ANNUAL NARRATIVE

Babine - Morice Subdistrict 1980
by Terry Turnbull

OUTLINE

Outline (cont'd)

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I. GENERAL DESCRIPTION OF SUBDISTRICT

The Babine-Morice Subdistrict consists of: the Skeena River watershed above the confluence of the Skeena and Babine Rivers, the Babine River watershed upstream from the Kisgegas Reserve, the Bulkley River watershed upstream from and including Trout Creek, and the Zymoetz River upstream from McDonell Lake. The subdistrict serves the towns of Smithers, Telkwa, Quick, Houston, Topley, Topley Landing, Granisle, Fort Babine, and their surrounding rural areas. Total population is approximately 18,500 people.

II. FISHERIES

A. Commercial Fisheries

1. Babine River Jack-Sockeye Harvest

A licence was issued to the Lake Babine Band Council to commercially harvest Jack-Sockeye salmon from the trapping facilities at the Babine River counting fence. The band started the harvest on August 8th and finished on September 6th, utilizing three shifts per day of ten people per shift. 178,644 Jacks were harvested and iced in tractor trailers; the majority of the jacks were sold to B.C. Packers in Prince Rupert although a few hundred fish were sold to local citizens.

B. Sport Fisheries

1. Tidal Waters - non applicable

2. Non-Tidal Waters - sport-fish catches for Babine River (BR) and Bulkley-Morice system (B-M) -(see table 1)

TABLE 1

	Spring	Jack Spring	Coho	St'hd
1980 (B-M)	150	80	835	5,125
(BR)	20	-	100	2,700
TOTAL	170	80	935	7,825
1979 (B-M)	78	70	260	94
(BR)	12	-	63	84
TOTAL	90	70	323	174
1978 (B-M)	(not available)			
(BR)	"	"		
TOTAL	160	50	540	148

Notes: a. Pre 1977 Bulkley River catch figures included Moricetown Canyon to Skeena confluence.

b. 1980 estimated steelhead figures reflect kills and releases; 5,625 fish were released.

3. Provincial Sport-Fishing Licences - sold in the area - (see table 2)

TABLE 2

	Non Res	Can Res	Short Term	Can Res St'hd	Non Res St'hd	Can Sr
1980						
1979						
1978	384	2,361	231	2,360	299	268
1977	365	1,663	240	573	312	53
1976	514	3,291	218	979	411	153

Note: 1979 and 1980 figures are not yet available.

4. Sport-Fishery Closures

a. By regulation:

Upper-Morice River
Upper-Babine River
Upper-Sustat and Bear Rivers

b. By public notice:

Upper-Babine River - 100 metres upstream from fence, all species
- July 1 - August 14 and September 21 - 30, Spring and Coho salmon from Fort Babine to Nilkitkwa River

Upper-Bulkley River - July 15 for the balance of the year, Spring and Coho salmon

Upper-Morice River - August 1 - 15, Spring and Coho salmon from Lamprey Creek to Morice Lake

5. Gear and Restrictions - remain unchanged for salmon.

6. Sport-Fishing Conditions

a. Springs: 1980 was an unproductive year for Spring-salmon anglers on the Bulkley-Morice system above Moricetown. Fishing sites which produced the best catches were the Telkwa bridge, Bulkley-Morice junction and the Upper-Morice River (Lamprey Creek to Morice Lake).

Balance of the catch was scattered throughout the system. An angling closure on the upper-Morice River was put in to effect fifteen days early because of low catch per unit effort, low water conditions, and vulnerable spawning-holding areas. The Spring catch would have been higher if the upper-Morice River had not closed for conservation. The Upper-Bulkley River was closed for the same reasons.

b. Coho: Coho fishing in the Bulkley-Morice system was better this season. Fishing sites producing the best catches were the Trout Creek stretch, Telkwa bridge, Walcott bridge, Morice-Bulkley junction, and Eleven Mile. The Trout Creek stretch was the most heavily fished, producing approximately 30 fish per day during the 7 - 12 September period. Rain improved stream conditions during September and October; Coho had no trouble reaching spawning beds. An angling closure on the Upper-Morice River was put in to effect fifteen days early because of low water conditions

and vulnerable spawning and holding areas.

