Report of the Ministry of Forests

Year Ended December 31, 1979

Province of British Columbia
Ministry of Forests

Honourable T. M. Waterland, Minister
T. M. Apsey, Deputy Minister

March 14, 1980

The Honourable Henry P. Bell-Irving, D.S.O., O.B.E., E.D.,
Lieutenant-Governor of British Columbia.

MAY IT PLEASE YOUR HONOUR:

Herewith I respectfully submit the Annual Report of the Ministry of Forests for the year ended December 31, 1979.

Yours truly,

T. M. Waterland,
Minister.

March 14, 1980

The Honourable T.M. Waterland,
Minister of Forests,
Parliament Buildings,
Victoria, B.C.

Sir:

I have the honour to submit the Annual Report of the Ministry of Forests for the year ended December 31, 1979.

Yours truly,

T.M. Apsey

T.M. Apsey,
Deputy Minister.

Directory

Minister

Hon. T. M. Waterland, Victoria

Executive Committee

T. M. Apsey, Deputy Minister, Victoria
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R. W. Robbins, Assistant Deputy Minister, Operations Division, Victoria
W. G. Bishop, Assistant Deputy Minister, Timber, Range and Recreation Division, Victoria
J. C. Johnston, Assistant Deputy Minister, Finance and Administration Division, Victoria

Staff Consultant

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E. Knight, Director, Strategic Studies Branch, Victoria
C. J. Highsted, Director, Planning Branch, Victoria
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R. L. Schmidt, Director, Research Branch, Victoria
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D. H. Owen, Director, Protection Branch, Victoria
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L. W. Lehrle, Director, Timber Management Branch, Victoria
H. N. Marshall, Director, Recreation Management Branch, Victoria
R. D. Thomas, Director, Valuation Branch, Victoria
C. P. Williams, Director, Engineering Branch, Victoria
L. G. Underwood, Director, Personnel Services Branch, Victoria
R. W. Long, Ministry Comptroller, Financial Services Branch, Victoria
F. Towler, Director, Systems Services Branch, Victoria
J. Sheppard, Director, Legal and Administrative Services Branch, Victoria
J. H. Taylor, Director, Technical Services Branch, Victoria

Regional Managers

J. A. D. McDonald, Cariboo Forest Region, Williams Lake
A. B. Robinson, Kamloops Forest Region, Kamloops
M. G. Isenor, Nelson Forest Region, Nelson
D. Grant, Prince George Forest Region, Prince George
J. A. Biickert, Prince Rupert Forest Region, Prince Rupert
A. C. MacPherson, Vancouver Forest Region, Vancouver

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Deputy Minister's Message

Deputy Minister's Message

The year 1979 was a memorable one not only for the province's forest industry but also for the Ministry of Forests. It was a year when the province enjoyed a record timber harvest, more than 76 million cubic metres (m^3) — about one million cubic metres more than the previous record set in 1978. It was a year when forest and range revenues to the province exceeded $450 million, more than the combined revenues of the previous four years.

For many forest product companies, 1979 was also a year of record sales and earnings from near record production of the province's main forest products. Domestic and foreign demand for most of the province's forest products remained strong throughout 1979. Because of the lower value of the Canadian dollar, Canadian forest products were very competitive in world markets. While the performance of the forest industry in 1980 may not match that of 1979, it should still be satisfactory. Demand for lumber is expected to decline due to reduced residential construction activity in the United States, but the demand for other products, such as pulp and newsprint, is expected to continue at present high levels. The favourable longer term prospects for the provincial industry are reflected in the more than $1 billion of capital and repair expenditures made by the industry in 1979 to equip and modernize its plants.

Provincial revenues from range use also rose significantly from $560,000 in 1978 to $780,000 in 1979. This increase is due to a new system of assessing charges rather than real growth in the ranching industry. However, with higher prices for beef, range use did increase to more than 900 000 animal unit months (AUM's).

For the Ministry of Forests, 1979 was an extremely busy year. It was the year when new legislation, the Forest Act, the Range Act and the Ministry of Forests Act, gave new directions for managing the province's forest and range resources. Under its new mandate, the ministry submitted to the provincial cabinet three reports, *Forest and Range Resource Analysis Report, Forest and Range Resource Analysis Technical Report,* and *Five-Year Forest and Range Resource Program,* which examine the province's forest and range resources and set forth a program to maintain and enhance these resources. These reports will be presented to the Legislative Assembly in 1980.

The growing recognition of the importance of the forest resource to the province is also apparent in the rapid increase in provincial expenditures on silviculture over the past several years. In addition, the federal government and the Province of British Columbia signed an agreement in May 1979 to jointly fund a $50 million, five year intensive forest management program to be administered by the ministry.

In Victoria and in all six forest regions, 1979 was a year for reorganizing the ministry. It was greatly streamlined and decentralized to permit a more efficient and effective working structure to carry out its new mandate. A major part of the ministry reorganization has already taken place. The remainder will be completed in 1980.

The Ministry of Forests Act requires the Annual Report to present a comprehensive review and assessment of the ministry's forest and range programs. Since the first five year resource program does not become operational until April 1, 1980, such an evaluation is not possible in this year's Annual Report. The format of the Annual Report will change when the legislative requirements of the new Act can be met.

The ministry published several White Papers in 1979 to promote discussion on a variety of forestry and forestry-related subjects. The numerous responses to them indicated a great deal of public interest in the ministry's programs. We will continue to publish such discussion papers before major ministry policies or programs are formalized, to allow all interested parties to participate in their formulation.

In closing, I am pleased to say that, with the new legislation and a revitalized working structure, I am looking forward to 1980 and the years beyond when British Columbia and the Ministry of Forests will continue their leadership roles in the field of forest and range resource management.

T. M. Apsey

T. M. Apsey,
Deputy Minister.

March, 1980

I

The Ministry of Forests

An Introduction

The year 1979 will be remembered as a year of change. On January 1, 1979, three new Acts — the Forest Act, Range Act and Ministry of Forests Act — were proclaimed. They replaced the much-amended Forest Act of 1912 and Grazing Act of 1919 with a new administrative system. The Ministry of Forests Act elevated the Forest Service to a full ministry.

The new Acts are designed to provide incentives to those companies or individuals who practise good forest management and to penalize those who do not.

To fulfill its new role, the ministry is restructuring both in the field and headquarters. These changes are intended to decentralize decision-making authority and to strengthen central support services.

The Legislation

The Ministry of Forests Act

This Act assigns all of the duties and powers relating to forest and range resources to the Ministry of Forests except those which are specifically assigned to other government agencies. The purposes and functions of the ministry are stated clearly in Section 5.

"The purposes and functions of the ministry are, under the direction of the minister,

(a) to encourage the attainment of maximum productivity of the forest and range resources in the Province,

(b) to manage, protect and conserve the forest and range resources of the Crown, having regard to the immediate and long term economic and social benefits they may confer on the Province,

(c) to plan the use of the forest and range resources of the Crown, so that the production of timber and forage, the harvesting of timber, the grazing of livestock and the realization of fisheries, wildlife, water, outdoor recreation and other natural resource values are coordinated and integrated, in consultation and cooperation with other ministries and agencies of the Crown and with the private sector,

(d) to encourage a vigorous, efficient and world-competitive timber processing industry in the Province, and

(e) to assert the financial interest of the Crown in its forest and range resources in a systematic and equitable manner."

In addition, the Act requires the ministry to review the province's forest and range resources and to assess the effects of current management practices. In September 1979, the first *Forest and Range Resource Analysis Report* and *Forest and Range Resource Analysis Technical Report* were submitted to the provincial cabinet. These reports contain a description of all forest and range resources in the province and their current condition.

In addition, they provide a summary of relevant economic trends which affect these resources. Within this perspective, the reports evaluate current ministry programs and their effects on the related industries and other government programs.

At the same time the ministry also submitted to the provincial cabinet a *Five-Year Forest and Range Resource Program.* This report outlines a management strategy for the provincial forest, range and recreation resources.

The Act further requires the ministry's Annual Report to present an assessment of the effectiveness of the ministry programs.

The Forest Act

Through a new system of licences and permits, the Act defines a partnership of public and private responsibility in forest management. It enunciates the rights and obligations of forest managers and encourages the full and balanced use of British Columbia's timber resources. It reaffirms the policy of multiple use of forest land. Some other specific items which the Act provides for are:

- the creation of provincial forests to provide security for investments in forest management;
- the consideration of social and economic factors as well as biological ones in the calculation of the allowable annual cut;
- the protection of small, independent businesses and local manufacturers;
- the establishment of an appeal procedure.

The Range Act

The Range Act is designed to promote a cooperative approach to range management. The rancher is offered long-term licences in return for participation in multiple use programs on his private land and adjacent Crown lands.

Grazing leases which are presently administered by the Land Management Branch of the Ministry of Lands, Parks and Housing, are being phased over to licences and permits under the Range Act.

The Structure of the Ministry

While the three Acts define the decision-making authority, the efficiency with which the decisions are reached depends upon the functional structure of the ministry. The prime goal of the reorganization is to decentralize administrative authority while maintaining centralized support services. The district, region and headquarters staffs are working together to decentralize all practical decision-making. The ministry headquarters staff define policy and provide overall guidance. They also advise the deputy minister and consequently the minister and cabinet on all matters relating to forest and range policy.

Headquarters Organization

As shown in the organization chart on page 15, the ministry headquarters staff is organized into the following four divisions:

- Forestry
- Timber, Range and Recreation
- Finance and Administration
- Operations

Each of the four divisions is headed by an assistant deputy minister who reports to the deputy minister. These four officials, together with the deputy minister, constitute the ministry's executive. In addition to the four assistant deputy ministers, the directors of the Information Services Branch and the Strategic Studies Branch report directly to the deputy minister.

The functions of each division are summarized below.

The Forestry Division ensures that all Crown forest and range lands are managed to provide the greatest long-term benefits for British Columbia. The assistant deputy minister of this division is also the chief forester. The Forestry Division maintains a comprehensive inventory of all the province's forest and range resources and assesses the lands involved in terms of their present and potential uses. The division comprises the following five branches:

- Planning
- Inventory
- Research
- Silviculture
- Protection

The Timber, Range and Recreation Division is responsible for formulating comprehensive range and resource management policies and regulations. It advises the executive on all matters involving engineering and valuation activities, along with the various programs conducted by its branches. The division is composed of the following five branches:

- Range Management
- Timber Management
- Recreation Management
- Valuation
- Engineering

The Finance and Administration Division is responsible for advising the deputy minister and the executive in all administrative matters and developing policies and procedures pertaining to general administration. The division is composed of the following five branches:

- Personnel Services
- Financial Services
- Systems Services
- Legal and Administrative Services
- Technical Services

The Operations Division is responsible for ensuring that the ministry's policies, procedures and programs are promptly and effectively implemented in the province's six forest regions and 46 districts. The Assistant Deputy Minister of Operations functions as the deputy minister's immediate assistant in administering and coordinating all field operations. The six forest regions are:

- Cariboo
- Kamloops
- Nelson
- Prince George
- Prince Rupert
- Vancouver

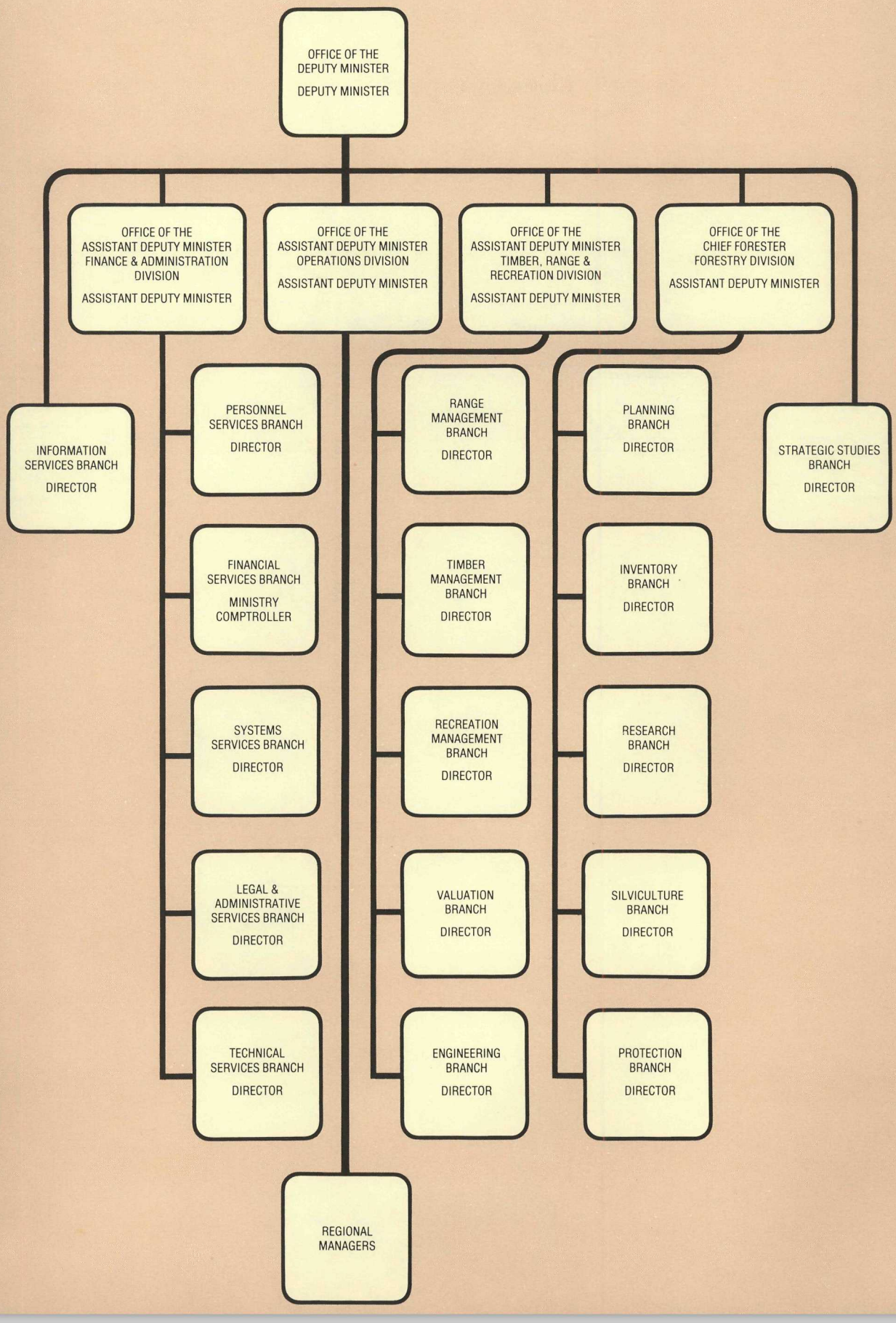
Forest Region Organization

For administrative purposes, the province has been divided into six forest regions. Each is administered from its own regional office. This office is under the direction of a regional manager, who is also responsible for the district managers who administer forest districts, subdivisions of the regions.

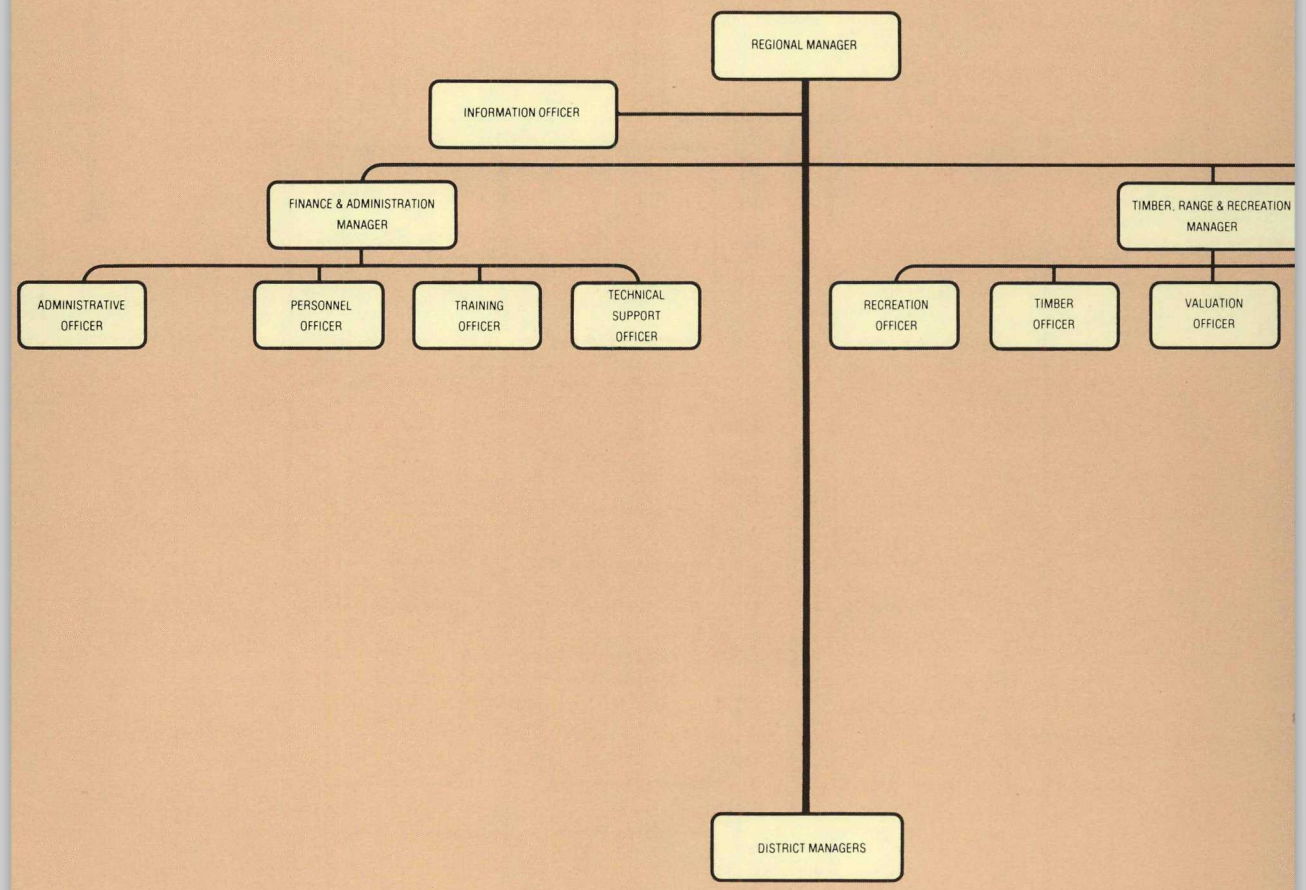
The internal organization of each regional office, shown on pages 16 and 17, is analogous to that of ministry headquarters. Three regional staff managers, like the assistant deputy ministers, provide advice and services to the regional manager and the various district managers and field personnel. Regional office personnel are responsible for servicing, coordinating and monitoring the activities of all field personnel operating out of the various district offices throughout the region.

