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Supervisor, Skoena District,
Fisheries Service,
Prince Rupert, B.C.

1973
~~1974.~~

1. General Description Of Sub-District

The Babine-Morice is a large sub-district situated in the interior of District # 8, B.C. To the North and East, approximately two hundred miles inland from the coast of British Columbia. Situated approximately between, just above the fifty seventh degree North latitude and just above the fifty four degree North latitude, and between one hundred twenty six degrees and one hundred twenty degrees West longitude. The sub-district comprises approximately twenty five thousand square miles. The town of Smithers lies centrally in the sub-district a small remote village of approximately forty two hundred people. The main industries being, logging and lumbering, mining, and tourism during the summer.

Babine Lake, situated in the Eastern portion of the sub-district is the largest fresh water lake in the Province of B.C., approximately one hundred and ten miles in length with an average width of approximately two miles. The lake lies in a South-East North-West direction. Morice lake lying to the South and West is the second largest lake in the sub-district.

Houston situated forty miles South of Smithers is the second largest town in the sub-district. Other villages and towns namely: Topley, Granisle, Telkwa, and smaller places such as Forestdale, Topley Landing, Pendleton Bay, Quik and outlying farmers making up a white population of approximately 13,000 people for the sub-district. Indian population, bands at Moricetown, Fort Babine, Topley Landing is given at 1,500 people.

The Canadian National Railway serves the sub-district with the main line through to Prince Rupert. P.W.A. serves the area with Scheduled air service, T.P.A. with charter and scheduled air service, Okanogan Helicopters Ltd. with charter flights and Coachways Bus Lines supply bus service to the area.

The sub-district has some 2800 miles of rivers and streams, which consist of the Skeena river drainage above the Kispiox river and the Bulkley drainage above the Suskwa river, and includes the upper portion of the Copper river.

Within the sub-district there are sixty six Spawning streams, the major ones being the Babine river, upper Skeena and the Morice river. The Babine river, Babine lake and tributaries provide ninety percent of the sockeye spawning ground of the Skeena river system.

2. Fisheries.

(1) Commercial Fisheries - Nil.

(2) Sport Fisheries (Tidal waters) - Nil.

Sport Fisheries (Non-tidal waters) (Approximate figures)

a. Provincial Angling Licences sold in the sub-district.

	<u>Canadian</u>	<u>Non-Can(Minor)</u>	<u>Non-Can</u>	<u>Non-Can short term</u>	<u>Total</u>
1973-	3300	140	590	400	4430
1972-	3004	128	535	364	3229
1971-	2168	159	570	332	4031
1970-	2379	141	553	338	3429
1969-	2201	130	509	407	3347
1968	1946	253	408	236	2843

Cohoe		Springs	Jack Spring	Steelhead
1973- 1390		810	430	1150
1972- 1541	=	900	470	1280
1971- NR				
1970- 1030		782	854	1038
1969- 350		475	525	300
1968- 1597		800	1307	1457

The 1973 non-tidal sport fishery was unfavorable due to high water from spring until mid July. At Moricetown high water prevailed throughout the spring run. August and September was favorable for the coho and steelhead runs; Moricetown- coho 281, coho Jacks 70, springs 125, jack springs 100, steelhead 75. The remainder of the catch was spread out over the remainder of the sub-district.

c. Closures

Morice river-Lampray cr. to Morice lake	-	by regulation.
Fort Babine to Wilkitkwa river	-	by regulation.
Babine river	-	by regulation.
Morice river	-	by regulation.
Hulton channel	-	by notice.
Pinkut channel	-	by notice.
Upper Bulkley above the confluence of Morice	-	July 1st - September 30th.
Bear River	-	July 1st - October 15th.

d. Gear restrictions.

Morice river, Babine river and their tributaries, and Moricetown Canyon have a gear restriction on the use of roe. Babine river and Moricetown Canyon have a gear restriction of no angling from boats in the river. Babine river has a bag limit of one steelhead per day.