Babine River Coho fishing was considered a slightly below average catch.

The best producing areas were the Babine Village, Smoke House Island, and Babine River bridge. By the end of September most of the initial Coho run had passed the fence. Many information gaps surround the Babine Coho such as some of their holding areas, question of later runs, and in how many streams do they spawn. 1930 - 40 reports indicate fair coho runs to Pierre, Twain, and Sutherland in mid October.

c. Steelhead: Anglers and biologists generally agree that the 1980 year was the best one.in recent memory for Steelhead angling. Good fishing spots were Trout Creek bar, Smithers highway 16 bridge, Telkwa bridge, Walcott, Bulkley-Morice junction, Mile 11, and Upper-Morice River. This excellent steelhead escapement is likely the result of the commercial-salmon fishery closure in Area 4 during August when the bulk of the Steelhead run normally passes through that subdistrict.

C. Indian-Food Fisheries

1. Babine-system Food Fishery

BABINE LAKE CATCH FIGURES*

Year	Sockeye	Coho	Pink	Spring	StHJ	Totals
1980	22,635	125	200	20	0	22,980
1979	21,500	75	120	0	0	21,695
1978	10,920	15	152	3	1	11,091
1977	10,777	50	100	20	10	10,957
1976	11,095	1	13	15	0	11,109

* Figures include catches from Sutherland River, Pendleton Bay, Topley Landing, Old Fort, Smithers Landing, Fort Babine, and Kilkitkwa Lake.

Individual Food Fish licences were issued by the Lake Babine Band to any registered Indian that the band felt should fish on their tribal fishing grounds. The fishermen fished for salmon seven days a week until December 31, 1980. Fishing was done by salmon gillnet or set net; there was no net length or mesh restrictions. 125 food licences were issued from the time the fishery started in early July until

its completion on September 21, 1980. The band population is 1008.

Food catches in recent years are only 1/6th to 1/3rd of the 1920's and 30's catches.

2. Bear Lake Food Fishery

Nine Takla Lake Band members were issued individual licences to fish Bear Lake. They fished during August, catching 2030 Sockeye and 40 Springs. The Takla Lake Band's population is 357.

III. SPAWNING SUMMARY

Salmon escapements to the Babine system are counted through the Babine River counting weir (R. Leamont 1980)

The fence panels were installed on June 28 and removed on September 29.

In the following tables, Babine system Jack Spring figures include commercial harvest.

A. Tables

1. SOCKEYE

	Babine system	Upper Skeena	Bulkley-Morice	Upper Copper
1980	526,059 (233,855JK)	1,950	650	140
1979	1,160,966 (90,498JK)	4,300	1,650	1,100
1978	401,318 (296,274JK)	6,650	600	700
1977	937,992 23,397JK)	640	800	2,000
1976	580,597 (130,970JK)	100	100	N.O.

BABINE LAKE SOCKEYE SPAWNERS

1980	1979	1978	1977
164,852	241,988	152,643	126,000

2. COHO

	Babine System	Upper Skeena	Bulkley-Morice	Upper Copper
1980	4,399	N.O.	3,995	N.O.
1979	2,909	500	750	250
1978	11,446	4,875	5,800	1,500
1977	10,474	1,000	6,590	400
1976	4,500	N.O.	997	-

3. PINK

	Babine System	Upper Skeena	Bulkley-Morice
1980	326,451	NO.	100
1979	63,703	1,500	5,800
1978	192,708	N.O.	812
1977	76,077	N.O.	25,000
1976	93,838	50	N.O.

4. CHINOOK

	Babine System	Upper Skeena	Bulkley-Morice
1980	918 (242JK)	9,000	5,075
1979	822 (404JK)	3,000	4,675
1978	492	4,050	6,950
1977	619 (768JK)	1,800	4,750
1976	618 (251JK)	950	1,835
1975	1,018 (342JK)	1,500	3,000
1974	1,976 (254JK)	4,500	9,000

B. Summary Comments

1. Sockeye

a. Babine System - This year's sockeye run is in 26th place overall since 1946, excluding the slide year which drops it to 27th place; and it ranks 9th place in the last ten years. The adult return is lower than either of its brood years; 1975 and 1976. Conversely, the Jack Sockeye return ranks 3rd highest since 1946.

b. Bulkley-Morice System - Adult sockeye return remains low as compared to the 1950's.

c. Upper-Copper River - Adult return was low, perhaps because

of the 1977 Skeena flood.

d. Upper-Skeena system - see Chinook comments.