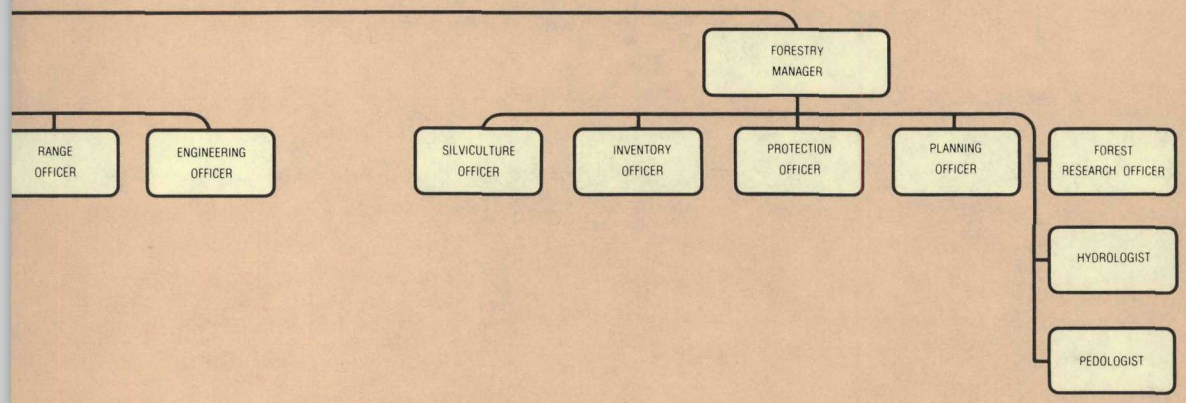
The staff of each regional office has the dual task of ensuring that all policies, procedures and programs originating from ministry headquarters are administered consistently and effectively throughout the region and of developing regional plans and programs.

Headquarters Organization



Regional Organization




FORESTRY MANAGER
RANGE OFFICER
ENGINEERING OFFICER
SILVICULTURE OFFICER
INVENTORY OFFICER
PROTECTION OFFICER
PLANNING OFFICER
FOREST RESEARCH OFFICER
HYDROLOGIST
PEDOLOGIST

II
Branch Reports

Information Services

Information Services Branch advises and assists the deputy minister, the executive, branch directors and regional managers in all communications matters, including public relations, schools, press and other media. It also has the responsibility for facilitating effective internal communications throughout the ministry itself.

In 1979, the branch disseminated information about the new forest legislation and the ministry reorganization:

- The branch prepared *Update* bulletins and a *Reorganizaton Handbook* for ministry employees to keep them informed of the reorganization. Another publication, *Blueprint for Action,* has been prepared and will be distributed early in 1980.
- The information officers in all six forest region offices made an extra effort to keep the public and ministry field staff informed about the new legislation and the ministry reorganization.

Other Branch activities in 1979 included:

- The preparation of two new teacher guides on forest topics for use in the province's school system. These were prepared in cooperation with the Western Education Group of the University of British Columbia.
- A study to evaluate forest education materials currently in use in the province. This was a cooperative effort by the ministry, the Council of Forest Industries of British Columbia, and the International Woodworkers of America. Results of the study are scheduled for release in 1980.

- The production of a new film, "Chewers of Wood", which is about the mountain pine beetle problem in the East Kootenay area. This film is scheduled for release early 1980.
- A survey of reader reaction to the ministry's resource magazine *ForesTalk*. Current editorial policy is endorsed but readers would like an increased intellectual level in the articles.
- The development of a new library system which resulted in a major increase in borrowing.
- The provision of assistance to other branches and regions of the ministry in planning, editing, designing and publishing a wide variety of print materials including White Papers and technical publications.

Strategic Studies

The Strategic Studies Branch advises the deputy minister on forest and range resource policies and programs, the economics of the forest and ranching industries, issues affecting national and international trade negotiations and the interactions between ministry programs and those of other government agencies. In addition, responsibility for the forest and range resource analysis and five-year program reports required by the Ministry of Forests Act has been transferred to the branch. Responsibility for the reports submitted to the provincial cabinet in September 1979 rested with the Planning Branch but Strategic Studies Branch staff were involved in their preparation.

As part of its continuing work in helping to develop positive forestry programs, the branch published a discussion paper, *Incentives for Intensive Forest Management* to solicit opinion from interested parties regarding this topic. The branch also contributed to the drafting of other ministry discussion papers.

The branch continued its role as ministry representative on a number of inter-agency committees affecting resource management. A notable achievement was the assistance given in negotiating the federal/provincial agreement to fund a $50 million, five year intensive forest management program.

Another major part of the branch inter-agency responsibility is associated with Environment and Land Use Committee projects. This includes projects such as the study of the environmental impacts of log handling in estuaries, the conflicts between caribou management and logging in the North Thompson area and the environmental impacts of major development projects on forest lands.

Planning

The Planning Branch is responsible for developing comprehensive provincial plans and planning systems for managing Crown forest and range lands in accordance with the Ministry of Forests Act, the Forest Act and the Range Act and for coordinating all ministry resource use programs with those administered by other ministries.

In 1979, implementation of the new forest legislation continued to dominate the branch's activities. Major branch programs were: completion and presentation of the *Forest and Range Resource Analysis Report, Forest and Range Resource Analysis Technical Report,* and *Five-Year Forest and Range Resource Program* to cabinet; determination of forest harvesting rates for Timber Supply Areas; review of Tree Farm Licence inventory, planning and yield calculation procedures; and implementation of a program to establish additional provincial forests.

The resource analyses and program reports were prepared under the leadership of the branch by a task force composed of representatives from a number of branches. The task force consulted with ministry staff as well as with other agencies to determine appropriate programs in forest and range management. The reports were presented to the provincial cabinet on September 30, 1979.

The branch analyzes inventory data to determine short-term and long-term timber supply targets for Timber Supply Areas (TSA's). The boundaries for the TSA's were established early in the year. Headquarters and forest region staff were trained to use the new Production Forecast Method of yield calculations and have assembled and processed data for individual Timber Supply Areas. Analyses have been completed for about one-third of the province and much of the data has been assembled for the remainder.

In conjunction with this work, the branch continued to improve upon the ministry's capability to predict future timber yields. The computer programs that have been developed are constantly being refined.

In consultation with Tree Farm Licence foresters, the branch initiated a review of allowable annual cut and forest inventory procedures. The objective is to ensure compatability of allowable cut calculations and inventory estimates between those made on Tree Farm Licences and those on other Crown forest lands.

As part of the general reorganization of the ministry, the branch has been restructured to achieve the objectives of the new forest legislation. New positions have been established to provide leadership in development of the ministry's multiple resource use planning systems, yield analysis methods and public involvement procedures.

Inventory

The Inventory Branch provides the detailed forest and range maps and statistics necessary for the management of the forest resource and for the determination of the rate of timber harvest in the province.

In 1979, the branch commenced major inventories of six Timber Supply Areas: Quadra, North Coast, Prince George, Williams Lake, Okanagan and Cranbrook. As with last year's inventory, this year's work used the multi-phase sampling technique. This procedure details more characteristics and enhances the analytical potential of inventory data.

Other specific activities in 1979 included:

- growth and yield measurement of natural stands, mostly in the lower coast area;
- field studies to refine tree volume measurement techniques;
- forest depletion measurement and history updating of more than 400 logged-over areas throughout the province;
- tree decay studies undertaken in all forest regions;
- tree measurements in the field to verify volume equations used for tree and stand growth calculations;
- establishment of more than 100 plots in all forest regions except the Vancouver Forest Region to measure growth and yield of trees and stands under the special conditions of the Intensive Forestry Program;
- the continued monitoring, on Vancouver Island, of more than 250 plots specifically related to the Managed Stand Yield Program.

All map related resource inventory data from 1979 field work, together with the branch's entire map related data base, consisting of over 7 000 forest cover maps and related statistics, are in the process of being entered into the Interactive Graphics Design System (IGDS). This computerized mapping system has been designed to facilitate inventory data retrieval and analysis. IGDS was installed in 1978 and since then, the branch has been entering data into the system's data base. A progress report of data loading is shown in Table E.5.

Research

The Research Branch provides research and development services required to support the ministry's forest and range programs. The reorganization of the ministry increased the number of professional staff positions in the branch. Current emphasis is on silviculture, tree physiology, tree improvement, ecology and earth sciences. In 1979, the branch initiated additional investigations on forest resource problems associated with wildlife habitat, range fertilization and erosion control. Major activities in 1979 included:

- on-site studies to assess the effectiveness of precommercial thinning treatment and different fertilization regimes in stands of lodgepole pine;
- field studies to gather and verify data for the development of a computerized growth model for lodgepole pine;
- tests in ministry nurseries to improve seed germination and to enhance seedling growth, quality and survival;
- field sampling to classify vegetation and soils. The field sampling in all forest regions is part of the branch's Ecological Classification Program. The results of this program will help forest managers predict the vegetative and soil responses to different management regimes;
- soil erosion control programs to assess the effectiveness of different grass-legume mixtures and shrub species for soil stabilization;
- the development of land and propagation facilities at the Cowichan Lake Research Station on Vancouver Island to establish master clone banks and gene archives.

Each year, the branch publishes the results of its experiments and field studies in the *Forest Research Review*.

Silviculture

The Silviculture Branch is responsible for establishing and monitoring a province wide silvicultural program to ensure that all Crown forest lands are managed as productively as possible. The ministry's silvicultural program consists of a variety of activities and, in 1979, considerable progress was made in reaching new levels of achievement. Activities included:

- Tree plantings in 1979 by the ministry and licensees amounted to more than 63 million trees and covered about 58 500 hectares. The total forest area which received some form of stand tending, stand improvement, or site preparation treatment also increased over that completed in 1978. The details of these activities are presented in Tables A.1 to A.5.
- The fertilization program in the Vancouver Forest Region merits special mention. In 1979, more than 9 000 hectares (7 200 by the ministry and 1 800 by licensees) of forest land in this region were fertilized. The ministry made significant progress towards its target of fertilizing 20 000 hectares of forest land in the region by 1980.
- The ministry's tree nursery program in 1979 achieved its target of sowing 100 million seeds. An expansion program was initiated in the forest regions to significantly increase cold storage capacities to accommodate the increased seedling production.
- Seed production from cone collections expanded sharply in 1979 as a result of a bumper cone crop in the Interior and a good crop along the Coast. The volume of cone collections far exceeded the processing capacity of the plant at Duncan and contracts were awarded to three commercial processors. Seed production from coastal seed orchards also expanded significantly in the year. Three new seed orchards were established in the Interior and, under the newly created government/industry Tree Improvement Council, 18 new seed orchards are being planned for the Coast. Some of the details of the seed production programs are listed in Table B.1 to Table B.7.
- The ministry's commitment to an intensified reforestation program throughout the province brought about a major change in ministry policy regarding tree seedling production. Until now, ministry nurseries have been almost the only source of seedlings for reforestation on Crown forest lands. In the future, participation by private nurseries, particularly licensees' nurseries, will augment the supply of seedlings.

Protection

The Protection Branch has the responsibility to minimize timber losses from fire, insects and disease. It is also responsible for developing and applying new equipment and techniques for fire and pest control.

Fire Management

The 1979 fire season was the second worst in the province's history, with nearly 4 000 forest fires recorded. Forest fire danger levels peaked in late July but, because of dry weather conditions, the fire season was extended to the end of October. Despite the near record number of forest fires, the total area of forest cover burned, about 30 000 hectares, was much less than previous annual losses. Details of causes of forest fires, areas burned, fire-fighting costs and damages are presented in Tables C.1 to C.10.

The branch's Aerial Tanker Organization is responsible for much of the success of last year's forest fire control progam. The branch, however, is not content with increasing its fire-fighting effectiveness simply by the experience of another season of fighting fires. Computer simulation models are being used to analyze the effectiveness of different fire-fighting techniques. Through such efforts, the branch hopes to enhance its effectiveness in forest fire control.

Fire prevention activities undertaken in 1979 included the production and distribution of posters, information brochures and bumper stickers for the public. The branch also placed articles and advertisements on fire prevention in local newspapers and on radio and television.

The prescribed burning program was continued to reduce the risk of fire on areas containing dangerous amounts of combustible material such as slash, snags and blowdowns, to prepare sites for planting and to rehabilitate lands for forage and browse production.

A booklet on forest protection is now under preparation to inform the public of current practices and possible future trends in both fire management and pest management.

Pest Management

It has been estimated that damage to trees from insects and disease in British Columbia results in a loss of more than 16 million cubic metres of timber each year. About half of this loss is attributable to tree decay in mature and overmature stands.

In 1979, the branch's attention was turned towards the mountain pine beetle and the spruce beetle because of the damage they were causing the province's forest resource. The branch directed harvesting operations to remove threatened and killed trees while the trees still contained merchantable wood. An estimated 79 000 hectares of pine forest have already been killed and the area threatened is many times greater. Timber salvage operations in the Nelson and Cariboo Forest Regions — the areas of the severest attack — are expected to increase in 1980.

The spruce beetle is present in the Prince George, Interior Prince Rupert, Nelson and Kamloops Forest Regions. The threat of the beetle attacks has caused operators to change harvesting plans. Through harvesting and the use of trap trees, a vigorous effort is being made to contain the spruce beetle.

The Protection Branch, in cooperation with the Forest Insect and Disease Survey Unit of the Canadian Forestry Service, continues to monitor the presence of and the damage done by forest insects and diseases.

Where possible, the branch undertakes remedial measures to deal with some of them:

- Mistletoe: clauses to prevent the spread of mistletoe into young stands are included in cutting permits where applicable;
- Western budworm: the 1978 budworm trials were reexamined and plans made for futher work in 1980;
- Cone and seed insects: test work was carried out to control cone and seed insects;
- European pine shoot moth: survey and control measures were taken to eliminate the European pine shoot moth in the Okanagan.

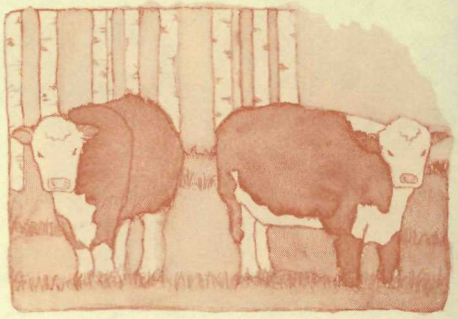
Range Management

The Range Management Branch is responsible for managing and conserving the province's rangelands. In 1979, the first year of the Range Act, the branch implemented some of the regulations and administrative procedures required by the new Range Act. Among the branch's achievements in 1979 were:

- the establishment of new fee and rent charges for grazing rights and hay production;
- the initiation of the changeover to the new grazing licences in all forest regions;
- the assignment of range resource officers to district offices to provide closer industry contacts at the field level;
- the commencement of range inventory activity;
- the initiation of a program to convert expiring grazing leases, presently under the administration of the Ministry of Lands, Parks and Housing, to grazing licences under the administration of the Ministry of Forests.

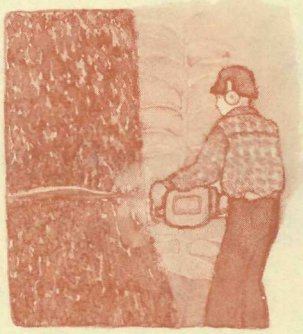
The branch, through its Coordinated Resource Management Program (CRMP) planned 37 new range units in addition to its annual review of approximately one hundred previously planned areas. These new plans cover more than 1.5 million hectares, mostly in the Cariboo, Kamloops and Nelson Forest Regions. More than $3 million of Agriculture and Rural Development Subsidiary Agreement (ARDSA) funds were spent on approved developments within the planned areas.

Other branch achievements in 1979 include the continuation of the Knapweed Containment Program. Knapweed is especially prevalent in the Nelson, Kamloops and Cariboo Forest Regions. Other branch activities are detailed in Table F.1.



Timber Management

The Timber Management Branch develops policies and administers programs concerning timber tenures, timber allocation, timber harvesting and the granting of rights to harvest Crown timber. As a result of the new Forest Act, the branch is developing new administration and regulatory procedures and communicating them to the forest industry. Among the more prominent accomplishments of 1979 were:



- the development of the Tree Farm Licence agreement which has been in use since May 1979 and the proposed wording of the other required forms of agreements;
- the establishment of policies and administrative procedures for the licensing of mills;
- the establishment of rentals based on allowable annual cut or on area, if not regulated by allowable annual cut;
- the implementation of a Small Business Program Enterprise Program which allows small businesses to play a more important role in the provincial forest industry;
- in conjunction with the Valuation and Systems Services Branches, the development of the Harvest Data Base System to store, sort and retrieve provincial scale data efficiently.

In addition, the branch published several discussion papers in 1979 to solicit public comment on specific aspects of the Forest Act. The discussion papers included:

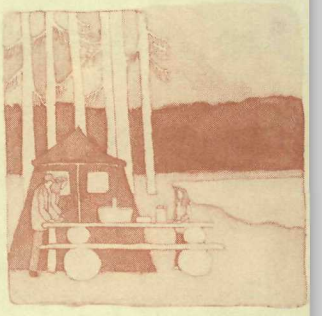
- *Draft Regulation Governing the Contractor Clause Requirement*
  Differences existed in the recommendations of the two committees appointed to study ways in which contractors could be involved in the logging activities of licensees. The branch wrote a discussion paper on what it felt was the best compromise. The purpose of the paper was to obtain additional views from concerned parties before the regulations and policies were put into practice.
- *The Small Business Program*
  The paper was issued to obtain additional views of concerned parties before ministry policy and regulations affecting small businesses were established.
- *Policies and Procedures Concerning the Issuance of Woodlot Licences*
  The objective of the Woodlot Licence Program is to promote small scale forestry in the province. It makes provincial forest lands available to small enterprises and the owners of small parcels of forest land who will manage these lands and will engage in silviculture and forest protection activities. The response to the discussion paper has been good and the Woodlot Licence Program will be instituted in 1980.

The 1979 provincial scale was more than 76 million cubic metres, a year of record harvest in British Columbia. Details of the provincial harvest are presented in Tables D.1 to D.6.

Recreation Management

Since its inception in 1971, the Ministry of Forests recreation program has grown steadily. In 1979, the program was transferred from the Planning Branch to the newly established Recreation Management Branch. The branch plans and provides a variety of forest recreation opportunities while protecting the environmental and aesthetic values of the province's forest and range lands.

During the year the branch undertook a program to familiarize ministry staff with changes in the recreation components of the Forest Act and the Ministry of Forests Act. Another important function was to provide input to forest and range land use plans, particularly those which affect recreation and landscape values.



