A HISTORICAL REVIEW OF FOREST PROTECTION IN BRITISH COLUMBIA

By

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The earliest legislative enactment in British Columbia dealing with forest fires was the Bush Fire Act of 1874. The Act recognized two conditions requiring correction, first, igniting in any forest or woods, being the property of any other person or of the Crown, any inflammable material and leaving the same before being thoroughly extinguished, and second, when by gross carelessness or negligence, any person permitted a fire to escape from his own property and damage adjoining property or timber. The Act provided a penalty up to \$100 or imprisonment up to three months. No provision was made for dealing with the fires themselves. Application of the Act in any district followed a petition to the Lieutenant-Governor in Council of two-thirds of the settlers of such district.

By the year 1888 the necessity for a staff to carry out fire control became apparent and the Land Act of that year gave the Commission of Lands and Works power to appoint, with the approval of the Lieutenant-Governor in Council, such persons as he considered necessary to carry out the provisions of the existing legislation. Fire Wardens were appointed under this authority and additions were made to the staff from year to year until 1911, when this system reached its maximum development, there were throughout the Province two Supervisors, one Assistant Supervisor, ten Divisional Fire Wardens and 110 District Fire Wardens. This was purely a protection force and dealt only with fires and the reduction of hazards from logging or other sources of forest debris. Timber Administration was carried out by the Timber Inspector and a small staff. The Forest Protection staff and fire-fighting costs were paid by a direct vote by the Legislature from Consolidated Revenue. For the year ending March 31st, 1912, the last year of this system, the amount voted was \$150,000.

It is difficult to obtain details of the activities of the early Fire Wardens, but as their districts were large, their number comparatively small and their transportation facilities primitive, patrol must have been far from intensive and control measures on fires must have, in most cases, been undertaken only after fires had been burning for some time.

The Annual Report for 1911 sums up the inadequacy of the system by referring to the Wardens as "wandering patrolmen who were hard to find when wanted in an emergency."

One of the Divisional Fire Wardens located at Nelson told me that on one occasion when a fire was reported to him, he sent for a famous fire fighter of the times who was to report to him ready to go out and take charge of the fire. He came presently and was equipped with a blanket and an umbrella.

About this time public sentiment was demanding more intensive protection of the forests from fire, and in 1909 a Royal Commission of Inquiry on Timber and Forestry was appointed. As a result of the work of this Commission the Forest Act of 1912 was passed by the Legislature. This Act was the basis upon which organized forest protection as we now know it was built up.

Two major features appeared in the Act:—

1. The creation of the Forest Branch as the prime agency for dealing with all matters pertaining to forestry.
2. The establishment of a fund to finance forest protection work.

It is not necessary to go into the Forest Branch organization as you are all familiar with it.

The staff was rapidly increased from 1912 until the season of 1914-15, there were 558 employed, 167 being permanent and 391 temporary. This number fell off rapidly during the war and until 1919 when only 238 men formed the entire organization. From that time on there has been a gradual increase until the season of 1927 staff for the first time surpassed in number those employed in 1914. In 1927 there was a total of 586 employees in the entire Branch. There was a slight falling off again in 1928 to 560. The protection staff, however, consisting of Fire Inspectors, Supervisors, Rangers, Assistant Rangers, Patrolmen, Lookoutmen and Wireless Operators was in 1928 only 332 as compared with 418 in 1914. This decrease is offset by an increase in the survey and scaling sections.

The whole southern portion of the Province is under patrol varying in intensity with the degree of fire hazard. The gross area within which control is carried out is placed at 120,000,000 acres. Within this area are 15,000,000 acres on the Northern Coast and the West Coast of Vancouver Island where patrol is light. There is a further area of about 10,000,000 acres in the North Central Interior where only a limited patrol is maintained. An additional area of sparsely timbered grazing and alpine lands, amounting to about 45,000,000 acres in the central plateau area, is not regularly patrolled, although in some parts of it control measures are sometimes undertaken. This would leave a net area of 50,000,000 acres over which systematic patrol is laid out and within which fires are fought intensively. The gross area patrolled is about 75,000,000 acres.

The Forest Protection Fund as established by the Forest Act was raised by a levy of one cent per acre on all timber leases, timber licenses and Crown granted timber land. This provided the sum of \$105,259 to which the Government added a like amount, making a total of \$210,518.

At once it was seen that the Assessment of one cent per acre was insufficient for the establishment of adequate protection measures, and in 1913 the rate was increased to 1½c. per acre, to be supplemented by an amount from Consolidated Revenue equal to the collections.

In the summer of 1914 the forest fire situation passed speedily beyond the control of an organization only yet in the formative stage, with the result that the Government was called upon for an additional \$143,000. Thus it was established that, in times of extreme hazard, the Fund might incur an overdraft upon the Treasury, which overdraft was later defined as \$200,000. In 1925 this limitation was removed.

