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Catalogue of Salmon Streams and Spawning Escapements of Statistical Area 4 (Lower Skeena River)

M.J. Hancock, A.J. Leaney-East,
and D.E. Marshall

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Enhancement Services Branch
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April 1983

Canadian Data Report of
Fisheries & Aquatic Sciences
No. 395



Fisheries
and Oceans Pêches
et Océans

Canada

Canadian Data Report of Fisheries and Aquatic Sciences

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Rapport statistique canadien des sciences halieutiques et aquatiques

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Les rapports statistiques sont produits à l'échelon régional, mais numérotés à l'échelon national. Les demandes de rapports seront satisfaites par l'établissement auteur dont le nom figure sur la couverture et la page du titre. Les rapports épuisés seront fournis contre rétribution par des agents commerciaux.

Fisheries and Oceans
Canadian Data Report of
Fisheries and Aquatic Sciences
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April 1983

CATALOGUE OF SALMON STREAMS AND SPAWNING ESCAPEMENTS OF

STATISTICAL AREA 4

by

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Minister of Supply and Services Canada 1983

Cat. No. Fs 97-13/395 ISSN 0706-6465

Correct citation for this publication:

Hancock, M.J., A.J. Leaney-East and D.E. Marshall. 1983. Catalogue of salmon streams
and spawning escapements of Statistical Area 4

ABSTRACT

Hancock, M.J., A.J. Leaney-East, and D.E. Marshall, 1983. Catalogue of Salmon Spawning Streams and Spawning Escapements of Statistical Area 4 including Coastal Streams and Lower Skeena River

Catalogue containing each stream's location, spawning distribution, barriers and points of difficult ascent, escapement records and other general data pertaining to the stream. The catalogue also includes a topographical map of the stream's location and in some cases a sketch which further describes the surrounding area.

Keywords: British Columbia, Statistical Area 4, Lower Skeena River, salmon streams, spawning escapements.

RESUME

Hancock, M.J. and A.J. Leaney-East. 1983. Catalogue of salmon streams and spawning escapements of Statistical Area 4 including Coastal Streams and Lower Skeena River. Can. Data Rep. Aquat. Sci. 395: xxi plus 422pp.

Le présent répertoire porte sur l'emplacement de chaque cours d'eau, la répartition de fraie, les obstacles et les points de remonte difficile, les données sur les saumons de remonte et d'autres informations relatives au cours d'eau. On y trouve une carte topographique de l'emplacement du cours d'eau et, dans quelques cas, un croquis décrivant la zone environnante.

Mots-clés: Colombie-Britannique, zone statistique 4, cours inférieur de la Skeena, cours d'eau à saumons, saumons de remonte

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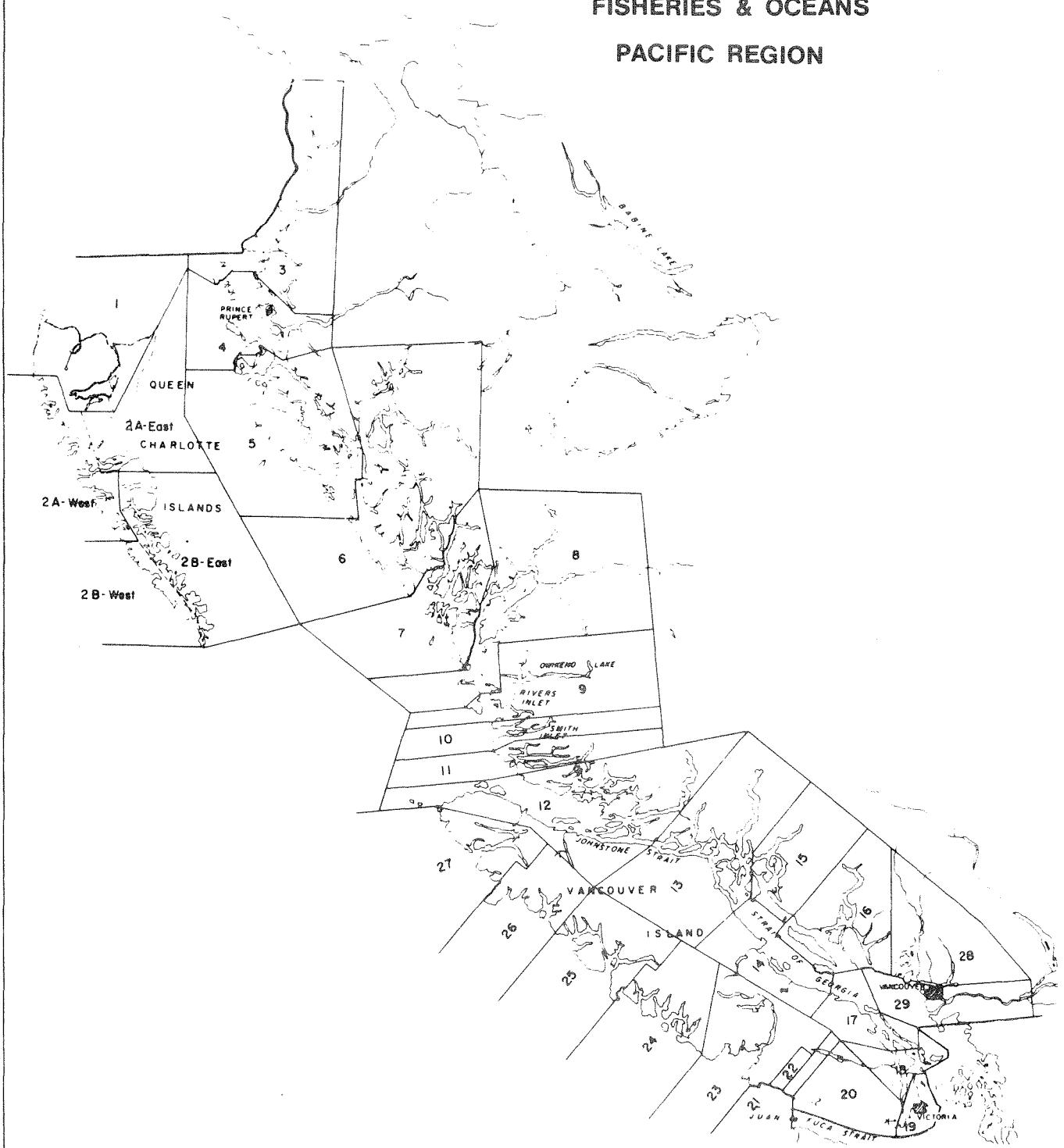
STREAM DATA

ALASTAIR LAKE	1
ALWYN CREEK	5
ANDALAS CREEK (Andulus Creek)	9
(Anderside Creek)	13
BIG FALLS CREEK	17
BURDICK CREEK (Burdock, Stoney Creek)	21
CEDAR RIVER (Beaver River)	25
CHICAGO CREEK (Seeley Creek)	29
CHIMDEMASH CREEK	33
CLEAR CREEK	37
CLEARWATER CREEK	41
(Club Creek - Lower)	45
(Club Creek - Upper)	49
COLDWATER CREEK	53
COMEAU CREEK (Carnaby Creek)	57
CULLON CREEK (Grouse Creek)	61
DATE CREEK (Dale Creek)	65
DEEP CREEK	69
DENISE CREEK	73
(Diana Creek)	79
DOUGLAS CREEK (Dry Creek)	85
ECSTALL RIVER	89
ERLANDSEN CREEK	95
EXCHAMSIKS RIVER	99
EXTEW RIVER	103