The branch helped to complete the first five year provincial Recreation Analysis and Program. It also distributed the new *Recreation Manual* which provides provincial guidelines for recreation management and commenced the preparation of a new *Forest Landscape Handbook*. The branch carried out several surveys, including preliminary attempts at user questionnaires to ascertain provincial recreation needs and demands. Two new recreation map brochures were produced, bringing the total now available to 36 brochures. A winter recreation program emphasizing snowmobiling and cross-country skiing was further developed.

Public use of ministry recreation sites continued at a high level in 1979. Details are listed in Table G.1.

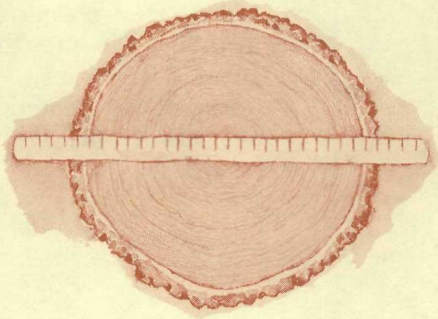
Valuation

The Valuation Branch is responsible for ensuring that the Crown receives a fair and equitable financial return from the sale of timber to industry. The branch is also responsible for reviewing all applications for the export of unmanufactured forest products from the province. The activities of the Valuation Branch in the past year were significantly affected by the new Forest Act and several of the regulations issued under it.

- The scaling regulation which specifies that all timber must be scaled in metric units became effective on January 1, 1979. The transition to the new system was completed without disruption as the scalers adjusted rapidly, following a period of intensive training in the regions. During 1979, the ministry and industry also started to cruise timber scheduled for harvesting in metric units.
- The branch developed policies and guidelines for the granting of credits against stumpage payable, as provided by Section 88 of the Forest Act.
- The branch prepared a discussion paper *Log Salvage in the Vancouver Log Salvage District,* to solicit comment from interested parties on the proposed new log salvage regulations. This paper will be published in early 1980.

In cooperation with the Timber Management Branch and Systems Services Branch, the Valuation Branch continued to participate in the development of the Billing and Harvest Data Base System.

During 1979, the branch devoted considerable energy to the processing of applications for the export of unprocessed forest products from the province. Details of log exports are presented in Table H.2.



Engineering

The Engineering Branch is responsible for surveying, designing, constructing and maintaining forest roads and structures. The branch also has the responsibility of negotiating the acquisition of road rights-of-way and other major land purchases by the ministry for such purposes as nurseries and seed orchards. In order to carry out many of these functions, the branch provides advice and assistance to staff in the forest regions or in other headquarters branches.

Some of the significant engineering activities undertaken by the ministry in 1979 include:

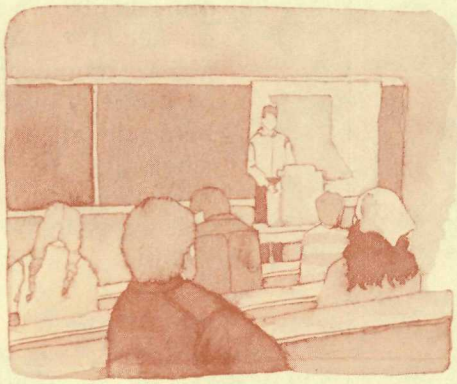
- the reconstruction of sections of the Morice River Forest Road;
- the completion of a bridge across the Fraser River on the Walker Creek Forest Road;
- a resource road survey in the Prince Rupert Region and several other minor surveys;
- the clearing program in the Duncan and Revelstoke Reservoirs;
- the completion of the acquisition of land for the seed orchard in Vernon;
- the completion of acquisition of rights-of-way for 14 Ministry of Forests roads;
- the development of spot scarifier and hand planting tools;
- the advising of the British Columbia Debris Board in the construction and operation of the Fraser River debris catchment basin.

Under reorganization, a number of former Engineering Branch functions were transferred to the newly created Technical Services Branch.

Personnel Services

The Personnel Services Branch is responsible for the establishment and administration of the ministry's personnel policies and programs. These responsibilities include staff recruitment, job classification, labour relations, staff development, job safety programs and employee compensation and benefit administration.

In 1979, the branch was instrumental in the transition of the ministry into its new organizational working structure. The branch prepared and submitted to the Treasury Board the details of staffing requirements of the new organization. After receiving approval, the branch began to staff senior ministry positions in the regions, districts and Victoria headquarters. At year end, most of these positions were filled.



The branch continued classifying jobs and staffing positions throughout the newly reorganized ministry. It is expected that this process will be completed in 1980.

The branch successfully completed contract negotiations with both the British Columbia Government Employees Union and the British Columbia Government Professional Employees Association. The BCGEU and the BCGPA represent the majority of the ministry's more than 3 000 employees.

Forest Service Training School

The Forest Service Training School provides ministry personnel with training and education services. These take the form of staff development courses which are designed to keep ministry personnel current on subject matters relevant to some aspect of their work. In 1979, the school gave courses to nearly 600 ministry staff on a variety of subjects including safety management, principles of supervision and personal and human relations skills.

The school also prepared a training program explaining the ministry's new legislation and related regulations. In 1980, the school will formally undertake its functions as part of the Personnel Services Branch.

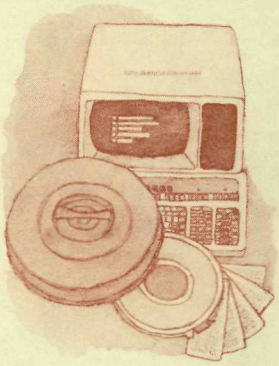
Systems Services Branch

The Systems Services Branch is responsible for the policy, procedures, standards and overall planning of the ministry's information and data processing systems.

During 1979, the branch took significant steps towards creating a productive systems development environment for the ministry.

- As part of the ministry's decentralization, the branch is responsible for providing all organizational units with access to computer stored information or Distributed Data Processing (DDP). The branch initiated a long-range project to identify the ministry's informational needs with emphasis on satisfying regional requirements. Another factor for the long-range project is the need for systems development projects to emphasize management information requirements and basic operational requirements early in the conceptual planning phase.
- The branch recruited personnel for the Data and Systems Coordination functions to enable it to pool valuable expertise for the ministry's operational systems.

In addition, the branch has continued to provide operational support to the growing usage of electronic equipment including computers, terminals, word processors and data communications lines. In November, the Data Entry section installed a second computer facility to provide increased processing space and backup capability. Terminal facilities were added to all regional offices allowing them access to headquarters computer programs.



In 1979, the branch also enhanced its cooperative working relationship with the British Columbia Systems Corporation and with other government ministries and agencies.

New Branches

Legal and Administrative Services Branch was created in 1979 to consolidate related administrative services which were previously conducted by a number of different branches within the ministry. The branch is responsible for:

- **Legal Services** which processes appeals and conducts hearings for licence holders and applicants and co-ordinates the preparation and publication of legal documents, legislation and regulations;
- **Reproduction, Draughting and Graphic Services** which provides cartographic, draughting, graphic, reproduction and printing services for the ministry; and operates a map sales facility for industry;
- **Administrative Services** which coordinates the development and publication of ministry policy and procedure manuals and ministry forms; establishes and monitors security standards; operates the central filing and records management system, mail and courier service, stationery and stock room and the word processing host centre;
- **Management Services** which provides an internal management consulting service and specialized financial services and advice for the ministry.

The Technical Services Branch was created in 1979 to provide accommodation, equipment, mechanical and related technical services for the ministry's activities throughout the province. Some of the branch's responsibilities were previously carried out by the Engineering Branch. The Technical Services Branch is now responsible for:

- **Building Services** which maintains ministry buildings and mobile accommodation facilities throughout the province;
- **Marine Services** which maintains motor launches for ministry inventory and scaling work along the coast;
- **Electronic Services** which maintains mobile and stationary electronic equipment for forestry operation throughout the province;
- **Mechanical Services** which acquires vehicles and mechanical equipment for the entire ministry;
- **Maintenance Depot** which maintains, prepares and repairs equipment, vehicles and other machinery used in ministry operations.

III
Statistical Tables

Contents

Metric Conversion Factors
1 acre = 0.404 686 hectares
1 hectare = 2.47 acres
1 cunit (100 cubic feet) = 2.83 168 cubic metres
1 cubic metre = 0.353 147 cunits
1 gram = 0.0352 740 ounces
1 ounce = 28.3 495 grams
1 kilogram = 2.20 462 pounds
1 pound = 0.453 592 kilograms
1 tonne = 1.10 262 tons
1 ton = 0.907 185 tonnes

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* Some of these figures are preliminary and may be revised.

A. Silviculture Activity

Table A.1 Summary of Planting, 1970-1979

	Forest Service on Crown Land		Forest Service on Crown Granted Land		Companies on Tree Farm Licences		Companies on Timber Sale Harvesting Licences		Other Private		Totals	
Year	Trees (000's)	(ha)	Trees (000's)	(ha)	Trees (000's)	(ha)	Trees (000's)	(ha)	Trees (000's)	(ha)	Trees (000's)	(ha)
Coast 1979	5 426.9	5 098.	—	—	10 112.1	13 085.	3 634.4	3 746.	3 551.8	3 864.	22 725.2	25 793.
1978	5 922.7	5 202.	—	—	10 672.7	12 801.	3 290.2	3 804.	2 857.9	3 425.	22 743.5	25 232.
1977	7 174.8	6 467.	—	—	13 159.0	15 646.	3 082.0	2 605.	4 772.7	5 122.	28 188.5	29 840.
1976	6 549.3	5 973.	—	—	11 779.7	13 496.	2 937.8	2 610.	7 190.2	5 620.	28 457.0	27 699.
1975	8 725.9	7 243.	—	—	9 522.9	10 357.	1 768.2	1 527.	4 123.5	4 142.	24 140.5	23 269.
1974	8 352.1	8 147.	—	—	11 921.3	12 805.	1 374.2	1 223.	3 501.4	3 604.	25 149.0	25 779.
1973	13 855.7	12 614.	—	—	12 769.1	13 757.	1 550.3	1 393.	4 046.0	4 053.	32 221.1	31 817.
1972	12 998.8	12 326.	—	—	12 176.0	13 760.	187.6	153.	4 872.6	4 515.	30 235.0	30 754.
1971	9 627.0	9 185.	55.	52.	11 603.8	12 843.	82.4	96.	4 756.0	4 601.	26 124.2	26 777.
1970	7 202.0	7 171.	118.	109.	10 616.5	12 348.	—	—	7 914.6	8 120.	25 851.1	27 748.
Previous Planted	113 881.9	67 714.	15 295.9	11 093.	99 548.0	106 488.	—	—	35 880.0	40 540.	264 605.8	225 835.
Totals to Date	199 717.1	147 140.	15 468.9	11 254.	213 881.1	237 386.	17 907.1	17 157.	83 466.7	87 606.	530 440.9	500 543.
Interior 1979	13 266.2	10 530.	—	—	3 605.3	3 138.	22 983.5	18 256.	753.0	552.	40 608.0	32 476.
1978	13 799.5	10 515.	—	—	4 192.4	3 718.	18 213.3	15 683.	806.0	593.	37 011.2	30 509.
1977	17 503.4	13 995.	—	—	3 697.9	3 012.	16 156.9	13 107.	285.0	209.	37 643.2	30 323.
1976	23 801.9	18 602.	—	—	3 526.0	2 947.	16 469.9	13 242.	566.4	502.	44 364.2	35 293.
1975	24 712.8	21 054.	21.	16.	3 129.7	2 751.	12 588.8	10 050.	355.0	344.	40 807.3	34 215.
1974	16 128.2	12 938.	—	—	3 076.8	3 199.	9 380.3	7 535.	82.8	36.	28 668.1	23 708.
1973	14 371.1	10 954.	—	—	3 551.1	3 034.	5 521.1	4 284.	541.6	362.	23 984.9	18 634.
1972	14 256.0	10 765.	—	—	1 692.0	1 506.	2 066.0	1 674.	145.0	138.	18 159.0	14 083.
1971	15 449.2	12 565.	—	—	1 461.0	1 340.	743.0	606.	69.0	67.	17 722.2	14 578.
1970	7 201.0	5 938.	—	—	753.0	847.	40.0	27.	166.0	149.	8 160.0	6 961.
Previous Planted	19 204.7	17 140.	—	—	4 341.3	5 210.	—	—	841.8	696.	24 387.8	23 046.
Totals to Date	179 694.0	144 996.	21.	16.	33 026.5	30 702.	104 162.8	84 464.	4 611.6	3 648.	321 515.9	263 826.
All Planted to Date	379 411.1	292 136.	15 489.9	11 270.	246 907.6	268 088.	122 069.9	101 621.	88 078.3	91 254.	851 956.8	764 369.
All Planted This Year	18 693.1	15 628.	—	—	13 717.4	16 223.	26 617.9	22 002.	4 304.8	4 416.	63 333.2	58 269.

Table A.2 Planting by Forest Region, 1979

Thousands of trees (Hectares in Parentheses Below)

		Companies on TSHL's, TSL's on Crown Land	Companies on Tree Farm Licences			Tree Farms not Within Tree Farm Licences	Companies on Other Private Land	
Forest Region	Forest Service on Crown Land		Crown Land	Crown Granted Land	Total			Regional Totals
Cariboo	2 225.2	4 156.0	222.0	—	222.0	—	152.0	6 755.2
	(1 675.1)	(3 506.1)	(170.0)	—	(170.0)	—	(101.8)	(5 453.0)
Kamloops	3 344.9	3 709.1	1 120.5	—	1 120.5	—	—	8 174.5
	(2 578.7)	(2 972.8)	(1 119.6)	—	(1 119.6)	—	—	(6 671.1)
Nelson	3 328.0	1 966.0	1 421.0	47.0	1 468.0	570.0	31.0	7 363.0
	(2 602.0)	(1 460.0)	(1 057.5)	(40.5)	(1 098.0)	(420.0)	(30.0)	(5 610.0)
Prince George	4 083.5	9 552.0	794.8	—	794.8	—	—	14 430.3
	(3 349.2)	(7 720.8)	(750.8)	—	(750.8)	—	—	(11 820.8)
Prince Rupert	595.1	4 138.1	672.0	60.4	732.4	—	—	5 465.6
	(615.8)	(3 102.9)	(847.7)	(70.0)	(917.7)	—	—	(4 636.4)
Vancouver	5 116.4	3 096.7	8 430.5	949.2	9 379.7	1 913.1	1 638.7	21 144.6
	(4 807.1)	(3 239.5)	(10 967.0)	(1 200.7)	(12 167.7)	(2 001.8)	(1 862.5)	(24 078.6)
Totals	18 693.1	26 617.9	12 660.8	1 056.6	13 717.4	2 483.1	1 821.7	63 333.2
	(15 627.9)	(22 002.1)	(14 912.6)	(1 311.2)	(16 223.8)	(2 421.8)	(1 994.3)	(58 269.9)

A. Silviculture Activity

Table A.3 Area Clearcut and Area Planted in Public Sustained Yield Units, by Forest Region, 1975-1979

Forest Region	1975	1976	1977	1978	1979	Total Five-year Period	Cumulative Total Since 1971	Per Cent Cutover Planted Since 1971
Cariboo								
Hectares Clearcut	11 869	14 570	15 529	17 311	19 266	78 545	128 174	—
Hectares Planted	7 457	5 382	5 612	5 301	5 252	29 004	40 368	31.5
Kamloops								
Hectares Clearcut	10 539	17 968	16 770	15 374	15 516	76 167	130 191	—
Hectares Planted	4 569	4 840	3 782	7 231	5 361	25 783	34 965	26.9
Nelson								
Hectares Clearcut	8 060	14 233	12 124	7 613	8 755	50 785	101 147	—
Hectares Planted	6 386	5 276	2 942	3 861	3 962	22 427	36 837	36.4
Prince George								
Hectares Clearcut	26 855	30 267	40 791	35 620	57 909	191 442	315 834	—
Hectares Planted	8 955	12 116	13 545	7 301	10 617	52 534	66 234	21.0
Prince Rupert								
Hectares Clearcut	7 018	11 293	12 462	13 968	16 884	61 625	102 800	—
Hectares Planted	4 689	6 253	3 282	3 408	3 719	21 351	39 232	38.2
Vancouver								
Hectares Clearcut	8 636	12 414	12 977	14 793	13 138	61 958	110 836	—
Hectares Planted	7 843	6 581	7 753	8 103	8 047	38 327	78 257	70.6
Totals								
Hectares Clearcut	72 977	100 745	110 653	104 679	131 468	520 522	888 982	—
Hectares Planted	39 899	40 448	36 916	35 205	36 958	189 426	295 893	33.3

Table A.4 Site Preparation and Hazard Abatement, by Ministry of Forests and by Licensees on All Tenures, 1979

Method of Treatment	Natural Regeneration Preparation (ha)	Planting Preparation (ha)	Hazard Abatement (ha)	Totals (ha)	Per Cent
Broadcast Burned	189	16 498	3 169	19 856	16.6
Bunched and Burned	4 254	5 881	1 116	11 251	9.3
Spot Burned	346	734	1 273	2 353	2.0
Landings Only Burned	—	—	57 957	57 957	48.4
Chemical Treatment and Burn	—	—	—	—	—
Drag Scarified	11 901	797	5	12 703	10.6
Blade Scarified	1 664	2 593	7	4 264	3.6
Bunched Only	500	200	281	981	0.8
Chemical Treatment Only	42	10	—	52	0.1
Residual Falling Only (Including Snags)	3 860	17	144	4 021	3.3
Snag Falling Only	—	—	89	89	0.1
Other Treatment	824	1 136	2 582	4 542	3.8
No Treatment	1 426	73	200	1 699	1.4
Totals	25 006	27 939	66 823	119 768	100.0

Prime objective indicated in appropriate column.

