

Smithers, B.C.  
April 15/53

Mr. G. S. Reade  
Supervisor of Fisheries,  
Prince Rupert, B.C.

Report on the Upper Bulkley River.

Your letter of March 10 th. ( File no 24-1-1.) on Cohoe induced us to review our spawning grounds. The Upper Bulkley River has a large potential spawning area that in past years has been only lightly seeded. Therefore I would like to present a list of changes in general conditions over the last few years that may have x some effect in the re- establishment of the salmon runs.

In 1949 you requested a report on obstructions in the Upper Bulkley River and drew our attention to the recommendations made by Dr. A. L. Prichard in the Interim Report Skeena River Salmon Investigation with emphasis on the last paragraph of section (a) page 25.

The inspection trip made by canoe July 14-15 and on foot Oct. 1 - 2. was reported by Insp. W. K. Elliott Oct. 22 / 49. Fifty-three obstructions were found and cost and work of stream clearance considered tremendous.

Since then we have reported changes as they occurred but when combined show a much different picture than was the case a few years back. To re-check some of the following statements a trip on foot was made from Bulkley Lake down stream on April 8 - 9 - 10. as far as Perow. ( April 1953 )

To acquire accurate reference landmarks the mile boards on railroad and bridges are used. Key Endako Mile 0.  
Smithers Mile 125.2

Mile 56

Clarks Spur or Bulkley Lake.

The C.N.R. has on the Upper ~~section of track~~ Bulkley section of track a distance of 27.3 miles, 11 bridges at mile 56 58.3 60.8 62.2 64.7 65.3 70.1 71.7 84.3 88.4 93.3 over the river. Same distance by river estimated at 55 miles. Log jams have in past years retarded the flow of flood water, flooded areas have resulted in soft grades and slow orders ~~in~~ at many points. At flood time to protect bridges the sectionmen

Report on the Upper Bulkley River page 2.

put in a day and night patrol and cut or pass all timber that lodges against them. They try to remove timber as you can see that if it is passed through it may lodge on the next bridge. In an effort to eliminate some of this annual spring work a work train was moved to Clarks Spur last fall and by the use of a large bulldozer cat some of the highest jams removed. Cat worked 10 days, Maxan Creek, An irrigation dam caused stream to divert and we blasted out a section of dam. Diverted water gave C.N.R. grade trouble so cat worked at site of dam opening channel and diked or filled diversions. Stream at this point might now be considered back to its primitive state.

Mile 57, At this point river had two channels, old channel was cleaned of timber and debris deepened and new channel filled for a distance of approx. 250 yds. ( MacKay Ranch.)

Mile 59.3 About the same type of job done except here over 300 yds. of channel was cleared.

Mile 56.5 At the Severson Ranch road bridge a long jam had built up of approx 100 yds in length. The new owner Mr. Esbjorn Johnson in order to protect bridge removed jam last fall.

To protect roads and farms the Dept of Public Works last winter on the ice removed all remaining jams down to Forestdale Two cats worked four days. as streams were ice covered some logs still are below ice level but we can consider stream clear to Forestdale.

Last year no fish reached that high up and as most work was not on stream beds no harm was done. Inspection show that most of the timber in jams was very rotten except logs on top.

Mile 58.9 Forestdale, The largest remaining log jam is at this point and just across from station and approx. a half mile from track. It is over 300 yds long and so filled with debris is a real bad hazard in low water. 18 jams were seen at various points below.

63.5 Bulkley Falls. ( or Topley Falls.) Last year only the first spring salmon to arrive found water conditions right to make the passage upstream. No Coho were observed above Falls last year. At present is very low and ice covered.

64.7 No beaver dams seen below this point, as river is larger and deeper beaver live in banks and do not build dams. Between 64.7 and 63.5 is two very bad dams i.e. first is built in a wide part of river and water spills over total width of dam , below river bed is level and has a grade down stream, result is water is to shallow for fish to approach. Second has a broad apron and much loose brush piled on top.

Report on the Upper Bulkley River page 3.

Above Falls there are nine more beaver dams but they are not listed as obstacles as channels and low spots were present that fish could use to get past with.

If steelhead ever get up this far in the early spring run it does not look like they could pass dams when they are covered by ice.

Mile 68.6 Richfield Creek\* Joint effort by C.N.R. and Dept. of Public Works cleared creek to above highway.

Mile 72.9 Perow. By C.N.R. the mouth of Perow Creek cleaned out and diked to protect water tank and station.

