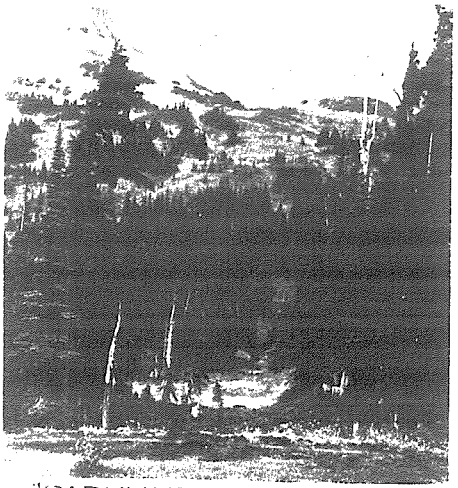
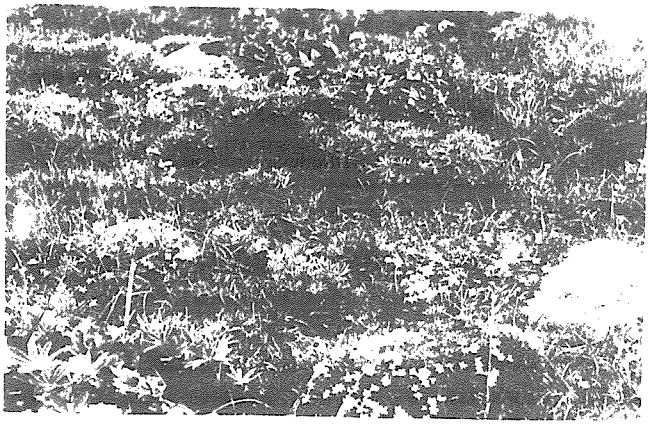
REPORT

GARIBALDI PARK
AND
CONTIGUOUS AREA

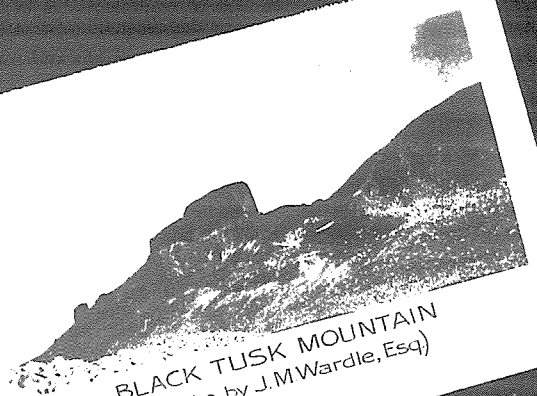
December 13th 1932.



"PARKLIKE APPEARANCE"
of Black Tusk Meadows.
Photo by I. Frank, Copyright

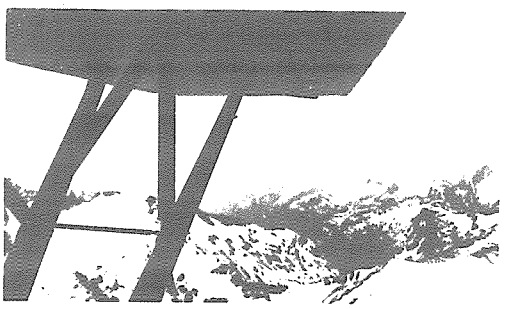


Some Alpine flora of Black Tusk meadows
(Photo by I. Frank, Copyright)



BLACK TUSK MOUNTAIN
(Photo. by J.M.Wardle, Esq.)

R.C.A.F. AEROPLANE
ON LAKE GARIBALDI
Photo. by J.M.WARDLE, Esq.



MT. BLANSHARD and STAVE RIVER VALLEY
from the east.
(Photo by Major G.G.Aitken)

"The Tran[illegible] ... Tantalus Range in background
(Photo by I. Frank, Copyright)

R E P O R T

on

GARIBALDI PARK AND CONTIGUOUS AREA

for

The Honourable, the Minister of Lands

British Columbia

I N D E X

INTRODUCTION

In January 1932, the Honourable the Minister of Lands requested Colonel F. C. Bell and H. G. Graves, Esq., both members of Garibaldi Park Board and Colonel W. W. Foster, an executive member of the Canadian National Parks' Association, to investigate, report and make recommendation as to the suitability of Garibaldi Park for development and administration as a National Park project.

The members of this Committee (afterwards self-styled "Committee of Investigation, Garibaldi Park Area") were severally informed that the advisibility of transferring Garibaldi Park to the Dominion Government for the purpose above stated, was a matter under advisement, and that certain questions having arisen regarding the size and boundaries of the Park, information and assistance was desired on the following:-

1. Whether the whole of the present Park should be retained, or an adjustment made of the boundaries thereof by diminishing such portion as might be unsuitable, or as might be adapted for hydro-electric projects, or other industrial requirements.

2. Selection of an additional area.

In regard to the second question the Committee was furnished by the Honourable the Minister with a copy of B. C. Surveys map dated April 1931 and entitled: "Proposed National Park and Douglas Provincial Forest." Thereon was shown delimited an area, adjoining Garibaldi Park, suggestive of the consideration which had given up to that time the boundaries of the lands expected to prove suitable for a National Park. This information the Committee accepted as a guide in its deliberations, and the map accordingly accompanies its report. As the boundaries have been indicated on a large scale map, (to be referred to below), it has not now been considered necessary to describe them technically.

In amplification of the general terms of reference cited above, the members of the Committee were also advised that:-

1. It was probable that by adjusting the boundaries of the present Park area in some measure unsuitable portions, or sites that might be used to better advantage industrially, could be eliminated without adversely affecting the Park.

2. It was contended also that the present Park was too limited in area to meet the requirements of a National Park, and it was thought there was enough suitable adjoining territory containing all the features essential to a park of this description to make up any deficiency.

The Committee was further instructed that the Department of Lands would bear the cost of any expenses incurred in obtaining necessary data required in making the investigation, provided care was exercised that such did not exceed the sum of $3,500.00.

In the preliminary stages of investigation it became apparent to the Committee that Garibaldi Park (approximately 550 square miles) was in extent insufficient to meet fully the requirements understood to be appropriate for a National Park. From all other standpoints most desirable for that purpose, the Park apparently lacked, by almost an area equal to itself, that extent of lands which should be the basis of consideration in approaching the question of transfer to the Dominion Government. The selection of a tract adjoining Garibaldi Park and containing features of the same high character became the immediate problem of the Committee.

Cognate to this consideration was the unfortunate fact that the greater part of the country constituting the "Proposed National Park" appeared unknown, and was unmapped as to topography; it therefore became necessary to prepare a suitable map for reference. The services of Mr. A. F. Proctor, C. E., were engaged for this purpose, and have very satisfactorily resulted in the production of the white print coloured topographic map, scale 1 inch to the mile, which becomes a part of this report. Covering an extent of approximately 1700 square miles, this map not only includes all the information for the purpose which could be obtained by the Committee from recorded data, official or otherwise, but has also been designed to show the area in relation to its important surroundings. In the main the topography of the territory between the Fraser River on the south and Pemberton meadows on the north; and from Howe sound and Cheakamus river on the west to Stave lake and a line north thereof on the east, has been graphically indicated. Excluded, however, is the region lying between Coquitlam lake and the present southern boundary of Garibaldi Park. The sources from which information has been derived are:-

1. Maps of the Surveys Branch, Department of Lands.
   (a) Scales 1: 31,680
   1: 63,360
   1:126,720

   (b) Forest map of Proposed National Park and Douglas Provincial Forest, April 1931.

2. Vertical aerial photographs of terrain beween Dominion Railway Belt line and northern boundary of New Westminster Land District, furnished by the Provincial Geographer and taken by the Department of Militia and Defence.

3. Oblique photographs of terrain south of Dominion Railway Belt Line, through courtesy of Mr. E. E. Carpenter, Consultant Engineer for the British Columbia Electric Railway.

4. Admiralty maps, result of Coast Hydrographic Survey by Capt. T. Richards, R.N. in 1859 - 1860.

5. Sketch map from "The Northern Cordilleran" 1913, showing the country explored by the British Columbia Mountaineering Club during the years 1910-11-12.

6. Sketch map of a portion of the Garibaldi Group made in 1912 by W. J. Gray for the British Columbia Mountaineering Club, published in the First Annual Report of the Botanical Office of British Columbia 1913.

7. Topographical map of Garibaldi Park, scale 1:40,000 made by A. J. Campbell, D.L.S. in 1928.

Information was collected during the progress of the mapping, and a programme of field work drawn up, which included reconnaissances by both air and land - the object being to inventory the scenic and other features of the "Proposed Park Area". Subsequently it proved that the cost and time involved in undertaking such investigations by land in so much totally unknown and difficult country, quite placed these outside the bounds of the report; nevertheless not before an examination had been made of the country south and west of mount Blanshard (Golden Ears) and of the mount Garibaldi country itself. Moreover, a high aeroplane reconnaissance made in June resulted in extensive observations

as to the features of the Area, and supplied the Committee with general knowledge of vital importance. These observations were strengthened and supplemented in October by a similar reconnaissance made possible through the courtesy of Mr. J. M. Wardle, C. E., Engineer for the National Parks Branch.

On information from all the above mentioned sources, together with that afforded by various records, or the evidence of public officials and others, the Committee has prepared its report. A section has been composed on references, and due acknowledgments appear elsewhere.

While the investigations of the Committee - allowing for all the factors - have been as thorough as possible, we do not intend that our recommendations as to the boundaries suitable for the area are to be considered indisputably the best that may hereafter be arrived at, based as they are on the somewhat meagre data at present available. They are, however, suggestions carefully weighed by the Committee.

Early in May, on request of the Honourable the Minister, the Committee submitted a report on progress and handed him a copy of its large scale map, which was then incomplete in minor particulars. It is understood that information so afforded was conveyed to Ottawa by The Honourable, the Premier, Dr. Tolmie, to become matter for preliminary negotiations with the Dominion Government.

In the outcome the Committee finds that the character of the lands submitted to investigation is much similar to that of Garibaldi Park. It has therefore considered it necessary to include much information relative to the Park, since such may be regarded as indicative also of the features of the Proposed Extension.

For convenience the whole of the region under review is hereafter referred to as the "Area", its several parts being (1) Garibaldi Park, (2) Proposed Park Extension, (3) Golden Ears Park.

GENERAL CONSIDERATIONS

Little known as it is at present, Garibaldi Park has sufficiently obtained the attention of the public to make evident the fact that there is a growing interest in park objects and facilities and that our beautiful scenery is considered an asset demanding both preservation and development. No doubt much of the interest has been developed in our people by their observation of the splendid results of National Park policies carried out in the United States; most certainly it is due in part to admiration of our own National Parks' service, which is undeniably teaching us to become increasingly desirous of protecting our unrivalled natural physical beauties. Inspiration, rest and recreation are all to be found in our wonderful forests and mountains, and in our scenery we have a commodity, not equally possessed by others, which can be continuously disposed of at very little expense, and with the most tangible results.[1.]

To meet successfully the anticipated needs of the future, present consideration of an adequate park system for this Province becomes a matter of prudence if not necessity. Lands once despoiled may never be able to fully recover the attraction or inspiration which they exerted through means of their original states; today is the time suitable for making a choice of park lands and applying the reserves competent to preserve them.

British Columbia, and the Lower Mainland in particular, is very fortunate in having contiguous to the latter a region which meets the requirements of the now accepted standards for National Parks. It is a land of most varied character, to be described in the following sections of this report, but these may be termed in synopsis, undeveloped but adjacent, mountainous in nature, a sanctuary for wild animal life, a reserve for tree and plant growth, filled with a wealth of natural beauties, favoured by a mild climate and limited by natural boundaries. It is of sufficient extent to provide a public reservation for the purpose. Almost at the door of Vancouver, it is virtually inaccessible at present and to make it so awaits some such thoroughly organized form of development as successfully features the phases of National Parks Branch operation.

1. As an index to the financial return derived from tourist traffic by the country at large, it may be mentioned that direct revenue collected by the National Parks of Canada for the fiscal year ending March 31, 1931 was $221,916.64.

The Area mentioned includes not only Garibaldi Park but various lands continuous with it on the east and south, the southerly point impinging on the road system of the Fraser valley, and making in all a park domain of considerably over 1000 square miles in extent. Comparatively little is known of the major part of this Area, but it becomes one of the objects of this report to supply some of the rather scanty information which has proved available.

The growth of a certain feeling favourable to establishing a reserve for a National Park situated on the Pacific Coast has been slowly developing. Within recent years the attention of the National Parks' Branch has been directed towards enquiring into the possibility of securing park lands typical of Pacific Coast scenery. Great as the possibilities of some of the regions investigated on Vancouver Island undoubtedly may be, there are still various draw-backs to their development, and it is possible that scenic routes of motor travel, similar to those which have been recently constructed in the State of Washington, if instituted, would achieve the object aimed at without the necessity of an expensive form of development. However that may be, the acquisition of park lands situated on the Pacific slope would create the means of rounding out Canada's western park system. It may be objected that already the Dominion administers a number of Parks - Waterton, Banff, Kootenay, Yoho, Glacier and Jasper - which are all of the one type, namely mountainous; and that the extension of a system featuring such type of playground would lead to ill afforded redundancy. When, however, we take into mind the natural difficulties of travel which inhibit Coast people from enjoying the advantages of the Parks mentioned, the peculiarly advantageous situation of the Area with communications, whether motor, railroad or boat linking it with Vancouver, and above all its exceptional scenery, we cannot help but feel that there is here a potential park country undeniably to be considered as of great future value to our people.

Garibaldi Park, in common with other Provincial park reserves - such as Strathcona, Robson, Assiniboine, and Kokanee - lacking the stimulus of urgent public demand, has lagged in its development. It has certainly been beyond the post war abilities of our Provincial Governments to consider seriously park projects in advance of the development of immediately necessary resources. Upon the Federal authorities has necessarily devolved the task of "making provision for satisfying other needs, less imperative, but perhaps not less real."[1]. In our opinion, the National Parks Branch is the only body capable of developing and maintaining an administration which will do justice to the Area. That department of our Federal Government

1. Department of the Interior, National Parks' Branch; Prince Albert National Park, p.4.

has the knowledge and experience, and generally withal, the financial resources necessary for the active prosecution of park development. But it is axiomatic that if the Dominion acquires lands for park purposes, these must become wholly dedicated for the future to that purpose for which they are accepted, viz., National possessions free from encumbrances, made safe for the enjoyment of the public.

It is presumably with an earnest appreciation of these facts that the Province of British Columbia undertakes its offer to transfer certain lands and to be expected that this report will contain information on the basis of which its intentions may be clarified, and the results of the steps already taken may be suitably supported by formal application.