Table A.5 Stand Tending and Improvement, by Ministry of Forests and by Licensees on All Tenures, 1979

(Hectares)

Forest Region	Conifer Release (Brushing)		Stocking Control: Juvenile Spacing		Stocking Control: Commercial Thinning		Stocking Control: Sanitation Spacing		Mistletoe Control		Site Rehab.		Fertilization		Other (Pruning Seedlot)		Totals		
	Forest Service	Licencee	Forest Service	Licencee	Forest Service	Licencee	Forest Service	Licencee	Forest Service	Licencee	Forest Service	Licencee	Forest Service	Licencee	Forest Service	Licencee	Forest Service	Licencee	Regional Totals
Cariboo	—	—	1 156.8	—	—	—	185.8	—	1 207.4	1 379.0	—	—	—	—	—	—	2 550.0	1 379.0	3 929.0
Kamloops	12.0	—	532.3	36.0	—	—	61.0	—	—	—	113.9	—	23.0	—	—	—	742.2	36.0	778.2
Nelson	—	—	670.0	—	—	—	19.7	—	27.0	—	—	—	—	—	—	—	716.7	—	716.7
Prince George	57.0	—	409.1	33.0	—	—	214.9	—	192.0	—	80.6	—	—	—	—	—	953.6	33.0	986.6
Prince Rupert	68.8	49.4	844.0	614.1	—	—	—	—	19.7	—	3.0	11.3	124.1	40.0	42.5	—	1 102.1	714.8	1 816.9
Vancouver	956.8	1 323.4	6 680.0	3 598.9	—	46.0	—	—	—	83.2	415.0	—	7 036.0	1 794.0	—	—	15 087.8	6 845.5	21 933.3
Totals	1 094.6	1 372.8	10 292.2	4 282.0	—	46.0	481.4	—	1 446.1	1 462.2	612.5	11.3	7 183.1	1 834.0	42.5	—	21 152.4	9 008.3	30 160.7
Grand Totals	2 467.5		14 574.2		46.0		481.4		2 908.3		623.8		9 017.1		42.5		—		—

Table A.6 Surveys of Natural Regeneration, by Ministry of Forests and by Licensees in PSYU's[1], 1979

(Hectares)

Forest Region	Total Examined	Satisfactorily Stocked	Not Satisfactorily Stocked	Per Cent Stocked
Cariboo				
Forest Service	52 188	47 843	4 345	91.7
Licensee	3 016	2 077	939	68.9
Totals	55 204	49 920	5 284	90.4
Kamloops				
Forest Service	20 396	12 645	7 751	62.0
Licensee	11 101	6 275	4 826	56.5
Totals	31 497	18 920	12 577	60.1
Nelson				
Forest Service	45 329	31 628	13 701	69.8
Licensee	15 873	9 135	6 738	57.6
Totals	61 202	40 763	20 439	66.6
Prince George				
Forest Service	22 909	14 819	8 090	64.7
Licensee	7 963	4 844	3 119	60.8
Totals	30 872	19 663	11 209	63.7
Prince Rupert				
Forest Service	2 379	1 665	715	70.0
Licensee	2 932	2 014	918	68.7
Totals	5 311	3 679	1 633	69.3
Vancouver				
Forest Service	27 082	18 442	8 640	68.1
Licensee	18 541	9 463	9 078	51.0
Totals	45 623	27 905	17 718	61.2
Totals				
Forest Service	170 283	127 042	43 242	74.6
Licensee	59 426	33 808	25 618	56.9
Totals	229 709	160 850	68 860	70.0

[1] Note: Date of denudation varies considerably on areas examined, hence time for establishment of natural regeneration also varies. This is simply an indication of natural stocking and no inference can be made between regions or agencies under stocking columns.

Table A.7 Accelerated Reforestation Fund, Fiscal Year 1978/79

Surplus, April 1, 1978	$1 476.69
Expenditures, Fiscal Year 1978/79	Nil
Surplus, March 31, 1979	$1 476.69

B. Nurseries Activity

Table B.1 Cone Collection and Estimated Seed Recovery, by Ministry of Forests and Licensees, 1979

Species	Cone Collections (hl) Forest Region: Cariboo	Kamloops	Nelson	Prince George	Prince Rupert	Vancouver	Species Total (hl)	Per Cent	Est. Seed Recovery Species Totals (kg)
Alpine Fir	4.90	—	—	17.09	—	—	21.99	0.2	51.24
Amabilis Fir	—	—	—	—	154.78	1 678.78	1 833.56	12.5	3 997.16
Birch	—	—	—	—	—	—	—	—	—
Douglas-fir	163.47	23.22	3.82	109.70	170.67	90.04	560.92	3.8	364.60
Grand Fir	—	—	—	—	—	—	—	—	—
Interior Spruce	2 175.27	1 566.30	123.20	3 698.10	2 384.29	127.19	10 074.35	68.7	6 649.07
Lodgepole Pine	66.0	140.00	36.93	203.60	452.22	0.50	899.25	6.1	197.84
Mountain Hemlock	—	—	—	—	12.40	18.67	31.07	0.2	23.92
Ponderosa Pine	—	—	—	—	—	—	—	—	—
Sitka Spruce	—	—	—	—	902.84	2.00	904.84	6.2	506.71
Western Hemlock	—	—	—	—	87.47	140.81	228.28	1.6	173.49
Western Larch	—	—	—	—	—	—	—	—	—
Western Red Cedar	1.08	—	0.75	—	34.82	55.50	92.15	0.6	120.72
Whitebark Pine	—	—	1.00	—	—	—	1.00	negl.	2.26
White Pine	—	4.00	9.18	—	—	3.00	16.18	0.1	9.71
Yellow Cedar	—	—	—	—	—	—	—	—	—
Totals	2 410.72	1 733.52	174.88	4 028.49	4 199.49	2 116.49	14 663.59	100.0	12 096.72

Table B.2 Seed Orchards Established as of 1979

Seed Orchard	Agency	Date/s Est. i.e. Planted	Orchard Location	Species*	Seed Orchard Seed Utilization Area Planning Zone	Elev. Band	Type of Orchard	Present Size (ha)	Seed Production (kg) 1979	Accumulated to Dec. 31/79
	Coastal Region									
101	BCFS-Quinsam +	1963	Campbell River	F	EVI	450-610	Clonal + Seedlings (O.P. + C.P.)**	7.8	54.292	70.657
102	Tahsis "A"	1962-69	Gold River	F	WVI	0-450	Clonal	2.2	.620	1.080
103	BCFP	1963-64	Caycuse	F	WVI, EVI	400-660	Clonal	1.8	.240	.240
104	Crown Zellerbach	1964-65	Courtenay	F	EVI, JS	0-450	Clonal	1.8	.182	.432
105	Crown Zellerbach	1964-65	Nanaimo Lakes	F	EVI	450+	Clonal	1.8	—	.905
106	ITT Ind. (Canada)	1964-65	Gordon River	F	WVI, EVI	450+	Clonal	4.1	—	.233
107	Tahsis "B"	1964-68	Gold River	F	WVI	450+	Clonal	1.8	—	.254
108	Tahsis Local	1968-75	Gold River	F	WVI	0-910	Clonal	2.3	.047	.065
109	Pacific Logging	1964	Saanich	F	EVI	0-450	Clonal + Seedlings (O.P.)	1.8	++	1.981
110	Pacific Logging	1964	Saanich	F	EVI	550+	Clonal	3.4	11.340	52.058
111	Tahsis "C" +	1968-75	Saanich	F	WVI	0-450	Clonal + Seedlings (O.P. + C.P.)	3.5	5.740	65.275
112	ITT Ind. (Canada)	1968	Jordan River	F	WVI, EVI	—	Seedlings (O.P.)	0.4	—	—
113	ITT Ind. (Canada)	1969	Pt. McNeill	F	WVI, EVI	—	Seedlings (O.P.)	0.4	—	—
114	BCFS-Koksilah +	1970	Duncan	F	SCM, CIT	450-640	Seedlings (O.P.)	3.2	16.740	42.663
115	BCFS-Snowdon +	1971	Campbell River	F	JS	0-300	Seedlings (O.P.) + Clonal	4.0	10.544	10.969
116	CFP	1971	Sechelt	F	EVI, JS	450-610	Clonal	2.4	1.495	1.590
117	Tahsis	1969-70	Gold River	Hw	WVI	0-910	Clonal	0.9	—	—
		1970-75	Gold River	Hw	WVI	0-910	Seedlings (O.P.)			
118	Tahsis +	1973	Saanich	Ss	WVI	0-450	Clonal	0.9	.360	2.954
119	MB	1977	Yellow Pt.	F	—	High	Clonal	6.9	—	—
120	BCFS-Dewdney +	1975	Saanich	F	CIT	760-1070	Seedlings (O.P.) + Clonal	7.5	—	—
121	Pacific Logging	1976	Saanich	F	EVI	550+	Seedlings (C.P.)	6.0	++	++
122	MB	1976-78	Harmac	F	Dry	Mid	Clonal	1.2	—	—
123	MB	1976-78	Harmac	F	Wet	Mid	Clonal	1.0	—	—
124	MB	1976	Harmac	F	Dry	Low	Clonal	0.5	—	—
125	MB	1976	Harmac	F	Wet	Low	Clonal	1.0	—	—
				Totals - Coastal Region Orchards				68.6	101.600	251.356
	Central Interior Region									
201	BCFS	1974	Red Rock	Pl	Omineca-Pinchi	—	Clonal	4.4	—	—
202	BCFS	1978	Red Rock	Pl	Dawson-Peace	—	Clonal	1.7	—	—
203	BCFS	1978	Red Rock	Pl	Willow-Bowron	—	Clonal	3.2	—	—
204	BCFS	1979	Red Rock	Pl	Smithers	—	Clonal	5.5	—	—
205	BCFS	1979	Skimikin	Sl	Central Plateau	Low	Clonal	4.0	—	—
206	BCFS	1979	Skimikin	Sl	Central Plateau	High	Clonal	3.2	—	—
				Totals - Central Interior Region Orchards				22.0	—	—
				Grand Totals				90.6	101.600	251.356

* F - Douglas-fir
Hw - Western Hemlock Pl - Lodgepole ** O.P. - seedlings resulting from open pollination ++ - 1979 data unavailable
Ss - Sitka Spruce Sl - Interior Spruce C.P. - seedlings resulting from controlled pollination + – Cooperative orchard

Note: Pacific Logging Seed Orchards are for reforestation in private lands.

B. Nurseries Activity

Table B.3 Inventory of Seed in Storage, by Forest Region, 1979

(Grams)[1]

Species	Cariboo	Kamloops	Nelson	Prince George	Prince Rupert	Vancouver	Totals
	Forest Region						
Alpine Fir	6 765	190 135	513 413	64 325	14 085	2 940	791 663
Amabilis/Silver Fir	—	—	—	—	—	1 415 951	1 145 951
Douglas-fir	1 008 467	2 236 571	2 414 979	100 525	165 744	5 613 956	11 540 242
Engelmann Spruce	42 765	681 850	378 902	—	1 054	132 870	1 237 441
Grand Fir	—	—	247 475	—	—	163 246	410 721
Lodgepole Pine	310 751	917 842	1 128 750	703 309	637 803	6 280	3 704 735
Mountain Hemlock	—	—	—	—	77 120	25 910	103 030
Ponderosa (Yellow) Pine	12 600	543 525	99 826	—	—	2 190	658 141
Sitka Spruce	—	—	—	—	783 291	213 704	996 995
Western Hemlock	—	4 943	9 005	—	145 562	446 980	606 490
Western Larch	—	21 205	113 481	—	—	—	134 686
Western Red Cedar	960	78 404	34 813	885	63 350	164 561	342 973
White Spruce	32 251	—	—	1 040 186	935 143	—	2 007 580
Yellow Cedar	—	—	—	—	—	14 385	14 385
Misc.	1 483 443	498 058	1 051 145	1 305 773	726 722	6 701	5 071 842
Totals	2 898 002	5 172 533	5 991 789	3 215 003	3 549 874	7 939 674	28 766 875

[1] Including seed collected by forest companies

Total seed native species (grams)	28 766 875
Total seed exotic species (grams)	183 450
Grand total seed in storage (grams)	28 950 325

Table B.4 Seed Withdrawals for Nursery Sowing and Other Uses, 1979

(Kilograms)

Species	Forest Service Nurseries Bareroot	Forest Service Nurseries Containers	Other Nurseries	Nursery Trials	Branch Use	Direct Seeding	Other Uses	Totals All Uses
Balsam	387.970	45.985	—	—	—	—	—	433.955
Douglas-fir, Coast	324.503	4.405	6.070	—	—	—	—	334.978
Douglas-fir, Interior	108.989	24.625	5.380	—	—	—	—	138.994
Interior Spruce	311.610	76.377	—	—	—	—	—	387.987
Larch	1.880	6.394	—	—	—	—	—	8.274
Lodgepole Pine	30.115	51.860	2.425	—	—	—	—	84.400
Mountain Hemlock	—	1.980	—	—	—	—	—	1.980
Sitka Spruce	14.995	3.075	—	—	—	—	—	18.070
Western Hemlock	—	49.297	1.750	—	—	—	—	51.047
Western Red Cedar	8.270	3.720	.305	—	—	—	—	12.295
Yellow Cedar	6.619	2.308	—	—	—	—	—	8.927
Yellow Pine	53.104	36.650	—	—	—	—	—	89.754
Misc. (other sp.)	0.095	—	—	—	—	—	—	0.095
Misc. (above sp.)	—	—	—	18.537	18.682	51.720	6.674	95.613
Totals	1 248.150	306.676	15.930	18.537	18.682	51.720	6.674	1 666.369

Table B.5 Ministry of Forests Nurseries, Inventory of Seedlings, by Nursery and Forest Region, August 1979

(Thousands of Trees)

Nursery	Stock Type: Bareroot 1+0	Bareroot 2+0	Bareroot Transplant	Container Styroblock	Container Other[1]
Campbell River	6 469	3 978	1 859	383	—
Chilliwack	10 111	5 201	1 753	—	—
Green Timbers	5 233	4 362	204	6 904	164
Harrop	—	—	—	320	—
Koksilah	2 773	1 838	1 088	4 323	885
Red Rock	10 619	7 367	4 283	453	—
Skimikin	7 733	4 599	1 223	2 897	38
Surrey	25 380	17 748	2 635	8 817	—
Telkwa	1 033	701	203	—	—
Vernon	—	—	—	3 254	—
Forest Region					
Cariboo	8 170	4 626	1 153	2 879	75
Kamloops	7 886	2 221	1 219	5 199	89
Nelson	4 158	1 700	597	5 634	94
Prince George	24 967	25 489	4 867	3 981	13
Prince Rupert	7 712	3 352	1 930	2 531	159
Vancouver	16 202	8 345	3 438	7 039	656
Misc.	256	61	44	88	1
Totals	69 351	45 794	13 248	27 351	1 087

[1] Other containers include Spencer Lemaire trays, Walter's Bullets etc.

B. Nurseries Activity

Table B.6 Ministry of Forests Nurseries, Inventory of Seedlings by Species and Forest Region, August 1979

(Thousands of Trees)

Species	Stock Type				
	Bareroot			Container	
	1+0	2+0	Transplants	Styroblocks	Other
Amabilis Fir	1 581	189	422	265	—
Douglas-fir, Coast	13 369	7 563	1 362	93	89
Douglas-fir, Interior	4 851	1 793	431	835	37
Grand Fir	272	191	499	31	—
Interior Spruce	41 679	30 336	7 246	10 994	—
Lodgepole Pine	3 710	2 016	1 928	7 484	76
Mountain Hemlock	—	—	—	68	—
Sitka Spruce	2 218	694	554	529	—
Spruce White	47	2 790	92	—	—
Western Hemlock	—	2	263	5 940	—
Western Larch	76	—	—	570	—
Western Red Cedar	811	210	408	56	885
Yellow Cedar	82	7	14	—	84
Yellow Pine	360	—	17	314	—
Other Species	295	57	12	87	—
Totals	69 351	45 848	13 248	27 266	1 171

Table B.7 Ministry of Forests Nurseries, Summary of Spring Sowing, 1979

(Thousands of Trees)

Species	Stock Type						
	Bareroot			Containers			
	1+0	2+0	Transplants	Styroblock	Other	Totals	Per Cent
Amabilis Fir	—	1 783	9	192	—	1 984	2.0
Douglas-fir, Coast	7 395	6 172	953	102	102	14 724	14.9
Douglas-fir, Interior	717	3 183	409	858	68	5 235	5.3
Grand Fir	—	147	122	35	—	304	0.3
Interior Spruce	—	22 031	15 454	11 295	50	48 830	49.3
Lodgepole Pine	819	1 275	1 792	7 228	90	11 204	11.3
Mountain Hemlock	—	—	—	281	—	281	0.3
Sitka Spruce	178	1 623	643	700	—	3 144	3.2
Western Hemlock	—	—	—	7 834	—	7 834	7.9
Western Larch	7	55	—	720	—	782	0.8
Western Red Cedar	100	1 439	165	125	1 371	3 200	3.2
Yellow Cedar	90	72	15	—	156	333	0.3
Yellow Pine	—	—	313	352	—	665	0.7
Other Species	5	349	—	148	—	502	0.5
Totals	9 311	38 129	19 875	29 870	1 837	99 022	100

C. Forest Protection

Table C.1 Fire Occurrences by Months, by Forest Region, 1979

Forest Region	March	April	May	June	July	August	Sept.	Oct.	Other	Totals	Per Cent
Cariboo	8	35	29	61	143	153	135	43	18	625	16.2
Kamloops	14	48	75	276	433	342	67	28	1	1 284	33.4
Nelson	5	21	47	192	311	344	59	33	7	1 019	26.5
Prince George	—	7	38	24	130	96	40	13	8	356	9.2
Prince Rupert	—	21	9	7	40	75	15	3	3	173	4.5
Vancouver	4	21	26	45	60	169	40	14	13	392	10.2
Totals	31	153	224	605	1 117	1 179	356	134	50	3 849	100.0
Per Cent	0.8	4.0	5.8	15.7	29.0	30.6	9.3	3.5	1.3	100.0	—
Ten-year Average	13	96	283	378	745	775	198	85	11	2 584	—
Per Cent	0.5	3.7	11.0	14.6	29.0	30.0	7.6	3.2	0.4	100.0	—

Table C.2 Number and Causes of Forest Fires by Forest Region, 1979

Forest Region	Cause of Forest Fires												
	Lightning	Recreational (Campers, Hunters, Fishermen, etc.)	Railroads	Smokers	Brush-burning (not Railway or Right-of-way Clearing)	Range Burning	Road, Power, Telephone and Pipeline Construction	Industrial Operations (Logging, etc.)	Incendiary	Miscellaneous Known Causes	Unknown Causes	Totals	Per Cent of Total Fires in Province
Cariboo	207	37	6	72	36	24	7	37	129	70	0	625	16.2
Kamloops	717	79	56	131	28	5	4	102	45	114	3	1 284	33.4
Nelson	637	78	32	98	31	0	7	40	8	85	3	1 019	26.5
Prince George	202	18	5	16	23	7	6	39	21	19	0	356	9.2
Prince Rupert	74	19	6	16	9	0	4	18	4	23	0	173	4.5
Vancouver	106	43	26	85	11	0	7	62	5	42	5	392	10.2
Totals	1 943	274	131	418	138	36	35	298	212	353	11	3 849	100.0
Per Cent	50.5	7.1	3.4	10.9	3.6	0.9	0.9	7.7	5.5	9.2	0.3	100.0	—
Ten-year average	1 045	243	135	333	101	66	32	203	108	304	14	2 584	—
Per Cent	40.0	9.5	5.0	13.0	4.0	3.0	1.0	8.0	4.0	12.0	0.5	100.0	—