3. Indian Food Fishery

Catch in pieces

Place	Sockeye	Cohoe	Pink	Chum	Chinook	Jk ^{Sockeye} Spring	St'hd	Total
1973-Babine	17,015	10	500	0	0	1,600	0	19,125
Moricetown	67	401	11	0	903	0	92	374
Bear Lake	316	122	81	0	17	0	0	536
1972-Babine	17,234	50	0	0	25	0	200	17,309
Moricetown	702	482	215	0	683	0	228	2,032
1971-Babine	22,950	140	50	0	300	0	5	23,445
Moricetown	135	300	309	0	255	0	54	1,103
1970-Babine	20,048	140	400	0	125	0	200	21,364
Moricetown	844	648	329	0	728	0	211	2,760
1969-Babine	17,293	130	20	0	65	0	30	17,508
Moricetown	516	755	481	0	485	0	75	2,312
1968-Babine	19,146	0	0	0	47	0	0	19,204
Moricetown	840	2046	227	0	1017	0	160	4,790
1967-Babine	18,992	29	18	0	72	0	1	19,112
Moricetown	598	1216	180	0	1608	0	111	3,715
1966-Babine	18,652	137	8	0	149	0	6	18,952
Moricetown	2,442	2571	465	0	1233	0	418	7,129

In the Skeena at Kisgegas permits are usually issued and accounted for by the Terrace sub-district.

In the Morice-Babine sub-district 47 I.F.F. permits were issued, one of these were issued to cover the whole of the Burns Lake Band.

Fort Babine Indian Band list indicates a population of 859 people. This covers the whole of the Babine Lake area and not the actual people at Fort Babine. There are approximately 30 families living in or around Fort Babine which live there all year round. Fishing is done by gillnet and this year there was no close period in the I.F.F. for the Babine area.

Moricetown Band list indicates 530 people living in and around the village. Fishing is done by gillnet from the Suskwa river to just below the estuary of Trout creek, with 6 to 10 nets being used. The remainder is by dipnet or gaff operating in the Moricetown Canyon at the falls area. This year fishing was again permitted on a split week, open 9 P.M. Sunday to 9 P.M. Wednesday and 9 P.M. Thursday to 9 P.M. Saturday. Closed 9 P.M. Wednesday to 9 P.M. Thursday and 9 P.M. Saturday to 9 P.M. Sunday.

3. Spawning Summary.

(a) Salmon-

(1) The Babine river and tributary streams in Babine Lake are the main sockeye spawning areas for the Skeena river watershed, 95% of the Skeena sockeye spawn in this area. The upper Skeena, Morice, Hanika and upper Copper rivers have minor stocks of sockeye. Water levels during the spawning season were normal with adequate water in most streams. High average snowfall during the winter of 1972-73 caused flooding in the upper Bulkley and kept the river high until mid July. There was no apparent damage to spawning grounds.

Sockeye

Sockeye counted through the weir on Babine Lake by Fisheries Service personnel this season totaled 985,875 composed of 797,539 adult sockeye, 188,336 jack sockeye, 6,247 coho, 110,987 pink, 6 chum, 646 adult chinook, 530 jack chinook, 43 steelhead.
Brood years: 1968 - 605,400 large sockeye
1969 - 634,400 large sockeye.

Pinkut channel, very good return, 64,500 in channel.
Pinkut river, 15,629 on spawning grounds, 17,000 air lifted above falls.

Fulton river, 99,968 large.
Fulton channels, 137,334 large. Total in river and channels 237,302 large and 81,257 jack sockeye.

Upper Babine river 153,471 large.
Lower Babine river 40,507 large.

Minor streams are Pierre-Twain-Morrison-Tahlo-Grizzly-Tachek and Four Mile, which along with sockeye that spawn in the lake account for the balance of the spawners.

