RECONNAISSANCE
PARSNIP RIVER & MC GREGOR RIVER
WATER SHEDS
GEORGE V. COLEY, 1916
JB Bruce
Forest Inventory
July 7th 1975

To The Surveyor Mapping Branch:

Department of Lands and Forests, Victoria, B.C.

Attention Mr. McIntrye and Mr. J. B. Bruce.

Dear Sirs: — May I take this opportunity & thank you both in respect to the (heretofore) copy of my 1915 Reconnaissance of the Fossom & McGregor Rivers watershed. I have just celebrated my 95th Birthday accordingly, I will say little in respect to the above mentioned Survey: (62 years is just too long to depend much on Memory) However there are one serious mistake on the Map (for we kindly enclosed 1916 addition of 1 G.) Scale 1:80,000.

I note that Bad River is also called James Creek. This is an impossible mistake by the person drawing the above mentioned Map. Bad River received its Name in 1793 by Sir Alexander Mackenzie, on his wonderful trip to the West Coast and his name must stand for all time. James Creek enters the North Eastern Branch of MacGeron River a few miles further up, coming in from off the north side of the Rocky Mountains. It is Bad that my Map has been lost or destroyed. However I am quite sure a Copy may be obtained from the Smithsonian Institute, Wash. D.C.

Dr. Frederick K. Vreeland, Biologist, was working in the area at the same time as myself, and requested from me a copy of my Map for his work, which I mailed to him, and received a letter of thanks in Reply. (over)
No doubt that Map is still on file in Washington, D.C. Incidently some time earlier than my work, Mr. Youdall of B.C. I.S. made a winter survey of the area, when the river was frozen. Mr. Youdall's should be available in the Survey Dept. I am sending a copy of this letter to St. Andrews.

Yours very truly,

[Signature]

MAIL ROOM
VICTORIA, B.C.

JUL 10 1975

DEPT. OF LANDS, FORESTS AND WATER RESOURCES
LANDS SURVEYS

JUL 1 0 1975
RECONNAISSANCE

of

PARSNIP RIVER AND McGRGOR RIVER

WATERSHEDS

1915

G.V. Copley.
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Area Covered.

The area covered by the season work includes all that portion of country lying between Glencoe Portage, Crooked River and intermediate lakes, Halcom Lake and the Back River on the west, the backbone of the Rockies on the east, latitude 55°10' on the north, and on the south by latitude 54° and a portion of the main Fraser River. The only portion of this stretch of country that was not thoroughly explored is a certain tract lying west of the head of the Paremip River, or more directly the head waters of Wachalka and Swamp, or Ghushinka Rivers. This portion of country was viewed from a mountain, with field glasses, at a distance of from 10 to 15 miles, and appeared to have been burned some years previously, and was now covered with a young forest, and contained a few swamps.

Accessibility of Timber.

All timber located in the Paremip Valley may be logged by short hauls to the several tributaries, and then run down the river to the crossing of the Pacific Great Eastern Railway, where it could be milled and shipped to the prairie. The Paremip River above the proposed railway crossing is quite sluggish for many miles, making it possible to hold logs at this point in high or low water, which point would be a convenient place for a mill-site.

The timber on McGregor River and Herrick Creek watersheds can be logged in the same manner as the Paremip River (with the exception of that portion which lies above the 60 ft. waterfalls and 2 miles of cataract canyon), but it would have to be distributed to the prairies and interior B.C. over the Grand Trunk Pacific Railway after being milled at some point situated on the
main Fraser River.

Physical Features.

All the area lying between the Parsnip River on the east and the Crooked and Pack Rivers on the west is very badly broken up, the intermediate hills lying in every direction while the general trend follows the line of the afore-mentioned rivers. None of these hills are much more than 4000 ft. altitude, therefore, excepting burns, they are all timbered right over the summits. On the east of the Parsnip River there are a succession of spurs jutting out from the main Rocky Mountains, some of which reach an altitude of 6000 ft. and run almost down to the main river. These are what form the valleys in which flow the several large tributaries of the Parsnip River which contain the greater part of the valuable timber in this district.

The real head of the Parsnip River is not in Bad River Lakes, as the old map led me to believe, but many miles to the east of this in a great Glacier, which caps the Rockies and flows out to the east of the Rockies as well, probably into Wolverine Creek, which flows into the South Pine River.