Table C.3 Number and Causes of Forest Fires, 1970-1979

Causes	Year										
	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	Totals
Lightning	1 803	1 327	583	810	716	1 417	159	551	1 141	1 943	10 450
Recreational (Campers, Hunters, Fishermen, etc.)	302	211	188	338	288	249	157	237	189	274	2 433
Railroads	246	175	136	218	147	113	57	63	65	131	1 351
Smokers	501	309	267	431	407	289	130	302	277	418	3 331
Brush-burning (not Railway or Right-of-way Clearing)	146	129	70	145	102	83	24	83	93	138	1 013
Range Burning	191	105	59	78	34	42	56	34	27	36	662
Road, Power, Telephone and Pipeline Construction	30	50	44	38	36	25	5	27	32	35	322
Industrial Operations (Logging, etc.)	255	205	189	224	319	133	116	154	136	298	2 029
Incendiary	70	70	77	99	133	94	59	128	138	212	1 080
Miscellaneous Known Causes	432	303	277	462	355	252	127	270	205	353	3 036
Unknown Causes	27	14	13	20	21	16	3	5	5	11	135
Totals	4 003	2 898	1 903	2 863	2 558	2 713	893	1 854	2 308	3 849	25 842

C. Forest Protection

Table C.4 Fires Classified by Size and Damage, by Forest Region, 1979

Forest Region	Total Fires			Extent of Fire: 0.1 ha and Under			Over 0.1 to 4.0 ha			Over 4.0 to 200 ha			Over 200 ha			Damage	
	Numbers	Per Cent of Total Fires in Province	Numbers	Per Cent of Total Fires in Region	Per Cent of Total Fires in this Class	Numbers	Per Cent of Total Fires in Region	Per Cent of Total Fires in this Class	Numbers	Per Cent of Total Fires in Region	Per Cent of Total Fires in this Class	Numbers	Per Cent of Total Fires in Region	Per Cent of Total Fires in this Class	Under $100	Between $100 and $1 000	Over $1 000
Cariboo	625	16.2	367	58.7	13.7	196	31.4	23.0	59	9.4	20.0	3	0.5	12.0	567	36	22
Kamloops	1 284	33.4	954	74.3	35.6	253	19.7	29.7	73	5.7	24.8	4	0.3	16.0	1 218	25	41
Nelson	1 019	26.5	747	73.3	27.9	216	21.2	25.3	52	5.1	17.6	4	0.4	16.0	965	16	38
Prince George	356	9.2	205	57.6	7.7	84	23.6	9.9	57	16.0	19.3	10	2.8	40.0	295	19	42
Prince Rupert	173	4.5	120	69.4	4.5	32	18.5	3.8	19	11.0	6.4	2	1.2	8.0	153	8	12
Vancouver	392	10.2	284	72.4	10.6	71	18.1	8.3	35	8.9	11.9	2	0.5	8.0	360	13	19
Totals	3 849	100.0	2 677	69.6	100.0	852	22.1	100.0	295	7.7	100.0	25	0.6	100.0	3 558	117	174
Per Cent	100.0	—	69.6	—	—	22.1	—	—	7.7	—	—	0.6	—	—	92.4	3.1	4.5
Ten-year average	2 584	—	1 701	—	—	667	—	—	185	—	—	31	—	—	2 304	154	126
Per Cent	100.0	—	65.8	—	—	26.0	—	—	7.0	—	—	1.2	—	—	89.2	6.0	4.8

Table C.5 Loss of Property Other than Forests, by Forest Region, 1979

Forest Region	Types of Property Loss: Forest Products Cut, Logs, Lumber, etc.	Buildings	Railway, Logging, and Sawmill Equipment	Miscellaneous	Totals	Per Cent of Totals
Cariboo	$105 692	$10 600	$50 100	$13 283	$179 675	5.9
Kamloops	18 624	109 700	181 000	32 490	341 814	11.3
Nelson	17 876	8 350	33 975	8 154	68 355	2.3
Prince George	25 783	59 500	268 510	42 700	396 493	13.0
Prince Rupert	325 328	3 800	400	500	330 028	10.9
Vancouver	1 346 059	3 855	266 828	102 307	1 719 049	56.6
Totals	1 839 362	195 805	800 813	199 434	3 035 414	100.0
Per Cent	61.0	6.0	26.4	6.6	100.0	—
Ten-year Average	$331 347	$148 333	$255 075	$72 081	$806 836	—
Per Cent	41.0	18.0	32.0	9.0	100.0	—

Table C.6 Loss of Forest Cover Caused by Forest Fires, by Forest Region (Part 1), 1979

Forest Region	Forest Cover: Merchantable Timber: Areas Burned Over	Total Volume Killed	Salvable Volume of Timber Killed	Net Stumpage Loss	Immature Timber: Area Burned Over	Present Value
	(ha)	(m³)	(m³)	($)	(ha)	($)
Cariboo	1 962	324 385	242 084	806 284	536	26 109
Kamloops	3 526	634 932	331 992	3 108 551	947	232 683
Nelson	2 491	614 802	231 794	3 705 556	118	9 344
Prince George	2 368	114 311	70 062	284 100	2 277	94 372
Prince Rupert	1 986	217 534	54 929	1 380 007	—	—
Vancouver	1 804	129 662	61 564	345 412	447	49 169
Totals	14 137	2 035 626	992 425	9 629 910	4 325	411 677
Per Cent	48.0	100.0	48.8	94.6	15.0	4.0
Ten-year average	14 802	682 778	318 661	3 582 197	15 583	1 316 389
Per Cent	21.0	100.0	46.7	70.7	22.1	26.1

C. Forest Protection

Table C.7 Loss of Forest Cover Caused by Forest Fires, by Forest Region (Part II), 1979

Forest Region	Not Satisfactorily Restocked					Non-commercial Cover		Grazing or Pasture Land		Non-Productive Sites		Under 4 ha		Grand Totals	
	Logged, not Burned	Logged and Burned	Old Burn (not Logged)	Damage	Area Burned	Damage	Area Burned	Damage	Area Burned	Damage	Area Burned	Damage	Area	Quantity	Damage
	(ha)	(ha)	(ha)	($)	(ha)	($)	(ha)	($)	(ha)	($)	(ha)	($)	(ha)	(m^3)	($)
Cariboo	711	—	—	8 887	49	617	292	3 651	105	1 309	239	2 820	3 894	82 301	849 677
Kamloopos	424	36	5	5 804	263	3 285	321	4 009	886	11 079	366	4 250	6 774	302 940	3 369 661
Nelson	563	—	40	7 541	388	4 853	24	297	773	9 669	283	3 277	4 680	383 008	3 740 537
Prince George	821	—	—	10 264	760	9 495	540	6 744	1 210	15 130	119	1 410	8 095	44 249	421 515
Prince Rupert	32	217	—	3 112	427	5 339	26	326	190	2 374	47	552	2 925	162 605	1 391 710
Vancouver	433	6	—	5 487	1	13	—	—	286	3 579	102	1 186	3 079	68 098	404 846
Totals	2 984	259	45	41 095	1 888	23 602	1 203	15 027	3 450	43 140	1 156	13 495	29 447	1 043 201	10 177 946
Per Cent	10.0	0.8	0.1	0.4	6.4	0.3	4.0	0.2	11.7	0.4	4.0	0.1	100.0	51.2	100.0
Ten-year Average	4 687	417	3 569	60 801	12 878	41 548	2 562	16 795	15 329	40 167	536	6 502	70 363	364 117	5 064 339
Per Cent	6.7	0.6	5.1	1.2	18.3	0.8	3.6	0.3	21.8	0.8	0.8	0.1	100.0	53.3	100.0

The dollar value of losses in merchantable and immature timber represents only stumpage loss to the Crown.

Table C.8 Fire Causes, Area Burned, Ministry of Forest Fire-fighting Costs, and Total Damage, 1979

Causes	Number of Fires		Area Burned		Ministry of Forests Fire-fighting Costs		Est. Total Damage	
	Number	Per Cent	(ha)	Per Cent	($)	Per Cent	($)	Per Cent
Lightning	1 943	50.5	8 568	29.1	12 905 882	67.0	6 734 485	51.0
Recreational (Campers, Hunters, Fishermen, etc.)	274	7.0	666	2.3	722 842	3.8	183 486	1.4
Railroads	131	3.5	261	0.9	139 472	0.7	4 051	—
Smokers	418	11.0	2 659	9.0	1 729 807	9.0	1 756 959	13.3
Brush-burning (not Railway or Right-of-way Clearing)	138	3.5	1 417	4.8	203 421	1.1	87 074	0.7
Range Burning	36	1.0	1 515	5.0	48 567	0.3	19 356	0.1
Road, Power, Telephone, and Pipeline Construction	35	1.0	264	0.9	39 289	0.2	17 168	0.1
Industrial Operations (Logging, etc.)	298	7.7	9 362	31.8	1 690 674	8.8	3 479 566	26.3
Incendiary	212	5.5	3 815	13.0	789 331	4.0	354 698	2.7
Miscellaneous Known Causes	353	9.0	903	3.1	954 992	5.0	576 336	4.4
Unknown Causes	11	0.3	17	0.1	22 506	0.1	181	—
Totals	3 849	100.0	29 447	100.0	19 246 783	100.0	13 213 360	100.0

Table C.9 Comparison of Loss Caused by Forest Fires, 1970-1979

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	Total Ten years
Total Number of Fires	4 003	2 898	1 903	2 863	2 558	2 713	893	1 854	2 308	3 849	25 842
Area Burned (ha)	105 688	351 890	26 087	33 422	21 728	24 911	57 020	3 796	50 081	29 447	704 070
Standing Timber Destroyed or Damaged (m^3)	4 040 036	9 499 980	391 496	1 640 856	2 907 884	6 443 444	1 318 398	203 252	4 783 114	2 035 626	33 264 086
Amount Salvable (m^3)	1 581 272	1 962 800	189 812	752 528	2 284 968	5 298 748	398 089	115 396	1 009 179	992 425	14 585 217
Damage to Forests ($)	3 437 205	12 974 582	713 681	5 276 975	1 860 942	1 264 407	2 528 465	369 508	11 435 928	10 177 946	50 039 639
Damage to Other Forms of Property ($)	744 901	609 064	459 728	1 056 760	491 422	92 430	70 135	173 537	1 334 974	3 035 414	8 068 365
Total Damage ($)	4 182 106	13 583 646	1 173 409	6 333 735	2 352 364	1 356 837	2 598 600	543 045	12 770 902	13 213 360	58 108 004

Table C.10 Fire-fighting Costs per Fire, by Forest Region, 1979

Forest Region	Total Fires	Total Fire-fighting Costs ($)	Per Cent of Total Fire-fighting Costs	Average Expenditure per Fire ($)	Number of Fires	Number of Fires	Cost Less Than $100 per Fire	Cost $100 to $1 000 per Fire	Cost $1 000 to $5 000 Per Fire	Cost $5 000 to $10 000 per Fire	Cost Over $10 000 per Fire
	Ministry of Forests Fire-fighting Costs				Number of Fires Extinguished Without Cost to Ministry of Forests		Distribution of Fires by Cost to Extinguish				
Cariboo	625	2 298 509	11.9	4 163	73	552	29	216	173	81	53
Kamloops	1 284	6 674 352	34.7	5 829	139	1 145	41	573	338	85	108
Nelson	1 019	7 700 034	40.0	8 200	80	939	82	387	277	92	101
Prince George	356	1 076 852	5.6	3 333	33	323	13	108	134	26	42
Prince Rupert	173	455 661	2.4	2 958	19	154	11	65	54	11	13
Vancouver	392	1 041 375	5.4	3 184	65	327	27	150	83	29	38
Totals	3 849	19 246 783 *	100.0	5 594	409	3 440	203	1 499	1 059	324	355
Per Cent	100.0	—	—	—	10.6	89.4	5.3	39.0	27.5	8.4	9.2
Ten-year Average	2 584	7 780 034	100.0	—	455	2 129	522	852	484	127	144
Per Cent	100.0	—	—	—	17.6	82.4	20.1	33.0	18.7	5.0	5.6

Cost to other parties $4 930 276
Cost to Ministry of Forests $19 246 783
* Cost correct to date. Subject to later revision.
Detailed final costs are published one year in arrears in the table "Forest Service Expenditures" in each annual report.

D. Timber Harvesting

Table D.1 Total Amount of Timber Scale Billed in British Columbia, 1978 and 1979

(Includes Firmwood Rejects)
(Cubic Metres)

Forest Region	Ten-year Average 1970-79	1978	1979	Increase	Decrease	Net Increase
*Cariboo (C)	—	—	—	—	—	—
Prince Rupert (C)	4 631 566	4 143 445	4 858 347	714 902	—	—
*Vancouver (C)	24 126 389	28 190 485	25 707 861	—	2 482 624	—
Totals, Coast	28 757 955	32 333 930	30 566 208	—	1 767 722	—
*Cariboo (I)	4 327 227	7 469 233	6 503 757	—	965 476	—
Kamloops	8 070 308	8 908 157	8 812 840	—	95 317	—
Nelson	6 129 083	7 254 651	6 903 662	—	350 989	—
Prince George	12 220 468	13 927 056	15 984 819	2 057 763	—	—
Prince Rupert (I)	4 313 557	5 280 057	6 668 587	1 388 530	—	—
*Vancouver (I)	75 421	—	754 206	754 206	—	—
Totals, Interior	35 136 064	42 839 154	45 627 871	2 788 717	—	—
Totals	63 894 019	75 173 084	76 194 079	—	—	1 020 995

* Prior to 1979 - Vancouver and Cariboo were not split into Coast and Interior.

Table D.2 Total Volume of All Products Billed, by Land Status and Forest Region, 1979

(Includes Volumes Charged to Cut Control and Excludes Firmwood Rejects)
(Cubic Metres)

	Forest Region						
Land Status	Cariboo	Kamloops	Nelson	Prince George	Prince Rupert	Vancouver	Totals
Tree Farm Licences	151 870	790 605	1 454 064	595 421	2 446 454	6 878 645	12 317 059
Timber Sale Harvesting Licences	2 812 273	3 671 290	2 614 234	9 024 586	6 205 455	5 516 573	29 844 411
Timber Sale Licences	3 147 034	3 254 684	1 631 224	5 191 951	1 073 928	1 486 059	15 784 880
Farm Woodlot Licences	312	63	—	827	—	2 584	3 786
Licences to Cut	173 752	98 980	45 660	309 880	211 788	71 311	911 371
Right-of-way	4 872	5 114	144	17 813	10 737	7 547	46 227
Timber Licences	—	—	9 833	13 456	—	10 467	33 756
Timber Leases	—	—	—	—	—	1 082 039	1 082 039
Timber Berths	—	—	9 103	—	—	211 592	220 695
Special Timber Licences	—	280 540	79 917	2 032	584 648	5 043 741	5 990 878
Pulp Licences	—	—	—	—	379 914	186 055	565 969
Pulp Leases	—	—	—	—	49 296	612 299	661 595
Beachcomb, Trespass	—	—	—	—	15 415	97 081	112 496
Misc.	—	7 442	22 753	—	—	113 597	143 792
Subtotals, Crown Lands	6 290 113	8 108 718	5 866 932	15 155 966	10 977 635	21 319 590	67 718 954
Crown Grants to 1887	6 839	169 684	260 958	—	464	3 764 975	4 202 920
Crown Grants 1887-1906	24 807	30 145	346 740	—	200 592	341 383	943 667
Crown Grants to 1906-14	47 867	115 091	66 000	73 654	81 739	147 592	531 943
Crown Grants to date	489 003	294 640	327 274	648 055	279 451	579 049	2 617 472
Dominion Reserves	—	177	—	—	—	1 974	2 151
Indian Reserves	14 383	18 301	—	24 048	72 557	85 716	215 005
Totals	6 873 012	8 736 756	6 867 904	15 901 723	11 612 438	26 240 279	76 232 112

D. Timber Harvesting

Table D.3 Species Cut, All Products, 1979

(Includes Firmwood Rejects)
(Cubic Metres)

Forest Region	Balsam	Cedar	Cypress	Fir	Hemlock	Larch	Lodgepole Pine
Cariboo (C)	—	—	—	—	—	—	—
Prince Rupert (C)	608 779	1 017 313	76 603	58 121	2 241 299	—	5 682
Vancouver (C)	4 563 098	6 380 975	721 813	4 300 054	9 124 463	—	6 038
Totals, Coast	5 171 877	7 398 288	798 416	4 358 175	11 365 762	—	11 720
Cariboo (I)	286 588	198 761	—	1 410 541	16 007	—	2 623 727
Kamloops	1 174 233	535 730	4	1 657 741	362 603	70 262	2 418 036
Nelson	701 539	852 950	—	662 872	761 709	321 520	1 732 589
Prince George	1 535 036	71 914	—	289 057	19 756	92	5 335 253
Prince Rupert (I)	1 077 062	167 908	2	1 994	976 007	—	2 620 876
Vancouver (I)	184 210	101 850	6 382	147 885	179 378	25	45 263
Totals, Interior	4 958 668	1 929 113	6 388	4 170 090	2 315 460	391 899	14 775 735
Grand Totals	10 130 545	9 327 401	804 804	8 528 265	13 681 222	391 899	14 787 455

Forest Region	Spruce	White Pine	Yellow Pine	Other Conifer	Cottonwood	Other Hardwoods	Totals
Cariboo (C)	—	—	—	—	—	—	—
Prince Rupert (C)	813 014	73	32	788	36 455	188	4 858 347
Vancouver (C)	394 135	91 614	7	4 355	78 909	42 400	25 707 861
Totals, Coast	1 207 149	91 687	39	5 143	115 364	42 588	30 566 208
Cariboo (I)	1 950 536	21	424	11 035	4 620	1 497	6 503 757
Kamloops	2 457 221	49 828	69 158	17 237	381	406	8 812 840
Nelson	1 570 387	254 043	30 156	7 434	8 348	115	6 903 662
Prince George	8 695 261	9	—	12 054	17 173	9 214	15 984 819
Prince Rupert (I)	1 790 201	2	—	12 482	21 064	998	6 668 587
Vancouver (I)	78 567	6 659	307	75	949	2 656	754 206
Totals, Interior	16 542 173	310 562	100 045	60 317	52 535	14 886	45 627 871
Grand Totals	17 749 322	402 249	100 084	65 460	167 899	57 474	76 194 079

Table D.4 Timber Cut and Billed from Timber Sales and Timber Sale Harvesting Licences, 1979

(Cubic Metres)

Forest Region	Logs	Special Forest Products*
Cariboo	5 959 307	15 882
Kamloops	6 925 974	5 672
Nelson	4 245 458	28 729
Prince George	14 216 537	12 738
Prince Rupert	7 279 383	8 954
Vancouver	7 002 632	54 220
Totals	45 629 291	126 195

* Special Forest Products are defined as poles, posts, pilings, shakes, shingle bolts, Christmas trees and other similar products designated in the regulations as special forest products.