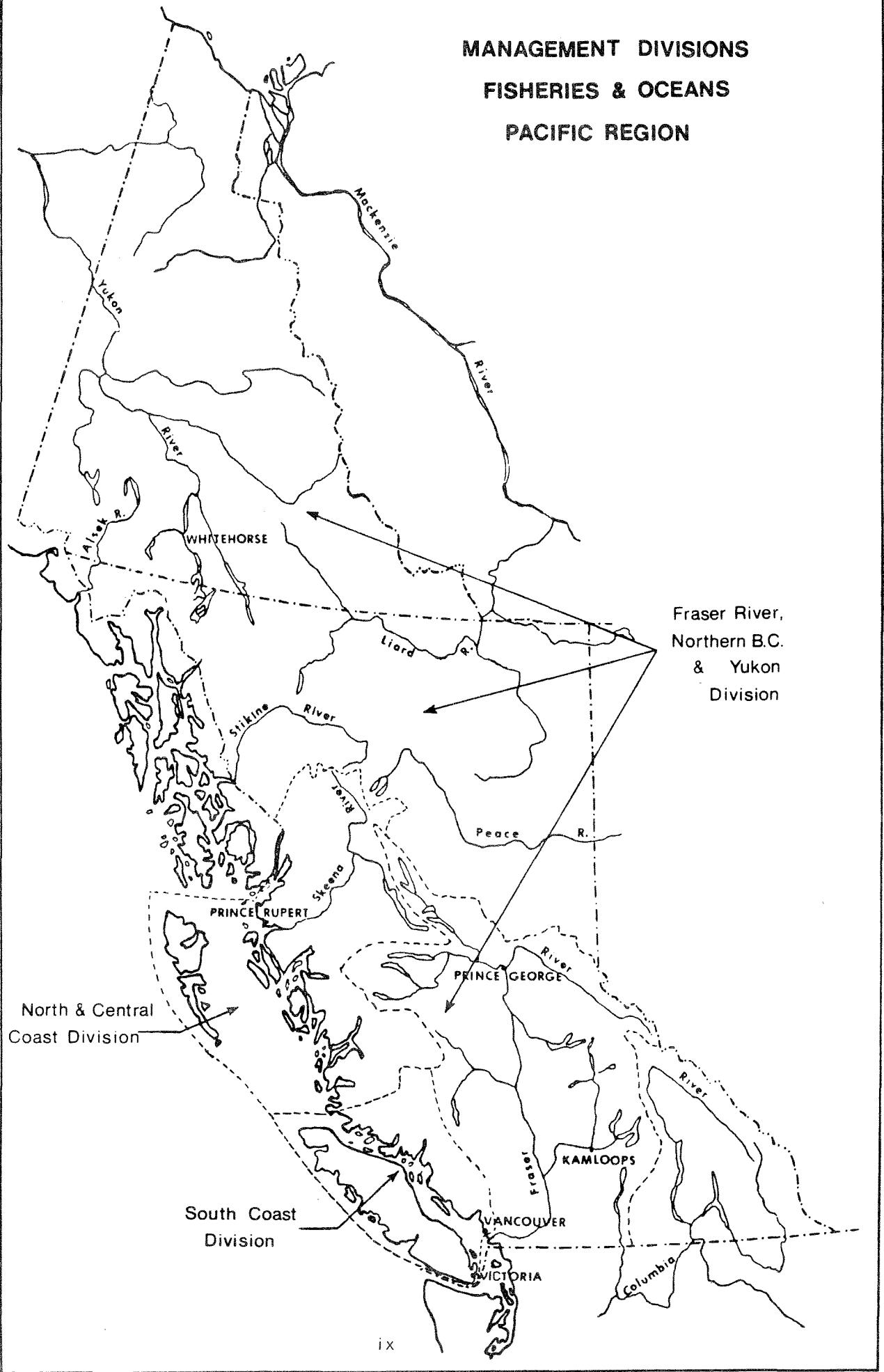
(Extew Slough)	107
(Falls Creek)	111
(Fiddler Creek)	115
GITNADOIX RIVER	119
GLACIER CREEK	123
(Glen Vowell Creek)	127
GOAT CREEK	131
HAYWARD CREEK (Beaver Creek)	135
HAZELTON CREEK (Cedar Creek)	141
(Herman Creek)	145
(Heavenor Creek or McQueen Creek)	149
(Hot Springs Slough)	153
HUMPBACK CREEK (Humpback Bay Creek)	157
JOHNSTON CREEK	163
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KADEEN CREEK	171
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KLOIYA RIVER (Cloyah Creek)	211
KWINITSA CREEK	217
(Lahou Creek, Pearl Harbour Creek)	221
LAKELSE RIVER	227
LEAN-TO CREEK	233
(Lockerby Creek)	237
LOWRIE CREEK (Lowery Creek)	243
McCULLY CREEK	247
McNEILL RIVER (Green River)	253
McNICHOL CREEK	257
MADELINE CREEK (Gibraltar Creek)	261
MAGAR CREEK (Dog Tag Creek)	267
MOORE COVE CREEK	271
MUDDY CREEK	277
MURDER CREEK (Beirness Creek, Beirnes Creek)	281
OONA RIVER	287

(Price Creek)	293
SCHULBUCKHAND CREEK	299
SCOTIA RIVER	305
SHAMES RIVER	309
SHAMES SLOUGH	315
SHANNON CREEK (Nicholson Creek)	317
SHAWATLAN CREEK	321
SHEGUNIA CREEK	327
SILVER CREEK	333
SINGLEHURST CREEK (Swede Creek)	337
SKEENA RIVER - MAINSTEM	341
SOCKEYE CREEK	345
SOUTHEND CREEK	351
SPARKLING CREEK (Clearwater Creek)	357
SPILLER RIVER	361
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**STATISTICAL AREAS
FISHERIES & OCEANS
PACIFIC REGION**



**MANAGEMENT DIVISIONS
FISHERIES & OCEANS
PACIFIC REGION**



MAP REFERENCES

Roads:

hard surface, all weather	<u>more than 2 lanes</u>
hard surface, all weather	<u>2 lanes</u> Route No. <u>less than 2</u>
loose surface, all weather	<u>2 lanes wide or more</u>
" less than 2 lanes	<u>all weather</u> <u>dry weather</u>
Private Road, Trail	<u>Private Road</u> <u>Trail</u>

Railways:

normal gauge, multiple track	<u>Station</u>
normal gauge, single track	<u>Stop</u> <u>Siding</u>
abandoned, or under construction	<u>+ + + + +</u>
narrow gauge, single track	<u>- - - - -</u>
Bridge, underpass or overpass	<u> </u> <u> </u>
Tunnel	<u>-----</u> <u>=====</u>

Boundary, International

" Province	<u>-----</u>
" County or District	<u>-----</u>
" Township or Parish	<u>-----</u>
" City or Town	<u>-----</u>
" Reservation, Indian, Military, etc	<u>-----</u>

Power Transmission Line
Telephone or Telegraph, trunk route
Horizontal Control Point
Boundary Marker
Bench Mark
Spot Elevation, (in feet)
Mine or Pit
Road, Hard Surface, All Weather

2 Lanes 99 2 Lanes

Loose Surface, All Weather All Weather Dry Weather

Loose Surface, Less than 2 lanes All Weather Dry Weather

Private Logging, Mining etc All Weather Dry Weather

Four Wheel Drive All Weather Dry Weather

Trail ----- -----

Railway ----- -----

Main Telephone Line ----- -----

Main Electric Power Line ----- -----

Horizontal Control Station ----- -----

Contours (Interval 500 feet) ----- -----

Elevation in feet above mean sea-level ----- -----

Intermittent Stream ----- -----

Swamp or Marsh ----- -----

Dam ----- -----

Spring ----- -----

Navigation Light ----- -----

Mine ----- -----

Glacier ----- -----

Customs Office ----- -----

House, Building	<u>*</u> <u>+</u>
School	<u>o</u> <u>s</u>
Church	<u>+</u>
" with conspicuous Tower or Spire	<u>§</u>
Post Office	<u>p</u>
Tower, Radio Mast, Lookout, etc.	<u>o</u>
Cemetery	<u>Cem</u>
Quarry	<u>Q</u>
Sand or Gravel Pit	<u>Q</u>
Cliff	<u>Cliff</u>
Cutting	<u>Cutting</u>
Embankment	<u>Embankment</u>
Saw Mill	<u>SM</u>