2. Coho

a. Babine System - Based on fence counts, the 1980 Coho return has to be considered slightly below average as the records show that offspring from this three-year phase generally yield the highest average adult return. However, Coho counts are incomplete as the timing of the fence pull-out has nothing to do with the coho-migration schedules.

b. Bulkley-Morice System - High water in early November prevented a Coho count on the Upper-Morice River, although their presence was noted. Escapement could have been 5,000 - 6,000. Certainly, the tributaries; Owen (600) and Gosnell (2,000) were well replenished.

c. Upper-Copper River - Stream checks in August and September proved fruitless, perhaps the 1977 Skeena flood was a factor.

d. Upper-Skeena System - see Chinook comments

3. Pink

a. Babine System - The Babine River adult Pink salmon return is the highest on record. It may not match some of the 1920 - 30 figures which imply heavy Pink escapement to lower and upper Babine River sections.

b. Bulkley-Morice System - The 1980 Table figure is inaccurate; an undetermined number of pink salmon were taken in the Moricetown food fishery, but their strength and spawning location was never detected.

c. Upper-Skeena System - see Chinook comments.

4. Chinook

a. Babine System - The 1980 Jack-Spring count is the lowest on record. Chinook adult return ranks 11th overall and 5th in the last ten years. Escapement is about average based on brood-year figures.

b. Bulkley-Morice System - Upper-Bulkley River Spring salmon escapement compares favourably with the 1975 brood year, and this is above average for its other

brood-year contributors. Morice River escapement has been holding steady for the past few years.

c. Upper-Skeena System - The only quantitative escapement estimate on the Upper-Skeena system is the Spring-salmon count in the Bear River. This years return is the highest since 1962, and shows a dramatic increase over the five previous years.

Figures for other species of salmon merely indicate their presence. The following factors contribute to this; bad flying weather, inaccessibility, fish migration schedules, fishery staff-time restrictions, and turbid water conditions in some lakes and rivers.

The following pieces of information disclose that escapement figures are conservative. Records have shown Chinook in the Slamgeesh and Sustat Rivers; angling reports imply excellent Coho runs in upper Skeena tributaries; and fishery staff have observed significant numbers of Sockeye-lake spawners.in Bear Lake during some years. 1980 Sockeye-escapement figure for Bear Lake tributaries was 900. The Bear Lake native-food fishery took 2030 Sockeye. It is doubtful the fishermen's timing and efficiency could crop 60% of the run. Some old Bear Lake spawning reports show 10,000 plus Sockeye-lake spawners. Yet, on the dates flown this year no great concentrations of lake spawners were seen. Other sockeye lakes in the Sustat drainage are also likely underestimated.

IV. WEATHER AND WATER LEVELS

The snow pack for the winter of 1979-80 was low. Assuming that rain water was not captured in the snow pack for the period of December, January, February, and March; and that 100% of the water content figure contributed to the snow pack figure, then ther was approximately 122.5mm of water available for run-off.

From April 7-13 the Bulkley-Morice tributaries were generally flowing well. Between April 14-20 the ice moved out of the Bulkley-Morice Rivers. Runoff water rose in the Bulkley-Morice system from April 21 - May 12, crested from May 12 - 18, and fully receded by June 22. Ice went out of Babine Lake about May 2 - 3.

Fortunately, rains helped keep the rivers up during the fall months. Stream flows were moderate in the Bulkley-Morice system, with the exception of the Telkwa River, which flash flooded occasionally because

of its headwaters being nearer the coast.

In spite of the rain, Babine Lake level continued to drop slowly, and by October the lake level was 4½ feet below the high-water mark on the gauge at Donald's Landing.

