruction or Damage

- Where timber on land comprised in a tree farm licence or in a woodlot licence suffers destruction or damage, the holder of the licence shall prepare and submit a silviculture prescription for the land on which the timber was destroyed or damaged setting out measures for the carrying out of basic silviculture.
- 3) Where the district manager approves a silviculture prescription under this section the holder of the licence shall carry out the basic silviculture described in it at his own expense.
- 4) Where the district manager considers that destruction or damage was the result of natural causes or was not caused by the holder of the licence, and that timber affected by the destruction or damage has been rendered unsuitable for harvesting, he may, with respect to the parts of the forest so affected, relieve the holder of the licence of his obligations under this section.

#### Property in Trees

Trees established on Crown land by basic silviculture required by this act are property of the Crown.

#### Young Trees

The chief forester may dispose of young trees and enter into agreements for the growing of trees.

#### Default

- 1) Where the regional manager determines that the holder of a major licence has failed to comply with the requirements of a pre-harvest silviculture prescription, the regional manager shall serve a notice on the holder of the licence requiring the holder to comply with the requirements of the pre-harvest silviculture prescription within a time specified.
- Where the holder of a major licence does not, within the time specified, comply with the notice,

the regional manager shall at the expense of the holder cause to be carried out such work as is necessary to meet the requirements of the pre-harvest silviculture prescription and may for this purpose expend money deposited by the holder of the licence.

- 3) Where money deposited by a holder of a major licence is expended, the holder shall replenish the deposit and shall pay to the Crown a penalty equal to the amount expended.
- 4) Where the holder of the licence after harvesting fails to establish a free growing crop on the whole of that area in accordance with the requirements of the pre-harvest silviculture plan, the regional manager shall reduce the allowable annual cut authorized by or under the licence by a volume equal to 5% of the total volume of timber that the regional manager determines to have been harvested from the area specified in the authority.
- 5) Where a reduction in the allowable annual cut under a major licence is effected in respect of an area, no further reduction shall be effected under subsection (4) in respect of that area so long as it remains subject to that licence.

#### Reporting

The holder of a major licence who has obligations under a pre-harvest silviculture prescription shall once each year and at other times directed by the chief forester submit to the district manager reports signed and sealed by a professional forester containing information the chief forester requires respecting the performance of the holder's obligations under the pre-harvest silviculture prescription.

### Appeal

The holder of a major licence who is aggrieved by a determination made by the regional manager may, where the regulations so provide and in the manner they provide, appeal the determination.

#### Incremental Silviculture

No person shall carry out incremental silviculture on land on which there is Crown timber unless he first obtains the approval of the district manager.

## Mail In

## **WSCA Policing Members?**

The new structure in managing licensee controlled Crown lands will cause some problems in enforcing the camp standards uniformly. However, we have had one successful year with general cooperation from licensees. Most licensees agree with our position on camp standards and I suspect will continue to include them in their contracts. What is unfortunate yet likely is that a variety of standards will appear as some licensees change some parts of the agreement.

Regardless of what licensees do or do not do, the "cat is out of the bag" on camp conditions. Both Ministry of Health and WCB are interested in doing something to improve conditions and will act when problems arise. We will also continue to press for improvements.

As far as the WSCA is concerned, I feel that your organization should have taken a strong stance with your members years ago. However, it is never too late on something like this. Perhaps a good topic for your next convention is "How can WSCA police its own membership?" I would not be very keen on a "WSCA policeman" sort of idea, but action through your ethics committee when complaints are received might be effective for occasionally negligent members. The really bad ones you do not want in the organization anyway and this would help cull them out.

I feel that the WSCA can really strengthen itself by pushing a strong ethics committee. Employers will recognize this effort and look to your membership when they need new contractors. The ministry is still tied by our age-old restrictions on contractor selection, but licensees may now do as they please. I encourage the WSCA to get out there and sell them on your members by pushing the reliability of a self-policed organization. As a suggestion, contractor participation in the three silviculture committees has been sadly lacking over the years. This is the ideal forum to contact the licensees and win them over. Keep me informed of your progress.

### Brian D. Storey

Planting Program Specialist, Silviculture Branch

## Mail Out

## **WSCA Police Reply**

The WSCA is attempting to get the licensees' agreement to uniform enforcement of the silviculture camp standards on all contracts through their associations (COFI, MLA, etc.).

MOFL support may be possible through the Forest act. Certainly your office's encouragement and warnings to COFI will be appreciated. We are making a presentation to them on November 16th.

Our ethics committee has been active, I know, from when I was on it for three years. However, under our charter all activities are confidential and cannot be unfurled as banners of moral strength. Members and non-members who have been subject to discipline are aware of it. This had very little market or general value while the association was not representing most contractors.

Now that we have most good contractors as members those who are thrown out will be more ostracized. This gives the threat of dismemberment some clout. Association membership may now add professional credibility with licensees.

Thank you for your positive recommendation. I'll pass it on.

Dirk Brinkman

# The Thin Benefits of Reforestation

Dirk Brinkman

This is the second in a series of articles on the "thin benefits" of reforestation. I describe these as benefits that affect so many people to such a small degree that they can only be seen on a global scale.

If the present trends continue, the tropical forests will have been completely liquidated by the year 2050. This will seriously disrupt world climate patterns, agriculture, political stability, and result in the extinction of millions of tropical species. See the diagram below for a graphic picture of how the worlds tropical forest base is shrinking

What does Canadas reforestation program have to do with this situation?

A responsible national forest policy in Canada has to precede our preaching to impoverished tropical nations. Until we have replanted our own backlog, and balanced our national harvest with effective regeneration, we would not have the moral authority to argue against the policies of other nations. The long term effects of our lack of credibility will become apparent when the ultimate consequences of tropical deforestation emerge.

There are many innovative ways we can implement and fund tropical reforestation. The article opposite is a good example.

## Wildlife Fund Plans to Buy Portion of Ecuador's Debt

Reuter

The World Wildlife Fund says it will buy as much as \$10 million (U.S.) of Ecuador's debt from commercial banks and use the money to finance conservation projects in the South American country.

"Debt-for-nature" swaps are a relatively new idea. They chip away at the heavy debt burden of developing countries while helping to preserve valuable park lands or forests.

The fund reached a similar agreement earlier this year with Costa Rica, and another conservation group struck a deal with Bolivia.

"With this commitment, we are striking a blow for conservation that reduces the debt and strengthens the economy."

Working with a private conservation group in Ecuador, Fundacion Natura, the fund has to buy at least \$1 million and as much as \$10 million of Ecuador's debt from foreign banks.

The debt, which totals almost \$8 billion, can be bought from banks for just 30 per cent of face value, but the Government will convert the proceeds into local currency at a much higher price, giving the conservationists a high degree of leverage for their money.

The fund estimated that the swap will yield \$6 of conservation benefits for every \$1 invested.

The proceeds will be donated to strengthen the network of national parks and reserves in Ecuador, which has a rich variety of ecosystems ranging from the Galapagos Islands to the Amazonian forests, the fund said.

It said it is exploring debt-for-nature swaps with several other countries.

#### Loss of green cover

The three globes show the percentage of land covered by forest. In 1950, 30% of the land was covered by forest, half of which was tropical forest. By 1975, the area covered by tropical forest had declined to 12%. By 2000, we shall be lucky if tropical forests cover 7% of the land. This decline contrasts markedly with temperate forest, whose area remains constant around 20% (thanks to reforestation).