Table D.5 Area Logged, 1979*

(Hectares)

Forest Region	Clear Cutting	Selective Cutting	Totals
Cariboo	20 287	8 250	28 537
Kamloops	17 114	8 721	25 835
Nelson	14 026	8 235	22 261
Prince George	62 559	85	62 644
Prince Rupert	23 519	1 765	25 284
Vancouver	31 315	657	31 972
Totals 1979	168 820	27 713	196 533
1978	140 169	25 912	166 081
1977	147 897	28 055	175 952
1976	133 277	23 699	156 976
1975	100 501	19 070	119 571
1974	130 849	18 004	148 853
1973	149 250	23 926	173 176
1972	132 965	19 428	152 393
1971	135 572	29 559	165 131

* Includes all Crown land and excludes all private land except those in Tree Farm Licences, Tree Farms and Farm Woodlot Licences.

Table D.6 Christmas Trees Billed, by Land Status and Forest Region, 1970-1979

(Number of Trees)

	Forest Region														
	Cariboo		Kamloops		Nelson		Prince George		Prince Rupert		Vancouver		Totals		
	Private	Crown	Private	Crown	Private	Crown	Private	Crown	Private	Crown	Private	Crown	Private	Crown	Totals
1979	2 460	4 852	32 933	8 572	309 336	175 620	1 525	1 300	—	600	83 876	7 026	430 130	197 970	628 100
1978	1 201	6 301	17 864	500	320 871	207 926	833	—	—	1 600	81 527	10 173	422 296	226 500	648 796
1977	6 020	3 866	32 011	12 723	433 841	195 341	60	500	—	600	90 129	14 119	562 061	227 149	789 210
1976	9 558	23 680	35 360	12 290	496 343	217 072	444	—	—	495	77 554	7 217	619 259	260 754	880 013
1975	8 020	19 634	63 057	13 829	505 372	334 010	677	—	—	500	71 617	6 926	648 743	374 899	1 023 642
1974	12 860	31 486	76 884	10 709	557 240	210 764	645	800	—	500	85 413	4 124	733 042	258 383	991 425
1973	11 677	28 588	61 401	25 467	603 533	225 036	185	—	—	—	81 743	7 348	758 539	286 439	1 044 978
1972	—	3 366	34 883	66 716	457 940	367 056	3 868	280	—	500	72 067	10 985	568 758	448 903	1 017 661
1971	—	—	83 188	77 783	752 079	448 423	188	900	60	375	65 043	2 775	900 558	530 256	1 430 814
1970	—	—	152 578	103 083	822 322	455 865	—	100	—	—	77 662	2 130	1 052 562	561 178	1 613 740

E. Inventory Information

Table E.1 Summary of Basic Data for Certified Tree Farms, 1979 (Private Sustained Yield Units Over Crown Granted Lands)

Forest Region	Number of Tree Farms	Productive Area (ha)				Total Area (ha)	Allowable Annual Cut or Estimated Productive Capacity (m^3)
		Mature	Immature	NSR and NCC	Totals		
Included Within Tree Farm Licences							
Nelson	2	309	1 706	1 872	3 887	4 110	12 210
Prince George	1	13	422	59	494	518	1 300
Vancouver	14	19 893	114 288	15 645	149 826	165 708	1 043 665
Totals	17	20 215	116 416	17 576	154 207	170 336	1 057 175
Not Included Within Tree Farm Licences							
Nelson	10	40 266	92 040	37 538	169 844	214 839	469 925 292 943*
Vancouver	23	65 256	171 770	19 596	256 622	286 396	1 921 629 1 000*
Totals	33	105 522	263 810	57 134	426 466	501 235	2 391 554 293 943*
Grand Totals	50	125 737	380 226	74 710	580 673	671 571	3 448 729 293 943*

* Number of Christmas trees

Table E.2 Summary of Basic Data for Farm Woodlot Licences, 1979 (Private Sustained Yield Units)

Forest Region	Number of Farm Woodlot Licences	Productive Area (ha)			Total Area (ha)	Allowable Annual Cut (m^3)
		Crown	Private	Total		
Cariboo	10	1 180	98	1 278	1 987	2 050
Kamloops	2	150	39	189	189	460
Nelson	4	550	250	800	838	750
Prince George	6	551	—	551	601	1 630
Prince Rupert	4	516	59	575	986	810
Vancouver	10	580	64	644	839	1 990
Totals	36	3 527	510	4 037	5 440	7 690

E. Inventory Information

Table E.3 Summary of Basic Data for Tree Farm Licences (Private Sustained Yield Units), 1979

TFL	Name	Licensee	Productive Area (ha) Schedule A	Schedule B	Totals	Total Area (ha)	Allowable Annual Cut (m^3)
Vancouver Region							
* 2	Duncan Bay	Crown Zellerbach Canada Ltd.	58 393	105 483	163 876	191 501	633 350
6	Quatsino	ITT Ind. (Canada)	24 430	119 455	143 885	170 028	1 180 811
7	Salmon River	MacMillan Bloedel Limited	23 477	47 558	71 035	78 755	523 861
10	Toba	Timberland Development Co. Ltd.	247	38 139	38 386	232 411	179 245
12	Hardwicke	Crown Zellerbach (Hardwicke Island) Limited	664	8 068	8 732	9 472	70 792
17	Knight Inlet	British Columbia Forest Products Limited	234	47 727	47 961	275 777	223 210
19	Tahsis	Tahsis Company Ltd.	7 570	105 260	112 830	191 479	989 672
20	Tofino	MacMillan Bloedel Industries Ltd.	57 161	86 949	144 110	172 552	1 084 783
21	Alberni	MacMillan Bloedel Industries Ltd.	105 502	110 566	216 068	258 219	1 935 227
22	Maquinna	British Columbia Forest Products Limited	21 326	130 123	151 449	166 870	1 110 586
*25	Naka	ITT Ind. (Canada)	26 916	64 195	91 111	146 221	522 100
26	Mission Municipal	Corporation of the District of Mission	1 187	5 367	6 554	7 672	32 281
27	Nitinat	British Columbia Forest Products Limited	1 096	11 883	12 979	14 517	115 077
36	Cordero	British Columbia Forest Products Limited	2 322	8 662	10 984	11 597	93 446
37	Nimpkish	Canadian Forest Products Ltd.	37 318	98 162	135 480	188 198	1 095 980
38	Squamish	Empire Mills Limited	190	52 237	52 427	219 014	263 380
*39	Haida	MacMillan Bloedel Limited	71 854	183 557	255 411	428 993	1 836 410
Regional Totals	17		439 887	1 223 391	1 663 278	2 763 276	11 890 211

* Tree Farm Licences 2, 25 and 39 are partly within the Prince Rupert Region.

Prince Rupert Region							
1	Port Edward	Canadian Cellulose Company, Limited	4 866	1 211 760	1 216 626	2 425 121	1 291 560
* 2	Duncan Bay	Crown Zellerbach Canada Limited	10 883	13 363	24 246	27 586	208 605
24	Moresby	ITT Ind. (Canada)	2 967	74 781	77 748	112 470	436 079
*25	Naka	ITT Ind. (Canada)	15 526	50 766	66 292	308 255	93 960
*39	Haida	MacMillan Bloedel Limited	41 104	176 186	217 290	297 431	1 502 520
41	Kitimat	Eurocan Pulp & Paper Company Limited	—	243 718	243 718	1 022 378	566 400
Regional Totals	6		75 346	1 770 574	1 845 920	4 193 241	4 099 124

* Tree Farm Licences 2, 25 and 39 are partly within the Vancouver Region.

Kamloops Region							
9	Okanagan West	Crown Zellerbach Canada Limited	682	72 252	72 934	79 293	210 394
15	Inkaneep	Weyerhaeuser Canada Ltd.	65	45 785	45 850	48 670	73 057
16	Monte Lake	Crown Zellerbach Canada Limited	—	48 634	48 634	51 842	127 992
18	Clearwater	Clearwater Timber Products Limited	—	67 549	67 549	74 224	209 544
32	Bolean	Crown Zellerbach Canada Limited	—	12 678	12 678	13 555	33 980
33	Sicamous	Federated Co-operatives Limited	—	8 323	8 323	8 512	28 480
35	Jamieson Creek	Weyerhaeuser Canada Ltd	—	37 246	37 246	40 051	89 664
Regional Totals	7		747	292 467	293 214	316 147	773 111
Nelson Region							
3	Little Slocan	Slocan Forest Products Ltd.	—	39 558	39 558	79 687	119 618
8	Boundary	Pope & Talbot Ltd.	—	72 672	72 672	77 757	150 787
13	Bull River	Galloway Lumber Company Limited	196	20 685	20 881	37 342	26 900
14	Spillimacheen	Crestbrook Forest Industries Ltd.	405	47 772	48 177	139 520	115 533
23	Arrow Lakes	Canadian Cellulose Company, Limited	15 073	376 579	391 652	1 019 333	1 175 280
Regional Totals	5		15 674	557 266	572 940	1 353 639	1 588 118
Cariboo Region							
5	Mackenzie - Cariboo	Weldwood of Canada Limited	281	32 860	33 141	34 419	124 396
Prince George Region							
30	Northwood	Northwood Pulp and Timber Limited	698	158 209	158 907	181 284	441 000
Grand Totals	34		532 633	4 034 767	4 567 400	8 842 006	18 915 960

Schedule "A" is land over which the Tree Farm Licence holder has cutting rights in addition to those conveyed by the Tree Farm Licence Agreement. This may include land held in fee simple, and temporary tenure land such as timber leases, timber licences, pulp leases, pulp licences and timber berths. Following removal of the mature timber, the temporary tenure lands are transferred to Schedule "B".

Schedule "B" is Crown land.

Table E.4 Summary of Basic Data for Public Sustained Yield Units, 1979

Forest Region and Unit Name	Date of Survey	Mature Volume (m^3)	Productive Area Mature (ha)	Productive Area Immature (ha)	Total Productive (Includes NSR and NCC)	Total Area Including Non-forest (ha)	Commitment (m^3)	Volume Scaled (m^3)
Cariboo								
Big Bar (Partial)	1976	38 412 540	282 097	159 249	450 158	546 521	444 500	289 641
Big Valley Blk. 2	1969	17 011 740	59 822	9 882	73 851	78 085	194 130	134 892
Bowron	1967	11 366 030	38 039	19 903	60 983	68 302	146 140	237 265
Chilko	1966	81 133 090	592 259	625 844	1 263 036	2 077 870	200 130	44 207
Cottonwood	1969	40 551 860	126 478	42 581	183 251	194 354	589 760	649 746
Lac la Hache	1972	64 993 210	320 669	264 769	616 951	720 001	954 490	874 118
Narcosli	1974	70 564 440	442 678	349 519	813 237	881 021	1 087 530	1 085 913
Quesnel Lake	1971	115 977 370	363 425	219 501	621 965	839 063	1 050 600	1 314 490
Stum	1963, 66	65 691 750	603 378	595 450	1 234 094	1 453 156	892 750	742 307
Williams Lake	1973	35 068 910	150 405	92 208	271 708	302 379	405 320	634 920
Regional Totals		540 770 940	2 979 250	2 378 906	5 589 234	7 160 752	5 955 350	6 007 499
Kamloops								
Adams	1968	26 801 400	91 183	99 633	200 867	236 622	413 470	464 487
Ashnola	1969	23 429 140	107 445	57 267	170 880	212 839	255 420	296 064
Barriere	1967	13 583 060	48 621	63 588	118 249	132 307	254 270	295 989
Barton Hill	1970	12 419 850	50 820	8 022	60 720	65 631	117 990	43 341
Big Bar (Partial) [1]	1976	9 010 320	67 226	42 827	111 063	130 789	—	69 270
Botanie	1970	36 884 250	212 895	111 185	348 711	525 468	371 240	410 321
Eagle	1971	23 581 890	59 034	35 526	102 999	142 395	271 980	341 349
Kamloops	1968	17 533 930	115 070	135 096	274 776	326 180	332 190	287 747
Nehalliston	1973	16 902 080	70 479	64 945	140 775	157 984	283 200	290 873
Nicola	1970	29 119 330	149 913	143 047	330 046	384 822	380 890	363 495
Niskonlith	1968	9 687 340	38 702	66 777	112 193	119 410	227 850	199 168
North Thompson	1967	46 029 520	142 054	34 375	190 365	398 092	284 100	325 798
Okanagan	1975	43 177 950	198 826	215 243	428 023	513 600	661 240	894 110
Raft	1967	21 742 140	77 757	111 538	204 533	225 594	358 090	374 845
Salmon Arm	1975	4 588 490	17 663	49 416	72 492	90 280	98 190	97 372
Shuswap	1975	38 133 140	96 548	87 780	209 453	306 026	385 470	314 901
Similkameen	1969	41 463 110	140 590	153 487	316 356	353 107	639 460	678 331
Spallumcheen	1972	46 364 400	141 831	158 250	316 918	396 842	824 040	811 074
Yalakom	1977	53 396 930	229 915	119 556	364 751	746 715	511 720	365 379
Regional Totals		513 848 270	2 056 572	1 757 558	4 074 170	5 464 703	6 670 810	6 923 914
Nelson								
Arrowhead	1962	14 359 710	45 289	32 859	81 418	206 000	132 470	180 785
Cranbrook	1964	32 756 780	121 349	310 411	493 492	698 431	652 400	424 272
Creston	1973	12 767 930	49 514	146 621	209 027	274 678	291 700	266 839
Edgewood	1967	9 392 750	39 253	60 990	106 061	120 576	200 300	215 600
Fernie	1973	20 186 130	90 337	185 424	305 681	541 288	543 170	350 450
Granby	1967	10 442 630	39 128	154 668	203 972	260 297	249 530	281 941
Kettle	1963	14 657 560	76 838	206 570	308 836	332 861	383 640	457 168
Kinbasket	1968	66 647 720	165 827	132 772	318 707	925 647	726 660	845 737
Lardeau	1969	53 884 630	151 089	202 430	373 126	739 692	466 940	305 822
Nakusp	1967	11 234 740	32 984	37 858	78 104	126 205	139 340	217 851
Salmo	1974	9 080 020	29 276	142 162	181 979	254 973	290 740	314 578
Slocan	1967	9 695 180	34 026	79 958	122 212	209 579	202 550	175 500
Upper Kootenay	1965	34 370 200	138 817	150 228	306 457	510 170	471 540	577 594
Windermere	1974	13 130 630	53 739	93 546	152 894	326 284	183 600	134 143
Regional Totals		312 606 610	1 067 466	1 936 497	3 245 966	5 526 682	4 934 580	4 748 280
Prince George								
Big Valley-Blk. 1	1969	20 445 960	63 235	6 565	74 324	80 796	232 780	270 965
Blueberry	1964	37 962 590	187 825	441 331	777 012	1 112 274	537 090	517 707
Canoe	1974	29 290 390	84 592	34 954	127 598	355 028	192 200	166 384
Carp	1973	90 833 800	272 077	224 771	523 438	601 628	824 430	673 506
Crooked River	1973	45 211 320	130 451	90 107	240 135	271 037	505 440	756 636
Finlay	1972	265 096 070	1 443 392	755 510	2 386 591	4 715 902	3 003 620	2 350 328
Fontas	1969, 70	9 352 140	40 634	297 427	436 687	1 092 292	220 870	282 505
Fort Nelson	1968	41 644 080	193 300	584 590	885 586	1 922 737	717 920	699 579
Kluskus	1975	33 663 300	179 125	136 862	316 310	385 601	180 750	99 427
Kotcho	1970	11 051 650	58 845	755 052	1 246 321	2 231 182	—	—
Liard	1972, 73	130 671 090	741 349	731 082	1 735 080	3 037 441	407 910	245 250
Longworth	1971	90 568 520	300 602	29 145	345 438	491 749	627 050	524 782
Moberly	1970	58 731 210	283 568	263 387	603 604	764 637	482 030	347 112
Monkman	1966	67 264 670	280 704	13 240	302 346	547 808	443 380	433 087
Naver	1969	18 886 780	58 756	48 876	122 827	131 622	328 240	339 220
Nechako	1975	104 914 330	487 276	311 475	827 815	934 460	1 417 420	1 813 687
Parsnip	1965	65 060 360	318 532	67 256	444 328	597 310	612 760	579 594
Peace	1972	63 658 090	298 875	155 781	490 089	706 154	336 330	412 039
Purden	1967	46 075 280	168 855	30 289	215 819	238 960	473 160	602 159

(continued)

Table E. 4 Summary of Basic Data of Public Sustained Yield Units, 1979, (continued)

Forest Region and Unit Name	Date of Survey	Mature Volume (m³)	Productive Area Mature (ha)	Productive Area Immature (ha)	Total Productive (Includes NSR and NCC)	Total Area Including Non-forest (ha)	Commitment (m³)	Volume Scaled (m³)
Prince George (cont.)								
Robson	1974	35 254 800	121 221	65 804	200 780	533 384	218 520	260 379
Sikanni	1971	33 666 900	255 399	709 524	1 059 355	1 939 679	148 690	93 578
Stuart Lake	1970	72 476 290	267 189	200 799	487 517	611 421	536 700	711 059
Takla	1970, 71	137 510 480	526 916	339 714	904 573	1 238 629	1 053 540	1 126 636
Wapiti	1969	49 521 370	246 595	522 118	845 492	1 162 118	294 670	247 038
Westlake	1975	33 645 830	133 372	73 592	224 140	237 975	458 780	549 382
Willow River	1969	17 823 310	56 836	51 044	121 925	129 426	334 760	263 730
Regional Total		1 610 280 610	7 199 521	6 940 295	15 954 130	26 071 268	14 589 040	14 365 769
Prince Rupert (Coast)								
Dean	1962, 63, 68	176 786 440	356 595	32 394	391 860	1 585 204	646 100	331 246
Hecate	1964, 65	285 530 910	630 656	40 719	685 977	1 711 167	505 460	441 388
Queen Charlotte	1967	171 674 760	382 549	30 963	415 573	545 054	587 380	396 810
Rivers Inlet	1967	192 234 800	340 409	21 311	369 871	795 711	906 200	419 437
Regional Subtotal		826 226 910	1 710 209	125 387	1 863 281	4 637 136	2 645 140	1 588 881
Prince Rupert (Interior)								
Babine	1974	105 170 250	428 049	160 712	640 449	849 094	645 540	818 733
Bell Irving	1973	51 394 940	112 944	6 018	132 165	639 826	—	3 340
Burns Lake	1976	49 737 120	235 057	150 587	394 092	440 519	747 730	738 402
Morice	1972	79 529 160	233 771	89 296	348 595	575 029	556 870	428 893
Ootsa	1976	129 649 850	515 370	270 785	797 902	1 080 748	1 503 210	1 767 916
Skeena	1976	309 494 070	674 737	148 945	847 600	1 584 362	1 628 590	1 200 719
Smithers	1976	89 615 760	307 309	99 587	412 769	582 513	745 450	1 096 549
Sustut	1975	153 710 060	566 477	43 630	628 504	1 562 060	—	—
Subtotal		968 301 210	3 073 684	974 560	4 202 076	7 314 151	5 327 390	6 054 552
Regional Total		1 794 528 120	4 783 893	1 099 947	6 065 357	11 951 287	8 472 530	7 643 433
Vancouver								
Dewdney	1974	123 610 740	209 310	154 217	400 951	725 581	1 312 310	1 490 387
Kingcome	1966, 69, 71, 74	253 622 450	423 177	98 617	535 241	1 095 137	1 266 810	1 310 128
Nootka	1969	170 198 270	234 500	25 942	268 671	318 349	1 169 620	1 394 189
Quadra	1962, 66, 67, 68	139 203 730	227 351	276 377	540 889	1 155 511	2 097 870	1 628 212
Soo	1975	74 842 120	128 243	76 396	212 692	597 515	584 810	614 921
Vancouver	1970	37 607 090	55 007	61 623	129 332	222 734	345 760	348 138
Regional Total		799 084 400	1 277 588	693 172	2 087 776	4 114 827	6 737 180	6 785 975
Totals for Province		5 571 118 950	19 364 290	14 806 375	37 016 633	60 289 519	47 359 490	46 474 870

[1] - See Cariboo for commitment.