Lighthouse	<u>*</u>
Wharf or Pier	<u>Pier</u>
Foreshore Flats	<u>Sand</u> <u>Mud</u>
Swamp or Marsh	<u>Swamp</u>
Lake or Pond, intermittent	<u>Intermittent</u>
Glacier or Snowfield	<u>Glacier</u>
Stream, intermittent	<u>Intermittent</u>
Irrigation Canals, Ditches	<u>Canal</u>
Inundated Land, seasonal	<u>Seasonal</u>
Contours, elevation	<u>500</u> <u>400</u>
" depress m	<u>500</u> <u>400</u>
" approximate	<u>500</u> <u>400</u>
Forest, unclassified	

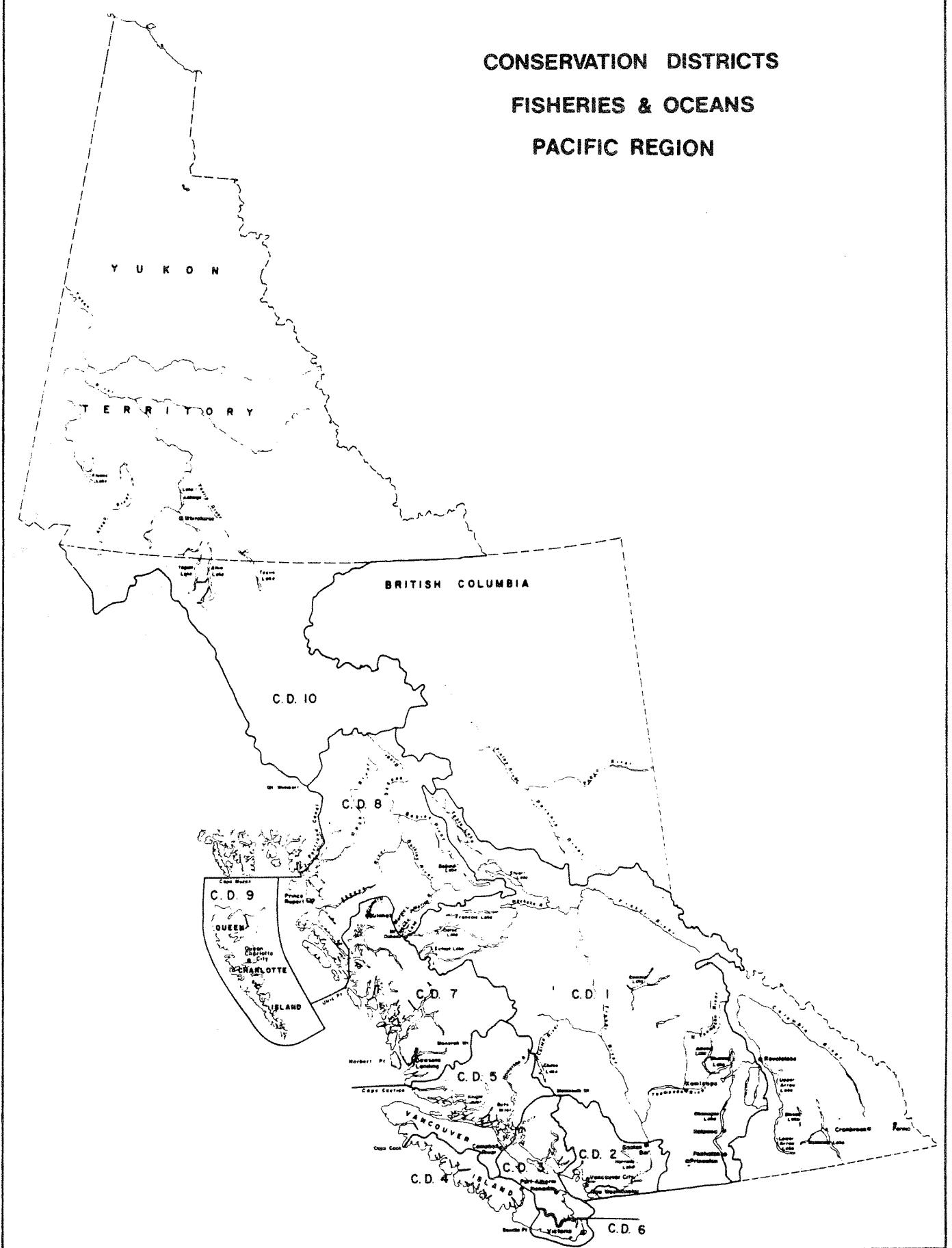
City or large town	<u>Box</u>
Town	<u>Box</u>
Village or settlement	<u>O</u>
Streams:	
intermittent or dry	<u>Intermittent</u>
indefinite	<u>Indefinite</u>
Irrigation canal or ditch	<u>Irrigation Canal</u>
Rapids; falls	<u>Rapids</u> <u>Falls</u>
Aerodrome	<u>Aerodrome</u>
Landing ground	<u>Landing Ground</u>

P	Boundary monument	<u>Box</u>
B	Astronomical position	<u>Box</u>
H	Horizontal control point	<u>Box</u>
Intermittent lake	<u>Intermittent</u>	
Marsh or swamp	<u>Marsh</u>	
Sand, gravel or mud	<u>Sand</u>	
Wooded areas	<u>Wooded Areas</u>	
Seaplane base	<u>Seaplane Base</u>	
Seaplane anchorage	<u>Seaplane Anchorage</u>	

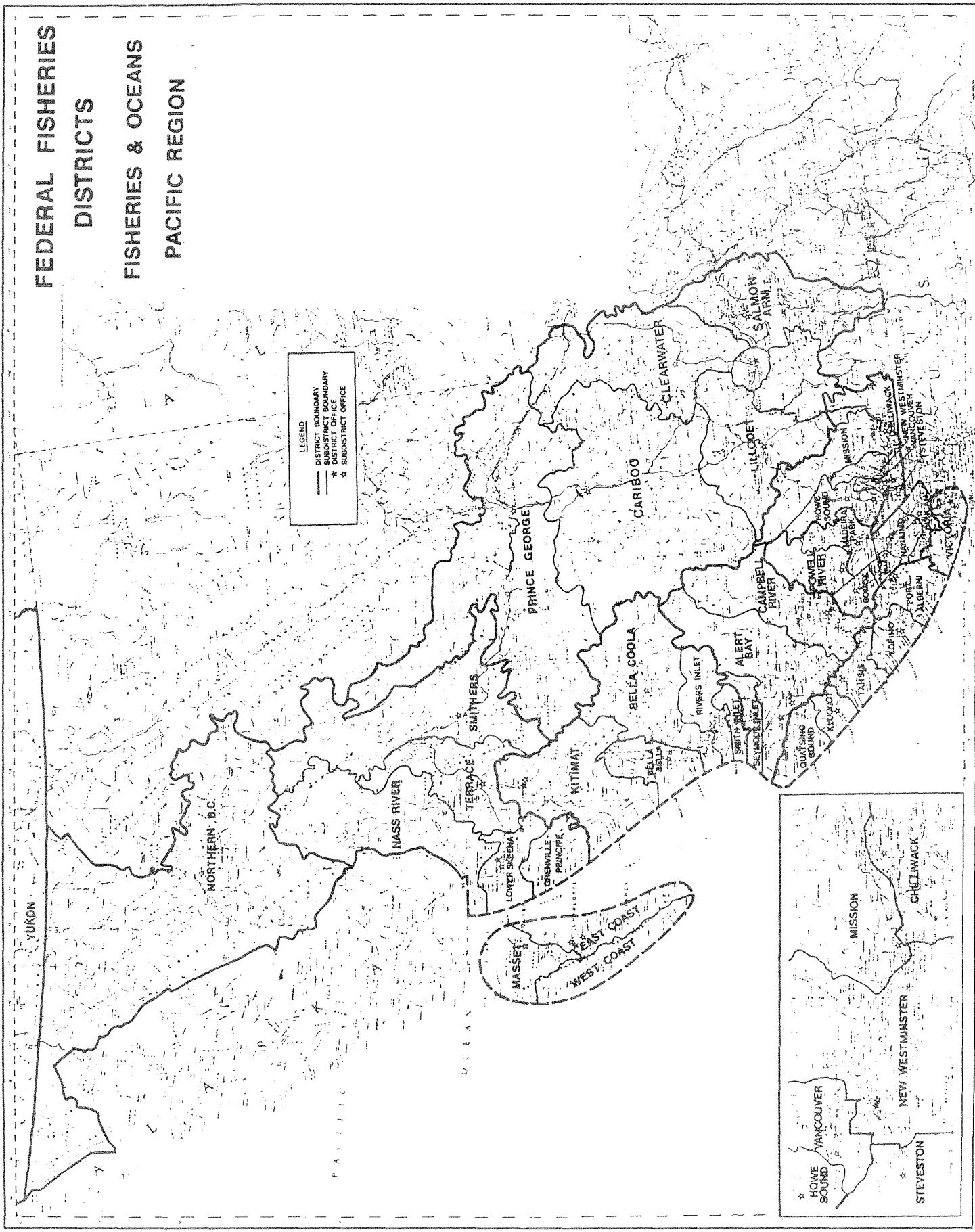
Surveyed timber license number	TL2841
Lot number	L124 or S66
Building	
School	
Non-perennial stream	
Marsh or Swamp	
Glacier	
Foreshore flats	<u>Sand</u>
Contours, elevation	500
Contours, depression	
Forest	