In the McGregor River country besides the main Rockies on the east, which have many spurs jutting out similar to the Parsnip Country, there are two smaller distinct ranges of mountains known as the Dezaiko Range, which lies between Herrick Creek and McGregor River, and towers up to 7000 ft. altitude in places, and the McGregor Range lying between McGregor River and Tarpy Creek, also reaching up to high altitudes in places. These two ranges together with the Rockies form two large valleys which are densely timbered up to the
5000 ft. level, and on the south slope of McGregor Range the country is well timbered right down to the Main Fraser River and over the low summit into Torpy Creek Valley. On the north side of McGregor River below Bad River is a low chain of hills which in no place reach much higher than 4000 ft. altitude, and are timbered right over the tops.

Upper Parsnip River Valley.

The valley of the Upper Parsnip River averages 4 miles wide and is timbered throughout with the exception of an area burned on either side south of the Missinchlinka River, and which runs right across to McLeod Lake. Also there is a large muskeg near the mouth of the Table River and another which starts at the mouth of the Hominka River and continues throughout the whole stretch of River to Kluada Lake pass, averaging about one mile wide the greater part of the distance of 40 miles. The timber on the river is very good, in places running as high as about 1500 per acre, but in general will average 7500 B.M., about 75% spruce, 22% Balsam and 2½% Jack Pine.

The total length of the Upper Parsnip River from Pack River to the Glacier at the head is approximately 140 miles, the whole of which is good canoeing with the exception of the last 15 miles below the Glacier, and a light draught steamer could run on 100 miles of the river.

There is very little good agricultural land on the Upper Parsnip R. though a few men have taken pre-emption here and there with a view to being ahead of the P.C.N. Railway, but from the viewpoint there is considerable land that would grow grass after the timber is taken off, this being very much in evidence in the big
burn before mentioned south of the Missinchinka River. Some of the soil is a red loam, but most of it has considerable gravel mixed in which spoils the country from an agricultural standpoint.

The Gzinika or Colborne Creek flows into the Parsnip 1\(\frac{3}{4}\) miles above the Missinchinka River and is about 30 miles long with very little timber on the lower half, owing to the disastrous burn before mentioned, but on the upper half there is some very good Spruce which cruised 7500 B.M., also higher up on the mountain sides to an altitude of 4250 ft. there is good Balsam and Spruce, which will cruise under the 6000 mark. Logs could be run down the stream for a distance of 30 miles from the mouth if the jams were cleared out.

The next stream of any importance is the Chumizalika or Reynolds River, which flows into the Parsnip 16\(\frac{1}{4}\) miles above the Missinchinka River and is about 18 miles long with a tributary coming in from the S.H. 18 miles long. In this mountain valley there is a fine stand of Spruce and Balsam averaging 7500 B.M. Logs could also be driven in this stream if the jams were cleared out.

Above the last mentioned stream 11\(\frac{3}{4}\) miles the Tanilika or Anzac River flows into the Parsnip. This is the largest tributary of the Upper Parsnip, and is about 50 miles long with a wide upper valley and a large drainage basin, which is all well timbered, excepting for a couple of small burns and a small amount of overflow and swampy country along the main river. This river we crossed up for 25 miles with only a couple of portages over log-jams.
Next to the west bank 5½ miles above the Anzac River, Toodick Creek flows into the Parsnip River. This Creek drains the Tacheeda Lakes and although a very small creek, we were able to get up to the lake with our canoe to investigate the surrounding country which is not very well timbered. This Creek with the two lakes and Red Rock Creek which flows into the Crooked River, forms the pass through which the P.C.R. Railway preliminary survey runs from the Crooked to the Parsnip River. On the north side of Tacheeda Lake there is a stand of old Douglas Fir, which would run to 40,000 B.M. but it is apparently too old and is fast deteriorating, being badly affected by rot, and is not reproducing, the reproduction being mostly Balsam. South of the Lake the country is very rough and the greater part of this area bears timber under the 5000 B.M. mark.