1980

Month	Rain (mm)	Snow (cm)	Water Content (mm)	Temperature High	Temperature Low	Temperature Average
January	2.2	50.9	38.6	-8.3	-16.9	-12.6
February	16.0	14.0	24.4	0.8	- 7.7	- 3.5
March	1.4	16.9	16.0	4.3	- 5.6	- 0.7
April	26.1	-	26.1	12.2	0.1	6.2
May	36.0	-	36.0	16.8	4.3	10.6
June	18.8	-	18.8	21.6	7.7	14.7
July	42.7	-	42.7	19.8	8.9	14.4
August	33.4	-	33.4	19.5	7.2	13.4
September	63.4	-	63.4	15.4	4.4	9.9
October	37.4	6.2	43.4	11.1	2.1	6.6
November	69.2	7.0	76.4	4.6	- 1.6	1.5
December	53.1	67.9	100.2	-3.3	- 9.6	- 6.5
TOTAL	399.7	162.9	519.4			

V. FRY SALVAGE

A farmer found hundreds of Coho fry trapped in receded spring-run off pools on one of his fields. The farm is near the Smithers Highway 16 bridge that crosses the Bulkley River. The farmer dug a small trench to a run-off ditch and pumped water into the pools allowing the fry to escape. The Houston guardian rescued approximately 1500 fry from pools caused by receding spring-flood waters near Knocholt on the Bulkley River.

VI. HERRING - not applicable

VII. ENVIRONMENTAL, MULTIPLE WATER USE

A. Pollution

1. Equity Silver Mining Road

The road continued to cause heavy siltation in Dungate and Buck Creeks during spring run-off. With a mining engineer, on-site

suggestions of greater sloping, grass seeding, sumps, debris catchers, and riprapping have solved most of the silting problems.

However, there are at least two sites that have not been adequately addressed and may cause more silting this year.

2. Granisle Mine - Babine Lake

A persistant oil slick continued to seep out of the gravel near the ferry dock on Sterrett Island. The company made several attempts to locate the leak source. In August the fuel-storage line to the dock was completely replaced and the seepage stopped.

Also, in August a report was received concerning flushing of Frother tanks directly in to the lake. Samples taken by Fisheries' staff indicated lake sediments contain deleterious cyanide levels. Apparently, no pre-mine lake sediment samples were taken; and since many cyanide compounds occur naturally, no legal steps can be taken. H.P. has asked E.P.S. to conduct a cyanide study of the area.

500 gallons of tailing effluent escaped to Babine Lake on November 27th; problem was concluded satisfactorily.

3. Municipalities - Smithers and Houston Sewerage System

In Smithers, storm-water drains are connected to the treatment plant reducing its effectiveness. The outfall effluent is exceeding some of its monitored factors. The town is aware of the problem and is seeking funds to modify or rebuild the system.

Houston's lagoon system is within 30 meters of the Bulkley River. In the summer, aquatic vegetation covers the river bottom downstream of the outfall. The Bulkley River at Houston is nothing more than a small stream during the summer and the lagoon is chlorinated (0.2ppm). A habitat study is recommended for the area downstream of the outfall, since the close proximity of the lagoon to the river raises questions about B.O.D. and free-chlorine ion effects on spawning and rearing salmon.

4. Bulkley Valley Cement

On-site inspections show that the Houston silt-settling ponds are now adequately protecting water quality in Buck Creek.

5. Ranching And Farming In The Upper-Bulkley River Flood Plain

This agricultural sector will continue developing. More pressure will be forth coming to keep the river from changing farm pastures. A fishery resource information program will be conducted in the spring of 1981, which will attempt to increase the awareness of such factors as; gravel removal, stream crossings, water intakes, manure, and channel diversion.

B. Environmental Issues

1. Kemano II

January 16 - Alcan papers are leaked to the public revealing that Alcan is beginning construction on Kemano II project in 1981.

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- Alcan continues to deny that the dam project will go ahead and they say no decision will be made until after Alcan's environmental study is completed.

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- The Bulkley Valley public is not convinced that the papers are merely planning documents and that the date is fictitous as a Montreal-based spokesman stresses.

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- Bulkley Valley citizen's form groups in many of its towns. "Save the Bulkley" group of Smithers quotes a 1972 statement by Alcan's B.C. Power Operations manager as saying, Alcan will need water from both the Dean and Morice Rivers to safely double its generating capacity.