Streams	<u>Wavy line</u>
Highways	<u>-----</u>
Roads	<u>-----</u>
Trails	<u>-----</u>
Houses	<u>Up</u>
Railroad	<u>RR</u>
Falls	<u>Falls</u>
Rapids	<u>Rapids</u>
Rip-Rap	<u>Rip-Rap</u>
Bridges	<u>Bridges</u>
Dam	<u>Dam</u>
Log Jams	<u>Log Jams</u>
Log	<u>Log</u>
Power Line	<u>Power Line</u>
Coho	<u>CO</u>
Chum	<u>CM</u>
Pink	<u>P</u>
Chinook	<u>CK</u>
Sockeye	<u>S</u>

CONSERVATION DISTRICTS
FISHERIES & OCEANS
PACIFIC REGION



**FEDERAL FISHERIES
DISTRICTS** **FISHERIES & OCEANS** **PACIFIC REGION**



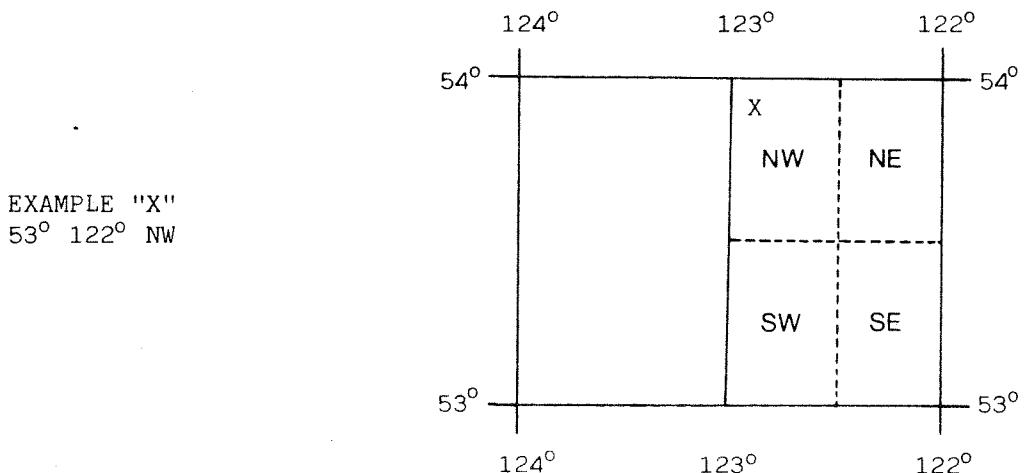
STANDARDS USED ON STREAM DATA PAGE

Name of Stream: Name as given in Gazetteer of Canada, British Columbia 1966 edition; local or non-gazetted names are added in lower case type.

Conservation District: As defined by the Conservation and Protection Service (April 1965).

Statistical Area: As defined by Department of the Environment, Fisheries Operations Statistical Map (January 1974).

Location and Position: Defined by quadrant indexing. Each geographical quadrilateral of the earth's surface of 1 degree in extent in latitude and longitude is divided into the SE, SW, NE and NW quarters. The south-east corner of each quadrilateral gives the initial point for the figure of reference (Gazetteer of Canada).



Length: The portion of the stream accessible to spawning salmon.

Width: Average width, estimated to the nearest metre for the described length.

Drainage: Area in square kilometres of the entire drainage basin feeding the stream.

Composition:

Bedrock	bedrock
Boulder	>256 mm
Coarse	50.9 - 256 mm
Fine	3.37 - 50.8 mm
Sand & Silt	<3.37 mm
Unclassified	where bottom cannot be observed, e.g. log jams, pools, water colour, etc.

Gradient: Expressed as a percentage

Wetted Area: Number of square metres of stream bed under water at average flows within the described length.

Spawning Area: Estimated square metres of stream bed suitable for salmon spawning within the described length.

Discharge: Mean annual discharge. Maximum and minimum values are either daily means or instantaneous discharges. The latter are identified by (Inst.). Discharge data is taken from "Historical Stream Flow Summary", British Columbia, Water Survey of Canada.

Temperature: As described. (°C)

Barriers and Points of Difficult Ascent: Complete and partial barriers to salmon and their distance from the stream mouth. Species likely to be affected may be listed. Both natural and man-made obstructions are defined.

Spawning Distribution: Portion of the stream utilized by each species. Distribution is indicated by brief comments opposite the species.

Potential of Inaccessible Portion of Stream: Indicates whether or not the inaccessible portion of the stream could be utilized by spawning salmon.

General Remarks: Emphasizes features of stream and spawning populations. Also includes industrial activity, routes of accessibility, etc. The comments with dates are taken from "Annual Reports of Salmon Streams & Spawning Grounds" (B.C. 16's). In some cases, references to additional information not included in the General Remarks may be given.

Escapement Records: The escapement represents the mid point of the coded range of escapement for each species. For example: the letter "H" representing 5000-10000 fish would be entered as 7500. Where absolute numbers are provided by Fisheries Personnel, these numbers are entered. N/O means the stream was inspected but no fish were observed; UNK means there was evidence of fish present but no estimates were made; NO RECORDS means no escapement records for the applicable years could be found in the escapement files.

Timing: Dates which salmon arrive in the stream, begin to spawn, reach peak spawning period and finish spawning.

E = early (1st to 10th of the month)

M = mid (11th to 20th of the month)

L = late (21st to end of the month)

NB: Distance references are from the mouth of the stream unless otherwise stated.