HISTORICAL SKETCH

To the climber and mountaineer must be chiefly attributed the first explorations in the Area, of which we have any record. As early as 1876 the eastern face of the north-east peak of mount Blanshard (Golden Ears), named by Capt. Richards, R.N. in 1860, was climbed by Sam Edge of Port Haney and one companion,[1] but until comparatively recent years nothing was known of the extensive mountainous country which broadens out north of that peak into the region lying between the Pitt and Lillooet Rivers.

From its valleys, and up creeks leading to it from the south or east, trappers, prospectors and timber cruisers have occasionally penetrated to remote parts of the country which are devoid of trails and present serious physical difficulties to travel; but very little of the information obtained by them has ever become public. It seems entirely likely that its large permanent snowfields have never been explored on foot and that the only knowledge of them in their entirety is limited to that afforded by a few aeroplane reconnaissances.

From Howe Sound, looking up the low Squamish valley, the peak of mount Garibaldi (altitude 8787 feet) is the dominating feature. Named during the progress of the Admiralty survey of our Coast waters in 1859 and 1860, after the celebrated Italian patriot, its commanding heights and beauty made it an early attraction to the mountain climber. It is not surprising that the conquest of this mountain led to an extended exploration which continued until the country embraced by the limits of the present Park has latterly become travelled and mapped, and its characters made known.

Prior to 1906 Mr. A. T. Dalton of Vancouver had made some short trips from the Squamish valley along the Old Pemberton trail and up Cheekeye river towards the southern base of Garibaldi mountain, and in that year a party led by him succeeded in reaching a point about 200 feet below the peak. In 1907 a party composed of Messrs. A. T. Dalton, W. T. Dalton, Atwell D. King, T. Patterson, J. J. Trorey and G. B. Warren[2] - all of Vancouver - succeeded in accomplishing the ascent. The Vancouver Mountaineering Club (later the British Columbia Mountaineering Club) formed in the same year, entered the region in 1910 and with some members of the Alpine Club of Canada, thoroughly investigated the southern approaches of mount Garibaldi in succeeding seasons, and made the ascents of mounts Mamquam (at first named Mount Rosa) Sentinel and Castle Towers. From

1. Report on the Golden Ears by W. A. D. Munday.
2. Canadian Alpine Journal Vol.1 No.2 1908, pages 205-210.

these points of vantage a wonderful vista of peaks and snowfields east and north of the Garibaldi group was opened up, and the beautiful lake Garibaldi and Black Tusk meadows were seen as a lure to further exploration. The operation of the Howe Sound and Squamish railway from Newport (now Squamish) in 1910, and the construction work on its successor, the Squamish section of the Pacific Great Eastern, made possible a less arduous route of approach in 1912. In that year[1]. Mr. W. J. Gray blazed a way from the junction of Stony (now Rubble) creek and the Cheakamus river to Black Tusk meadows, and this was developed into a rough trail over which the B. C. Mountaineering Club sent a party to camp and explore the country. Mr. Gray's inscription on a tree, "The last blaze. Thank God the work is done", must remain sufficiently revealing evidence of the difficulties of this pioneer work. Commanding an extensive and interesting view, and suitably situated from which to make expeditions to mountains of the Garibaldi group, these meadow camp grounds have become more popular and frequented as the summers have passed by. To the activities of the Club in 1912 and subsequently, is due the chief credit of fostering public interest in this region of unrivalled scenic diversity and beauty.

From that year onwards exploration has been slowly continued but has not yet exhausted the possibilities or even included those parts situated in the Proposed Park Extension. Mr. W. J. Gray, as the result of plane-table and photographic work, prepared the sketch map of the Garibaldi group, which was published in the Northern Cordilleran in 1913. This was also reprinted in the First Annual Report of the Botanical Office of British Columbia, and in 1922 on a reduced scale in Mr. Don Munday's small description booklet; "Mt. Garibaldi Park". In Dr. E. M. Burwash's "The Geology of Vancouver and Vicinity" 1918 appears a sketch map of the Garibaldi volcanic area affording additional topographic details, also the work of Mr. Gray; but until 1926 the foregoing remained the only recorded mappings of the region. In the latter year, during the progress of the B. C. Mountaineering Club camp, Dr. Neal M. Carter carried out a photographic survey of the known climbing area and extended his observations by an exploratory trip across the headwaters of the Pitt river. He also "laid down the basis of a triangulation net" [2]. which connected the Garibaldi group with the northerly and westerly ranges.

1. Northern Cordilleran 1913.
2. The B. C. Mountaineer Special Issue 1926, page 4.

In 1912, following the enactment of legislation, creating Strathcona park on Vancouver Island, the public press of Vancouver voiced agitation for the reserve of a provincial park area in the Garibaldi district, and this gathered strength as this beautiful alpine country became more visited and better known. The response of the Government of the day was the passage of the Garibaldi Park Act in 1917, and an extension of the Park boundaries in 1928 to those at present existing. In accordance with the provisions of the Act, an Administrative Board (of which Mr. W. J. Weart was the first Chairman) was appointed in 1927. During the following year a painstaking topographic survey of the Park lands was carried out by Mr. A. J. Campbell, D.L.S., for the Department of Lands.

It has remained for the Committee in charge of this report to prepare, mostly from photographic data, which is the result of aerial survey by the Royal Canadian Air Force, a map which includes the topographic features of the large area of country included in the Proposed Park Extension.

LEGISLATION OR ENACTMENTS COVERING THE AREA

Legislation or enactments relative to the establishment of Garibaldi park, which is the existant park reserve in the Area, must be briefly mentioned and the relationship of the component parts of the Area now indicated.

The British Columbia Mountaineering Club, following its exploration in 1912, was prominent in urging the reservation of the Garibaldi country for park purposes. Correspondence and articles in the Vancouver Press continued to place this object before the public. Eventually, on representations made to the Provincial Government of that day, an Order-in-Council (number 687 of April 28, 1920) effected a reservation of lands of which notice was duly published in the British Columbia Gazette.[1.] This was supplemented by further action on the part of the Government during the Legislative Session of 1926-7, when the Honourable the Minister of Lands brought down a Bill, which subsequently passed as the "Garibaldi Park Act" (assented to on March 7, 1927). In this Act the limits of the Park were defined as in the terms describing the already mentioned reserve. The purposes of the Park, i.e., "for the benefit, advantage and enjoyment of the people of the Province" were enumerated; provision made for its administration, operation and protection; and powers introduced enabling extension of its limits. It is also to be noted that the Act did not deprive persons of pre-existent vested rights, for the acquisition of which, however, due provision was made. In addition, the acquisition of mineral and water rights (subject to Acts already in force) was permitted contingent on their exercise being deemed consistent with due protection of the Park. Further representation was again made to the Government; the British Columbia Mountaineering Club, the Alpine Club of Canada, the Canadian National Parks Association and individual citizens being concerned therein; and as a result, the boundaries of the Park were extended (under Order-in-Council of March 8, 1928 duly published in the Gazette.[2.]) to those at present governing.

Our information is that, on the present Government assuming power, the transfer of lands constituting the Dominion Railway Lands Reserve became a matter of negotiation between it and the Dominion Government. Ancillary to the settlement of this question was the opinion

1. British Columbia Gazette, April 29, 1920. P.1936.
2. British Columbia Gazette, March 15, 1928. p. 937.

expressed by the Dominion that these lands should only pass under Provincial control if the latter authority accepted a principle of conservation to be practically carried out by the formation of forest and park reserves. This fact underlies the original reasons for the inclusion of Golden Ears Park within the Area now being considered. Further, on the understanding that the National Parks' Branch of the Department of the Interior would be probably only interested in proposals of much greater extent and on account of its known intrinsic value for park purposes, an additional tract of land was joined for consideration and the present tentative boundaries thrown around the Area consisting of Golden Ears, Garibaldi and their connecting regions. This action on the part of the Honourable the Minister of Lands has enabled due investigation of that Area as a proposed National Park project. 1.

Conversations have followed between the Honourable the Premier of this Province and the Federal authorities, and a verbal offer has been made on the part of the Province to transfer the Area, or suitable parts thereof, to Dominion control, the object being its early development as a National Park.

1. Banff National Park comprises an area of 2,585 square miles; Jasper Park of 4,200 square miles.

PHYSICAL CHARACTERS AND GEOLOGY

The large Area, which is the subject of this Report, includes the several Provincial lands termed, (1) Garibaldi Park, (2) Proposed Park Extension, (3) Golden Ears Park. It may be roughly described as taking the form of an irregular-sided, elongated triangle whose base rests on the northerly boundaries of the New Westminster Land District, and apex on the Alouette ridge in the Fraser valley. The natural features which may be considered descriptive bounds of its sides are as follows:- On the East: The western slope of the Cascade range, Lillooet river, Fire lake, Upper waters of Sloquet valley, Stave river and lake, Alouette lake. On the West:- The valleys of Green river and lake, Alta lake, Cheakamus river, Mamquam river, Pitt river and Pitt lake. Its greatest length is in a line running due north and south and measuring approximately 69 miles. Forty miles at its greatest width, there is a sudden constriction to 6 miles between the lower and middle thirds of its length. For the exact bounds of the Area reference is to be made to the coloured topographical map accompanying this report.

The following table gives the extent of the Area:-

Garibaldi Park	599	sq.	miles,	approx.
Proposed Park Extension	724	"	"	"
Golden Ears Park	112	"	"	"
Total Area	1,435	"	"	"
	(918,400 acres.)			

Garibaldi Park includes the tract of land reserved under the Garibaldi Park Act of 1927, together with the addition thereto resultant from enactment by Order-in-Council, in 1928. The Proposed Park Extension comprises lands situated east of Garibaldi Park, and south of it as far as the north line of the former Dominion Railway Lands Reserve. Golden Ears Park is situated south of that line.

With the exception of its north-eastern angle, the area lies wholly within the Coast range of British Columbia, being characterized by mountainous and broken country which is flanked on the east by the trench of Lillooet river and its associates, and on the west by the two valley features of the Cheakamus and Pitt. The latter river and its lake constitute a longitudinal valley system which effects a striking penetration into the heart of the Garibaldi group and offers easy gradients from the Fraser river and tide-water. Roughly paralleling the important Lillooet trench, an elevated snow-covered region

extends like an axis the length of the Area, broadening out towards the north where it is in continuity with the closely defined mountain groups of the Mamquam, Garibaldi and Wedge mountain districts. Lateral valleys, primarily originating as couloirs along the edges of the precipitous scarp, drain this region by short turbulent streams which find their way to the main valleys already mentioned. The broader transverse valleys of Wedge and Billy Goat creeks are continuous over a low divide and effect a comparative isolation of the Wedge mountain group. The large collecting basins known as Lillooet, Fire, Glacier, Stave, Alouette, Pitt, Garibaldi, Cheakamus and Alta lakes are included in, or are contiguous to the Area. Small lakes which occupy cirque-like depressions or valley bottoms are numerous. The individual mountain masses tend to emerge in sharp-pointed peaks from bases covered by extensive glaciers and neves. In elevation these may appear to compare unfavourably with the better known summits of the Rockies and Selkirks, but it must be remembered that the main valleys of the Area are at very low altitudes, therefore, to the eye, the mountains appear relatively often even higher. The extreme relief is mount Wedge (9,485 feet).

So much of the Area is covered by vegetation and snow, or mantled by the cumulative results of ice and water erosion that its physical geology is not self-evident. Therefore it is deemed advisable to present some relation of the main geological events which led to the mountains and valleys assuming their present forms; also what possibilities of ore mineralization may have resulted. As there has been no connected study of the Area as a whole, but several close examinations at points on its borders, very little more can be done in this report than to briefly consider the general geological factors.

Flanked by the great submarine trough whose present-day representative is (partially) the Gulf of Georgia and the Straits separating Vancouver and Queen Charlotte Islands from the Mainland, the Coast range was born in the Jurassic period of a huge mass of intrusive igneous rock termed the Coast Batholith. These intrusives were upwards of 1,000 miles in length, 100 in width, and from ten to fifteen thousand feet in height. Differences in their structure and composition point to variety in their age. The character of the roofing, through the immense rift of which this mass extruded itself, is discernible in the green stone formations which are ascribed to the Paleozic age. Some of these rocks are uncovered along the north side of Rubble creek. Portions of the roofing formed by them were also floated, or forced off by the up-thrusting Batholith and are found embedded in the dioritic rock masses which are the representatives of the Batholith in the Area.

Thinned out by erosion or covered partially by its products the occasional sedimentaries of subsequent period, and volcanic lava, the rocks of the Batholith still compose the main bulk of the mountain mass within the Area, and largely determine its elevation and general character. During the Pleistocene period the sill structure of the Batholith was subjected to a very intensive wearing-down process, the result of the two well defined periods of advance of the great Continental ice sheet. Preceded successively by some sinking of the rock mass, by volcanic activity and by some general upwarp, the glaciers of the first period produced a tremendous denudation, cutting out valley areas and wearing down the heights. During the milder climate of the following inter-glacial period, the erosive action was largely that due to water. The second advance of the glaciers refilled the valleys with ice and the main processes of erosion were repeated. Thus far we have very briefly sketched the outstanding geological events; material for their further story will only result from a careful geological survey of the Area. Le Roy, Camsell and Cairns of the Geological Survey; Burwash, Porter and Dolmage, have made contributions to the geology of limited localities and some of the results of their investigations may be now noted.

Mineralized zones seem to have been formed along the main parietal contacts of the intrusive Batholith and the Paleozoic rocks. In zones passing to the north and south of the Area, some so far unimportant mineral discoveries have occurred (except at Pitt lake) thus leading to sporadic mining activity on Fitzsimmons creek, the head of Lillooet lake and the Stave river. Ores containing copper with low contents of gold and silver have been the only ones of any economic importance.

On account of the features of interest which are due to former volcanic activity in the Area, a short description of the Garibaldi volcanic zone is advisable. What evidence there is of the first vulcanism seems to point to its occurrence as just antecedent to the intermediary period between the two advances of the ice sheet in the Pleistocene period. As seen from Black Tusk meadows, mount Garibaldi appears a cone-like peak superimposed upon the main planation surface of the surrounding region; vestigical remains of a crater which erupted on it are still visible - the resultant flow of lava (now seen as gray material) blocked the upper part of an extensive glacier valley which then extended approximately from the head of Garibaldi lake to the Cheakamus valley. As a result of the dam so formed there was created an earlier lake which had a level considerably below the present one. Subject to the successive water and glacier

action of the inter-glacial period and to that of the second advance of the ice sheet, this dam became eventually cut back to a point which probably corresponds to the present face of the Barrier. After the recession of the glaciers of the second phase of the ice sheet, or possibly even during that phase, further volcanic action took place and is evidenced by the interesting craters still to be observed on Red mountain. Of these two, the western or younger one was responsible for extruding a laval flow which flooded into the Garibaldi lake valley, further adding to the height of the remaining portions of the dam. The surface of these lavas is unglaciated and they may be taken as of comparatively recent origin. The lake then filled up to something approximate to its present level - it is about 1,000 feet deep at its lowest sounding - becoming retained behind the interesting natural feature termed the Barrier. Beneath this wall, Lesser Garibaldi lake drains by a subterranean channel. Lesser Garibaldi and Barrier lakes have been formed in depressions along the edge of the lava flow where the latter came to a rest on the older rocks walling the original valley. Overflow into them from Garibaldi lake is now minimal as compared with conditions which occasioned a great flood down Rubble creek over a hundred years ago, and the consequent building of a natural dam across the Cheakamus valley. Black Tusk and Table mountains present other evidences of volcanic action, being typical examples of volcanic cores. In each case the plug which formed in the vent of the volcano being of hard basalt it has outlived the softer material which built up the crater walls. Another cone of about 500 feet in height is a feature of interest in Desolation Valley where it stands intermediate between the two tongues of Helm Glacier - it is topped by a small crater. Seen from Garibaldi peak the summits of a number of mountains which lie in a northerly direction towards the Lillooet river have forms which suggest volcanic birth, but these have still to be studied.