January 23 - A Russian firm says it is negotiating with Alcan over sale of generators.

January 30 - Alcan denies Russian generator deal. Alcan emphasizes that no decision has been made to build the dam project, but it admits it has reached an agreement with B.C. Hydro on the sale of extra power from the new project. Alcan begins community meetings to sell their project. The public askes searching questions and are not won over.

February 6 - Provincial energy Minister, Bob McClelland, states all future hydro development will be done by B.C. Hydro.

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-Alcan's community meetings cancelled until further notice to officially examine the Minister's policy.

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-Dam project becomes a federal election issue.

February 20 - A consultant refuses to do a profile on citizen's groups for Alcan.

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- Alcan refused to obey a Federal Fisheries order last year to increase the water over the Skins-Lake Spillway, because of a one million dollar per month profit made from sale of power to B.C. Hydro. (which exports the power to U.S.A.)

March 5 - Telkwa Village Council votes against dam project, worrying about drinking water, and flood conditions.

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- Eleven commercial, sport, and Indian fishing groups join forces to oppose the project.

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- Alcan prepares for better community meetings. A 200-page social profile of northwest communities is completed by Alcan.

April 9 - Energy Minister, McCleeland has placed a moratorium on project, and assures northerners no dams are planned for the Morice or Dean Rivers.

May 26 - 150 people in Burns Lake express opposition to project.

June 11 - Native group tells how Alcan exploited them during the building of Kemano I.

June 18 - Federal Fisheries sends a letter to Alcan ordering it to increase Skins-Lake Spillway flows from 500 cfs to 1,000 cfs.

July 2 - Alcan has still refused to increase water flows. Fisheries Minister, Le Blanc, says to increase the flows or go to court.

July 9 - Alcan says water is under Provincial jurisdiction, no flow increase.

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- Public finds out that Alcan is studying the feasibility of constructing three small dams on the Atna, Morice, and Cheslatta Rivers to lessen effects of project by providing water storage for low flow periods.

July 25 - Le Blanc issues formal order to release 8,000 cfs over Skins-Lake Spillway immediately and continue until August 20; 1,100 cfs between August 21 - March 31, 1981, and 2,000 cfs between April 1 - June 30, 1981.

July 26 - Alcan increases spillway flow to 7,000 cfs stating the increased flow would keep water temperatures at a safe level.

July 28 - Alcan lowers spillway flow to 600 cfs as rain is for ecast. Alcan spokesman, Brian Hemingway, stated politely that the company will not comply with the water release order.
July 30 - Alcan has not complied to Federal Fisheries minister's order to increase spillway flow to 8,000 cfs.

August 1 - Federal Fisheries alleges violation under Section 20 (10) of the Fisheries Act, and seeks interim injunction as lengthy court action would not help this year's spawning fish.

August 5 - B.C. Supreme Court rules that the company must obey the Monister's order and increase the spillway flow to 8,000 cfs immediately. Alcan says flow order jeopardizes power supply at Kitimat smelter.
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- A new provincial energy bill concentrates the power of approval ~~of approval~~ of energy projects in the hands of cabinet.

August 27 - Alcan appoints Bill Rich as new vice-president in charge of Kitimat operation. He says B.C. residents have different values than Quebecers.

December 3 - Alcan will release its 14-volume enviromental study in January 1981.
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-Alcan recognizes 1950 water licence is outdated and admits other water users must be considered. Discussions begin with Chamber of Commerce and ranchers.

2. Tordon 22k and 10k

Some Bulkley-Valley residents are opposed to the spraying of Tordon 22k along the highway 16 right-of-way for Canadian thistle. Twenty-nine residents appealed to the pesticide control branch appeal board asking for Ministry of Highways' Tordon 22k permit to be rescinded. Residents successfully opposed the herbicide permit claiming that Highways had not properly posted the spraying areas and that Highways had not named an individual person as a permit holder as required by the act. Shortly after, Highways received a second permit and it had a number of appeals launched against it.

In the meantime, the prime target date for eradicating the Canadian thistle had passed so the spraying has been put off until next year. Environmentalists and thistles are happy, and ranchers with grazing pastrues are muttering unprintable phrases.