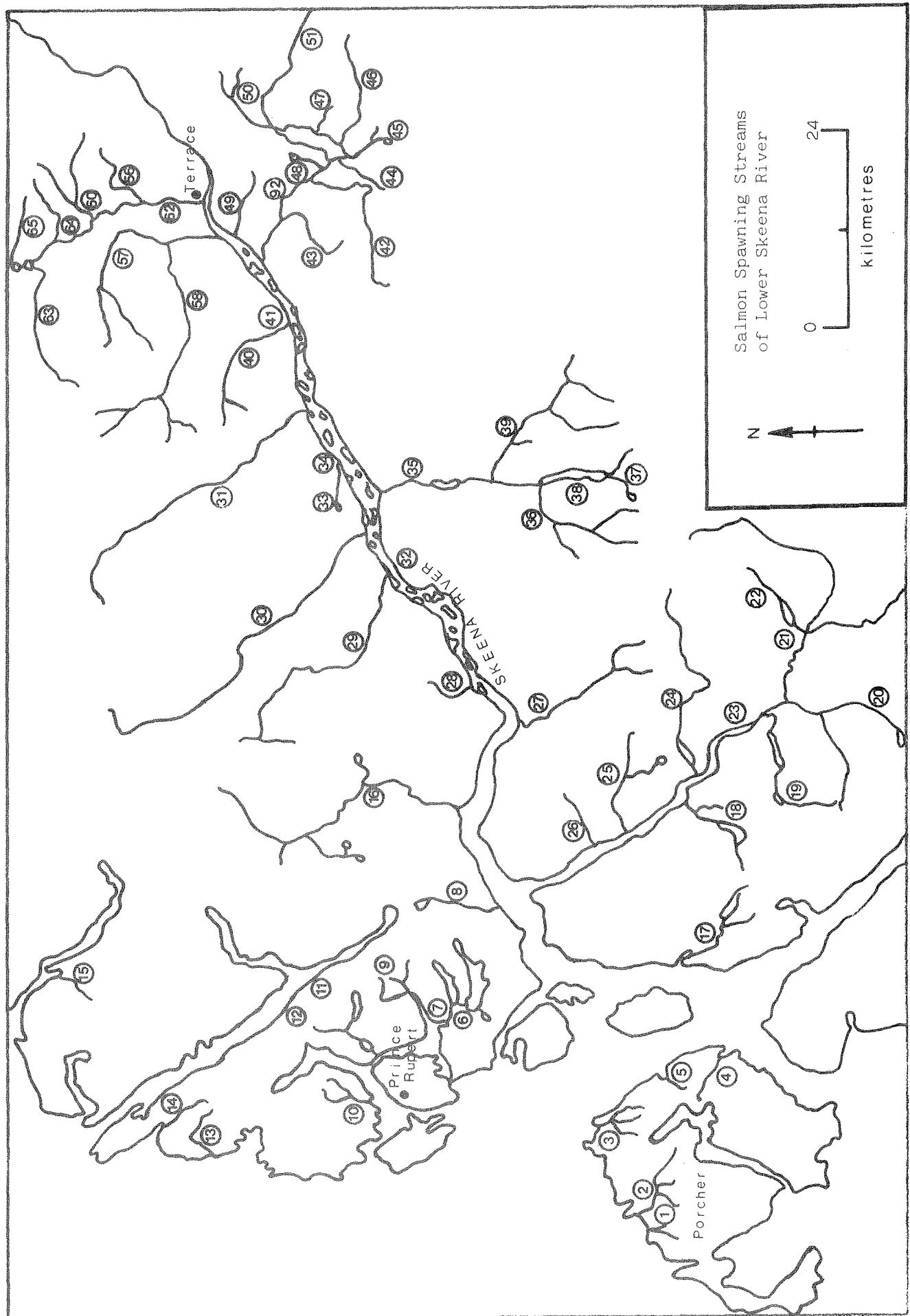
BRITISH COLUMBIA
FEDERAL FISHERIES DISTRICTS

DISTRICT AND SUBDISTRICT OFFICES	ADDRESSES	TELEPHONE NUMBERS
DISTRICT #1 KAMLOOPS	202 Federal Bldg., 317 Seymour St., Kamloops, B.C., V2C 2E9	374-4322
Salmon Arm	Box 1160, Salmon Arm, B.C., V0E 2T0	832-8037
Prince George	Box 267, Postal Stn. A, Prince George, B.C., V2L 4S1	564-7030
Clearwater	P.O. Box 610, P.O. Building, Clearwater, B.C., V0E 1N0	674-9633
Lillooet	Box 315, Lillooet, B.C., V0K 1Y0	256-4525
Cariboo	Box 4340, Quesnel, B.C., V2J 3J3	992-2434
DISTRICT #2 NEW WESTMINSTER	309 - 549 Columbia St., New Westminster, B.C., V3L 1B3	545-7181
Surrey	309 - 549 Columbia St., New Westminster, B.C., V3L 1B3	545-7181
Vancouver Waterfront	309 - 549 Columbia St., New Westminster, B.C., V3L 1B3	545-7181
Mission	Box 3308, Mission, B.C., V2V 4J5	826-3664
Chilliwack	Ste. 5, 9 Mary Street, Chilliwack, B.C., V2P 4G9	792-6011
Steveston	1255 No. 1 Road, Richmond, B.C., V7E 1T7	274-7217
Coquitlam	309 - 549 Columbia St., New Westminster, B.C., V3L 1B3	545-7181
Squamish	Box 85, Squamish, B.C., V0N 3G0	892-3230
DISTRICT #3 NANAIMO	204 - 60 Front St., Nanaimo, B.C., V9R 5H7	876-274
Parksville	Box 1120, Parksville, B.C., V0R 2S0	248-6710
Comox	Box 1328, Comox, B.C., V9N 3Z9	339-2031
Duncan	Box 241, Duncan, B.C., V9L 3X3	746-6221
Powell River	4770 Joyce Ave., Powell River, B.C., V8A 3B6	485-9621
Pender Harbour	Box 10, Madeira Park, B.C., V0N 2H0	883-2313
DISTRICT #4 PORT ALBERNI	P.O. Box 280, Federal Bldg., Port Alberni, B.C., V9Y 7M7	724-0195
Tofino	Box 48, Tofino, B.C., V0R 2Z0	725-3468
Tahsis	Box 549, Tahsis, B.C., V0P 1X0	934-6606
Port Hardy	Box 10, Port Hardy, B.C., V0N 1P0	949-6422
DISTRICT #5 CAMPBELL RIVER	215 - 950 Alder St., Campbell River, B.C., V9W 2P8	287-2102
Port Hardy	Box 10, Port Hardy, B.C., V0N 2P0	949-6422
Alert Bay	Box 263, Alert Bay, B.C., V0N 1AO	974-5216
DISTRICT #6 VICTORIA	116 - 816 Government St., Victoria, B.C., V8W 1W9	566-3252
Saanich	116 - 816 Government St., Victoria, B.C., V8W 1W9	566-3252
Sooke	Box 831, Sooke, B.C., V0Z 1N0	642-5322
DISTRICT #7 KITIMAT	312 - 450 Federal Bldg., City Centre, Kitimat, B.C., V8C 1T6	632-6158
Butedale	312 - 450 Federal Bldg., City Centre, Kitimat, B.C., V8C 1T6	632-6158
Bella Bella	Box 38, Bella Bella, B.C., V0T 1B0	957-2312
Bella Coola	Box 130, Bella Coola, B.C., V0T 1C0	799-5345
Rivers Inlet	Dawsons Landing P.O., Rivers Inlet, B.C., V0N 1M0	Radio Ph.
DISTRICT #8 PRINCE RUPERT	109 - 417 Second Ave. West, Prince Rupert, B.C., V8J 1G8	624-9137
Lower Nass	109 - 417 Second Ave. West, Prince Rupert, B.C., V8J 1G8	624-9137
Upper Nass	P.O. Box 29, Nass Camp P.O., B.C., V0N 3J0	633-2408
Skeena	109 - 417 Second Ave. West, Prince Rupert, B.C., V8J 1G8	624-9137
Grenville-Principe	109 - 417 Second Ave. West, Prince Rupert, B.C., V8J 1G8	624-9137
Hazelton	Box 327, Hazelton, B.C., V0J 1Y0	842-6327
Terrace	4721-B Lazelle Ave., Terrace, B.C., V8G 1R6	635-2206
Smithers	Box 578, Smithers, B.C., V0J 2N0	847-2312
DISTRICT #9 QUEEN CHARLOTTE	Box 99, Q.C. City, Queen Charlotte Islands, B.C., V0T 1S0	559-4413
Sandspit	Box 222, Sandspit, B.C., V0T 1T0	637-5340
Masset	Box 99, Masset, B.C., V0T 1M0	626-3316
DISTRICT #10 WHITEHORSE	122 Industrial Road, Whitehorse, Yukon Territories, Y1A 2T9	403-667-2235
Haines Junction	P.O. Box 5341, Haines Junction, Y.T., Y0B 1L0	403-667-2235