Coho

Estimated 14,550 spawned in sub-district streams, brood year 1970 escapement of 15,200 spawners.

Pink

Estimated 147,700 spawned in the area, of these 130,000 spawned in the Babine river. This was a good return from the 1971 spawning of 104,000.

Chum

Only 6 chum recorded through the weir at Babine Fence.

Chinook

Estimated 23,025 adult chinooks, up from brood year: 1968, 16,500 and 1969, 9,800. Major spawning areas; Bear river 8,900, Morice river 12,000, Babine river 600, Bulkley river 850.

3. Spawning Summary (cont)

(11) Weather conditions and Water levels.

The winter of 1972-73 was average, with medium temperatures and snowfall, and above average rainfall in January 1973. Recordings of rainfall, snowfall and temperatures are taken at the Smithers Airport.

Summary of Temperatures and Percipitation

October 1, 1972 - September 30, 1973.

<u>Month</u>	<u>Snowfall</u>	<u>- Rainfall</u>	<u>- Water Content</u>	<u>Temperatures</u>		
				<u>High</u>	<u>- Low</u>	<u>- Average</u>
October	8.1	2.11	2.85	72	17	38.1
November	14.5	2.36	3.41	45	21	33.4
December	41.6	tr	2.65	38	-18	11.9
January	16.0	2.04	3.39	39	-22	15.7
February	7.7	.19	.83	50	-10	21.3
March	3.8	.16	.51	50	6	33
April	.2	.16	.18	65	20	39.9
May	tr	1.02	1.02	86	28	47.8
June	---	1.72	1.72	73	30	51
July	---	---	---	84	32	56.3
August	---	.86	.86	82	31	54.5
September	tr	2.68	2.68	75	26	49.2

(111) Fry Salvage

Nil.

(b) (1) Herring

Nil.

4. Environment, Multiple Water uses

(A) Pollution

B.C. Railway construction down the Bear river and Sustut river reached Birdflat creek by late fall caused much concern to the environment of the rivers. Unstable gravel and clay banks kept sliding into the rivers causing silting conditions. Conditions would have been disastrous had it not been for the guardian stationed in the area to report on conditions before they became serious. Clearing had reached Mosque river by late fall without problems as the railway swung away from the Sustut River to the Skeena, there was some debris in the Skeena but was taken out.

Pacific Inland Resources sawmill at Telkwa was again responsible for fine sawdust and black flt ash over the ice on the Bulkley river in the spring from their Tee-Pee burner. This condition shows up when the snow melt starts in March and April. An agreement in writing has been made With Pacific Inland Resources that if this condition prevails in the spring of 1974, that they will phase out the burner given six months and find other means of getting rid of sawdust and mill debris.

Bulkley Valley Forest Products improved on their large burner, and other than smoke filling the valley there was no problem with sawdust on the Morice river this year.

C.N.R. railway gondolas hauling chips from as far as Burns Lake and maybe further inland to Columbia Celulose on the coast is becoming a problem with overloaded cars scattering chips in streams and rivers during passage. I understand a paper net is used in the U.S.A. to cover the cars and the net is used along with the chips and thus obviates the necessity of returning the covers for the gondola cars. I believe regulations are due to apply this method in the North West.

4. Environment, Multiple Water use
(A) Pollution (cont)

Bradina mine closed out their operations at Owen Lake this year due to a strike by miners. The mine is on the unactive list to date.

Granisle mine completed rock work to their tailing ponds and water reclaim ponds, very satisfactory conditions remained prevalent this year. No problems showed up with "Oranda" except they asked to dump some of their reclaim water back into Babine Lake.

Forestry cutting permits for logging reached a point where it was't so much debris was a problem in streams but the size of the clear cut areas that were being logged, particularly where lakes or deep gullies were concerned. Lesser acreage and spaced out areas were being suggested, erosion clauses and green strips were being asked for. More inputs to T.H.L.S.'s licences became necessary or it was going to be out of hand.