2½ miles above Tooleick Creek the Wooyadilinka Creek flows in from the east, being a short stream of only 10 miles long and heading in close to the head of one of the tributaries of the Anzac River. There is some splendid timber on the south bank of this river which runs as high as 18,000 B.M. and was almost a pure stand of spruce, on the opposite bank, however, it will come under the 10,000 B.M. mark and continues the same back into the hills up to the altitude of 3250 ft., where it tapers off to less than 5000 B.M.

Nine and a half miles above the Wooyadilinka Creek the Table River, which is about 40 miles long, flows into the Parsnip River from the east. This river we canoed for a distance of 24 miles up from the mouth and found it well timbered up to 5000 feet altitude. Up to 3250 ft. altitude it will average 7500 B.M. Above this it
tops off to under 5000 ft. to 4250 and from here up it is a good watershed protection of scrub Balsam.

The Haminika River flows into the Parsnip 11 miles above the Table River from the east, and is about 37 miles long, being exceptionally crooked, in one place making a distance of 3 miles in crossing the valley floor, which is only a mile wide. We caned up this river for 26 miles without using poles, and could I believe came about another 5 or 6 miles with the use of poles. The valley floor of the Haminika River for 12 or 13 miles in a straight line up from the Parsnip is muskeg, averaging a mile wide, through which the river meanders at a very sluggish pace, making twice the straight distance in actual river distance. The sides of the valley, however, are well timbered with Spruce and Balsam.

Above the Haminika after meandering around backwards and forwards for 10 miles in muskeg, covering in all about 5 miles straight, we now came to the Missinka River about 30 miles long, which comes in from the east. This river we were up with the same for 15 miles, only having to make a couple of portages over log-jams. At first sight one would believe that the Missinka Valley was very narrow, but about 3 miles up after getting past a huge mountain to the south, the valley opens right out and is densely timbered with Spruce and Balsam. The head of this valley we did not see owing to great volumes of smoke which were being blown in from across the mountains, but from appearances the timber continued good to the head of the valley.

The Chasheke Creek enters the Parsnip just 100 yards above the mouth of the Missinka from the west, and is of unknown length,
owing to the fact that it heads in that part of the country which was previously mentioned as being unexplored. However, we were up the creek for about 8 miles, and found it well timbered.

24 miles above the Missinka River Kwista Creek enters from Bad River Pass, and here the Parsnip doubles back on itself, and then comes from the mountains to the east. Kwista Creek is about 2½ or 3 miles long and flows from one of the Kwista Lakes which is 2½ miles long. The valley here becomes very narrow, only being a quarter of a mile wide, and there is hardly any rise between the first lake and the 2nd one which flows the other way into a 3rd lake, and then into Bad River, which is, by the way, well named, as it is only an un navigable turbulent stream, with not enough water to float a canoe in low water, and too swift for a canoe in high water. There is practically no timber through this narrow pass, the hill sides being too steep.

McGregor River and Herrick Creek Watershed.

The timber on this watershed is in general better than the Parsnip, especially on McGregor River, where there is a great deal of which will average 12,500 B.M.

Herrick Creek in general will average 7500 B.M. up to 3250 ft. altitude, and the same on its large tributaries. Above this altitude it comes under the 5000ft. B.M. mark. About 40 miles up Herrick Creek we came to 60 ft. falls, and a two mile cataract canyon which cut out all further canoe navigation; but above this point there is an immense amount of timber which will be hard to get out owing to the difficulty of getting the logs past the canyon and falls. However, this difficulty may be surmounted by fluming around them.
later on when timber becomes more scarce and therefore brings a better price.

**Climate**

The climate of the Upper Par Nin and McGregor River water sheds has one advantage over most other places in the northern interior of B.C.; that is as far as my observations of one season count.

During the whole summer I did not observe a single night of frost, which is so common in many other parts I have worked in in the same altitude and latitude.

I have estimated the rain fall at being about 40 inches. From May 10th 1915 to October 24th 1915, the following table will give some idea of weather during daylight:

<table>
<thead>
<tr>
<th>Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunshine</td>
<td>1181</td>
</tr>
<tr>
<td>Rain</td>
<td>299</td>
</tr>
<tr>
<td>Thunder Storms</td>
<td>25</td>
</tr>
<tr>
<td>Snow</td>
<td>12</td>
</tr>
</tbody>
</table>

**Distribution of Species**

*Engelmann Spruce* is distributed throughout the whole area, being the main species of practically all stands of timber investigated, and making up 75% of the total stand. *Balsam Fir* (Abies lasiocarpa) is mixed up in the valleys with the spruce, and is the chief species above 3250 ft. altitude.