Table E.5 Summary of Forest Cover Map Production, 1979

Forest Region	Project Name	Number of Maps	Map Scale: 1:20 000	Map Scale: 1:10 000	Base Map: In Progress	Base Map: Finished	Base Map: Checked	Base Map: Corrected	Base Map: Completed	Base Map: % Completed	Forest Cover: In Progress	Forest Cover: Finished	Forest Cover: Complexed	Forest Cover: Labelled	Forest Cover: Checked	Forest Cover: Corrected	Forest Cover: Completed	Forest Cover: % Completed
Cariboo	Prince George SSA S1/2	43	•	—	43	43	43	43	43	100	43	43	43	43	43	43	43	100
	Williams Lake TSA (STUM)	145	•	—	111	103	47	42	42	30	1	—	—	—	—	—	—	—
Kamloops	Okanagan TSA	196	•	—	73	12	—	—	—	—	—	—	—	—	—	—	—	—
	Sub-units																	
	1. East Canoe Creek	5	—	•	5	5	5	5	5	100	5	5	5	5	5	5	5	100
	2. Trinity Valley	18	—	•	18	18	18	18	18	100	18	18	—	10	—	—	—	0
	3. McNulty Creek	12	—	•	12	12	12	—	—	0	12	12	—	—	—	—	—	0
	4. Upper Yalakom	32	—	•	32	32	29	—	—	0	32	32	—	—	—	—	—	0
Nelson	Cranbrook TSA	118	•	—	118	110	73	72	72	61	—	—	—	—	—	—	—	—
Prince George	Prince George SSA N1/2	54	•	—	54	54	27	25	25	46	—	—	—	—	—	—	—	—
	Prince George TSA	660	•	—	26	26	—	—	—	0	26	22	—	—	—	—	—	—
Prince Rupert	North Coast TSA	220	•	—	203	196	34	13	—	0	—	—	—	—	—	—	—	—
	Lakes TSA	106	•	—	7	5	1	—	—	0	3	1	—	—	—	—	—	—
Vancouver	Quadra TSA	152	•	—	80	73	49	—	—	0	—	—	—	—	—	—	—	0
	Sub-units																	
	1. Potlatch Creek	5	—	•	5	5	5	5	5	100	5	5	5	5	5	—	—	—
	2. Nahatlatch Creek	13	—	•	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	3. Mehatl Creek	12	—	•	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	4. Pemberton Creek	3	—	•	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	5. Ahta River	6	—	•	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	TFL 37	55	•	—	55	55	55	55	55	100	55	55	55	—	—	—	—	100
Totals	All Projects	1855	—	—	842	749	398	278	265	14	200	193	108	63	53	48	48	3

Forest Region	Project Name	EPA: In Progress	EPA: Finished	EPA: Complexed	EPA: Labelled	EPA: Checked	EPA: Corrected	EPA: Completed	EPA: % Completed	Range: In Progress	Range: Finished	Range: Complexed	Range: Labelled	Range: Checked	Range: Corrected	Range: Completed	Range: % Completed
Cariboo	Prince George SSA S1/2	43	43	43	43	43	43	43	100	2	1	1	1	—	—	—	50
	Williams Lake TSA (STUM)	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kamloops	Okanagan TSA	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Sub-units																
	1. East Canoe Creek	5	5	5	5	5	5	5	100	—	—	—	—	—	—	—	—
	2. Trinity Valley	17	17	—	—	—	—	—	0	—	—	—	—	—	—	—	—
	3. McNulty Creek	12	12	—	—	—	—	—	0	—	—	—	—	—	—	—	—
	4. Upper Yalakom	32	32	—	—	—	—	—	0	—	—	—	—	—	—	—	—
Nelson	Cranbrook TSA	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Prince George	Prince George SSA N1/2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Prince George TSA	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Prince Rupert	North Coast TSA	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Lakes TSA	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Vancouver	Quadra TSA																
	Sub-units																
	1. Potlatch Creek	5	5	5	5	—	—	—	0	—	—	—	—	—	—	—	—
	2. Nahatlatch Creek	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	3. Mehatl Creek	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	4. Pemberton Creek	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	5. Ahta River	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	TFL 37	55	55	55	—	—	—	—	100	55	55	55	—	—	—	—	100
Totals	All Projects	140	169	108	53	48	48	48	3	57	56	56	1	—	—	—	0

F. Range Management

Table F.1 Use of Crown Range, 1979

Forest Region	Grazing Authorizations							Hay Cutting Authorizations		Grazing Special Use Permits		
			Authorized Livestock									
	Operators	Permits/ Licences Handled	Cattle	Horses	Sheep	Use of Crown Range (AUM's)[1]	Permits/ Licences Issued	Tonnes	Permits	Hectares	Land Base for Crown Range Administration (ha)
Cariboo	537	545	75 664	1 625	344	386 234	55	702	2	40	4 836 400
Nelson	284	256	17 569	509	—	73 750	2	35	5	328	598 636
Kamloops	473	498	76 053	307	978	307 954	—	—	21	1 167	3 360 530
Prince George	481	367	32 382	2 729	36	124 627	12	209	1	55	874 016
Prince Rupert	71	71	5 039	408	—	15 718	7	77	2	132	731 986
Vancouver	10	10	211	3	—	683	—	—	2	32	1 725
Totals 1979	1 856	1 747	206 918	5 581	1 358	908 966	76	1 023	33	1 754	10 403 293
1978	1 911	1 743	204 293	5 163	1 313	871 608	85	1 057	48	2 839	10 256 289
1977	1 779	1 738	192 040	5 232	1 985	828 173	85	1 149	57	5 930	10 186 762
1976	1 801	1 863	183 729	4 240	2 668	794 636	115	1 250	55	5 368	95 10 834
1975	1 727	1 912	181 117	4 907	882	787 406	155	1 931	56	5 322	95 10 855
1974	—	2 000	183 156	5 546	1 821	809 238	—	—	—	—	—
1973	—	1 920	177 785	5 748	1 616	783 677	—	—	—	—	—
1972	—	1 968	174 617	6 166	1 432	787 589	—	—	—	—	—
1971	—	1 920	178 772	6 186	1 484	829 337	—	—	—	—	—
1970	—	1 985	178 332	5 651	2 739	822 442	—	—	—	—	—

[1] Animal Unit Month (AUM) is the amount of forage required for one month by an average cow, aged 6 months or older.

G. Recreation Management

Table G.1 User Visits to Recreation Sites, 1979

Forest Region	(000 User Days)
Cariboo	232.0
Kamloops	450.0
Nelson	124.5
Prince George	210.9
Prince Rupert	175.0
Vancouver	460.0
Totals	1 652.4

Table G.2 Recreation Branch Projects, 1979

Forest Region	Number of Sites Est'd During Year	Number of Sites Removed from Direct Management	Number of Active Sites at Year End	Trails Constructed 1979 (km)	Total Trails to Date (km)
Cariboo					
Type A	3	—	114	—	—
Type B	5	—	20	—	—
Totals	8	—	134	43	99
Kamloops					
Type A	6	—	229	—	—
Type B	11	2	40	—	—
Totals	17	2	269	41	386
Nelson					
Type A	6	3	194	—	—
Type B	—	2	32	—	—
Totals	6	5	226	2	1 017
Prince George					
Type A	1	—	148	—	—
Type B	—	2	19	—	—
Totals	1	2	167	—	240
Prince Rupert					
Type A	6	—	55	—	—
Type B	13	2	21	—	—
Totals	19	2	76	12	80
Vancouver					
Type A	3	1	117	—	—
Type B	4	2	35	—	—
Totals	7	3	152	10	430
Total B.C.					
Type A[1]	25	4	857	—	—
Type B[2]	33	10	167	—	—
Totals	58	14	1 064	108	2 252

[1] Type A Facilities: table, litter can, ground toilet.
[2] Type B Facilities: litter can only.

H. Forest Industry

Table H.1 Wood Processing Plants of the Province, 1979

Forest Region	Operating									Shutdown		
	Sawmills				Shingle Mills					Sawmills		Shingle Mills
	Numbers	Eight-hour Daily Production (m^3)	Number of Attached Chippers	Number of Attached Barkers	Numbers	Eight-hour Daily Production (m^3)	Number of Pulp Mills	Number of Veneer and Plywood	Numbers	Eight-hour Daily Production (m^3)	Numbers	Eight-hour Daily Production (m^3)
Cariboo	52	18 256	37	46	3	28	1	3	34	283	—	—
Kamloops	190	23 328	57	65	17	159	1	6	32	978	2	11
Nelson	150	16 121	51	41	19	385	2	5	63	763	5	649
Prince George	128	30 626	68	77	1	17	5	4	205	2 733	2	25
Prince Rupert	121	15 412	26	26	6	87	3	—	91	1 281	3	24
Vancouver	174	47 944	146	99	125	6 247	12	13	62	1 069	22	470
Totals 1979	815	151 687	385	354	171	6 923	24	31	487	7 107	34	1 179
1978	716	179 025	381	319	144	5 879	24	31	551	9 552	29	96
1977	705	138 743	365	335	114	7 406	25	31	566	12 013	25	14 514
1976	659	141 303	365	326	99	5 197	25	30	543	13 639	25	238
1975	661	147 949	354	318	106	5 712	25	30	575	15 046	19	374
1974	787	128 972	326	304	103	4 574	25	27	495	19 510	14	210
1973	810	150 954	320	307	86	4 656	24	30	455	17 734	11	382
1972	603	130 164	305	272	74	4 534	23	30	506	16 208	28	266
1971	627	117 910	244	243	68	2 940	21	27	576	16 646	12	144
1970	881	114 784	230	202	59	2 574	20	24	322	8 734	9	82
Ten-year Average 1970/79	726	140 149	328	298	102	5 040	24	29	508	13 619	21	1 749

Table H.2 Export of Logs, 1979

(Cubic Metres)

Species	Grade 1	Grade 2	Grade 3	Ungraded and Lumber Reject	Totals	Exportable[1]	Exported Under Permit[2]
Balsam	—	—	—	123 913.6	123 913.6	2 083.3	121 830.3
Cedar	36 532.9	55 132.8	103 196.3	—	194 862.0	11 663.4	183 198.6
Cottonwood	743.5	7 428.1	2 544.5	—	10 716.1	5 055.1	5 661.0
Cypress	3 959.4	7 008.7	59 994.4	—	70 962.5	36 414.1	34 548.4
Fir	1 155.2	4 778.3	9 772.2	—	15 705.7	10 263.7	5 442.0
Hardwood	—	—	—	20 048.4	20 048.4	15 303.6	4 744.8
Hemlock	2 863.0	12 825.5	102 361.3	—	118 049.8	9 543.8	108 506.0
Lodgepole Pine	22.2	88.2	8 892.7	—	9 003.1	3 444.7	5 558.4
Spruce	7 758.8	36 143.8	122 962.2	—	166 864.8	26 440.3	140 424.5
Totals 1979	53 035.0	123 405.4	409 723.6	143 962.0	730 126.0	120 212.0	609 914.0
1978	43 493.8	118 592.8	467 280.0	57 073.3	686 439.9	87 701.3	598 738.6
1977	54 578.3	176 597.9	594 020.5	207 942.4	1 033 139.1	277 731.4	755 407.7
1976	28 623.0	85 605.7	377 912.6	97 593.6	589 732.9	251 416.5	338 316.4
1975	34 170.9	84 450.2	278 660.3	27 875.4	425 156.8	208 001.9	217 154.9
1974	17 445.1	90 357.8	440 492.1	46 512.8	594 807.8	320 772.1	274 035.7
1973	4 381.1	18 068.2	92 739.5	19 353.9	134 542.7	92 549.8	41 992.9
1972	20 308.3	65 379.6	191 250.6	11 580.0	288 518.5	85 124.3	203 394.2
1971	81 400.2	172 587.7	476 260.3	65 827.0	796 075.2	131 132.9	664 942.3
1970	91 258.3	216 078.8	872 261.7	237 780.4	1 417 379.2	381 068.3	1 036 310.9
Ten-year Average 1970/79	42 869.4	115 112.4	420 060.1	91 550.1	669 591.8	195 571.0	474 020.8

[1] Export priviledge — Exported from lands granted by the Crown on or before March 12, 1906.

[2] Exported under permit from Crown lands and from land granted by the Crown after March 12, 1906 under authority of Section 135 of the Forest Act.

I. Stumpage Prices and Ministry Financial Statements

Table I.1 Average Stumpage Prices Received on Timber Scaled From Tree Farm Licence Cutting Permits, by Species and Forest Region, 1979*

Forest Region	Balsam			Cedar			Douglas-fir			Hemlock		
	Volume (m³)	Price per m³($)	Price Range per m³($)	Volume (m³)	Price per m³($)	Price Range per m³($)	Volume (m³)	Price per m³($)	Price Range per m³($)	Volume (m³)	Price per m³($)	Price Range per m³($)
Cariboo	9 688	5.92	1.11-12.88	—	—	—	64 042	21.27	14.33-32.51	1	1.36	1.36
Kamloops	123 439	3.68	0.39-21.13	12 211	8.91	0.39-37.70	107 970	11.00	0.39-26.24	19 850	3.50	0.39-9.41
Nelson	160 370	4.37	0.30-12.82	218 531	21.74	0.30-40.22	84 705	13.40	0.30-28.79	398 971	0.49	0.28-4.89
Prince George	107 140	4.18	0.39-9.27	1	0.16	0.16	11 667	17.91	0.39-25.30	1 795	3.27	0.39-9.26
Prince Rupert	344 884	1.84	0.39-12.20	375 292	12.86	2.05-17.16	50	1.77	—	1 320 066	2.08	0.39-1.89
Vancouver	1 414 768	6.32	1.62-9.10	1 667 132	20.13	4.70-27.09	696 384	14.07	0.71-20.24	2 762 550	5.14	1.52-6.59
Totals	2 160 289	5.20	0.30-21.13	2 273 167	19.04	0.16-40.22	964 818	14.19	0.30-32.51	4 503 233	3.83	0.28-9.41

	Larch			Lodgepole Pine			Spruce			White Pine		
	Volume (m³)	Price per m³($)	Price Range per m³($)	Volume (m³)	Price per m³($)	Price Range per m³($)	Volume (m³)	Price per m³($)	Price Range per m³($)	Volume (m³)	Price per m³($)	Price Range per m³($)
Cariboo	—	—	—	30 829	9.93	2.87-16.16	47 305	12.85	7.34-22.07	—	—	—
Kamloops	16 847	15.77	0.39-24.03	268 843	4.68	0.39-11.74	239 446	10.36	0.39-31.20	1 728	5.38	0.39-52.73
Nelson	34 610	12.45	0.30-26.37	194 652	4.46	0.30-12.74	256 346	10.44	0.30-21.06	105 515	21.47	0.30-50.11
Prince George	—	—	—	32 845	6.13	0.39-13.40	441 973	12.42	3.78-19.85	—	—	—
Prince Rupert	—	—	—	37 034	1.50	0.39-2.10	318 681	17.55	0.39-41.02	4	2.43	—
Vancouver	—	—	—	223	6.07	1.12-1.12	75 094	26.34	1.23-50.79	18 812	3.87	1.12-1.99
Totals	51 457	13.54	0.30-26.37	564 426	4.77	0.30-16.16	1 378 845	13.65	0.30-50.79	126 059	18.62	0.30-52.73

	Other Species			All Species		
	Volume (m³)	Price per m³($)	Price Range per m³($)	Volume (m³)	Price per m³($)	Price Range per m³($)
Cariboo	6	6.14	1.11-12.88	151 871	15.36	1.11-32.51
Kamloops	271	5.97	0.39-20.37	790 605	7.38	0.39-52.73
Nelson	367	10.15	0.30-23.93	1 454 067	8.96	0.28-50.11
Prince George	—	—	—	595 421	10.67	0.16-25.30
Prince Rupert	50 446	21.56	35.61-37.73	2 446 457	6.11	0.39-37.73
Vancouver	208 244	41.82	6.91-63.10	6 843 207	11.29	0.71-63.10
Totals	259 334	37.80	0.30-63.10	12 281 628	9.75	0.16-63.10

* Excludes TFL 26.