Highway Department and C.N. Railway have become less of a problem and are becoming more aware of possible pollutions to fresh water systems. Increasing pressure and good liasion is helping to keep problems to a minimum.

(B) Industrial Development

B.C. Railway

Continued to push through to the Skeena and Mosque river by the end of year. The rails had reached Bulkley House at the head of Takla Lake. They were to reach the Sustut by February 1973 with the tracks. It's obvious they are behind as rails reached Bear Lake by February 1974.

Bradina mine closed down in 1973 due to a strike. It was declared low production was cause of shutdown. The shutdown caused some distress to the economy of Houston.

Equity Mining Capital Ltd.

A new mine has started above Sam Goosly Lake. Considerable work has been going on at the mine, 600 feet of shaft has been drilled out and most likely considerable amount of diamond drilling has been done. Plans for a hydro line and road up Lungate creek is planned for in 1974. Water licence for one million gallons per day from Sam Goosley lake has been submitted, however this was objected to due to water levels effect on Buck creek.

B.C. Provincial Building

A new building was completed in Smithers at the end of 1973, will house new court rooms, and other Departments presently in the Old Building at the foot of main street. The new building is somewhat larger at the head of main street near the C.N.R. station. Most occupancy will be on the ground level with the top floor being vacant. I expect in time it will be occupied by some means.

Bulkley Valley Forest Products.

By end of year 1973 had their bubble line across Babine Lake from Michell Bay to opposite shore, in operation. They had some problem with keeping the ice open, and figure the line is too deep for effectively keeping ice free, particularly if there should be a drop in temperature of 35 degrees or more for an extended period.

Sawmills

Pink Sawmill, Groot Sawmill and Pacific Inland Resources were in production for 1973 on Tatlow Road just outside of Smithers. Pink and Pacific Resources were new mills started in 1972. Groot sawmill had extensive renovation and installation of a kiln-dry unit, and a new smokeless burner.

Other

4. Environment, Multiple Water Use

(B) Industrial Development (cont)

Other

New shopping centre opened in the spring of 1973, housing the Hudson Bay Store, Safeway, Nova Scotia Bank, Sporting Goods, Bakery and others.

A new road linking Smithers Landing road and Noranda road; which links the Township of Granisle, was through in 1973. However it needs much improvement if people are to reach Smithers for business from Granisle and Noranda mines. The road was closed after the first snowfall in 1973.

(C) Obstructions and Diversions

The Bulkley river above Houston many log jams occurred again due to two high water conditions in 1972 and 1973. Two large jams built up below Bulkley Falls approximately 100 feet in length and fifteen feet high. These were impassable due to cottonwood bark which filled in every possible open space. The jams were removed by use of a skidder and then burned. The Bulkley falls was rechanneled at the top of the falls by powder. Helicopter patrol was made and a total of 17 jams were logged between Houston and the falls area; there were 6 beaver dams logged. Most serious was a complete block near Knockholt, which was removed and the river diverted at a horse shoe bend.

Sherquina river was diverted around the old falls area which should improve escapement of coho and possibly springs if the river keeps in the diversion.

Beaver dams continue to be a problem particularly in the fall during migration. 25 beaver dams removed this year by hand and powder.

(D) Gravel Removal

Gravel removal orders are in effect for Bulkley river and tributaries along with Morice river and tributaries. No permits issued this year for gravel removal.

(E) Logging Operations

Bulkley Valley Forest Products still control most of the southern portion of the sub-district, East of Babine Lake on the South and West of the lake including Morice River area.

Groot Sawmill operate on Tatlow road near Smithers, have private sources of timber as well as recent acquisitions of crown timber.

Pacific Inland Resources are the second largest operators in the area, have sawmills at Telkwa and on Tatlow road near Smithers. Have timber holdings up the Telkwa river, Fulton River and in the Chapman lake area.