The foregoing volcanic features have no counterpart in any of our National Parks and add very materially to the natural advantages of the Area.

SCENERY AND SPECIAL FEATURES

Where so much is of native grandeur and beauty in both, it would be invidious to force comparison between the scenery of the Area and that of those National Parks which constitute mountainous country. If, however, we accept the latter as our criterion we will be correct in declaring that in this typical section of the Coast range there is everywhere scenery easily the compeer of any one of the National Parks - whether form, variety, colour, distinctive feature, or atmosphere be considered.

Relatively few as have been those persons to enter the fringes of Garibaldi Park, none but has been impressed by its great beauty and compelling interest. And what has, and can be said of this Park, is equally true also of the regions adjoining it. From the extreme south, where Mr. W. A. D. Munday[1]. "found the country about mount Blanshard to be a veritable mountain wonderland", and following the central axis through the Proposed Park Extension the country was everywhere intriguingly beautiful as seen from the air. Quite evidently throughout the length and breadth of the Area the scenic features are equally maintained.

Since the appeal of natural beauty differs for each of us it is not surprising that we encounter a variety of judgments and impressions on the part of those who have recorded them. One visitor is appreciative of the "countless clear streams through meadows carpeted with flowers"; another is impressed by "the tranquil beauty of lake Garibaldi making an incomparable vista through the trees"; while others (to quote but a few examples) have written as follows:- "A wonderful panorama combining mountain and glacier, forest and fell, with a distant glimpse of seascape"; "It is difficult to find adequate words with which to describe this mountain playground, for as befits such an enchanting area, it lends itself to the inclination of almost any lover of nature, so varied are its charms"; "the challenging crests of rock and ice and snow above mysterious valleys"; and "a mountain paradise where all may find peace and health, recreation and inspiration". These are not the words of those simply striving for effect, but in endeavour to faithfully portray the actuality of things seen and felt.

It would seem desirable in this report to single out some special features of the Area for passing mention. Probably the first in point of scientific, if not general interest is the volcanic region about mount Garibaldi. Continuous with the southern zone of vulcanism (mounts Ranier and Baker, etc.) the extinct craters, lava flows and volcanic cones make this portion of the Area unique to Canadians.

1. "The Golden Ears" Report to Department of Lands by W. A. D. Munday.

In none of our National Parks are the varied results of glacier action more distinctly displayed to observation, nor do the ice sheets descend by tongues to such low and easily attainable levels. Six important glaciers have their birth in the Garibaldi snowfield and yet this expanse is inconsiderable when compared with the immense neves overlying the axial portion of the Area, and which are computed to extend over one hundred and twenty-five square miles of continuous country. Within these fields the ice is snow-covered and practically stagnant; it only appears here and there as the blue of hanging glaciers above the cliffs, or in crevassed flows down into the valleys. Within these regions all forms of ice architecture and phenomena - the result of ground inequality and of pressure - are to be discerned.

The mountains of the Area present to the mountaineer a totally different appearance to that of the Rockies. They have not the grim and cold appearance of great fastnesses, and do not constitute the series of elongated ranges and valleys which are so characteristic of the up-thrust of sedimentary rocks and the "writing-desk" type of mountain. Rather are they to be designated as constituting groups, all of course closely related, but featured by extensive snow-fields from which the peaks rise sharply ridged, or as comparatively isolated spires. From any of these summits panoramas of great extent and singular variety are naturally to be obtained. The mass of mount Mamquam is an excellent example of the group association referred to, and Castle Towers, Sentinel, Wedge and Blanshard, of granitic isolation. Mount Garibaldi is a particularly fine peak survival of a crater, and Table mountain the sole instance in the Area (rarely found in Canada at all) of a "mesa" type. Black Tusk, Columnar and Table are composed of a columnar basalt which is reminiscent of the form and structure of the famous Giants' Causeway in Ireland. Seen from an altitude of 12,000 feet the general appearance of the whole mountain mass is that of swelling forms beautifully contoured in snow to rise here and there into elevations comparable to the crest of waves. The comparative height of the mountain groups as seen from valley or alpland conveys a sense of grandeur and remoteness. Thickly dotted throughout the Area are many fine peaks still awaiting a first visitation from the climber.

For those who are unable to ascend to those heights, the valleys will always remain an abiding inspiration. Those described as "hanging" provide the utmost variety of contour - precipitous walls, wildly contorted glens, swelling slopes, gorges and verdant "benches" are the features they contribute to the enjoyment of the visitor. In none of the interior ranges with which we are

familiar is there such a change of feature successively presented within an area of equal size. Ridges, such as those of Panorama, Corrie and Empetrum being intermediate in height, are easily attainable and afford magnificent views of the valleys.

Innumerable lakes, variable in extent, are scattered over the Area, these waters occupying depressions in valley floors, damned by morraines, impounded in cirque-like bowls, or situated in shallow collecting basins on the neves themselves. Cheakamus, Mimulus and Mamquam are a few of those better known, not to omit the most important of all - Garibaldi. Typical of mountain expanses, the tarns of the upper valleys gleam like jewels in the sun, reflecting the light from innumerable facets when ruffled by moving air, or shining calm in many shades of blue and green in high contrast to the snow or rocks surrounding their steeply cut shorelines.

In the high region dominated by Pitt Peak a long narrow lake of turquoise blue is retained at the foot of a high even ridge of dark precipitous rocks and scree slopes, while constituting the opposite side of it the cliff-like edges of a glacier front extend into the waters. From these cliffs the breakage of ice has resulted in small icebergs flecking the surface. Draining to the eastward over a sharp lip, the stream descends in a series of falls of considerable height, conveyed on downwards through a tortuous canyon. And as yet, so far as we can ascertain, this entrancing lake has only been visited afoot by one person - a prospector. Apparently much of similar interest still awaits discovery and appreciation.

A great deal might be written about the singularly beautiful characters contributed to the scenery by plant and forest growth. Typically expressive of Coast climatic influences the sub-alpine flora is particularly noteworthy. It has been said that if Garibaldi Park were known alone for the wonderful flowering meadows about the Black Tusk it should still be as famous as its counterpart of mount Ranier. A close examination of the ground has been, of course, impossible from the air, but it can be safely adduced that alpine meadows cover a surpassingly large part of the valley systems.

Mineral springs which possess medicinal qualities are always an attraction to the tourist. Where so much still remains to be explored, it may be reasonably expected that some of these will still be discovered in the Area. On the eastern slope their occurrence at Harrison lake, and along the Lillooet river, holds out good reason for the expectation; springs with a lithium content are reported on Gold creek in the Golden Ears Park.

Sufficient will now have been said in evidence of our view that there is a distinctive quality to the scenery of the Area and that it possesses a wealth of important natural features. Judged from this standpoint alone the Area is indubitably worthy of conservation, and prepared to maintain the prestige of Canada's National Parks.

INDUSTRIES AND NATURAL RESOURCES

Lumbering, mining and trapping are the chief industries which would be stimulated by the commercial development of the natural resources within the Area; water might be utilized for power, and a very restricted portion of lands for grazing and farming. The latter is mentioned, however, only to be dismissed.

Timber: A considerable portion of the valleys is forested by stands of fir and cedar of commercial value. How extensive these may be is suggested by the large number of alienations of Crown lands which have been made at one time or another. The present state of the lumber market in this Province and the relatively high cost entailed in carrying out timber operations in rugged country, has made the removal of much of it so far unprofitable. However, future increased demands and changes in the economic situation might result in timber becoming logged-off to the consequent detriment of a park domain. The present state of timber berth "W", in which logging was by high-lead methods and the ground subsequently swept by fire, is one of a type of desolation which is the very antithesis of the conditions a National Park is intent on preserving. True, established park reserves are expected to obtain far into the future when reforestration will have changed the scene again completely, but for years such lands are a detriment to park development, and avoided by the public. In the instance above quoted, it is fortunate that the lands affected are not extensive and will only likely be required through which to build park roads at such an elevation as to afford the attraction of sweeping views to the south and west.

On account of the possibilities inherent in the situation, the Committee has devoted a careful study to the location and extent of alienated timber lands. The status of these alienations which are registered in the Department of Lands, has been provided to them, and an extensive list forms an appendix to this report. The listings have been scrutinized as adequately as possible. Licenced reserves which have not lapsed, have been shown within red lines on our large scale map. The Committee understands that a number of them will undoubtedly revert to the Crown, but even with these eliminated there still remain a considerable number within the proposed Area. Whilst it seems impossible to exclude all of these, the problem of acquisitions and transfers of such lands in order to assure their freedom from encumbrances, is one which can be immensely simplified by a re-adjustment of the boundaries of the Area. This matter will be gone into more fully in a subsequent section of the report.

Minerals: Under the section on Geology we have briefly referred to the possible mineralization of the Area, and the very limited discoveries so far made of ores which imply developmental possibilities. Ores consistently carrying high values of gold, silver and copper have not been found so far except at Pitt lake Copper mine; as a rule picked samples have often proved encouraging but on assay the distribution of values has proved erratic. These minerals have been found to be associated with pyrite, arseno-pyrite, chalcoprite, magnitite, zinc blende, pyrhotite, bornite, or galena. In as far as mining claims in good standing are concerned, there appears to be very little of a problem for consideration in the event of the Area being transferred to the Dominion authorities. It must be added that we have no more than very general geological data on which to base opinions of mineral occurrence, and that a survey of the Area would alone determine the possibilities.

Trapping: A number of trap lines are at present registered by the Provincial Game Board along the main valleys in the Area, and Lillooet Indians from reserves on Lillooet river and about Pemberton meadows are understood to trap to some degree along the eastern boundaries. With reference, however, to the section of this report dealing with Fauna, it is believed that fur-bearing animals are plentiful, even allowing for the tolls at present taken.

Water Power: Due to the effects produced by extensive glaciation, hanging valleys are a common feature of the western boundaries of the Area, and particularly so along the Cheakamus river, whose valley is of the major type cutting somewhat transversely across the general strike of the range. This valley reaches a low level compared to that of the catchement areas, and it is not therefore surprising that the streams flowing into it have been viewed as potential natural sources of energy suitable for utilizing as power.

Hydro-electric development, due to both technical and economic reasons, has made tremendous strides in Canada during the last few years; a development which has had its counterpart in British Columbia. The possibilities of the Area in this respect have not been overlooked and investigations have been made by hydro-electric engineers. The British Columbia Power Corporation, which has developed a horsepower capacity of 91,000 at plants at Stave falls and Alouette in the south, has passed over the fields existing along the western boundary of the Area, and proceeded with construction on its Bridge river project, where the ultimate horsepower capacity is estimated

at 600,000. This development has not been completed; the right-of-way for transmission lines parallels the tracks of the Pacific Great Eastern Railway in the Cheakamus valley and passes through a few miles of Garibaldi park territory.

The Power Corporation supplies all the electrical energy used for power and light purposes in the Lower Mainland, and it is perhaps not unnatural that the City of Vancouver has of late years become interested in the possibility of developing electricity as a municipal enterprise. As the result of exploratory surveys made in 1923 by Mr. J. G. G. Kerry of Toronto, the City of Vancouver has concentrated attention on the trunk valley of the Cheakamus with its associated branches. The preliminary report provided by Mr. Kerry was followed by the collection of stream-flow data, and in 1930-31 under the direction of Mr. E. A. Cleveland, further surveys were carried out and have resulted in his "Report on a Preliminary Investigation of the Cheakamus River Power Possibilities." Therein Mr. Cleveland, to state it very briefly, has indicated what seemed to him (within the limits of the preliminary investigation) to be "the best development the water resources and physical nature of the country permit." It is not the object of this report to comment on Mr. Cleveland's proposals other than where they touch the possibilities of power developments within Garibaldi Park.

The developments suggested by him include the utilization of:-

1. Garibaldi lake: The stream flow of Rubble creek from below the Barrier being considered unsatisfactory, the plan is to dam the lake at its outlet and to keep lake levels up to the maximum of their usual seasonal fluctuation. Estimates of the run-off of the lake have been arrived at by methods largely of comparison, but engineers are at present employed securing data by gauging. Water would be diverted by tunnel (8,500 feet) leading from the foot of the lake to Cheakamus valley and then by surface pipe lines (1,500 feet) to a power house in the vicinity of Daisy lake. A temporary power plant for construction would be erected on the creek between Garibaldi and Lesser Garibaldi lakes and "transmission lines along the tunnel and pipe line would distribute energy for construction power and lighting purposes." An inclined railway would be built to connect the lake with Cheakamus valley.

2. Cheakamus lake. "Storage in Cheakamus lake" is regarded "as essential element in the power development on Cheakamus river above Daisy lake, and a factor in any development on the river below Daisy lake". The proposal is to dam the lake, raising the water from 30 to 35 feet for storage purposes, and diverting it successively as required through a tunnel 7.5 miles in length and pipe line of 2,550 feet to a power station to be built on the east side of the Cheakamus river near McGuire station (P.G.E. Railway). Also involved in this plan is the building of a road from that station to the lake (about 7 miles) and the possible construction of a narrow gauge railway. Suggestion is made to divert the waters of Helm creek by small dams and diversion works, into the tunnel. Tail water from the power house would be discharged into the Cheakamus by short pipe line and tunnel system.

3. Cheakamus river at McGuire: It is proposed to build a dam also across the Cheakamus river below McGuire station, there impounding a considerable acreage of water which would be diverted from above the dam by tunnel of 850 feet. This would pierce the canyon wall on the west, and its lower end would be joined to a pipe line of 5,850 feet, finally branching into three penstocks delivering their water to a power house. From this a canal would direct the tail water into the Brandywine river.

4. Daisy lake and Cheakamus river: The plan is to build a dam across the Cheakamus about 700 feet above the Government suspension bridge, thus creating a reservoir covering approximately 1,030 acres. This would effect a flooding of a small portion of the present Garibaldi Park trail and submerge some small areas of cultivated or semi-cultivated lands and small houses. A power house would be erected at the dam.