Mile 73.8 Land Clearing Unit of the Dept. of Agriculture, cleared land at this point. To drain and protect fields two log jams were removed and several side channels filled.

In all over 50 % of log jams have been removed. The following points of hazard from junction of the Morice to Bulkley Lake listed as to importance.

1. Houston Flats: Here river is wide and shallow. The highway and railroad run parallel and the Buck River crosses then at right angle passing under by bridges. The Buck river dumps large amounts of gravel and except for the barrier of grades and rip-rap would have cut another channel past point of hazard.

2. Bulkley Falls: These falls have been under discussion for years. At the request of C.N.R. officials and the Dept of Fisheries a survey was made by Engineer J.B.Dyson on June 18, 1949. and reported in his Bulkley Falls Investigation Report. By C.N.R. officials this report was considered inadequate as they had expected a definite plan and permission to carry out work. Since you may be interested in that plan I will repeat as they explained it to me, i.e. Water is deep above falls and that falls are therefore a ridge of rock, cut a wide gap through ridge and you have a canyon with x very little grade to water flow. As a small run of sockeye once used this river ( estimated at approx. 1,000 ) and spawned just below Forestdale it has occured to me that the deep slow water above falls must have been their nursery area. Last year only first part of spring run passed to above falls. Last fall there was a fair volume of water but as it was spread across width of falls did not give fish transportation water.

Report on the Upper Bulkley River page 4.

3. Log jams: Section foremen report that the drift from Bulkley Lake into River is now small therefore we can expect that drift in the river will be the normal windfalls, beaver cuttings and washout debris. If once cleared should only require normal maintainance. Old log jams can be moved by tractor (buldozer) , cut in short sections by power saw and floated out, or cut and burned.

4. Beaver Dams: Beaver are definitely on the increase in this area but most live on the side or feeder streams. We can expect the beaver population to increase until the price of fur goes up, and even then the restrictions imposed by the Game Dept. will ensure many on all streams. now a quota of tags is issued to each trapper based on a set proportion of the beaver population of that trap line.

Discussion and recommendations.

1. Houston Flats. The Buck River channel under bridges ~~are~~ is so filled by gravel that last year high water flowed over bridges to a depth of two feet. Railway and Village of Houston are requesting appropriations and plan to dredge or clear by drag line to make grades and town safe from floods. We have a verbal understanding that the Dept. of Fisheries will be contacted when plans are completed. No recommendations at present.

2. Bulkley Falls: We would like to suggest that the Fish Culture Development Branch be requested to take over and make what recommendations that are required.

3. Log Jams: A. That Fish Culture Development Branch take charge.

B. That we be given ~~authority~~ authority to take bids from ranchers for the removal of bad jams such as the Forestdale jam.

C. If no work is done by next fall ( after salmon runs are finished) that we be furnished with a power saw and one man as helper, (until snow gets to deep) Period approx. one month. Plan would include use of Dept. truck, tents and other equipment.



Report on the Upper Bulkley River page 5.

All that could be expected is that we may cut the key logs at the head of some of the jams and if weather permits set fire to jams in an attempt to reduce bulk. However it is our opinion that two men over a period of time will do a good deal to clear bad spots.

4. Beaver dams: Beaver control will require a winter or early spring patrol to locate any dams that might be considered as an obstruction. Owner of trap line contacted and requested to trap out offending colony. (Note. In this we have had to the present time the full co-operation of the Game Dept.) Another patrol before spawning run starts to check developments and new dams from migrant beaver.

Inspection of dams at peak of runs. Dead dams ( not occupied) wash out in high water.

In the case of the two dams considered as obstructions, the owner ( Mr. Axel Larsen ) has been asked to trap in that area rather than at random.

No recommendations.

Benefit: Ultimate objective to be the re-building of the salmon runs to point of maximum strength. A better distribution of spawners and a chance for them to select their spawning area. To avoid losses should there be an extra large escapment such as ~~the~~ might result from no commercial fishing over a period of time.

Water Levels. Past reports attribute the decline in salmon runs here to poor water levels the result of construction and many fires from wood burning engines, and donkeys. Most of the large burns of that period now have a heavy second growth covering them, all the dead timber is now flat and rotten and very little can get into river to add to debris, we have seen no flash floods from burns for some years. Therefore water levels can be expected to be near normal.



L.J. Gelley for W.K. Elliott  
Fisheries Inspector.