Pink Sawmill operating on the Tatlow road near Smithers with various small holdings of timber.

Small mills One operating near Evelyn and one operation near Doughty. Both these mills were rumoured to have shut down until the lumber market became firmer.

(1) Area Forestry cut for 1973 (Forestry figures)

Hazelton	3501 acres cut	172,085	CU
Smithers	4475 acres cut	131,799	CU
Houston	5515 acres cut	244,443	CU

(F) Water licence Applications

1973, processed 34 applications

(G) Placer Mining operations and applications - 1973 nil.

Stream Clearance, Obstruction Removal List 1973 - Babine Morice sub-district.

DATE	PLACE	OBSTRUCTION	EQUIPMENT USED	PERSONNEL	COSTS	DAYS	REMARKS.
July 6th	Twain Crk.	log jam	hand	Wall	25.00	$\frac{1}{2}$	
August 12th	Twain	beaver dam	hand	Wall	25.00	$\frac{1}{2}$	
August 30th	Bulkley River	log jams	caterpillar tractor	Southgate-Groat	1,640.00	82 hrs.	Blasted channel at Bulkley falls and removed 2 log jams
August 12th	Bulkley River	log jams	caterpillar tractor	Southgate-Groat	1,200.00	2 days	Bulkley river 2 log jams, 1 diversion, and 2 potential jams removed.
September 9th	Bear Lake(Azuklotz)	beaver dam	hand	Grantham & Native	120.00	2 days	2 natives hired to assist.
July 30th	Segunia	diversion	caterpillar tractor	Southgate	500.00	1 day	Re channeled old falls area.
August 31	Twain	beaver dam	Meyers-Wall	hand	20.00	$\frac{1}{2}$ day	
September 9th	Morrison creek	beaver dams	hand & powder	Meyers-Wall-Finch	50.00	$\frac{1}{2}$ day	3 beaver dams
September 10th	Tahlo Crk.	beaver dams	hand & powder	Meyers-Wall-Harrison	100.00	$\frac{3}{4}$ day	6 beaver dams
September 12th	Morrison & Tahlo	beaver dams	hand & powder	Sommers			
September 18th	Bulkley River	beaver dams	hand & powder	Meyers-Wall	85.00	$\frac{1}{2}$ day	3 beaver dams
September 17th	Upper Bulkley	beaver dams	hand & powder	Wall	35.00	1 day	4 beaver dams
September 26th	Morrison	beaver dams	hand & powder	Wall	50.00	1 day	3 beaver dams
November 7th	Segunia River	log jam	powder	Wall	35.00	1 day	3 beaver dams
				Meyers	25.00	1 day	Log jam building up in diversion channel at old falls area.
					<u>\$3,910.00</u>	<u>12$\frac{1}{4}$ days, 82 hrs.</u>	

Nil.

6. Enforcement

(a) Commercial

Nil.

Sport

4 cases of jigging salmon resulting in fines of \$50.00 each.
Several cases of warning to children for using unbaited hooks.

Indian Fishery

Nil.

(b) Trends Re: Closed Season

Closed season trends, in Sport and Indian Food Fisheries seemed to be observed this year without too much complaint. Closures to the upper Bulkley above Houston July 1 st to October 15 th remain in effect for conservation of low returns of chinook salmon to the system. Closures on the Bear river remain in effect July 1, to September 30 th for conservation of spring salmon.

(c) Recommendations

Recommendations to increase the closed period on Babine River Sec. 95(2)(c) from August 15, to September 20, to July 15, to September 20, for conservation of chinooks to the Babine system.

7. Predators

(a) Sea Lions - Nil.

(b) Hair Seals - Nil.

(c) Bear, Grizzly and Black

Bears were numerous on streams again this year. Fish and Game Branch report 10 grizzly and 8 black bear taken by sportsmen this year.

(d) Grayfish - Nil.

(e) Killer Whale - Nil.