5. Right-of-way for transmission lines would be 200 feet wide, and is shown mapped in Mr. Cleveland's report as closely following the line of the P. G. E. Railway.

The foregoing proposals involve developments on an extensive scale, and they have been cited in some detail in order that the project may be appreciated from the standpoint of Garibaldi park interests. It is noteworthy that in the probable sequence of development, the Garibaldi lake project would be carried out first, that of Cheakamus lake second, and Cheakamus river exploitation at McGuire third, with Daisy lake scheme last.

The Cheakamus river in the above localities forms the western boundary of Garibaldi park and accordingly the various divisions of the main project, which have been shortly described, all fall practically within present park limits. Garibaldi Park Act permits the acquisition, in the public interests, of water rights within the Park under the provisions of the "Water Act", "but the rights so acquired shall be subject to such conditions as the Lieutenant-Governor in Council may from time to time impose for the protection of the Park."

The Cheakamus Valley does not contain any outstanding natural features that would seem to be indispensable to the park in the event of the proposals taking form. It is accordingly suggested by the Committee that the lands now affected by the proposals should be eliminated by re-adjusting the boundaries and thereby moving these from their present situation in the stream bed of the Cheakamus river to the eastward up the side of the valley. This suggestion is further referred to in a later section. The question of utilizing Cheakamus and Garibaldi lakes as a part of the project is in a different category however.

Cheakamus lake is at present a little visited feature of Garibaldi park, but it appears to us an integral one, and we would not recommend its exclusion from the park area even if it should be developed for power purposes. It is proposed to raise the lake very considerably and there is comparatively heavy forest on its sides which slope down fairly steeply into the water. The proposals made by Mr. Cleveland, we note in his report, contain estimates for clearing up this reservoir area. At the upper end of the lake the land is lower and flooding would probably have an unfortunate but limited effect on the valley. The proposed dam and overflow structure would by their presence at the foot of the lake probably detract somewhat from the natural surroundings, but this fact would not, in our opinion, seriously affect any of the Park amenities.

Our interest must, however, be appreciably fixed on the proposals as they would affect Garibaldi lake and its chain of drainage. Although the run-off data for the lake is not yet available, the assumption contained in the proposals is that the water levels would not be reduced below normal limits except during winter months, and would not exceed the normal maximum at any time. Mr. Cleveland pertinently makes the following comment in his report:- "--any proposal to take water from Garibaldi lake, which is one of the priceless features of Garibaldi Park, should

disturb natural conditions to the least possible extent". We feel fairly well satisfied that the building of a dam at the lake outlet, with temporary power house on Garibaldi creek and roads and clearings, would all possibly not affect a striking change in the face of nature in this locality, and we welcome evidence of the Engineer's desire to soften the inaesthetic nature of the proposed development as far as possible. But from the Park standpoint we would deplore the necessity of any such interference, however slight, with the natural featural relationships that at present exist. Unfortunately, the developments mentioned would affect the Park in a small but intensely interesting area, namely, at the easterly edge of the lava flow which is in itself the cause of the lake, and along the upper edge of whose contact with the old valley wall, Lesser Garibaldi lake has found a basin. Garibaldi lake drains into the latter by a beautiful stream which is designated as location for the power house - the clearing necessary along this stream, or indeed anywhere about the lower end of the lake would despoil these parts of their present beautiful setting. In the narrow valley occupied by Garibaldi stream, Lesser Garibaldi lake, and Barrier lake and stream bed, right to the very end of the lava flow at the Barrier, we have a succession of natural features of extreme importance provided their associations with one another are maintained unimpaired. The power proposals would introduce into the Park at Garibaldi lake the obvious evidence of an utilitarian project which, no matter how intrinsically advisable and necessary, would still violate that sanctuary of wild places which it is the essence of park conservation to protect, and those amenities which it desires to maintain. The Committee in so expressing itself is nevertheless mindful that public policy often unfortunately determines legislation which is antagonistic to the integrity of park lands, and that the putative advantages of power proposals have elsewhere proved greater than those of ethical or spiritual reasons against such development.

FORESTS AND VEGETATION

The rapid succession from low to high relief in the Area and the consequent ranges of temperature, have resulted in distinguishable life zones of flora to which, in accordance with the accepted nomenclature, we give the names Canadian, Hudsonian and Arctic (or Alpine). The Canadian zone may be described as ending at the 4,000 foot level, the Hudsonian is intermediate to about 6,000 feet, and the Arctic above the latter. These definitions must only be taken as very general in their application since marine climatic influences and the broken nature of the ground with its attendant circumstances of varied exposure and drainage, exert modifying effects in different locations of the same level. Thus the zones often merge insensibly into one another without any sharp lines of demarcation.

Our present knowledge of the flora of the Area is almost entirely limited to observations made by a very small number of botanists in the region about mount Garibaldi. A tremendous amount of field work is still necessary before a connected story of the flora can be written, but for our purpose a short summary of the present results of investigation will follow.

The Canadian zone includes the lower, or main valley systems, and its flora, being similar to that of well populated and accessible parts of the Coast range country, is fairly well known and described. It is characterized by frequency of heavy forest growth, the coniferous representatives being Douglas fir, hemlock, lodge pole pine and red cedar, and the deciduous birch, alder and cottonwood. The underbrush is variable and chiefly represented by huckleberry, devils' club, elder, salal and salmon-berry.

Typically as these conditions occur, it is necessary to give special prominence to a fringe of virgin timber lying along the west boundary of timber berth "W" on the picturesque north Alouette river. This, though comparatively inextensive (569 acres) and now isolated as a result of logging operations, is exceptionally worthy of preservation, since it contains a stand, practically the sole remnant of the once extensive heavy forests which clothed the lower Fraser valley. Douglas firs and red cedars of magnificent size and considerable age are the outstanding feature of this small belt of timber, and their like is now only to be seen in a very few localities distant from centres of population.

Towards the upper levels of the Canadian zone the deciduous trees disappear, yellow cedar becomes predominant and hemlock is replaced by its mountain variety; the mountain fir also begins to appear. The latter two constitute the ruling characters as this zone merges into the Hudsonian. Open places now begin to occur and the undergrowth changes to more shrub-like forms of rhododendrons and heaths. At 5,000 feet yellow cedars begin to assume stunted forms and white pine is occasionally seen. The slopes at this altitude are open-wooded, and clumped trees give that park-like appearance which is so enjoyable a feature of the landscape as we emerge into the Black Tusk meadows. At about the 6,000 feet level the trees disappear and juniper is their last representative.

From information gained on our air reconnaissance, the foregoing description of conditions is applicable in general to the forestration of the whole Area. The fir and cedar belts are fairly extensive, and the commercial possibilities in this connection will be alluded to elsewhere.

From a park standpoint, however, the greatest interest to visitors will always reside in the floral formations at the fringe of, and above the line of tree limitation, - the zones being transitional from Hudsonian to Arctic (or Alpine). Here the vegetative season is short, direct sunlight tends to intensity, wind exerts a distinct desiccation, and moisture varies greatly with locality. Within these modifying ecological conditions, and extending to areas which are interspersed amongst snow-fields, we have undoubtedly a region worthy of much exhaustive research. The vegetation of these "fell-fields" is very varied and beautiful and chiefly consists of those types popularly known as "Alpines"; their flowers have been the subject of universal admiration on the part of those who have been fortunate enough to view them. A wealth of colour is imparted to these alpine meadows by lupins, erythronium, anemone, mimulus, phlox and penstemon. Opening first on the lower levels, the flowers follow the slopes upwards during the summer with the recession of the snows, - the scene is therefore constantly being renewed afresh. Travelling on above we pass into the "subarctic fells"[1]. where snow may lie long into the season. The plants now exhibit changed characteristics, assuming a prostrate habit, and are dwarfed, infrequent, and extremely floristic in nature. At this height a predominating species may be so limited in its distribution as to suggest a name for a locality. Hence the names, Empetrum, Gentian, Parnassus and Polemonium, which have been bestowed on certain ridges. Mosses and lichens are ultimate appreciable evidences of plant growth.

1. Ecology of Plants 1909 - Warming.

It is quite impossible to give in detail a list of these representatives of the botanical families which have been recognized and collected, but very important identification work has been done by Prof. J. Davidson[1]. of the University of British Columbia. Under his direction members of different organizations have devoted themselves to botanical interests while camping in Black Tusk meadows, or have studied the results afforded by collection. Mr. Fred Perry[2]. has given some attention to the ecology of this region, and Messrs. G. Hardy[3]. and H. G. Selwood have made general observations. A very brief report on some algae has been made by Mr. H. G. Vailes[4]. Others have also made their contributions to botanical knowledge, but there is still here an almost virgin field for research, differing markedly in many respects from the "fell-fields" of interior ranges, and still affording most interesting opportunities.

The elevation of the Area, the climatic conditions, lack of population, limitation of forest growth to stream valleys and close observation of rules for prevention, have been the factors reducing the fire hazard within it. Practically no burned-over lands were in evidence during our air reconnaissance. As the Area might become opened up for development, its more extended occupation would doubtless increase the hazard, and in this fact may possibly be seen a cogent argument for the application of the safeguards which are implied in methods of control exercised by the National Parks Branch. At present the hazards are practically limited to those valleys which are the highways of travel. This fact has entered into our consideration of the boundaries to be proposed for the Area, and will be referred to later.

1. Annual reports of the Botanical Office of British Columbia 1913 and 1914.
2. Museum notes, Art, Historical and Scientific Association of Vancouver, June 1928.
3. Report of the Provincial Museum, 1926.
4. Museum and Art Notes; Art, Historical and Scientific Association of Vancouver, December, 1929.

FAUNA

Hunting and trapping, regulated only by the game laws of the Province, have been carried out to a variable extent along the borders of the Area, but the Garibaldi portion has been a reserve since the passage of the Park Act, and there has been so little real penetration elsewhere that we may regard the whole region as virtually a present sanctuary for wild life. As a usual fact lands when they have come under the control of the Dominion for National Park purposes have been already much exploited by hunters, and as a result, game animals have somewhat slowly, if extensively, repopulated the park lands. In this respect we may say that the Area presents quite different circumstances.

Such information as we have as to the occurrence of mammals is chiefly due to Game Board officials, or to trappers and prospectors. In the known regions of Garibaldi Park larger animals have been somewhat infrequently met with during summer months, but mountain goat, Coast deer, black and grizzly bear and wolves are reported. There is some evidence for the assumption that deer may be there increasing in numbers. In this connection Mr. F. Rainey made observations recently in the Cheakamus lake region, but a report he has undertaken for the Garibaldi Park Board is not yet available. Of the smaller animals; the pika, jumping mouse, vole, chipmunk, hoary marmot and shrew are quite common.

We are informed by Game Guardian G. G. Stevenson that along the Pitt river is an abundance of game; from his and other information it is evident that the mount Blanshard region, the western slopes of the Hamquam group and the extensive tract of country lying along the eastern borders of the Area, if not others, are equally to be so described. Bears, both black, brown and grizzly, are reported to be particularly plentiful in these districts, with goat and sheep easily obtainable by hunters, and Coast deer frequently seen. Neither male deer nor moose are reported. The southern part of the Area seems to be especially attractive to goats. Beaver are said to exist at the head of the Stave river where the valley opens out into Kennedy Prairie. Other animals to be mentioned as frequent are:- martin, weasel, wolverine, mink, racoon and timber wolf. Bob-cats are not common and very few occurrences of fox, lynx, fisher, or muskrat have come to notice.

Inroads made on them so far have not inhibited the natural increase of game and fur animals, but it is apparent that from within, wolves have had an appreciable effect in diminishing the number of deer. Some action might possibly prove feasible towards establishing a more

equable balance between these animals and the re-population of the Garibaldi country with the latter. The game reservation which doubtless would be established as a result of the transfer of the Area to the Dominion Government would guarantee animals freedom from molestation during the breeding season and create reserves from which the overflow would naturally replenish adjacent country for hunting or trapping.

We have very little to report on the fish that may be found in the Area, but none were found originally in Garibaldi Park, and the result of stocking operations carried out a few years ago is still uncertain. Questions such as these evidently require further study. Streams in the northern part of the Golden Ears park are invaded by salmon during the spawning season, and trout are caught in them.

A study of the bird life, to be systematically undertaken, is awaiting the ornithologist, our present information being very limited. Grouse and ptarmigan are of widespread occurrence, and sandpipers, plovers, hawks, flycatchers, humming birds, larks, jays, rosy-finches, chicadees and nuthatches have all been reported from Black Tusk meadows. To the untrained eye, birdlife is not abundant, but we have no doubt that a survey undertaken by competent observers would disclose interesting facts as to habits and varieties.

Of amphibia our knowledge is meagre, but toads and salamanders are recorded. A good deal of work has been done by the entomologist, and we find in the Government Museum report for 1926 the somewhat lengthy results of observations and collections made in that year in the vicinity of mount Garibaldi. It has been noted that the snowfields and glaciers, being often exposed to winds which have already swept over land surfaces, are covered with a variety of insect life, commonly flies, bees, butterflies and spiders. The peculiar glacier worms which are to be so frequently found on the snowfields of Washington have also been seen, but have still to be studied.

Both biologists and nature lovers will evidently find a great deal to interest them within the Area.

CLIMATE

In the matter of climate, its geographical position renders the Area amenable to the tempering influences resulting from close proximity to the Pacific ocean. Variable as the weather conditions of the Coast points of British Columbia are well known to be, it may still be safely deduced that the somewhat high elevation, similar relation to the seaboard, and lack of shelter from wet westerly winds are all factors making climatic conditions similar throughout the Area. Due allowance on this subject must obviously be made for the restricted portions characterized by the deep gashes cut out by the valley systems. The comparative isolation of the Area and its almost entire lack of population have provided sufficient reasons to the present for failure to maintain records for the completion of meterological tables; accordingly, only general observations can be offered on the probable climatic features of precipitation, temperature, wind and sunshine.

From stations of the Meteorological Bureau situated closely around the Area but at low-lying levels and affected in their weather by diverse local physical factors, there are, however, records which made data available for some comparisons of relative precipitation and temperature. The following may be of interest:- [1].

Station	Average precipitation for 10 years or more (inches)	Average annual Snowfall (10 yrs (inches)
Vancouver Waterworks (Seymour creek)	107.33	23.5
Capilano creek	125.44	28.6
Stave falls	77.50	18.6
Alouette lake	100.14	21.0
Pemberton meadows	34.52	76.0
Daisy lake - Alt. 1126 feet -	54.95	90.8
Tunnel Camp (Britannia Beach) (alt. approx. 2000 ft.)	85.10	130.2

The figures quoted for Tunnel camp indicate that the precipitation over the Area must be heavy. Likely the snowfall for the high altitudes of the Area must be considerably in excess of that reported, say, at Revelstoke (10 years average - 114.1 inches), but probably not as heavy as at Glacier in the Selkirk range (10 years average 332.6 inches).