ESCAPEMENT RECORD FOR STATISTICAL AREA 4 LOWER SKEENA RIVER

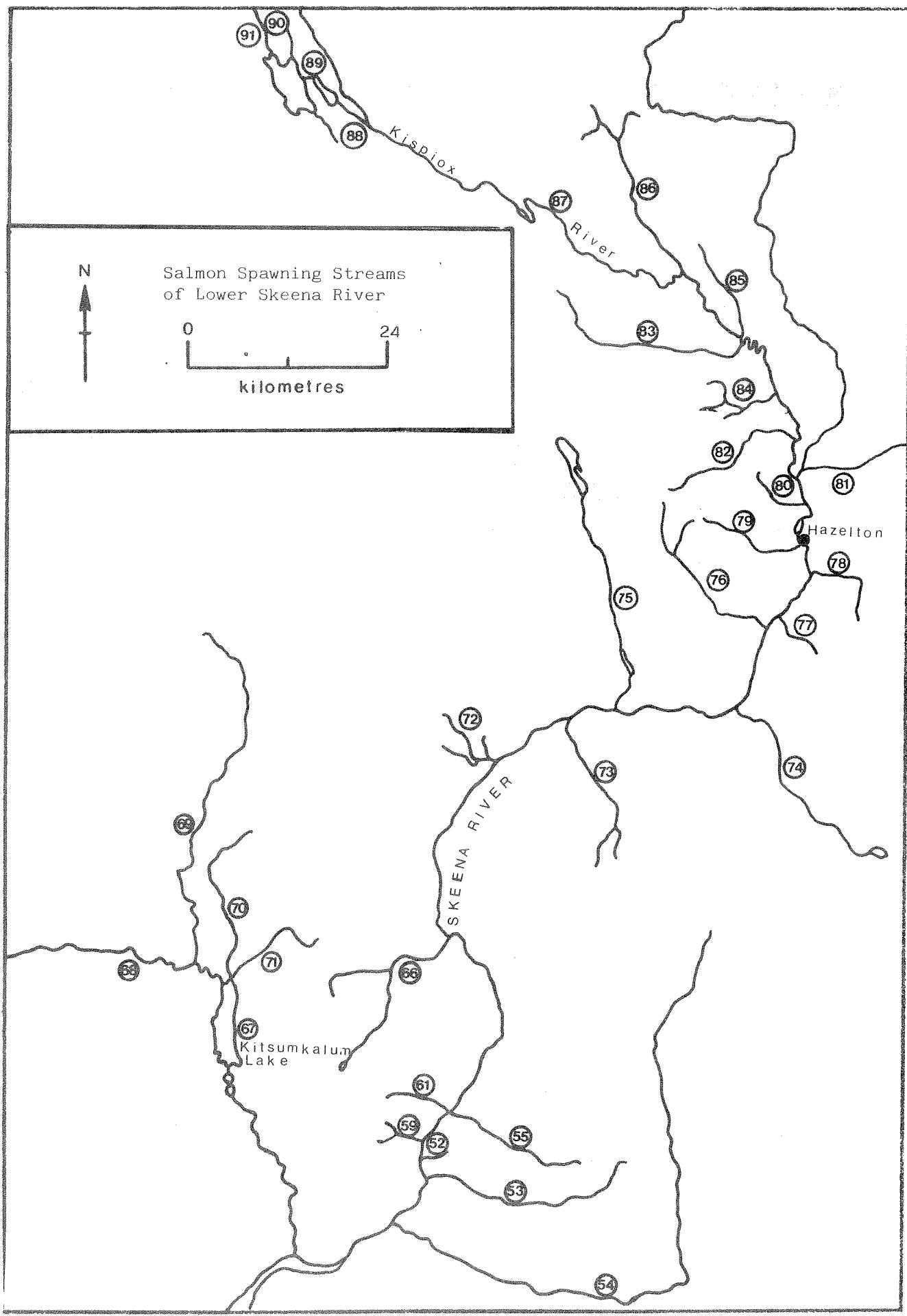
YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947	31,254	4,475	14,125	10,850	86,400	25
1948	55,425	1,575	19,850	18,875	248,000	-
1949	43,960	2,341	41,795	12,130	470,960	-
1950	44,600	3,075	20,042	24,450	476,875	-
1951	40,300	5,430	37,815	16,500	396,575	-
1952	74,290	3,000	28,679	31,175	700,000	-
1953	44,550	2,125	28,900	8,165	263,600	-
1954	49,475	3,750	38,925	22,997	314,095	-
1955	31,625	4,825	42,550	2,075	294,050	26
1956	63,430	4,850	76,687	3,820	189,384	-
1957	68,675	10,325	44,875	8,525	521,450	75
1958	79,207	6,050	101,100	1,945	363,090	-
1959	46,875	9,375	875	1,225	537,525	-
1960	25,882	6,852	40,500	600	180,185	59
1961	36,352	7,475	39,568	37,562	727,450	133
1962	29,537	6,125	18,750	8,200	874,575	75
1963	35,600	6,900	39,675	1,325	817,075	-
1964	60,129	6,050	59,375	3,050	1,343,203	-
1965	56,880	12,131	108,750	8,653	1,224,859	-
1966	37,306	5,858	102,138	18,580	594,313	243
1967	43,336	5,100	44,925	13,775	472,077	-
1968	43,875	9,950	96,500	10,300	1,613,400	-
1969	24,625	19,000	57,600	10,225	299,425	-
1970	25,900	12,725	61,675	10,475	784,300	-
1971	25,400	11,475	57,745	24,000	608,781	-
1972	30,625	7,430	41,200	33,620	35,000	-
1973	27,450	13,770	24,120	23,895	722,800	-
1974	16,700	12,000	23,920	12,400	344,700	-
1975	13,500	11,075	15,420	9,425	1,216,105	-
1976	12,950	13,330	25,820	10,245	574,700	-
1977	20,175	22,575	20,120	10,125	569,925	200
1978	21,400	15,645	25,350	7,175	523,675	-
1979	16,075	2,300	11,550	6,175	354,195	-
1980	23,632	17,147	15,343	3,781	155,152	-
1981	15,595	3,725	7,785	8,910	41,495	-
1982						
1983						
1984						
1985						
TIME						
ARR.						
START						
PEAK						
END						

REMARKS



INDEX TO MAP OF SPAWNING STREAMS OF STATISTICAL AREA 4
LOWER SKEENA RIVER

ALASTAIR LAKE	(38)	KWINITSA CREEK	(28)
ALWYN CREEK	(49)	(Lahou Creek, Pearl Harbour Creek)	(13)
ANDALAS CREEK	(44)	LAKELSE RIVER	(92)
(Anderside Creek)	(33)	(Lockenby Creek)	(26)
BIG FALLS CREEK	(24)	MCNEILL RIVER (Green River)	(8)
CLEARWATER CREEK	(45)	MCNICHOL CREEK	(10)
COLDWATER CREEK	(42)	MADELINE CREEK (Gibraltar Creek)	(18)
DEEP CREEK	(56)	MAGAR CREEK (Dog Tag Creek)	(39)
DENISE CREEK	(9)	MOORE COVE CREEK	(17)
(Diana Creek)	(6)	MUDDY CREEK	(19)
ECSTALL RIVER	(23)	OONA RIVER	(4)
ERLANDSEN CREEK	(57)	SCHULBUCKHAND CREEK	(46)
EXCHAMSIKS RIVER	(30)	SCOTIA RIVER	(27)
EXTEW RIVER	(31)	SHAMES RIVER	(40)
(Extew Slough)	(34)	(Shames Slough)	(41)
GITNADOIX RIVER	(35)	SHAWATLAN RIVER	(11)
GLACIER CREEK	(64)	SILVER CREEK	(12)
GOAT CREEK	(65)	SKEENA RIVER - MAINSTEM	(32)
HAYWARD CREEK (Beaver Creek)	(25)	SOCKEYE CREEK	(50)
(Herman Creek)	(48)	SOUTHEND CREEK	(37)
(Hot Springs Slough)	(47)	SPARKLING CREEK (Clearwater Creek)	(20)
HUMPBACK CREEK (Hampback Bay Creek)	(3)	SPILLER RIVER	(5)
JOHNSTON CREEK	(21)	STAR CREEK	(63)
JOHNSTON LAKE	(22)	STUMAUN CREEK (Simpson Creek)	(14)
KADEEN CREEK	(36)	(Tsamspanaknok Bay Creek, Sam Bay)	
KASIKS CREEK	(29)	USELESS CREEK (Big Useless Creek)	
KHYEX RIVER	(16)	USELESS CREEK (Little Useless Creek)	
KITSUMKALUM RIVER - LOWER	(62)	WHITE CREEK	(43)
KLOIYA RIVER (Cloyah Creek)	(7)	WILLIAMS CREEK	(51)
		ZY MAGOTITZ RIVER	(63)