(f) Other

Eagles and crows heavy , sea gulls and ducks light, Mergansers very heavy.

8. Administration

(a) Staff

(1) Fisheries Officers: A.M. Groat GT 111
D.N. Meyers GT11

(11) F.P.L. Babine River

(111) Three Guardian positions; Moricetown, Fort Babine, And Donalds Landing do stream clearance, patrols, Indian Food Fishery and spawning surveys.

(1V) Donalds Landing Guardian satisfactory. Fort Babine and Moricetown Guardians did not meet requirements.

Recommend Guardian position for Upper Bulkley-Morice River.

Recommendations for 1974

Moricetown	-	Three Months	-	June 15	-	September 15.
Fort Babine	-	Three months	=	June 15	=	September 15:
Donalds Landing	-	Six months	=	May 15	=	November 15:
Upper Bulkley	-	Four Months	-	June 15	-	October 15.

8. Administration (cont)

(b) Equipment

- (1) 2 - 4 wheel drive vehicles; one 1971 pick-up; one 1967 pannel.
- 1 - Inboard-outboard Patrol launch.
- 1 - 22 foot, plank, lake work boat.
- 1 - 24 foot, plywood, lake work boat.
- 2 - 12 foot, aluminum, car top boats.
- 1 - 18 foot, aluminum, river boat.
- 2 - 2 wheel, boat trailers.
- 1 - 65 H.P. outboard with jet attachment.
- 2 - 40 H.P. outboards.
- 1 - 20 H.P. outboard.
- 2 - 18 H.P. outboards.
- 1 - 6 H.P. outboard.
- 2 - 5½ H.P. outboards.
- 2 - power chain saws.

(11) Equipment extensively used during season, one 40 H.P. outboard written off and the old 12 foot fibreglass dingy was written off. F.P.L. Babine River was loaned to the Marine Sciences Branch for early work on Babine Lake in May. The valves in the port engine were burned out and the starboard leg was making extensive noises. The vessel was taken to Prince Rupert for repairs. No problem developed until late fall when the vessel was again loaned to Marine sciences under the Guardian supervision. Again a problem developed with the port leg.

(111) Replacements - 1 - 13 foot smoker craft with two 40 or 50 H.P. jet drive outboards for patrol in the Babine and Morice rivers, Bulkley river where canyons and turbulent waters are encountered. The present smoker and 65 H.P. to replace the old 22 foot plank river boat for the Fort Babine Guardian. The old 22 foot plank river boat has reached write off stage, dry rot and leaks are prevalent and it has been patched over patches.

Moricetown Guardian cabin replaced with 24 foot house trailer, unfurnished except for a propane stove, fridge and furnace. Asphalt tile flooring throughout.

Replacement of ½ ton 4XL International pannel, 1967 with present milage of 72,569. Replacement with Ford or Chevrolet 4XL for off the highway work in rough country and logging roads.

Replacement of 1-40 H.P. outboard to replace a similiar item written off. The remaining 40 H.P. Johnson may make another season if damage to the bottom end is not too extensive. The bottom end was damaged by Fort Babine Guardian during the season. 1974 spring check will decide its disposition.

Recommend that F.P.L. Babine River be re-engined with new outboard legs.

9. Information, Education and other Programs.

(a) Public relations visits were made to industry and other organizations, particularly in regard to pollution. Information given to students on pollution, spawning channels, hatcheries and commercial fisheries. Information given to sportsmen on closures and Fisheries Acts and Regulations.

(b) Work closely with other Fisheries Service Branches, Fisheries Research Board and Pollution Branch.

(c) Many contacts were made and co-operation given to:

Town councils
Fish And Game Branch
Government Agent
Health And Welfare
Department Of Public Works
Department Of Forestry

Department Of Transport
Canadian National Railways
Department Of Indian Affairs.
Water Board
Canada Pension Plan
Rod And Gun Club


F.M. Groat
Fisheries Officer.