1. Climate of British Columbia - Report of Provincial Department of Agriculture for 1931.

Fortunately some statistical information covering Garibaldi park will be made available through the weather observations now being carried out by Mr. A. L. McNaughton, D.L.S., at Parnassus creek in Black Tusk meadows.

Concerning temperature changes, there is practically no information available than that which might be obtained from the experience of the mountaineers, surveyors and occasional prospectors or trappers who have visited the Area. It is known that extremes of temperatures are within moderate limits, and it would appear the conditions normally incident to considerable altitude are much modified by the moisture-laden winds from the Pacific ocean. The uplands of the Area in point of winter extremes must offer a very strong contrast to the low temperatures correspondingly common to the more eastern ranges of the Cordillera. Mountaineers have rarely found summer temperatures in the Park to be unpleasantly high.

Obviously climatic features must have an important bearing on the attraction and satisfaction which any National Park will be capable of affording those who use it. In the absence of precise information it will be sufficient to make the following general remarks:-

The winters provide the season of greatest precipitation, mild but with heavy snowfall. Rain during the summer months is not at all infrequent. At these considerably higher altitudes there is likely more sunshine than is experienced very close to the Coast, and the atmosphere is more bracing and exhilarating. Fogs are variable in spring and fall. Strong winds sweep over the highly elevated snow plateau of the Area, but various valley systems afford protected conditions suitable for the development of a flora mostly alpine or sub-alpine in type, and of extensive forest growth. Particularly in the valleys on the eastern slope of the plateau abundant tree life has been noted. Garibaldi and Cheakamus lakes - the largest bodies of water within the Area - are reasonably protected by their situation and surroundings from excessive air currents. Thunder storms in these regions are not unusual.

Ice on Garibaldi lake is generally formed in November and disappears early in June. A member of the Alpine Club found snow to be approximately nine feet deep in in the first week of June at the 5500 feet level on Black Tusk meadows. The permanent snow line for the region is at about the 7000 foot level but glacier tongues descend, in a number of instances, to as low as 5,000 feet. The high plateau so characteristic of the easterly part of the Area, was almost uniformly covered over with snow when viewed

June 24, 1932, during the progress of our aeroplane reconnaissance, and the broad sweep of this extensive snowfield made, at that time, a very impressive natural feature, the sharp pointed peaks of mountains rising from it like nunataks. Seen early in October on the second reconnaissance, when the snow in all valley regions had retreated to its presumed permanent line, the snowfields and neves with the "dry" ice of lower glacier tongues occupied a considerably greater extent than has been shown on our coloured topographical map. Numerous small lakes marginal to glacier ice, or occupying round depressions on the neves, had been uncovered by summer temperatures. Of particular interest was also the observation that the rather high pass leading almost due north from the Pitt river valley to the upper Cheakamus river was not only entirely free of snow but had probably been mainly so from the middle of July. We are informed by Provincial Game Guardian, G. C. Stevenson, that more than 7 or 8 feet of snow lies in the bottom of the Pitt river valley well up towards its headwaters, and that this disappears early in the spring. On higher ground the heavy snowfall not only produces features of summer interest to mountaineers, but ensures conditions which may at other seasons be taken advantage of by tourists and those interested in winter sports.

The question of obtaining winter access to some centre for the development of the latter activities does doubtless present difficulties, but it would seem that winter weather conditions should not inhibit travel into a part of the Park so situated for instance as Garibaldi lake is; we have in mind that similar difficulties in the mountain playgrounds adjacent to Vancouver City have been successfully overcome.

It must be added that the summer months have provided good camping conditions in the park annually for a considerable number of mountaineers and tourists. It has been the experience that summer rains have never been accompanied by lower temperatures which are so common in the interior ranges of mountains.

Observations annually carried on since 1887 have amply demonstrated an active shrinkage of glaciers in the Canadian Cordillera. Of the more recent years of actual measurement or observation the retreat of glacier tongues and decrease in the thickness of ice in the valleys has effected pronounced changes by creating new ice architectural forms, uncovering lateral morraines, and changing stream beds. While this feature of recedence (indicating on the one hand some prolonged decrease of precipitation and on the other, an increased mean of temperature) has not been carefully studied in Garibaldi

park (and not at all over the greater part of the Area), it was ascertained by Dr. Neal Carter[1.] in 1926 that shrinkage was markedly affecting the Park glaciers and that there had been an acceleration of retreat since 1912. Mr. W. A. D. Munday,[2.] a very careful observer, is authority for the statement that all glaciers in the Coast range of which he has knowledge are in retreat.

1. Special issue of the B. C. Mountaineer, 1926.
2. Canadian Alpine Journal, vol. XX, 1931, page 141.

INDIAN LEGENDS

The history and legends of the Coast Indians are very well known to be subjects of specialty and importance, and all that can be done here is to briefly indicate what relationship these people may have to the particular country of the Area. In general it may be said that the history, language and social conditions of the Coast Indians make a remarkable study, and that these subjects might be well developed in a popular way in the event of the Area being operated as a National Park.

The native tribes who frequented the country bordering about the Area did not live in the high mountainous parts - to which their travels were practically limited to search for game, and sheep or goats to provide wool for weaving - but appear to have had their habitations in the larger valleys. The opportunities which once presented themselves for a preservation of a record of the primitive conditions under which they lived are now almost gone beyond recall, but owing to interest and research on the part of Dawson, Franz Boas, Hill-Tout and others, much has been recorded for us.

The Coast Indians were divided into a great number of tribes speaking different dialects, and it is noteworthy that no one tribe as such, seems to have owned the district in which its members lived, but that each family unit, or gens, had its own hunting and fishing grounds, upon which no others were expected to intrude without permission. The Coast Salish, to which nation some of the tribes about the Area belonged, seem to have based their claims to individual districts, on legendary accounts of one or another ancestor having taken up habitation in them. Nearly all their accounts refer to these entrances as events in the distant past following upon a great flood. Legends of a deluge occur in the traditions of many peoples and in its essentials the story is known to be very widespread. The varied mythology of these Indians is one of the most interesting features connected with their complex social family and tribal system.

The Sk'qomic, or Squamish Indians, were a branch of the Coast Salish, and occupied the region of Howe Sound, north of Pemberton meadows and south to Burrard inlet. They hunted the country between the Squamish and Cheakamus rivers on the west, and the Pitt valley in the east. Unlike more northerly tribes they had not developed the matriarchal institution in which the child belonged to the gens of the mother, but the eldest son inherited his father's name, and succeeded to his rank. Accordingly we find that August Jack (or Haat'silano) of Squamish, B.C.,

as a direct descendant of the chiefs of his tribe, is able to give us information relating to the myths handed down from his ancestors. It is quite impossible in limited space to give more than a very few references to those which may bear relation to the Garibaldi country. He tells us that Black Tusk meadows was the perching place of the mythical thunder bird, and that it was in lake Garibaldi the legendary hero Seyawoto or serpent slayer, Te Quit'chitail, killed the great double-headed serpent, Smolkai. Upon the authority of Professor C. Hill-Tout, this legend has been told in detail by Mrs. Violet Palmer of Vancouver.[1].

On the eastern side of the Area the Lillooet Indians, a tribe of considerable size, occupied the valley of that name, and their reserves are today scattered throughout that district. They hunt or trap in the mountain valleys which are contiguous. Their history and myths, however, have not been investigated for the purposes of this report.

1. Museum and Art notes, Vancouver Art, Historical and Scientific Association, September, 1931.

RECREATION POSSIBILITIES

It is not necessary to say very much on this subject as the possibilities are so self-evident. Not alone the climber and mountaineer, to whom peaks and snow-fields eternally beckon, but also the camper, hiker and tourist will find endless opportunities for enjoyment awaiting realization in this interesting country.

It is not difficult in thought to anticipate what possibilities lie in an organized development of motor roads, trails, cabins, supervised camp grounds, and even hotel accommodation, thus affording one and all access to the beauties of a land reserved and maintained for their "benefit, education and enjoyment."

The mild winter climate makes the Area especially attractive and suitable for winter sports of all kinds; skating, ski-ing, ski-joring, outdoor curling, tobogganing, and sleighing. The streams are far from suitable for canoeing, but the larger lakes will provide due opportunities for boating. Those who desire to relax and find rest and inspiration can find them amidst these beautiful surroundings, and scientists endless objects which are the means of fulfilling their desires.

ACCESSIBILITY AND TRANSPORTATION

ROADS AND TRAILS

Owing to the present relative inaccessibility of the Area, its potentialities from a Park standpoint have remained almost entirely undeveloped and only in a very restricted sense are known to mountaineers, or the residents scattered along its borders. In fact, Garibaldi Park itself, unconnected by motor road with the trunk of the Fraser valley and dependent on both boat and rail communication, has been visited as yet only by the few and is still a land of delightful natural beauty awaiting discovery by the tourist.

The mountainous nature of the whole Area, bordered as it is by broken and densely forested country, and the unnavigable nature of the streams issuing from it, are of course the essential reasons for the almost complete preservation of these lands in their primitive condition. Direct means of access can undoubtely be found, but to the present the difficulties of approach have proved efficient means for guarding the Area from organized commercial development, and against fire and despoilation of animal, bird and forest life. The countless scenic attractions of the Area are still intact, and those of the Garibaldi park portion have been guaranteed inviolate to the public by the Park Act. The very inaccessibility of the Area has been its protection awaiting the employment of supervised means of visitation - the time now seems ripe, however, for legislation creating a reserve.

Along the eastern boundary of the Area there is virtually no settlement if we except a few Indians whose reserves lie along the Lillooet river. These and a few others occasionally hunt or trap along the streams which eventually find their way down to that valley. Further east the Douglas trail of 1858, or its successor, the waggon road of 1860, afforded communication by land and water between the lower Fraser valley and the placer mines of the Cariboo, but this route only covers a small part of the Area and is now in disuse.

The southern tip of Golden Ears Park contacts at Yennadon and Alco with roads tributary to the Fraser Highway. From these points a few roads and trails penetrate for short distances into the region of Alouette ridge and Gold creek; others exist northwards from Alouette and Stave lakes, but they are all very short and none of them effect entry to the country lying north of mount Blanshard. Grades formerly used by logging railways, traverse the lower part of Alouette ridge at various levels, and a right-of-way, now abandoned, exists from Alco to Pitt lake at Raven creek.

On the western side a road runs up Pitt river for a few miles from the head of Pitt lake. This is succeeded by a trail chiefly used by hunters and prospectors. Branch trails occasionally lead up the tributary creeks to the limit of heavy timber. The upper valley of Pitt river elbows to the west the buttress-like outliers of the Mamquam group and the river ultimately derives its source from glaciers of the Garibaldi group. It is interesting to note that a few prospectors have been accustomed to reach the headwaters of Pitt river from Cheakamus valley via Black Tusk meadows and over the neve which constitutes the divide between the two watersheds. Quite unsuitable for ordinary travel, this is a good example of routes which are similar to some of the high crossings in the Alps, and others might be developed for the use of mountaineers.

The fact that nature has deeply cut down the head of Pitt valley and provided a very easy gradient all its way to Pitt lake (tidewater) is a matter of positive importance in the future development of the entire Area, if not Garibaldi Park proper. East of a route of penetration, such as this valley affords, access could be gained to the immense snowfields which cover the broad plateau-like plain of the great mountain axis; and a road extension could be carried by low pass over to the upper Cheakamus river above the lake of the same name. From the Pacific Great Eastern Railway two trails at present enter into the Garibaldi park with the Black Tusk meadows as their objective. Both cross the Cheakamus river at Garibaldi station - the one opened by the British Columbia Mountaineering Club in 1912, and the other a pack trail built by the Provincial Government. On this side of the Area also short roads used in lumbering operations or trails used by hunters follow the main branches of Mamquam river for very short distances into the park territory. Of the same nature are trails up Cheakamus river to its lake, up Fitzsimmons creek to abandoned mines, and up Wedge creek to the open country of its divide.

No trails are known to enter into the Area over its northern boundary.

As any reasonable programme for the development of the Area in the event of its reservation as a National Park must include a road and trail policy corrective of the present inaccessibility, our attention and thought have been given to that problem. It has been quite impossible to carry out field work necessary on which to base recommendations, but a study of the information provided by the topographic details of the map leads us to suggest the following conclusions.

The large centres of population lie south of the park, and it is obvious that important motor communications developed by them must be tied in to any communication system to be developed within the Area itself. Motor roads, if built from West Vancouver up Howe sound to Squamish, and thence prolonged by way of Cheakamus valley into Garibaldi park, would doubtless open up the part of the region best known to the public. They would, however, be costly in construction and aside from their benefit to the Squamish valley, would only give access to a beautiful but inconsiderable portion of the Area.

Another route, namely, that already described, by Pitt river, would penetrate through more than the southern half of the Area to the heart of its scenic wonderland, and would seem of preferable advantage. Presumed to be free of any serious engineering difficulties, and offering the advantage of very low grades, this route would also imply heavy expenditure for road work, but as construction progressed more and more new country of undoubted Alpine character and attraction would be successively opened up to visitors.

The situation along the eastern boundary of the Area has been also studied and longer and more expensive routes could be suggested; any one of them would in addition be so much further removed from the cities of the Fraser delta as to make its further consideration at this time both impractical and unreasonable.

The Pitt river route (portions of which admit of alternative suggestion) may be briefly described and commented on as follows:- From Vancouver by Fraser highway to Yennadon (southern portal). Thence along the north bank of the north Alouette river through the magnificent strip of virgin timber which is now the sole unimpaired remnant of the once magnificent Fraser valley forests. Leave this strip at its northern end and cross the north Alouette river. Thence easterly to Gold creek through country now logged off, but on high levels permitting extensive views. Follow Gold creek to its headwaters and thence by low divide in a north-westerly direction, following suitable contours to the east side of Pitt river. Ascend this river to its headwaters and thence north-easterly by pass of approximately 4,500 feet elevation to upper Cheakamus river and Cheakamus lake. Thence in a westerly and southerly direction to the main Cheakamus valley; then easterly around Black Tusk ridge to its meadows. The length of that section of this route which extends from the southern portal of the headwaters of Pitt river, is estimated as approximately 62 miles. It is possible that some of the railway grades traversing Alouette ridge might be taken advantage of.

An extension of the route above described, but not suggested as of primary importance, would be feasible from Cheakamus lake via Cheakamus valley, Wedge creek, low divide of some 4,000 feet elevation and Billy Goat creek to Lillooet river.

Trails being comparatively cheaply constructed means of communication, a system might be developed in advance of the Pitt arterial highway, and thereafterwards extended as public demand would warrant.