INDEX TO MAP OF SPAWNING STREAMS OF STATISTICAL AREA 4

LOWER SKEENA RIVER

BURDICK CREEK (Burdock, Stoney Creek)	76
CEDAR RIVER (Beaver River)	69
CHICAGO CREEK (Seeley Creek)	78
CHIMDEMASH CREEK	55
CLEAR CREEK	70
(Club Creek - Lower)	89
(Club Creek - Upper)	90
COMEAU CREEK (Carnaby Creek)	77
CULLON CREEK (Grouse Creek)	86
DATE CREEK (Dale Creek)	82
DOUGLAS CREEK (Dry Creek)	71
(Falls Creek)	91
(Fiddler Creek)	66
(Glen Vowell Creek)	80
HAZELTON CREEK (Cedar Creek)	79
(Heavenor Creek, McQueen Creek)	84
KITSEGUECLA RIVER	74
KITSUMKALUM RIVER -- UPPER (Beaver River)	68
KITSUMKALUM LAKE	67
KITWANGA RIVER (Kitwancool)	75
KLEANZA CREEK (Gold Creek)	53
LEAN-TO CREEK	60
LOWRIE CREEK (Lowery Creek)	59
McCULLY CREEK	83
MURDER CREEK (Reirness Creek, Reirnes Creek)	85
(Price Creek)	73
SHANNON CREEK (Nicholson Creek)	61
SHEGUNIA CREEK	81
SINGLEHURST CREEK (Swede Creek)	52
STEPHENS CREEK	88
WILSON CREEK	72
ZYMOETZ RIVER	54

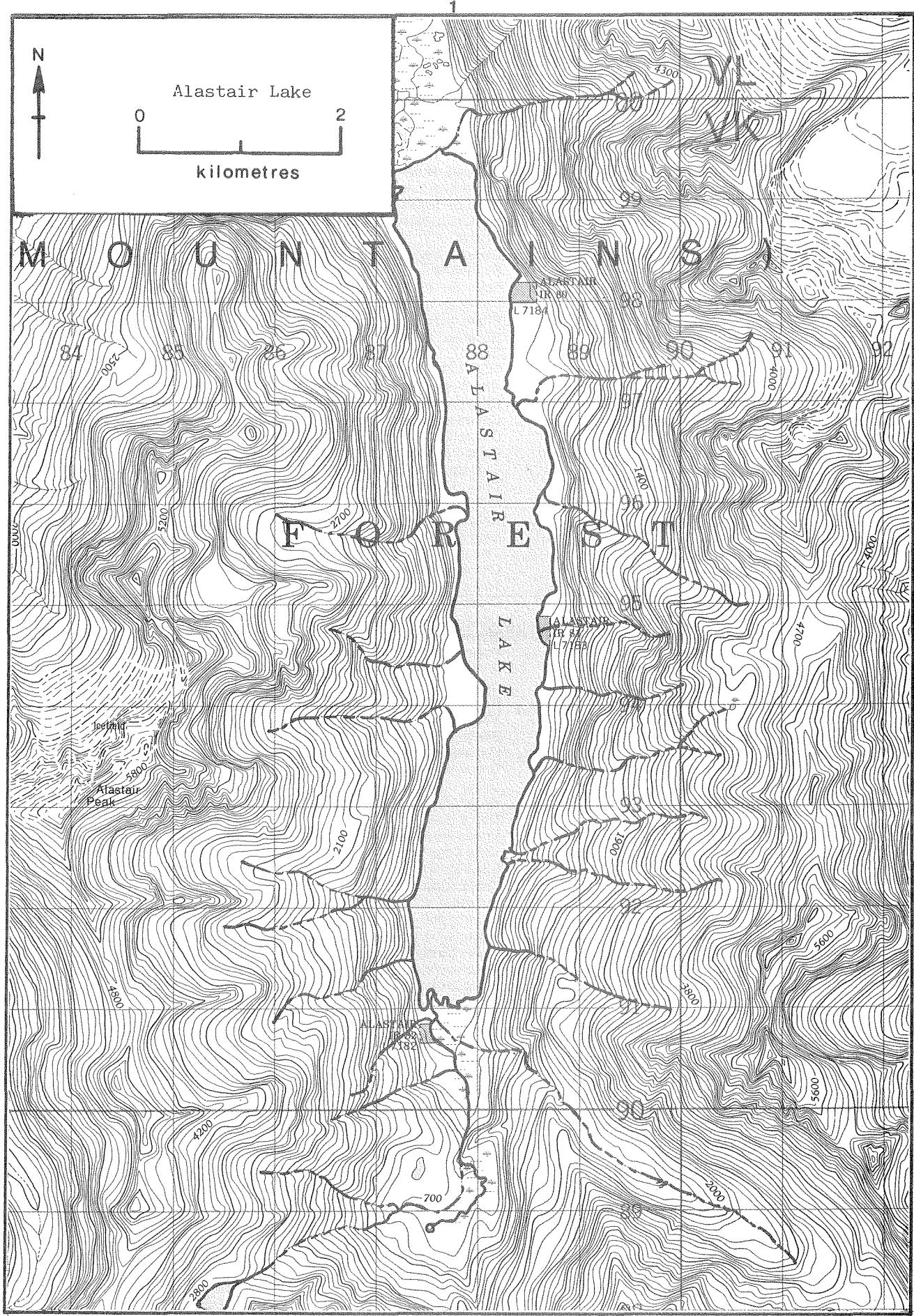
$$\| \nabla u \|_{L^2(\Omega)} \leq C_1 \left(\| f \|_{L^2(\Omega)} + \| g \|_{L^2(\Omega)} + \| h \|_{L^2(\Omega)} + \| \nabla v \|_{L^2(\Omega)} + \| \nabla w \|_{L^2(\Omega)} \right)$$

$$(\mathbb{R}^n,\mathbb{C}^m) = \mathrm{ev}^{\ast} \circ \pi^{\ast}(\mathbb{R}^n,\mathbb{C}^m).$$

$$x\in \mathbb{R}^{d_x}$$

STREAM DATA

STATISTICAL AREA 4 (Lower Skeena River)



NAME OF STREAM ALASTAIR LAKE
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Expansion of Gitnadoix River, Rge.5, Coast Dist.
 POSITION 54 129 SE
 LENGTH _____ km WIDTH _____ m DRAINAGE _____ km²
 COMPOSITION: BEDROCK _____ BOULDER _____ COARSE _____ FINE _____
 SILT & SAND _____ UNCLASSIFIED _____

PERCENT GRADIENT

0.00 - 0.25
0.25 - 0.50
0.50 - 0.75
0.75 - 1.00
> 1.00

WETTED AREA _____ m² SPAWNING AREA _____ m²DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT 15.2m falls 1.6km from mouth

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- scattered along lake shore and at creek mouths to a depth of
CHINOOK	4-6m
COHO	- tributary streams
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS

1960 - Good seeding of sockeye in creeks above lake.
 1964 - Usual silty output off Southend Creek sandy lake edge. Fish ripen
 at lake edge. Bad weather made late season observations impossible.

Predators: seals, bears, eagles and other birds.
 Subject to seasonal fluctuations in water levels.
 Lake fed by two small streams with adequate water volume and cool
 temperatures.
 Stable lake conditions.

Sketch of Alastair Lake,
1971.