Fortunately the summers of 1915 and 1916 were normal, fire fighting costs were light and the fund was able to repay the overdraft. The seasons of 1917 and 1918 were moderate in hazard and considerable sums of money were available for the purchase of equipment and for carrying out improvement programmes.

In 1919, however, the Service was faced with a situation similar to 1914, and the fire hazard developed to the point where it began to outstrip the means of control.

In 1920 the situation had become critical and in that year the assessment was raised to two cents per acre, with the usual dollar for dollar contribution from Consolidated Revenue.

The close of the season of 1921 found the Fund some \$360,000 in arrears whereupon the Government advanced the sum of \$300,000 to be repaid from the Fund. At the same time the equal contribution arrangement was discarded and the Government contributed instead a constant sum of \$300,000 per annum in twelve monthly instalments.

In the summer of 1922 the fire hazard reached a condition without previous parallel in the history of the organization. The season was the driest on record to that date and was disastrous to forest and farm alike. Again it was made patent that the fund was inadequate to meet the changed conditions which had developed in the last ten years. The annual amount collected from timber lands lessened year by year on account of licenses lapsing or being logged off. In 1909 there were 15,109 active timber licenses. By 1913, this number was reduced to 14,202, and in 1926 it was only 8,242. Logging operations were steadily on the increase, better facility for travelling and amplified means of access to the forest areas by the public had greatly increased the human hazard. In 1912 the number of motor cars licensed in British Columbia was 4,289. In 1920 there were 28,000 and in 1928 over 82,000. The number of extra-provincial cars travelling through the forested areas was estimated at 100,000 carrying 350,000 people.

In this session of 1923 the Legislature increased the regular assessment to $2\frac{1}{2}$ c. per acre and authorized a special levy of $3\frac{1}{2}$ c. per acre with a pro rata contribution from Consolidated Revenue to restore the Fund which the operations of 1922 had again placed deeply in arrears.

In 1925 came the worst fire season of any year since the organization of the Forest service. Again the fund was strained beyond its resources and another special levy of $2\frac{1}{2}$ c. was made. This brought the assessment for

that year to five cents per acre, doubling the Government's contribution as well as that of the timber holders. At the close of the fiscal year the Fund was still in arrears \$127,000.

The year of 1926 was one of extreme local hazard in the Southern Interior, and at the end of the season another special levy of 2½c. was made to rehabilitate the Fund.

Two moderate seasons have followed and as a result a present deficit of \$60,000 exists.

Since 1923 when the income from protection lands amounted to \$204,000, there has been a steady falling off as follows: 197,000; 188,000; 177,000; 174,000; 170,000. Concurrent with this decrease there have been increasing demands for expenditures from the Fund.

The regular income to the Fund at the present time is \$470,000. The average expenditure for the last seven years has been \$700,000 per year.

There appears at the present time no prospect that there will be any increase in the amount normally available for protective measures. There are rumours to the effect that it may be less. Demands for allotments from the Fund become more insistent and widespread as the years go on. Better transportation and more of it is requested. More equipment is asked for. Increased personnel is desired.

In the seasons of 1927 and 1928 the maximum possible allotments were made from the Fund. Without exceeding the income, greater allotments cannot be made.

The first charge against the Fund is the repayment to the votes of the Legislature of those amounts paid from the votes on account of the salaries of Operation Office, Victoria; half the salaries of Rangers, Supervisors and Fire Inspectors; two-thirds of the salary of the Mechanical Superintendent; half the cost, operation and maintenance of cars and launches; half the cost and maintenance of ranger stations and two-thirds of the expense of wireless telephones. These amount to about \$200,000 per year. The balance is allotted as follows:

Assistant Rangers' "salaries and expenses"	\$69,000
Patrolmen's salaries and expenses	59,000
Forest Protection boats	5,500
Forest Protection motor cars	10,000
Forest Protection speeders	1,000
Horse hire	10,000
Purchase and repairs, pumps and hose	17,000
Purchase tools & equipment	11,000
Construction and new improvements	18,000
Maintenance of Improvements	7,500
Aeroplane Patrol	9,000
Publicity and printing	20,000

Office supplies.....	1,500
Superannuation	5,000
Miscellaneous	1,000
Balance for fire-fighting and emergencies	25,500

Total\$470,000

It is not considered possible to put an effective force in the field at a cost below \$450,000 per year.

The sums allocated to detection and suppression facilities, that is, improvements, tools and equipment, have been for the last few years as follows:

1924	\$ 31,108
1925	45,866
1926	44,635
1927	52,891
1928	52,881

In 1926 the Legislature established a fund to be known as the Forest Reserve Account for the development of Provincial Forests. Three per cent. of the gross receipts in each year from timber royalty or tax and stumpage is paid into this fund from Consolidated Revenue. Trails, lookouts, etc., have been constructed from this fund, as follows:

1926	\$ 23,253
1927	14,544
1928	16,977