Transportation by air has undoubted possibilities for the future and Garibaldi lake has already proved a suitable landing for aeroplanes fitted with pontoons.

RECOMMENDATIONS AS TO BOUNDARIES AND CONSERVATION

We have been charged with a review of those boundaries which have been tentatively fixed for the Area, and it will have been noted in several of the preceding sections that suggestions have been made whereby country suitable for park purposes might be added by extending the lines somewhat, or considerable portions which appear unsuitable to us might be eliminated by reductions. The question that appeals to us in the matter is: what lands alone "contain scenery of distinctive quality, or natural features - so unique as to be of national interest and importance", and are at the same time so free of encumbrances that the park reserve may be "dedicated to the people"?

In respect to natural features of advantage there appears to be very few portions of the Area which would reasonably warrant exclusion on the basis of their failure to measure up to the above standard. The only ones we have in mind are:-

1. The deforested lands at the south end of Alouette ridge, despoiled from the park standpoint by commercial development and fire. In this case (as will be more fully represented in the section of the report on Special Problems) there are good reasons why portions at least of these lands should be retained.

2. The considerable extent of land situated in the north-east corner of the Area, east of Lillooet lake and river. This portion is in quite isolated relationship to the remainder of the Area, and does not appear to include portions particularly of interest. It is understood that it contains a good deal of game, and it is evidently well forested. Situated on the western slope of the Cascade range, it is still so close to the Coast that climatic conditions are similar and the vegetation not particularly of the type transitory to that of the Dry Belt. On account of the isolation it is recommended that these lands be excluded.

The main tracts warranting serious consideration for eliminations are, however, those lands encumbered by alienations or reservations of various descriptions, namely:- Crown grants, timber licences, mining claims and licences, Indian reserves, conditional water licences, public shooting grounds, etc. A reference to the Appendix, where these are tabulated, will show how considerable they are in number and extent. Fortunately these lands are mostly situated in, or about, the confines of the Area; although it would be impossible to preserve

a continuity of park features and draw the boundaries for a balanced park project by exclusion of them all, we have attempted a revision. In this we hope to offer acceptable suggestions whereby the alienated lands which remain within the boundaries that are proposed by us, will be found reduced to a minimum, and the consequent problem of transfers, or otherwise clearing them, may become very much simplified. We would recommend that no further leases of public lands be granted within the suggested boundaries, pending disposal of the present question of transfer to the Dominion Government for park purposes, and that the Area of revised boundaries be constituted a reserve for that purpose.

As we are aware that a subsequent careful examination of the ground might prove the inadvisability of accepting our conclusions in all respects, we do not intend that our proposals should be taken at present as more than suggestions. We believe that they should be viewed as subject to provision being made for an extension of the Area if, and when, lands now excluded by reason of alienation, may have reverted to the Crown. For instance, Lillooet river appears the obvious natural boundary on the east. In making our suggestions herein we have also been governed to a considerable extent by an understanding that the National Parks Branch considers high lands, rather than valley features, generally conduce to make park boundaries more satisfactory. The only objection we have been able to see to this standpoint (presuming it to be correct) is that high lands do not usually alone constitute country adequate for game preserves; on this point, however, we believe we have made due provision.

The boundaries we suggest have been drawn in white line on our large scale map and may be described as follows:-

> Commencing at the intersection of the eastern boundary of Lot 3626, Lillooet Land District, with the boundary line between said district and New Westminster Land District (being lot 50°14' N.); thence 12 miles due east, along said boundary line; thence 10.10 miles due south; thence south-easterly to the northwest corner of Lot 3613, New Westminster Land District; thence south-easterly to the southwest corner of Lot S.T.L. 38637; thence westerly along the northern boundary of Lot S.T.L. 2876P to the northwest corner thereof; thence southerly to the northwest corner of Lot S.T.L. 4678P; thence southwesterly to the north-

west corner of Lot S.T.L. 3337P; thence south along the west boundary of said Lot to the southwest corner thereof; thence southeasterly to the northeast end of Alouette lake; thence following the northerly and westerly shore line of said lake and the easterly boundary of T.B."W" to its intersection with the south boundary of T.3, R.5, W.7; thence along the southerly and westerly boundaries of T.B. "W" and along the south boundary of T.3, R.5, W.7 to the eastern boundary of T.42, E.C.M.; thence north along said boundary to the south shore of Pitt lake; thence along the east shore of said lake to the mouth of Osprey creek; thence on a line northwesterly in the northeast corner of Lot 2829; thence northwesterly to the northeast corner of Lot 1173; thence westerly to the southeast corner of Lot 1174; thence northerly to the northeast corner of Lot 1175; thence westerly to the northeast corner of Lot 3289; thence northerly to the northeast corner of Lot 2874; thence north-westerly to the northeast corner of Lot 2882; thence northwesterly to the southeast corner of Lot S.T.L.34911; thence along the east boundary of said lot to the northeast corner thereof; thence northeasterly to the northeast corner of Lot T.L.14831; thence northeasterly to the southeast corner of Lot S.T.L. 9433P; thence northeasterly to the southeast corner of Lot S.T.L. 8221P; thence along the easterly and southerly boundaries of said Lot to the northeast corner thereof; thence northerly to the point of commencement.

We believe that the Cheakamus water power project should continue to receive careful attention, and that no rights should be granted therein pending settlement of the question of transfer to the Dominion Government, and at least until the view of the latter is obtained in how much such developments would be liable to affect a National Park. We would register our strongest objection to any action being taken whereby Garibaldi lake might be excluded from Garibaldi park as a result of such developments.

So much of the Area is totally unknown that it would seem advisable (for its own information) that the Provincial Government should undertake organized explorations.

In consideration of the fact that Golden Ears Park might be made quickly and easily accessible to large numbers of the public, we would recommend that it be constituted a game preserve pending decision as to transfer.

Extensive timber fires have such disastrous consequences in impairment of park lands that we would earnestly recommend a consideration of more adequate measures being taken to safeguard the Area; especially is this so of the Pitt river valley (along the route of the proposed road) and of the Cheakamus valley west of the Garibaldi country.

Finally it is suggested that the name "Garibaldi" having a limited significance to Canadians, is not suitable for designation of the Area, in the event of its becoming a National Park. We believe that the whole nomenclature of the features within the Area should be the cause of review by the member of the Geographic Board of Canada who represents British Columbia.[1] Our map shows newly discovered features which lack proper names to distinguish them.

1. Major G. G. Aitken, Chief Geographer, Department of Lands, B. C.

SPECIAL PROBLEMS

Under the above heading we have reserved for consideration the question of the suitability of including Golden Ears Park within the Area. We believe it has been contended that this Park does not possess sufficient natural features of a high order warranting its addition as a reserve for national park purposes, but with any such view we are not in accord. It is true that the southern end of Alouette ridge (an inconsiderably small part of the Park) has been logged off, and is now due partly to fire in a definitely objectionable condition. However, Golden Ears park consists of a tract of land lying between the thickly populated lower Mainland and the Proposed Park Extension, and it thus constitutes what we believe to be both gateway and corridor to the heart of the Area. Certainly, close beyond those deforested lands (which now appear desecrated from a park point of view) there is very beautiful rugged country, featured by some fine mountains, lakes and forests, filled with game and well worthy of park development. As this Park lies between the natural boundaries of Pitt lake on the west and Stave lake and river on the east, and also contains the terminal part of that mountain axis which gives backbone to the remainder of the Area, the reservation of a mere strip of country for road purposes through it would be a totally inadequate way of developing suitable country which is easily accessible, and be a disparagement of the possibilities. Until the burnt-over portion has to some extent become reforested, it can hardly be hoped that here will be any attraction to the tourist, but portions of this burnt land are at least a necessary acquisition in order to provide a right-of-way for the road from the Fraser valley. The route we have suggested would carry the proposed road to some height before it would emerge from the fine timbered lands on the North Alouette river, (reference section on "Forests and Vegetation"). It would then necessarily follow suitable contours through the burnt country (a distance of about 7 miles) until timber was again encountered at the fine gorge and waterfall on Gold creek. As fine views down the Fraser valley, and of Alouette lake in the foreground, would be obtained from the road, we feel that there would be sufficient of interest to offset whatever depressing influences the immediate surroundings might exert until these become clothed with second growth.

CONCLUSION

The members of the Committee in respectfully submitting this report have endeavoured in it to assemble various information germane to investigations and consequent considerations desired by the Honourable the Minister of Lands. Based on the information which is set forth they have unanimously reached the following conclusions:

1. The Area constitutes lands of such distinctly beautiful nature and unique physical features as to make the combination most suitable and desirable for the reservation of a National Park.

2. The lands which the Committee considers are the most appropriate for this purpose are the ones which it has defined, and for which boundaries have been suggested.

The Committee again desire to emphasize the fact that a considerable part of the Area it is reporting on has been untravelled, but ventures to express the opinion that the possibilities it contains as a playground for the people of this country can scarcely be over-insisted upon.

To the many persons who have shown interest in its work, and willingly afforded assistance, information, or advice, the Committee is greatly indebted and expresses its sincere thanks. Particularly are these due to Mr. A. F. Proctor, C. E., for his painstaking preparation of the large scale topographic map.

"W. W. Foster.
F. C. Bell
H. J. Graves"

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A P P E N D I X

to

R E P O R T

on

GARIBALDI PARK AND CONTIGUOUS AREA

A P P E N D I X 1.

STATUS OF ALIENIATED LANDS IN PROPOSED PARK AREA

Lots or S.T.L.	T.L.No.	Acreage	Status paid for	Remarks
T.L.	12791	640	Mar.10/08	
T.L.	12789	640	Mar.10/08	
T.L.	12790	640	Mar.10/08	
Lot 2992	902 P	640	May 9/33	
Lot 2993	1086 P	640	June12/32	
S.T.L.	7558 P	521	Mar.23/31	
Lot 2355	678 P	640	Mar.23/33	
Lot 2484	2102 P	640	Oct.16/31	
T.L.	38243	640	Dec.11/10	
T.L.	40806	640	Feb. 6/11	
T.L.	38242	640	Dec.11/10	
Lot 2573	903 P	469.59	May 8/33	
T.L.	42315	640	Feb.12/11	
Lot 995	T.Lease	1590	Jan.25/33	
S.T.L.	10986 P	640	May 28/33	
S.T.L.	10993-P	610	Dec.10/32	
Lot 2574	759 P	580	Apr.15/33	
Lot 1332	T.Lease	464	Jan.25/33	
Lot 2575	754 P	640	Apr.15/33	
Lot 2576	762 P	640	Apr.15/33	
Lot 2578	766 P	640	Apr.15/33	Portion only in reserve.
Lot 2579	755 P	640	Apr.15/33	
Lot 2580	753 P	640	Apr.15/33	
Lot 2581	756 P	640	Apr.15/33	
Lot 2583	763 P	628	Apr.15/33	
Lot 2235	14140 L	498	May 1/31	
Lot 2822A	582 P	640	Mar.16/33	
Lot 2828	583 P	640	Mar.16/33	
Lot 2829	584 P	640	Mar.16/13	
Lot 1721	760 P	640	Apr.15/33	Portion only in reserve.
Lot 1720	761 P	640	Apr.15/33	
Lot 2234	14139 L	1560	May 1/31	
Lot 2577	768 P	506	Apr.15/33	
Lot 2506	1409 P	640	Jul. 9/30	
Lot 2508	1411 P	640	Jul. 9/30	
Lot 943 NW	T.Lease	490	Apr. 1/32	
Lot 942 NW	T.Lease	187	Apr. 1/32	
Lot 944 NW	T.Lease	448	Apr. 1/32	
Lot 2511	1414 P	640	Jul. 9/31	
Lot 2118	1427 P	540	Jul.16/30	
Lot 945 NW	T.Lease	605	Apr. 1/33	
Lot 2117	1426 P	615	Jul.16/30	
Lot 2115	1405 P	490	Jul. 9/31	
Lot 2116	1406 P	640	Jul. 9/31	
Lot 3612	9316 P	548	Oct.31/33	
Lot 2114	3389 P	434	Dec.10/31	
Lot 2113	1407 P	473.2	Jul. 9/31	
T.L.	671 P	640	Mar.16/13	

Lots or S.T.L.	T.I.No.	Acreage	Status Paid for	Remarks
Lot 2112	1408-P	632	July 9/31	
	LILLOOET			
Lot 234	T.Lease	794	Apr. 1/32	
T.L.	3986-P	640	Dec. 3/13	
do	3987-P	640	Dec. 3/13	
do	3988-P	640	Dec. 3/13	
do	10937-P	640	Dec. 3/13	
do	6086-P	640	Feb. 5/15	
do	6087-P	640	Feb. 5/15	
do	6088-P	640	Feb. 5/15	
do	6089-P	640	Feb. 5/15	
do	6090-P	640	Feb. 5/15	
do	6091-P	640	Feb. 5/15	
do	6092-P	640	Feb. 5/15	
do	6093-P	640	Feb. 5/15	
do	6094-P	640	Feb. 5/15	
do	6095-P	640	Feb. 5/15	
do	6096-P	640	Feb. 5/15	
Lot 2980	13198-P	640	Sept23/32	Portion only in reserve.
S.T.L.	3334-P	640	Dec. 3/31	do do
do	3333-P	640	Dec. 3/31	do do
do	3332-P	640	Dec. 3/31	do do
do	3330-P	600	Dec. 3/31	
do	3329-P	640	Dec. 3/31	Portion only in reserve.
do	3338	640	Dec. 3/31	do do
do	23591	640	Dec. 3/08	
do	23590	640	Dec. 3/08	
do	23589	640	Dec. 3/08	
do	3337 P	640	Dec. 3/31	Portion only in reserve
do	3340	600	Dec. 3/31	
do	4666 P	640	Jan.22/32	
do	4667 P	640	Jan.22/32	
do	4674 P	640	Jan.22/32	
T.L.	40565	640	Jan.22/10	
S.T.L.	4675 P	640	Jan.22/32	
T.L.	40570	640	Jan.22/10	
T.L.	40571	640	Jan.22/10	
S.T.L.	4678 P	640	Jan.22/32	
do	4677 P	640	Jan.22/32	
do	4661 P	640	Jan.22/32	
do	4668 P	640	Jan.22/32	
do	4662 P	640	Jan.22/32	
T.L.	40873	640	Jan.22/10	