*Lodgepole Pine* (Pinus Contorta) occurs, but seldom throughout the area, small mixed stands were noted along the Crooked River,
on the north side of Tucheeda Lakes, in swamps on the Parsnip River, and an occasional tree here and there throughout the region.

Douglas Fir (Pseudotsuga Taxifolia) we found in small isolated spots throughout the whole area. Following is a list of places noted: - Summit Lake. Crooked River, McLeod Lake, Tucheeda Lakes. Parsnip River 2 miles below the mouth of Anseco River east bank and half way between Missinikia River and Kwaada Creek East bank, Bad River Pass, east side, 3 miles below mouth of Bad River north side of McGregor River, and on hill-side below mouth of Captain Crk, north side of McGregor River.

Western Hemlock (Tsuga heterophylla) was noted throughout the McGregor and Herrick Creek watersheds, in no case being commercial being either in a deteriorated condition or a healthy reproduction.

Western Red Cedar (Thuja plicata) was noted on McGregor River 3 miles above the mouth of Herrick Creek, only two trees of commercial size were seen but several small bush-like plants were noted near the same place. Also it was noted as small reproduction on the hillside below Captain Creek.

White Bark Pine (Pinus albicaulis) was noted at Timber limit on the Nzeiko Range, 3 or 4 miles west of the falls on Herrick Creek just below and up to timber limit.

Burned over Area.

The only disastrous fire in the whole area covered, burned right across from Fort McLeod on McLeod Lake to the mouth of the Missinikia River, and then swept south and east, covering half of the plateau between Colebourne Creek and Reynolds River. Other minor fires appear at several points on the map, but few caused much damage.
The chief fire trouble in the Parsnip River country is not caused by the Indians as most people believe (though some of the Sicamii tribe are careless) but by lightning, as I was able to prove during my stay in the valley.

I would suggest one fire warden in the valley to put out small camp fires that may be left smouldering, and to look after fires caused by the lightning, which are easily handled if caught in time, being in most cases at high altitudes.

<table>
<thead>
<tr>
<th>Total Areas</th>
<th>2,324,359 acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timber averaging 12M</td>
<td>74,265 acres</td>
</tr>
<tr>
<td>&quot; 7.5 M.</td>
<td>729,286 &quot;</td>
</tr>
<tr>
<td>&quot; 2.5 M.</td>
<td>736,265 &quot;</td>
</tr>
<tr>
<td>Watershed protection</td>
<td>322,169 &quot;</td>
</tr>
<tr>
<td>Bareen mountain top</td>
<td>149,224 &quot;</td>
</tr>
<tr>
<td>Burn</td>
<td>71,473 &quot;</td>
</tr>
<tr>
<td>Reproduction</td>
<td>150,976 &quot;</td>
</tr>
<tr>
<td>Swamp</td>
<td>46,839 &quot;</td>
</tr>
<tr>
<td>Total</td>
<td>2,324,359 &quot;</td>
</tr>
</tbody>
</table>

Total amount of Agricultural land, 228,480 acres.
### Totals over Whole Area.

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of acres timber land</td>
<td>1,589,816 acres</td>
</tr>
<tr>
<td>Total amount of timber</td>
<td>8,400,740,500 ft. B.M.</td>
</tr>
</tbody>
</table>

#### Percentage of Areas in Types.

<table>
<thead>
<tr>
<th>Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timber averaging 13 M.</td>
<td>3.20 %</td>
</tr>
<tr>
<td>&quot;</td>
<td>7.5 M.</td>
</tr>
<tr>
<td>&quot;</td>
<td>2.5 M.</td>
</tr>
<tr>
<td>Watershed Protection</td>
<td>13.90 %</td>
</tr>
<tr>
<td>Barren Mountain Top</td>
<td>6.40 %</td>
</tr>
<tr>
<td>Burn</td>
<td>2.07 %</td>
</tr>
<tr>
<td>Reproduction</td>
<td>7.00 %</td>
</tr>
<tr>
<td>Swamp</td>
<td>1.20 %</td>
</tr>
</tbody>
</table>

100.00 %