C. Industrial Development

1. Equity Silver Mine

Equity Silver Mine straddles the Foxy Creek and Goosly Lake drainages, twenty-two miles southeast of Houston. Plant construction started in the winter of 1979 and was completed in August 1980 at a cost of 85 million dollars.

The life of the mine is projected at twenty-five years. Its first pit, known as the Southern Tail, will supply about four years of ore and will cover an area of approximately 32 hectares (77 acres). Further away from the plant, a second pit is expected to provide fourteen years of ore and cover forty-eight hectares (116 acres).

Fifty-ton trucks haul the ore to the primary crusher, where the ore is crushed and concentrated. Then, it goes to the floatation plant, the thickening plant, filtering plant, and finally the leaching plant. The leaching plant removes the undesirable elements of antimony and arsenic and other impurities from the ore by using sodium sulphate. Then another filter process removes the silver/copper/gold concentrate.

The projected annual ore production, based on a five-year average, is 177,000 kilograms of silver, 6,400 tons of copper, 340 kilograms of gold, and 1,700 tons of antimony. These products then leave the mine for smelting in Japan.

When the pits are mined out, they will leave large excavations some 235 meters deep and their waste contents will cover about 49 hectares (118 acres), since for every ton of ore there are two tons of waste rock.

2. Copper Hill Mine

Ramm Venture, a Vancouver based firm, may begin construction of a silver/copper/zinc mine. This ore deposit is located about four miles southwest of Hungry Hill on Grouse Mountain.

3. Smithers Building Spree

Ten million dollars worth of constructiin starts got underway in 1980. This is the largest sum ever. Residences, motels,

and apartments made up the majority of building.

A local group is building a 3.8 million dollar office structure that will be leased for ten years to B.C.D.C. for use by the Provincial Ministries of Environment and Forestry. This 63,107 square foot building will be located almost directly across from the present provincial building. Once operational the building will imprison about 130 Forestry employees from Prince Rupert and a smattering of Environment employees.

B.C. Hydro has built a substantial office building on TAYlow Road in Smithers.

4. Babine Lake Forest Products Ltd.

TSHL A-06571 situated on the north side of Babine Lake has been approved for the period January 1979 to January 1986. This past summer docking facilities were built on Babine Lake near Twain Creek, and on its diametrical shore. Two 100' jettys will be constructed shortly. Logs will be towed across the lake year round if the company gets approval for a bubble line. According to the company's engineering firm, the bubble line will have to span some 4,700 feet and be 130 to 160 feet deep (lake 300') to effectively remove the 2 - 2½ feet of ice. Once the transportation corridor has been constructed, the company plans on extracting 55,000 Mcf/yr of timber.

5. Smithers Golf Course

Modifications are underway for a nine hole fairway expansion. Some of the work involves Kathlyn Creek.

6. Hudson Bay Mountain Ski Complex

The club, in conjunction with the town of Smithers, has built a portion of the multi-dollar gondola ski-lift.

7. Dairyland Milk Plant

The milk plant may move from Kitimat to Smithers.

8. Provincial Government Fish and Wildlife Reorganization

Reorganization will eventually result in more staff, adding to the growth of Smithers. Conservation Officers were split away from the Fish and Wildlife Service to form the new Conservation Officer Service. Both services remain within

the Ministry of Environment; however, the C.C.'s primary function is now enforcement. In this regard it is soon to include Water and Waste Management Branches legislation.

9. Future Industrial Growth

Record-building construction growth is predicted for the s/d area in 1981. Rumours of mineral development are staggering. Future possible mine sites include such drainages as; Horice Lake, Nanika Lake, Bear Lake, Sustat Lake, Morrison Lake, Babine Lake, Upper Skeena, and Johanson Lake.

Logging will continue to expand on the north-west shore of Babine Lake.

D. Obstructions and Diversions

Beaver dams were dynamited on Kathlyn Creek (twice) and Tachek Creek (once). Selective grooming and clipping was done on beaver dams in Morrison Creek (4 times), Toboggan Creek, and Owens Creek.

Two people were hired under a S.E.P. funded program to hack a canoe passage through a portion of Toboggan Creek. The passage allows more accurate fish counts and identification of coho spawning and rearing areas.