Table I.2 Average Bid Stumpage Prices on Cutting Permits of Timber Sale Harvesting Licences and Timber Sales, by Species and Forest Region, 1979

Forest Region	Balsam Volume (m^3)	Balsam Price per m^3 ($)	Balsam Price Range per m^3 ($)	Cedar Volume (m^3)	Cedar Price per m^3 ($)	Cedar Price Range per m^3 ($)	Douglas-fir Volume (m^3)	Douglas-fir Price per m^3 ($)	Douglas-fir Price Range per m^3 ($)	Hemlock Volume (m^3)	Hemlock Price per m^3 ($)	Hemlock Price Range per m^3 ($)
Cariboo	355 140	4.11	.39-12.68	207 530	3.20	.39-20.69	1 007 650	12.65	.39-26.10	45 360	1.12	.39-1.19
Kamloops	754 930	3.12	.39-13.67	524 420	17.11	.39-42.71	800 330	13.61	1.57-28.90	365 670	1.14	.39-16.04
Nelson	335 130	1.54	.28-10.69	400 150	18.49	.20-36.20	339 580	8.69	.33-21.01	239 730	0.34	.25-4.30
Prince George	1 544 820	3.56	.39-12.56	171 240	8.02	.39-16.19	205 510	15.71	3.53-25.32	69 370	0.86	.39-2.05
Prince Rupert (C)	416 990	2.25	.50-26.10	572 590	16.97	.39-51.70	95 480	6.75	1.49-13.19	1 128 230	2.88	.71-26.10
Prince Rupert (I)	300 520	5.31	.20-29.95	104 700	12.13	.20-61.40	—	—	—	718 000	1.34	.20-30.48
Vancouver	1 575 270	4.25	.71-29.81	1 346 690	19.67	.71-60.02	639 800	10.49	.71-42.65	2 037 170	4.55	.71-43.34
Totals	6 232 800	3.88	.20-29.95	3 327 320	16.80	.20-61.40	3 088 350	12.04	.33-42.65	4 603 530	3.06	.20-43.34

	Larch Volume (m^3)	Larch Price per m^3 ($)	Larch Price Range per m^3 ($)	Lodgepole Pine Volume (m^3)	Lodgepole Pine Price per m^3 ($)	Lodgepole Pine Price Range per m^3 ($)	Spruce Volume (m^3)	Spruce Price per m^3 ($)	Spruce Price Range per m^3 ($)	White Pine Volume (m^3)	White Pine Price per m^3 ($)	White Pine Price Range per m^3 ($)
Cariboo	—	—	—	2 767 610	3.66	.29-21.91	1 635 800	10.54	.39-22.41	—	—	—
Kamloops	32 680	12.62	5.87-21.39	1 337 590	4.28	.30-22.36	1 550 770	9.07	.36-15.04	36 940	32.22	2.16-81.00
Nelson	197 250	12.68	—	1 405 240	1.93	.27-14.60	665 100	6.58	.28-16.99	175 500	31.71	.39-40.81
Prince George	230	2.00	2.00-2.00	4 498 200	4.43	.35-13.24	8 434 040	9.02	.39-18.38	—	—	—
Prince Rupert (C)	—	—	—	—	—	—	450 630	13.39	.40-75.50	6 000	0.62	.40-1.53
Prince Rupert (I)	—	—	—	1 719 080	4.86	.35-27.72	1 099 580	8.73	.39-42.09	—	—	—
Vancouver	—	—	—	5 540	1.38	1.27-7.03	155 570	18.54	4.56-49.52	4 950	22.47	.95-34.06
Totals	230 160	12.66	2.00-21.39	11 733 260	3.99	.27-27.72	13 991 490	9.31	.28-75.50	223 390	30.75	.39-81.00

	Other Species Volume (m^3)	Other Species Price per m^3 ($)	Other Species Price Range per m^3 ($)	All Species Volume (m^3)	All Species Price per m^3 ($)	All Species Price Range per m^3 ($)
Cariboo	980	12.19	17.96-17.96	6 020 070	7.03	.29-26.10
Kamloops	21 300	5.44	.89-19.00	5 424 630	8.14	.30-28.90
Nelson	14 420	6.35	.33-22.68	3 772 100	6.94	.20-40.81
Prince George	780	0.47	.39-2.00	14 924 190	7.11	.39-25.32
Prince Rupert (C)	75 650	19.04	.71-59.80	2 745 570	8.02	.39-75.50
Prince Rupert (I)	5 960	0.49	.39-0.50	4 947 840	5.48	.20-61.40
Vancouver	386 780	33.82	.42-62.17	6 151 770	10.61	.42-62.17
Totals	505 870	29.15	.33-62.17	43 986 170	7.57	.20-75.50

Table I.3 Forest and Range Revenue, Fiscal Year 1978/79

Timber Licence Rentals and Fees	$492 747.18
Timber Berth Rentals and Fees	62 005.17
Timber Lease Rentals and Fees	70 028.40
Timber Sale Rentals and Fees	5 842 927.41
Timber Sale Stumpage	222 522 428.02
Timber Sale Cruising and Advertising	258 635.64
Timber Royalties	7 819 598.20
Grazing Permits and Fees	559 305.73
Forest Protection Tax	643 922.68
Miscellaneous	1 155 259.60
Weight Scaling	4 978 151.22
Coast Scaling	2 585 190.72
Indian Affairs Agreement	136 850.00
TSHL Fire-fighting Costs Standby Crews	502.00
Reservoir Waterway Improvements	6 903 838.00
Total	$254 031 389.97

I. Stumpage Prices and Ministry Financial Statements

Table I.4 Forest and Range Revenue, 1975-1979

	12 Months to Dec. 31 1975	12 Months to Dec. 31 1976	12 Months to Dec. 31 1977	12 Months to Dec. 31 1978	12 Months to Dec. 31 1979
Timber Licence Rentals and Fees	$551 336.77	$536 424.40	$512 757.29	$505 263.82	$499 494.68
Timber Berth Rentals and Fees	75 548.18	74 772.43	70 324.86	64 211.92	63 023.25
Timber Lease Rentals and Fees	85 655.56	80 253.37	74 757.20	72 248.95	129 285.75
Timber Sale Rentals and Fees	693 428.67	841 081.45	806 406.86	724 629.24	14 173 405.67
Timber Sale Stumpage	43 437 755.58	43 691 476.49	62 314 958.73	159 913 091.94	416 933 571.53
Timber Sale Cruising and Advertising	113 492.20	199 208.82	275 650.62	275 878.44	40 280.74
Timber Royalties	6 142 472.77	6 691 829.70	8 628 049.98	7 530 386.48	12 831 789.96
Grazing Permits and Fees	514 595.23	412 690.82	503 775.34	556 696.15	777 007.71
Forest Protection Tax	1 136 279.10	1 421 792.84	1 198 161.44	986 043.00	123 460.27
Miscellaneous	1 175 699.59	1 267 600.72	1 203 475.27	750 862.73	1 316 904.30
Weight Scaling	3 073 017.84	4 468 124.99	4 637 871.16	4 656 807.15	5 048 616.45
Coast Scaling	175 202.08	2 067 742.02	587 913.39	2 529 089.93	3 314 657.95
Indian Affairs Agreement	—	181 848.14	143 357.00	136 850.00	264 714.00
TSHL Fire-fighting Costs Standby Crews	651 038.38	775 716.72	163 909.94	2 349.64	502.00
Wood Products	154 285.90	2 792.17	—	—	—
Reservoir Water Improvements	—	305 101.00	2 378 800.00	5 211 567.00	2 442 702.00
Federal/Provincial DREE Agreement	—	—	—	—	2 054 000.00
Totals	$ 57 979 807.85	$ 63 018 456.08	$ 83 500 169.08	$ 183 915 976.39	$ 460 013 416.26

Table I.5 Amounts Charged Against Logging Operations, Fiscal Year 1978/79

Forest Region	Royalty	Miscellaneous	Scaling Expenses	Scaling Fees	Stumpage	Rentals, Cruising, Advertising, Transfer Fees	Totals
Cariboo	$253 597.47	$578 275.28	—	$2 167.70	$39 537 642.87	$168 896.34	$40 540 579.66
Kamloops	440 777.60	1 206 744.66	—	2 663.80	47 390 018.90	472 021.98	49 512 226.94
Nelson	326 761.40	805 669.32	—	305.42	27 104 528.00	745 408.23	28 982 672.37
Prince George	358 993.20	1 448 008.74	—	5 962.28	54 136 826.91	520 706.53	56 470 497.66
Prince Rupert	932 011.21	783 200.34	$40 741.27	399 593.46	21 796 545.80	1 054 392.58	25 006 484.66
Vancouver	5 716 173.44	558 685.12	249 660.88	1 901 352.09	72 114 090.05	4 715 391.66	85 255 293.24
Totals 1978/79	$ 8 028 314.32	$ 5 380 583.46	$ 290 342.15	$ 2 312 044.75	$ 262 079 652.53	$ 7 676 817.32	$ 285 767 754.53

Table I.6 Amounts Charged Against Logging Operations, 1979

Forest Region	Royalty	Miscellaneous	Scaling Expenses	Scaling Fees	Stumpage	Rentals, Cruising, Advertising, Transfer Fees	Totals
Cariboo	$45 907.49	$686 403.77	—	$1 645.00	$53 150 462.01	$1 097 913.50	$54 982 331.77
Kamloops	418 999.62	1 406 260.49	$(17.21)	5 003.56	70 716 739.28	1 507 447.48	74 054 433.22
Nelson	251 178.15	1 004 078.76	—	2 119.22	47 515 403.02	1 398 016.97	50 170 796.12
Prince George	86 231.47	1 457 667.53	—	6 703.25	110 667 698.71	2 908 975.71	115 127 276.67
Prince Rupert	1 027 816.37	722 774.09	44 406.29	531 604.23	52 104 847.58	2 729 514.54	57 160 963.10
Vancouver	11 080 678.99	684 410.57	212 272.67	2 289 242.95	155 646 169.00	5 940 702.11	175 853 476.29
Totals	$12 910 812.09	$5 961 595.21	$256 661.75	$2 836 318.21	$489 801 319.60	$15 582 570.31	$527 349 277.17

Table I.7 Forest Road Construction Credit Against Stumpage Under Section 88 of the Forest Act, by Forest Region, 1979

	Road		Major Culverts and Bridges	
Forest Region	Kilometres	Cost	Numbers	Cost
Cariboo	209	$4 037 000	5	$189 000
Kamloops	67	383 000	2	193 000
Nelson	166	3 196 000	5	380 000
Prince George	350	9 780 000	20	2 604 000
Prince Rupert	51	1 670 000	10	1 112 000
Vancouver	20	907 000	3	49 000
Totals	863	19 973 000	45	4 527 000

Table I.8 Ministry of Forests Expenditures, Fiscal Year 1978/79

Minister's Office [1]	$124 684.02
Ministry Administration Program [2]	21 192 116.30
Engineering Support Services Program	9 799 700.84
Public Information Services Program	653 339.81
Resource Management Program [3]	8 202 670.47
Strategic Studies Program	1 442 587.30
Reforestation Program	18 984 916.73
Research Program	2 051 087.83
Fire Suppression Program	18 768 603.07
Forest Protection Program [4]	8 848 814.30
Inventory Program	4 213 393.28
Scaling Program	10 623 874.00
Range Management Program	1 947 995.44
Forest Development Roads Maintenance Program [5]	8 965 129.67
Reservoir Waterway Improvement Program [6]	6 063 745.70
Building Occupancy Charges	3 577 021.03
Computer and Consulting Charges [7]	1 917 644.26
Bill 5 Intensive Forestry Program	8 601 446.85
Implementation of New Legislation	3 343 620.13
Accelerated Reforestation Fund [8]	—
Total	$139 322 391.03

[1] Includes Special Warrants 25 and 73
[2] Includes Special Warrant 74
[3] Includes Special Warrant 3
[4] Includes Special Warrant 8
[5] Includes Special Warrants 4 and 5
[6] Includes Special Warrant 21
[7] Includes Special Warrant 39
[8] See Table A.7

MINISTRY OF FORESTS INVENTORY BRANCH

PUBLIC SUSTAINED YIELD UNITS

P.S.Y.U.'s — Inside Pulpwood Harvesting Areas

P.H.A.

No. 1 Prince George Pulp and Paper Limited
9. Big Valley
15. Carp
20. Crooked River
43. Naver
44. Nechako
52. Parsnip
71. Stuart Lake
77. Westlake
79. Willow River

No. 2 Kamloops Pulp & Paper Co. Ltd.
1. Adams
5. Barriere
6. Barton Hill
11. Botanie
23. Eagle
45. Nehalliston
46. Nicola
47. Niskonlith
49. North Thompson
59. Raft
63. Salmon Arm
64. Shuswap
70. Spallumcheen

No. 3 Northwood Pulp Limited
12. Bowron
37. Longworth
39. Monkman
55. Purden
61. Robson

No. 5 Cariboo Pulp & Paper Company Limited
17. Cottonwood
42. Narcosli
58. Quesnel Lake

No. 7 Intercontinental Pulp Company Ltd.
53. Peace
73. Takla

P.S.Y.U.'s — Outside Pulpwood Harvesting Areas

2. Arrowhead
3. Ashnola
4. Babine
7. Bell-Irving
8. Big Bar
10. Blueberry
13. Burns Lake
14. Canoe
16. Chilko
18. Cranbrook
19. Creston
21. Dean
22. Dewdney
24. Edgewood
25. Fernie
26. Finlay
86. Fontas
87. Fort Nelson
29. Granby
30. Hecate
31. Kamloops
32. Kettle
33. Kinbasket
34. Kingcome
95. Kluskus
35. Lac La Hache
36. Lardeau
38. Moberly
40. Morice
41. Nakusp
48. Nootka
50. Okanagan
51. Ootsa
56. Quadra
57. Queen Charlotte
60. Rivers Inlet
62. Salmo
68. Smithers
66. Sikanni
65. Similkameen
66. Skeena
67. Slocan
69. Soo
72. Stum
96. Sustut
74. Upper Kootenay
75. Vancouver
76. Wapiti
78. Williams Lake
80. Windermere
81. Yalakom
90. Koteho
91. Liard

SPECIAL SALE AREAS

27. Fort St. James (O-I-C 1888/65)
28. Furry Creek (O-I-C 3909/67)
54. Prince George (O-I-C 2811/62)

TREE FARM LICENCES

T.F.L. No.
1. Canadian Cellulose Company, Limited
2. Crown Zellerbach Canada Limited
3. Slocan Forest Products Ltd.
5. Weldwood of Canada Limited
6. Rayonier Canada (B.C.) Limited
7. MacMillan Bloedel Limited
8. Pope and Talbot Ltd.
9. Crown Zellerbach Canada Limited
10. Timberland Development Company Limited
12. Crown Zellerbach (Hardwicke Island) Limited
13. Galloway Lumber Company Limited
14. Crestbrook Forest Industries Ltd.
15. **Weyerhaeuser Canada Ltd.**
16. Crown Zellerbach Canada Limited
17. British Columbia Forest Products Limited
18. Clearwater Timber Products Limited
19. Tahsis Company Ltd.
20. MacMillan Bloedel Industries Limited
21. MacMillan Bloedel Industries Limited
22. British Columbia Forest Products Limited
23. Canadian Cellulose Company, Limited
24. Rayonier Canada (B.C.) Limited
25. Rayonier Canada (B.C.) Limited
26. The Corporation of the District of Mission
27. British Columbia Forest Products Limited
30. Northwood Pulp Limited
32. Crown Zellerbach Canada Limited
33. Federated Co-Operatives Limited
35. **Weyerhaeuser Canada Ltd.**
36. British Columbia Forest Products Limited
37. Canadian Forest Products Ltd.
38. Empire Mills Limited
39. MacMillan Bloedel Limited
41. Eurocan Pulp and Paper Company Limited

MAJOR PARKS
RECREATION AREAS
WILDERNESS AREAS

Province of British Columbia
Ministry of Forests

SCALE – 1:3,500,000 (Approx.)

Kilometres 20 0 20 40 60 80 100 120 140 160 180 200 Kilometres

Miles 20 10 0 20 40 60 80 100 Miles

STATUS OF SUSTAINED-YIELD FORESTRY PROGRAMME
AS AT DECEMBER 31, 1979

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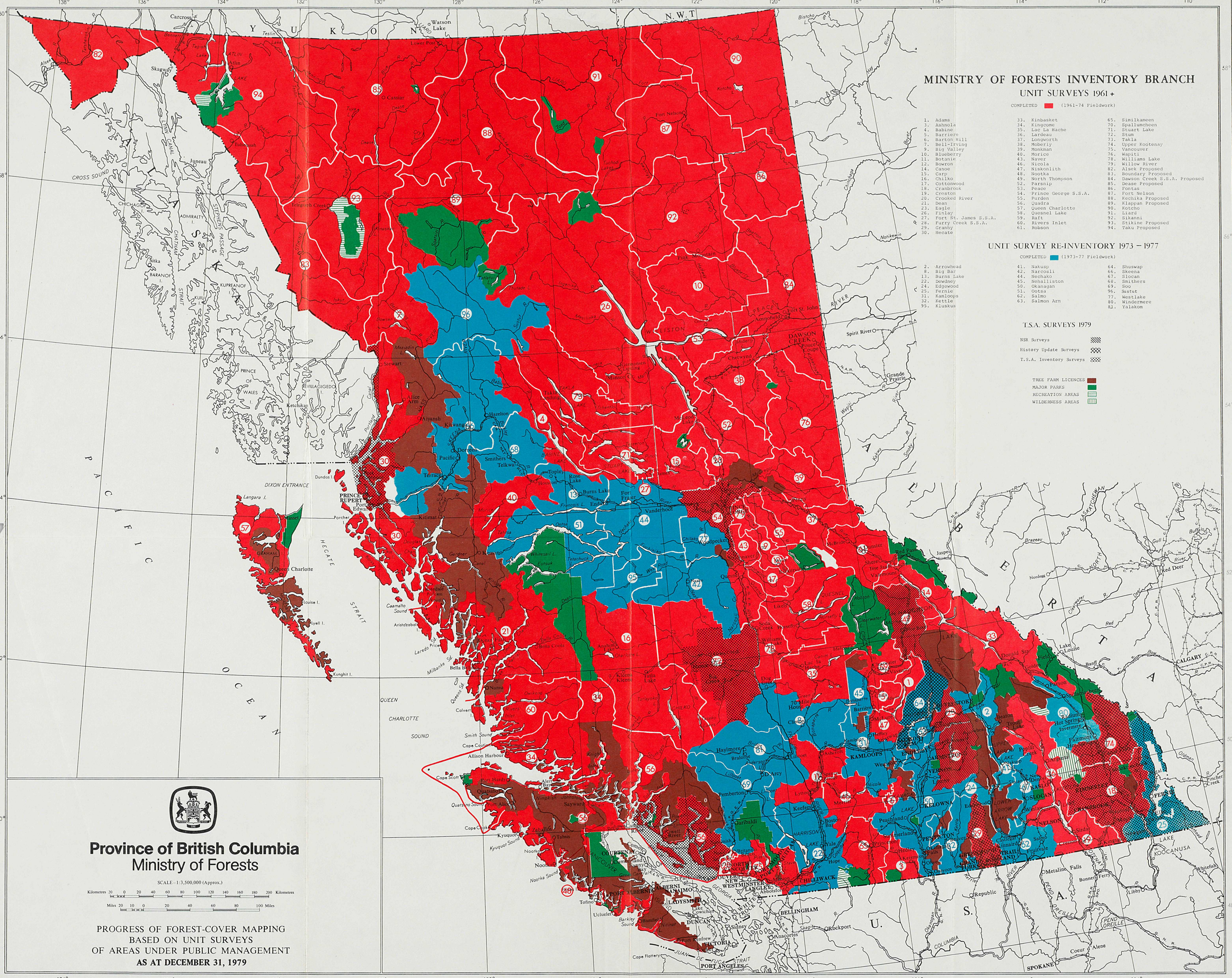

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