Lots or S.T.L.	T.L.No.	Acreage	Status paid for	Remarks
T.L.	41608	640	Feb. 12/10	
do	40576	640	Jan. 22/10	
do	4679 P	640	Jan. 22/15	
do	4673 P	640	Jan. 22/15	
S.T.L.	4663 P	640	Jan. 22/32	
Blk."A"	566 P	635	Feb. 12/33	
L.2824	347 P	640	Sept.23/32	
L.2823	345 P	640	Sept.18/32	
L.2821	349 P	640	Sept.23/32	
L.2822	346 P	640	Sept.18/32	
T.L.	40548	640	Jan. 22/10	
T.L.	4680 P	640	Jan. 23/15	
L.2826	344 P	640	Sept.18/32	
Blk."B"	566 P	160	Feb. 12/33	
T.L.	6580 P	640	Jan. 14/15	
T.L.	6579 P	640	Jan. 14/15	
Blk."C"	566 P	275	Feb. 12/33	Portion only in reserve.
S.T.L.	33067)	613	Nov. 6/32	
T.L.	1848P)			
S.T.L.	33068)	612	Nov. 6/32	
T.L.	1849P)			
L.2121	3387 P	600	Dec. 10/31	
T.L.	6874 P	640	July 9/15	
S.T.L.	4681 P	616	Jan. 22/32	
do	9347 P	404	Sept.16/15	Portion only in reserve.
S.T.L.	9348 P	591	Sept.16/15	
do	6875 P	629	July 2/32	
T.L.	4519	640	Nov. 19/23	
do	6873 P	640	July 2/15	Portion only in reserve.
do	42236	640	Mar. 9/10	
L.929 N.W.		690	Apr. 1/32	Timber Lease
930 N.W.		385	Apr. 1/32	do Portion only in reserve
931 N.W.		920	Apr. 1/33	do do
932 N.W.		280	Apr. 1/32	T. L.
933 N.W.		158	Apr. 1/32	do
934 N.W.		360	Apr. 1/33	do
S.T.L.	6581	485	Jan. 14/15	
or L.37254)		542	Dec. 10/27	
13203P)				
S.T.L.	9349 P	560	Sept.16/15	
L.935 N.W.		920	Apr. 1/32	T.Lease
T.L.	9351 P	640	Sept.16/15	
do	9350 P	640	Sept.16/15	

Lots or S.T.L.	T.L.No.	Acreage	Status paid for	Remarks
T.L.	6582 P	640	Jan. 14/15	
do	3989 P	640	Dec. 3/13	
do	3980 P	640	Dec. 3/13	
do	42236	640	Mar. 9/10	
do	12945 P) 37322)	640	Nov. 25/31	
T.L.	12946 P			
do	37261	640	Nov. 25/31	
do	9355 P	640	Sept.16/15	
S.T.L.	2109 P)	640	Apr. 15/32	
do	37424)			
T.L.	12947 P)	640	Dec. 10/32	
S.T.L.	36334)			
T.L.	12944 P	640	Oct. 28/31	
S.T.L.	2876 P	640	Oct. 28/31	
S.T.L.	2664 P)	640	Oct. 28/31	
S.T.L.	38637)			
T.L.	12948 P	640	Dec. 18/31	
do	9354 P	640	Sept.16/15	
do	3979 P	640	Dec. 3/13	
do	3978 P	640	Dec. 3/13	
S.T.L.	6876 P	529	July 2/32	
T.L.	8939 P	640	Aug. 27/15	
do	10930 P	640	Nov. 5/13	
do	10931 P	640	Nov. 5/13	
do	8938 P	640	Aug. 27/15	
do	9352 P	640	Sept.16/15	
do	9353 P	640	Sept.16/15	
L.937 N.W.		545	Apr. 1/33	
T.L.	4682 P	640	Jan. 22/15	
do	4683 P	640	Jan. 22/15	
do	4684 P	640	Jan. 22/15	
do	40606	640	Jan. 22/10	
L.940 N.W.		343	Apr. 1/32	T. Lease.
L.2517	1421 P	640	July 16/30	
L.2516	1420 P	544	July 16/30	
T.L.	11815 P	640	Mar. 23/15	
do	11814 P	640	Mar. 23/15	
do	11813 P	640	Mar. 23/15	
L.939 N.W.	T.Lease	1390	Sept. 1/32	
T.L.	3981 P	640	Dec. 3/13	
L.2124	T.L.1424P	598	July 16/30	
L.2512	T.L.1425P	640	July 16/30	
T.L.	10936 P	640	Oct. 8/13	
do	6084 P	640	Feb. 5/15	
do	6085 P	640	Feb. 5/15	
L.2122	T.L.1403 P	514	July 9/30	
L. 941	T.Lease.	137	Apr. 1/32	
T.L.3982P		640	Dec. 3/13	
L. 2123	1404 P	585.60	July 9/30	
T.L.	3983 P	640	Dec. 3/13	
do	3985 P	640	Dec. 3/13	

Lots or S.T.L.	T.L.No.	Acreage	Status Paid for	Remarks
T.L.	3984 P	640	Dec. 3/13	
L.1274 N.W.		440	Jan.25/32	Timber Lease
Lot 3613	9315 P	640	Oct.30/33	
T.L.	66 P	640	Jul. 2/20	
do	4657 P	640	Jan.22/15	
do	4658 P	640	Jan.22/15	
do	4659 P	640	Jan.22/15	
do	4660 P	640	Jan.22/15	
do	4664 P	640	Jan.22/15	
do	4665 P	640	Jan.22/15	
do	4669 P	640	Jan.22/15	
do	4670 P	582	Jan.22/15	
do	4671 P	640	Jan.22/15	
do	4672 P	640	Jan.22/15	
do	4676 P	640	Jan.22/15	
do	6877 P	640	Apr.28/15	
do	6878 P	640	Apr.28/15	
do	8489 P	640	Mar.23/17	
do	8490 P	640	Mar.25/17	
do	8491 P	640	Mar.23/17	
do	8492 P	640	Mar.23/17	
do	8493 P	640	Mar.23/17	
do	8494 P	640	Mar.23/17	
do	9165 P	640	Mar.23/15	
do-	9166 P	640	Mar.23/15	
do	9167 P	640	Mar.23/15	
do	9168 P	640	Mar.23/15	
do	6097 P	640	Feb. 5/15	
do	6098 P	640	Feb. 5/15	
do	6081 P	640	Feb. 5/15	
do	6082 P	640	Feb. 5/15	
do	6083 P	640	Feb. 5/15	
do	10935 P	640	Oct. 8/13	
	TOTAL	131,905.19		

Note: While timber licences in most cases are in arrear, they are re-instateable under the Statutes. This also applies to Timber Berths shown in other statements.

NEW WESTMINSTER DISTRICT

Lot	No.	Acreage	Status	Remarks
I.R.13	5535	71		
I.R.9	3873	3.70		
I.R.1A	5536	67		
do	2889	478	C. G.	
do	2109	410	do	
do	3124	320	do	
do	3011	160	Lease in good standing	Portion only reserved.
do	3173	97.30	Vacant.	
do	3174	71.50	C. G.	
do	3162	131	Reverted for taxes.	
do	2043	159	C. G.	
do	3175	179	do	
do	1723	135	do	
do	4921	52.30	do	
do	4920	52.20	do	
do	4922	95.50	do	
do	1724	122	do	
do	4919	33.70	P.R.2499 in good standing.	
do	2989	105	C. G.	
do	4916	47.30	Covered by T.L. 2712P	
do	4918	21.70	C.G.	
do	3163	152	do	
do	2757	41.70	Hatchery Site.	Not Gazetted.
do	3172	126	C.G.	
do	2170	160	do	
do	2040	30.68	Reverted for taxes.	
do	2039	50.22	do	
do	2041	43.38	do	
do	1787	51.65	do	
do	1788	50.61	do	
do	1789	31.14	do	
do	1790	27.38	do	
do	1791	26.67	do	
I.R.#1		249	do	
I.R.5A		185		
I.R.5B	5534	87		
I.R.12	5533	280		
I.R.10		111		
I.R.4A	5532	209		

Lot	No.	Acreage	Status	Remarks
I.R.#4A	1751	51.65)		
	1750	32.64)		
	1743	32.07)	M. C.	
		)	(not C.G.)	
	1742	51.63)		
	1741	51.65)		
	1784	45.22)		
	1785	51.41)		
	2054	42.33	C. G.	
	2069	42.89	do	
	2066	51.48	do	
	2068	45.39	do	
	2065	50.70	do	
	2067	49.03	do	
	1690	40.70	do	
	1691	51.65	do	
	1687	49.54	do	
	1694	40.59	do	
	1685	30.30	do	
	1686	38.61	do	
	1693	35.08	do	
	1695	42.39	do	
	2594A	50.26	do	
	2593A	24.93	do	
	2592A	22.50	do	
	2591A	51.64	do	
	2590A	51.65	do	
	1798	46.72)		
	1799	51.31)		
	1797	46.72)		
	1752	26.63)	M. C.	
		)	(not C.G.)	
	1795	51.65)		
	1744	48.23)		
	1796	50.03)		
	1781	32.62)		
	1782	20.97)		
	1783	8.88)		
I.R.#4		526		
	1747	147	C, G.	
I.R.#3		36		
I.R.#2		15		
I.R.#2A		50		
	2591	39.82	C. G.	
	2592	29.46	do	
	2593	47.45	do	
	2594	41.94	do	
	2595	39.77	do	
I.R.#7		0.75		
I.R.#6		37.50		
I.R.#11		30.		
I.R.#5		79		
I.R.#9		125		
TOTAL		6,942.41		

Township 5, Range 3, W.7th M.

No Dominion survey plans of this Township.

Sec. 5: S.E.¼ (North of Lake) Reserved for development of water power at Alouette lake, also in T.B. "Z".
Fr.N.E.¼ do do
S.W.¼ do do

Sec. 8: Pt.S.½ and N.E.¼ in T.B."Z". Balance vacant.

Sec. 9: Fr.S.E.¼ Reserved for development of water power at Alouette lake.
N.E.¼ do do
S.W.¼ do do
N.W.¼ Part of T.B."Z". Balance vacant.

Sec.10: Pt.Fr.N.W.¼ Reserved for development of water power at Alouette lake - in T.B."Z".

Sec.14: Pt.Fr.N.W.¼ - Reserved for development of water power at Alouette lake, in T.B."Y".

Sec.15: N.E.¼ - Reserved for development of water power at Alouette lake - in T.B."Y".
Fr.S.E.¼ - do do do
W.½ - Vacant, in T.B."Y".

Sec.16: Vacant, part E.½ - T.B."Y".

Sec.17: Vacant.

Sec.20: do

Sec.21: do

Sec.22: do . Part S.½ and N.E.¼ in T.B."Y".

Sec.23: do Part Sec. in T.B."Y".

Sec.25: L.S.13 - 7.2 acres; L.S.14 - 11.8 acres; Reserved for development of water power purposes, Order-in-Council 4/4/1919. Balance vacant.

Sec.26: Vacant, in T.B. 362.

Sec.27: Vacant.

Sec.28: do

Sec.29: do

Sec.30: Vacant.

Sec.31: do

Sec.32: do

Sec.33: do

Sec.34: do

Sec.35: L.C.16 - 0.8 acres Reserved for development of water power purposes, Order-in-Council 4/4/1919. Balance vacant.

Sec.36: L.S.9, 15, 16 - 5.8 acres; L.S.13, 14 - 20.6 acres; L.S.3,4, - 14.3 acres; Reserved for development of water power purposes, Order-in-Council 4/4/1919, in T.B.98. Balance vacant.

Township 5, Range 4, W. 7th M.

Dominion survey plans of west half only.

Sec.25: Vacant.

Sec.26: do Part in T.B.799.

Sec.27: do

Sec.28: do

Sec.29: Part W.½ application for Permit Berth, Timber File No.815, now in Victoria - with this exception vacant.

Sec.30: Fr.S.E.¼ - application for Permit Berth Timber File No.59919 now in Victoria - with this exception vacant.

Sec.32: Fr.L.S.4,5, and W.½ of S.W.¼ of Fr.L.S.6 - 13.4 acres, sale, patented 24/7/30, T.D.McSween.
Fr. of N.W.¼ - part M.L.2722, 51.65 acres.
Fr. of N.W.¼ - Frl. M.L.2724, 3.71 acres.
Part W.½ - T.B.388.

Sec.33: Vacant - part T.B.388

Sec.34: do do

Sec.35: do part T.B.799

Sec.36: do

Township 6, Range 2, W. 7th M.

Sec. 5: N.W.¼ 116.1 acres, reserved for water power purposes, Order-in-Council 4/4/1919.

Sec. 6: L.S.9 - 0.9 acres, reserved for water power purposes, Order-in-Council 4/4/1919. Balance vacant.

Sec. 7: Unsurveyed - vacant.

Sec. 8: L.S.3 - 6.8 acres; L.S.6 - 0.3 acres; L.S.11 - 26.4 acres; L.S.12 - 0.2 acres; L.S.13 - 0.5 acres; L.S.14 - 6.2 acres; reserved for water power purposes, Order-in-Council 4/4/1919. Balance vacant.

Sec.17: Fr.S.½ - T.B.505. Fr.N.½ - T.B.783. Otherwise vacant.

Township 6, Range 3, W. 7th M.

Sec. 1: L.S.3, 13.1 acres; L.S.4, 40.5 acres; L.S.5 - 29.6 acres; L.S.6, 10.7 acres; L.S.12 - 0.3 acres; reserved for water power purposes, Order-in-Council 4/4/1919, Part Permit Berth 589. Balance vacant.

Sec. 2: L.S.1 - 34.7 acres; L.S.2 - 9.7 acres; L.S.6 - 1.8 acres; L.S.7 - 36.5 acres; L.S.8, 39.5 acres; L.S.9 - 2 acres; L.S.10 - 2.7 acres; reserved for water power purposes - Order-in-Council 4/4/1919, part Permit Berth 589 - Balance vacant.

Sec. 3: Vacant.

Sec. 4: do

Sec. 5: do

Sec. 6: do

Sec. 7: do

Township 6, Range 4, W. 7th M.

Sec. 1: Vacant.

Sec. 2: do

Sec. 3: do

Sec. 4: do

Sec. 5: Fr. of whole, M.L.2721 - 51.65 acres; Silicon No.1.
Fr. of S.W.¼ - M.L.2723 - 13.82 acres; Silicon Fractional.
Fr. of S.W.¼ - M.L.2722 - 51.65 acres; Silicon No.2.
Fr.L.S.14 and L.S.15, Permit Berth 937, File No. 59992, now in Victoria.
Balance vacant.

Sec. 8: Part T.B.236.
L.S.2 - Permit Berth 937, Timber File No.59992 now in Victoria.
N.½ of Frl.L.S.3 - Sale 8.7 acres; L.K.Irvine unpatented.
Fr. of N.E.¼ - Q.L.237, 21/6/11 - 5.74 acres; E.Thompson.
Fr. of N.E.¼ - Q.L.173, 21/6/11 - 5.74 acres; John Wm. Wise.
Fr. of N.E.½ - Q.L.283, 27/5/12 - 12.5 acres; Lyman H. Ford.
Fr. of N.½ - Q.L.272, 17/5/12, 11.24 acres; Mina Wise.
Part E.½ - T.B.403.
Balance vacant.