Beavers have almost won the war over coho on McBride Creek. Fat, saucy beavers have built such a labyrinth of canals and locks that even a Lake Erie Canal specialist would admire it. No Coho can penetrate further than 200 metres upstream.

Northwood Pulp and Paper Company from Houston very kindly removed the old Fisheries bridge on McBride Creek, which no doubt would aid in Coho migration if the downstream beavers were not so vengeful.

E. Referrals Processed in 1980

1.	Water Licences	48
2.	Placer Mining Licences	1
3.	Gravel Removal Operation	1
4.	Logging Activity	7
5.	Highways - Herbicides	4
6.	B.C. Hydro - Herbicides	1
7.	Mining Activity (Form 10 - 11)	23
8.	Stream Crossings	5
9.	Dykes	3
10.	Outfalls	3
11.	Land Fill	1
12.	Land SUP	3

VIII. TRENDS IN THE FISHING INDUSTRY

A. Food Fishery

There is a need for jobs in the Fort Babine area and queries have been made regarding new types of fishery ventures. In the future the band may make more strident efforts to obtain more commercial-fishery projects.

B. Sports Fishery

Angling pressure will likely continue to intensify as population increases. Forestry roads, those dusty memorials to the devastation of fish and moose, continue to crawl up fish-bearing tributaries. Look for more angling closures as the roads give access to more water courses. And, get ready for angling and environmental group lobbies of considerable strength. Spatzui and Kemano II opposition germinated here, and they quickly become highly organized.

IX. ENFORCEMENT

Eleven counts were alleged in 1980 for violations of fishery regulations.

Person Charged	Regulation	Deposition
Pottinger, Edward	BCFR 40(1)	in 1981
Labelle, Wish, Reeves	BCFR 5(2), 66(1)(d)	[illegible]
Hamblin, David/LeClair, Larry	F.A. 31(1)(3)	in 1981
Lamb, Alex	BCFR 37	150.00

Very little organized poaching of salmon takes place within s/d waters. However, some resident "wholesalers" are involved with poached fish from s/d's to the west and are rumoured to sell the fish in Prince George and other eastern destinations. More over, poached fish find ready consumers amoung the towns of Smithers, Houston, and Burns Lake.

Numerous complaints were received concerning the jigging of salmon at the Babine River bridge and Moricetown Canyon (Hazelton s/d). Six successful prosecutions of jigging at the Babine bridge slowed the illegal activity, but it still continued on a reduced scale.

Calls concerning Moricetown pink salmon could likely be used as sort of a test fishery index on the strength of the Bulkley-Morice pink salmon run.

X. PREDATORS

Bears were plentiful on Nine Mile Creek and Grizzly Creek. Mergansers were prevalent on Babine Lake and Morrison creek.

XI. ADMINISTRATION

A. Staff

1. Fishery Officers: T. Turnbull (GT-3)
Don Meyers (GT-2)

2. Wardens: A. Klopfenstein May 5 - November 28

3. Guardians: Bulkley-Morice, H.C. Scott* July 2 - September 7
* Illness shortened his work term from October 31 - September 7

4. Recommendations: The s/d was definitely short handed this year. A guardian is needed for the Fort Babine area to monitor the food fishery accurately, to obtain spawning escapements, to remove stream obstructions, to patrol the sport fishery, and to observe forestry and highway work.

More helicopter time to collect more accurate escapement figures would be a nice bonus.

XII. EQUIPMENT

A. Vehicles - 1980 Dodge p/u truck, 1975 Blazer

B. Boats - one inboard launch, one river boat, one outboard lake boat

C. Boattrailer - one

D. Outboard Motors

1. Mercury 50 H.P. (2) with jets
2. Mercury 40 H.P (1)
3. Mercury 20 H.P. (1)
4. Johnson 18 H.P. (2)
5. Johnson 5½ H.P. (1)

E. Chain Saws - three

F. Rifles - 30 - 06 (1)

G. Handguns - .357 mag (2)

XIII. INFORMATION, EDUCATION AND OTHER PROGRAMS

Brochure, information, and program discussions with school board.

Liaison with Rod and Gun Club and Steelhead Society.

Close working relationship with all other Departments in the area.