Sec. 9: Part whole - T.B.403 - Otherwise vacant.

Sec.10: Part T.B.403 - otherwise vacant.

Sec.11: Vacant.

Sec.12: do

Sec.14: do

Sec.15: Part T.B.403 - otherwise vacant.

Sec.16: Part T.B.403, otherwise vacant.

Sec.17: Part S.E.¼ T.B.403, Part S.W.¼ T.B.236. Part S.W.¼ T.B.381, Part N.W.¼ - T.B.549 - (1). Otherwise vacant - except portion of Q.L.272, 283.
See Sec. 8.

Sec.18: Part E.½ - T.B.381; Part N.W.¼ - T.B.548, Part N.E.¼ - T.B.549 - Otherwise vacant.

Sec.19: Part N.½ Crown granted Lot 2109 - Part W.½ T.B.548 - Part E.½ - T.B.399, Part S.½ T.B.381.

Sec.20: Part N.W.¼ - Crown granted Lot 2109. Part whole sec. - T.B.549. Part N.½ Crown granted Lot 2889. Balance vacant.

Fr.Sec.23: Vacant except note re permit for timber - File 519 - now in Victoria.

Fr.Sec.24: T.B.548 - otherwise vacant.

Sec.25: do do

Fr.Sec.26: Vacant except note re permit for timber, File 519, now in Victoria.

Fr.Sec.34: T.B.537, otherwise vacant.

Fr.Sec.35: do do

Township 12, East of the Coast Meridian

Sec.31: Patented land excepting Frac.S.W.corner of N.W.¼ - vacant.

Sec.32: Patented land.

Sec.33: W.½ Patented land, N.E.¼ - T.B."W". S.½ of S.E.¼ - C.G.#2263; N.W.¼ of S.E.¼ patented land; N.E.¼ of S.E.¼ - vacant.

Sec.34: T.B."W".

Sec.35: W.½ - T.B."W" E.½ - T.B.530, less 6.23 acres; 2.23 acres; 6.74 acres; sales for right-of-way. Miami Corporation, patented.

Sec.36: T.B.530.

Township 3, Range 5, West of the 7th M.

Sec. 34: (Frac.) Patented land.

Sec. 35: (Frac.) W.½ L.S.13, patented. For balance of Frac. Section see file 1784 now at Victoria.

Sec. 36: T.B. "W".
(Frac.)

Township 3, Range 4, West of the 7th M.

Sec. 31: T.B. "W", less .80 acres, right-of-way sale, Miami Corporation, patented.

Sec. 32: T.B. "W", less 1.24 acres right-of-way sale, Miami Corporation patented.
Pt.N.W.¼ 66 ft. right-of-way sale, 1.41 acres; Pt.Lot 5649 Abernethy-Lougheed Logging Co. Patented.

Sec. 33: (Frac.) T.B. "W".

Township 42, East of the Coast Meridian

Sec. 6: Patented land.

Sec. 7: W.½ of N.W.¼, N.W.¼ of L.S.14, W.½ L.S.5 - Sale Dyking conditions, patented. E.½ Sec.7 - reserved for Dominion Forest Branch. L.S.3,4,6 and E.½; L.S.5, Pre-emption #2537, 27/5/31.

Sec. 18: W.½ of N.E.¼, N.W.¼ and S.W.¼ and L.S.7 - Sale, Dyking Conditions, patented. Balance reserved for Dominion Forest Branch.

Sec. 19: W.½ of S.E.¼, W.½ of L.S. 9, L.S.10, 15, 16 and W.½ of Sec. Sale Dyking Conditions, patented. L.S.1, 8, reserved for Dominion Forest Branch, E.½ L.S. 9, Vacant.

Sec. 30: All patented land excepting portion N.E.¼ - Mud flats, Pitt lake Public Shooting Grounds Order-in-Council #2264, Nov. 28, 1929.

Sec. 31: Frac.W.½ South of Pitt lake, Sale Dyking Conditions, patented land. Portion N.W.¼ and E.½ Pitt lake Public Shooting Ground, Order-in-Council #2264, Nov. 28, 1929.

Township 4, Range 5, West of the 7th M.

Sec. 1: T.B."W". Temporary reservation for Watershed, North Lillooet river.

Sec. 2: E.½ Temporary reservation for Watershed, North Lillooet river, Part E.½ T.B."W", L.S.11, 14, patented homestead of E. A. Marc. L.S.5, 6, unpatented pre-emption of E. A. Marc. S.W.¼ of L.S.4, patented land. Balance of L.S.4 vacant. L.S.3, vacant. L.S.12, 13 reserved for Dominion Forest Branch.

Sec. 3: W.½ of L.S.1, all L.S.2, S.½ of L.S.7; S.W.¼ of L.S.8; Frac.L.S.'s 3 and 6, patented land, S.E.¼ of L.S.1 - patented land. N.½ of L.S.7 - vacant. N.½ and S.E.¼ of L.S.8 - vacant. N.E.¼ of L.S.1 - vacant. L.S.9,10,11,14,15 and 16 - reserved for Dominion Forest Branch.

Sec.10: (Frac.) Reserved for Dominion Forest Branch.

Sec.11: N.½ of N.W.¼ and part E.½ - T.B.609, Blk.1. Balance E.½ - T.B."W". L.S.3,6,11 - Permit Berth 689. W.½ L.S.1, L.S.2,3,4,5,6,7. W.½ L.S. 8; W.½ L.S.9; L.S.10,11,12,13,14,15; W.½ L.S. 16 - Reserved for Dominion Forest Branch.

Sec.12: All T.B."W". Temporary reservation for North Lillooet River Watershed.

Sec.13: All T.B."W". Temporary reservation for North Lillooet River Watershed.

Sec.14: Part E.½ - T.B."W". Balance T.B.609, Blk.1. All sec. except E.½s of L.S.1,8,9 and 16 reserved for Dominion Forest Branch.

Sec.15: Reserved for Dominion Forest Branch.

Sec.22: (Frac.) Reserved for Dominion Forest Branch.

Sec.23: Part E.½ - T.B."W". Balance E.½ - T.B.609 Blk. 1. S.W.¼ - T.B.609 Blk.1.; E.½ of L.S.11, T.B. 609, Blk.1. All sections except E.½s of L.S.'s 1,8,9 and 16 reserved for Dominion Forest Bch.

Sec.24: T.B."W". Temporary reservation for Watershed, North Lillooet river.

Township 4, Range 5, West of the 7th M. (Cont'd)

Sec. 25: Temporary reservation for watershed, North Lillooet river, Part S.½ of Sec.25 - T.B."W". N.E.¼ - T.B.351; Part of S.E.¼ - T.B.351. Part of S.W.¼ - T.B.351. Part of N.W.¼ - T.B.351. Part of N.W.¼ - T.B.866 Blk.1. Part of W.½ - T.B.609, Blk.1. Part N.W.¼ vacant. L.S.5, W.½ L.S.6; S.W.¼ L.S.11; S.½ L.S.12, Reserved for Dominion Forest Branch.

Sec. 26: Part E.½ - T.B.609, Blk.1. Part S.E.¼ - T.B. "W". S.W.¼, S.½s L.S.'s 9,10,11,12; W.½ L.S.1 Reserved for Dominion Forest Branch - Balance vacant.

Sec. 27: (Frac.) Frac.W.½ N.E.¼ - Sale under Dyking Conditions, patented land. Frac. N.½ of N.W.¼ Sale under Dyking Conditions, patented land. Part N.½ - Public Shooting Grounds, Order-in-Council 2264, Nov. 28, 1929. Balance vacant.

Sec. 34: (Frac.) Frac.L.S.1, 8, Vacant. Balance Mud Flats, Public Shooting Ground, Order-in-Council No.2264, Nov. 28, 1929.

Sec. 35: Part Frac.L.S.14 (3 acres) patented to F.J. Herstad. Balance of section - T.B.375. Part N.W.¼ - Public Shooting Ground, Order-in-Council #2264, Nov. 28, 1929. Mineral Claim "Herstad" Lot 2172.

Sec. 36: Part N.W.¼ - T.B.351. Part E.½ - T.B.866 Blk.2 Pt.E.½ -T.B.351. Pt.S.W.½ T.B.866, Blk.1. Balance of section vacant.

Township 5, Range 5, West of the 7th M.

Sec. 1: Part E.½ - T.B.350. Part W.½ - Part Mineral Claims "Missouri" Lot 5574. "Vimy" Lot 5575. "Climax" Lot 5576, "Incline" Lot 5577.

Sec. 2: Part E.½-- Mineral Claims "Cromwell", Lot 1853, Certificate of Improvements issued. "Missouri" Lot 5574. "Pioneer" Lot 5579. "Viking" Lot 3177. "Ivanhoe" Lot 5573. "Incline" Lot 5577. "Climax" Lot 5576. "Ex-Premier" Lot 5578. "Hillside", "Lakeview", "Copper Prince", "Copper King", "Copper Queen", "Copper Baron", "Copper Chief" and "Copper Duke".
Part S.½ Blk.A - 4.25 acres, sale, patented land, R.M.McBride, Balance vacant.

Township 5, Range 5, West of the 7th M. (Cont'd)

Sec. 12: Part S.W.¼ Sale 5.01 acres. V.A.McPhaden, patented. Part S.½ Permit Berth 847. Part W.½ Permit Berth 847. Balance vacant.

Township 4, Range 4, West of the 7th M.

Sec. 4: Part S.½ T.B.609 Blk.4 Part N.E.¼ - T.B. 44, Blk.5. Part W.½ T.B."W". Part N.½ - Q.L.757, Burrard Power Co. Balance vacant.

Sec. 5: Part N.W.¼ - sale, right-of-way 5.96 acres, Miami Corporation, patented. Part S.W.¼ sale, right-of-way, 5.51 acres, Miami Corp. patented. Balance sec. T.B."W".

Sec. 6: Part N.E.¼ - Sale right-of-way 5.25 acres, Miami Corp., patented. Part S.E.¼ - sale, right-of-way 3.81 acres. Miami Corporation, patented. Part S.W.¼ - sale, right-of-way 3.40 acres, Miami Corporation, patented. Balance Sec. T.B."W".

Sec. 7: T. B. "W".

Sec. 8: do

Sec. 9: Part S.E.¼ - T.B.44 Blk.5. Part E.½ - T.B. 44, Blk.4. Part W.½ T.B.80. Part S.½ Q.L. 757. Burrard Power Co. Balance Conditional Water Licence Reservation #6407.

Sec. 16: Temporary Reservation, Conditional Water Licence No. 6407. Part S.½ T.B.80. Part W.½ T.B."W".

Sec. 17: T.B."W".

Sec. 18: T.B."W". Reservation (temporary) for North Lillooet River Watershed.

Sec. 19: T.B."W". Temporary reservation for North Lillooet river Watershed.

Sec. 20: Part S.½ - T.B."W". Part N.½ T.B."W". Temporary reservation for North Lillooet River Watershed. Balance vacant.

Sec. 21: E.½ and part W.½ - T.B."Z". Part S.W.¼ - T.B."W". Balance vacant.

Township 4, Range 4, West of the 7th M. (Cont'd)

Sec. 22: T.B."Z" Blk.1 and Conditional Water Licence Reservation No. 6407.

Sec. 25: (Frac.) T.B."Z". Conditional Water Licence Reservation No. 6407.

Sec. 26: (Frac.) T.B."Z" and Conditional Water Licence Reservation No. 6407.

Sec. 27: T.B."Z". Blk.1.

Sec. 28: E.½ and part W.½ - T.B."Z". Blk. 1. Balance vacant.

Sec. 29: Apparently vacant. Temporary reservation for Watershed North Lillooet river.

Sec. 30: Part S.½ T.B."W". Part N.½ and part S.½ T.B.351. Part E.½ T.B.787. Balance vacant. Temporary reservation for Watershed, North Lillooet river.

Sec. 31: Part N.½ T.B.350. Part S.½ T.B.351. Part S.½ T.B.757. Balance vacant.

Sec. 32: Vacant.

Sec. 33: E.½ and part W.½ - T.B. "Z" Blk.1. Balance vacant.

Sec. 34: All T.B"Z" Blk. 1.

Sec. 35: W.½ and part E.½ T.B."Z" Blk.1. Part N.E.¼ T.B."Z" Blk. 2.

Sec. 36: Frac. S.½ Reservation for Conditional Water Licence No. 6407. Part W.½ Part E.½ - T.B. "Z" Blk. 1. Part N.½ and part S.E.¼ T.B."Z" Blk. 2.

Township 4, Range 3, West of the 7th M.

Sec. 31: Reservation for Conditional Water Licence No. 6407. Part N.½ T.B."Z" Blk.2. Part S.½ T.B."Z" Blk.2. Part S.E.¼ - T.B.533 Blk.3 and T.B.533 Blk.4.

Township 5, Range 3, West of the 7th M.

Sec. 6: T.B."Z". Blk.2.

Sec. 7: E.½ and part W.½ T.B.411. Balance vacant.

Sec.18: Part S.½ T.B.411. Balance vacant.

Sec.19: Vacant.

Township 5, Range 4, West of the 7th M.

Sec. 1: Part E.½ part W.½ - T.B."Z" Blk.2. Balance T.B.376.

Sec. 2: T.B.376.

Sec. 3: Part E.½ T.B.376. Balance vacant.

Sec. 4: Vacant.

Sec. 5: do

Sec. 6: W.½ and part E.½ T.B.350. W.½ - Mineral Claims "Vulcan" No.4114. "Vulcan" No.2., 4115. "Eureka" No. 4113.

Sec. 7: Part Mineral Claims "Vulcan" No. 4114. "Vulcan" No. 2 4115. "Eureka Extension" No. 4112. Part E.½, part W.½ - T.B.344.

Sec. 8: Vacant.

Sec. 9: do

Sec.10: Part E.½ - T.B.376. Balance vacant.

Sec.11: Part S.½ - T.B.376. Balance vacant.

Sec.12: Part S.½ T.B.376. Part S.½ T.B."Z" Blk.2 Balance vacant.

Sec.13: Vacant.

Sec.14: do

Sec.15: do

Sec.16: do

Sec.17: do

Township 5, Range 4, West of the 7th M. (Cont'd)

Sec. 18: Part N.W.½ Logging Railway right-of-way Lease, Apr. 1, 1924, 12.7 acres. Bucklin Development Co. Ltd., Part W.½ part E.½ T.B.633. Part S.½ T.B.344.

Sec. 19: Part E.½ - Permit Berth 893, Frac.S.½ - Booming Ground Lease 64.4 acres. Apr. 1, 1924. Bucklin Development Co. Ltd. Frac. L.S.3 - Campsite Lease 9.7 acres, Apr. 1, 1925, Bucklin Development Company Ltd.

Sec. 20: Vacant.

Sec. 21: do

Sec. 22: do

Sec. 23: do

Sec. 24: do