0

1.50

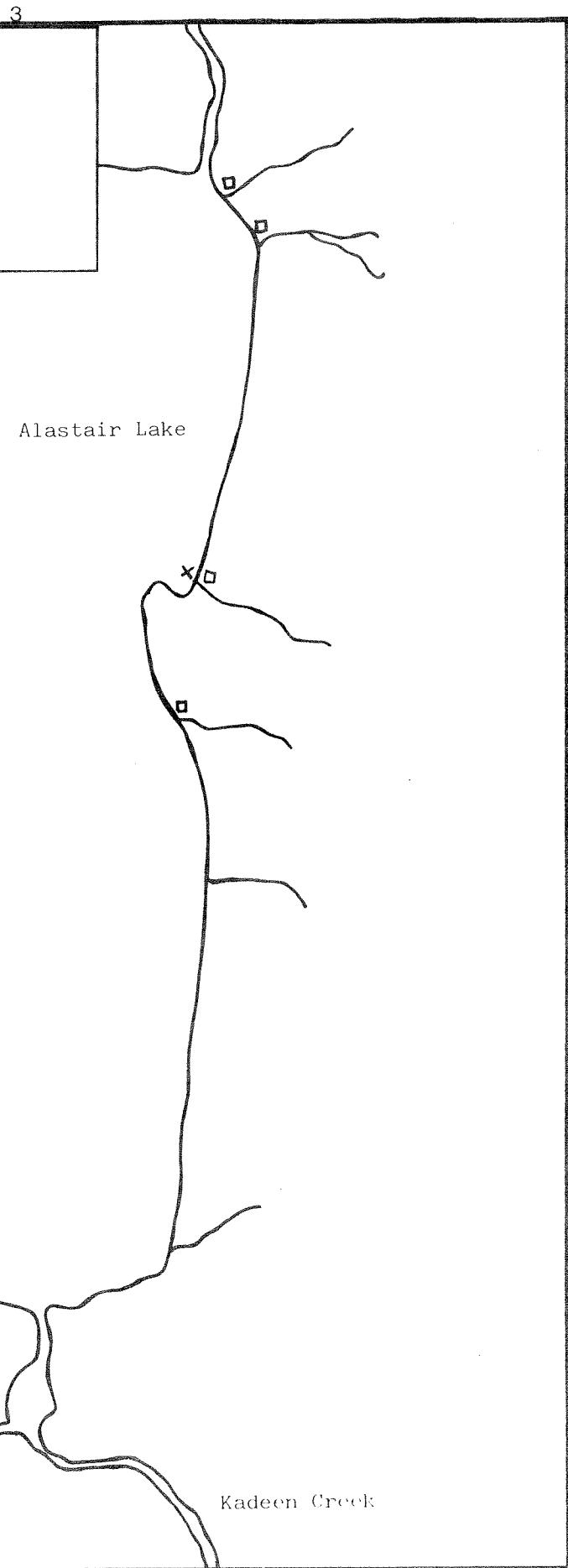
kilometres

X - Sockeye Spawning Areas
◻ - Coho Spawning Areas

Gitnadoix
River

Kadeen Creek

Alastair Lake



ESCAPEMENT RECORD FOR

ALASTAIR LAKE

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947	7500					
48						
49	2000					
50	3000					
51	3000					
52	5000					
53	3000					
54	3500		* 7000			
55	3500		* 6000			
56	7500					
57	7500					
58	7500		* 7500			
59	7500		N/I			
60	400		N/I			
61	750					
62	1500		N/I			
63	1500					
64	400		750			
65	400					
66	400					
67	5000		500			
68	7500		1500			Obs.
69	1500		1500			
70	1500		1500			
71	400		750			
72	1500		750			
73	1500		400			
74	1500		400			
75	200		400			
76	1500		750			
77	3500		200			
78	1500		400			
79						
80	4500		200			
81	500		300			
82						
83						
84						
85						

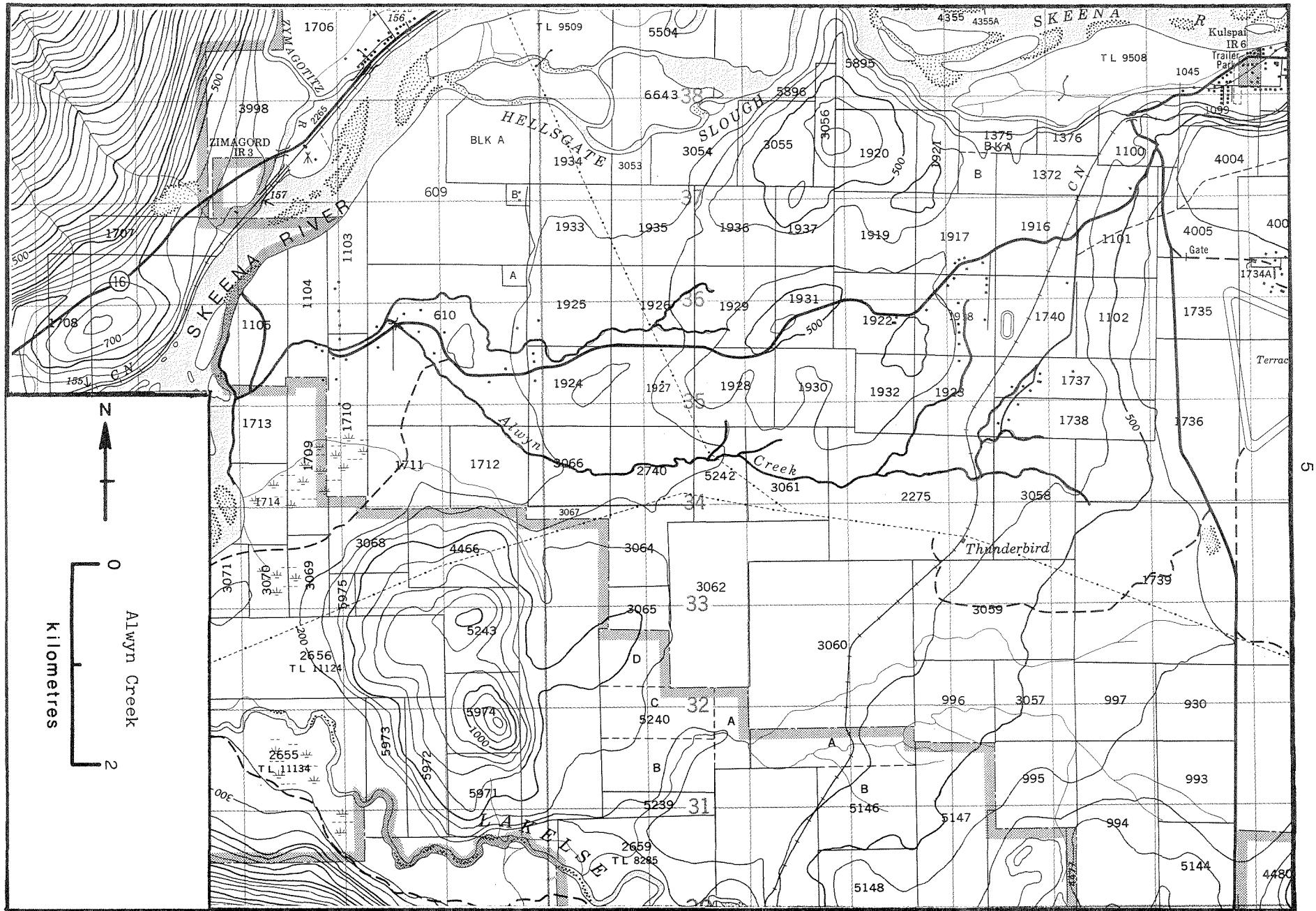
TIMING

ARRIVE	E AUG		SEPT			
START	E-M SEPT		OCT			
PEAK	M SEPT		M NOV			
END	OCT		DEC			

REMARKS * Sighted in lake, but spawning location unknown.

N/I - Not inspected

Obs - Observed



NAME OF STREAM ALWYN CREEK

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows W. into Skeena R., Rge.5 Coast Dist.

POSITION 54 128 SW.

LENGTH 8 km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- 3-8 km upstream from mouth
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS Log jams at approx 8 km from mouth of stream

1970 Winter Works Programme cleaned out log jams in lower 3 km. Recommended work in upper section before stream is suitable for salmon propagation.

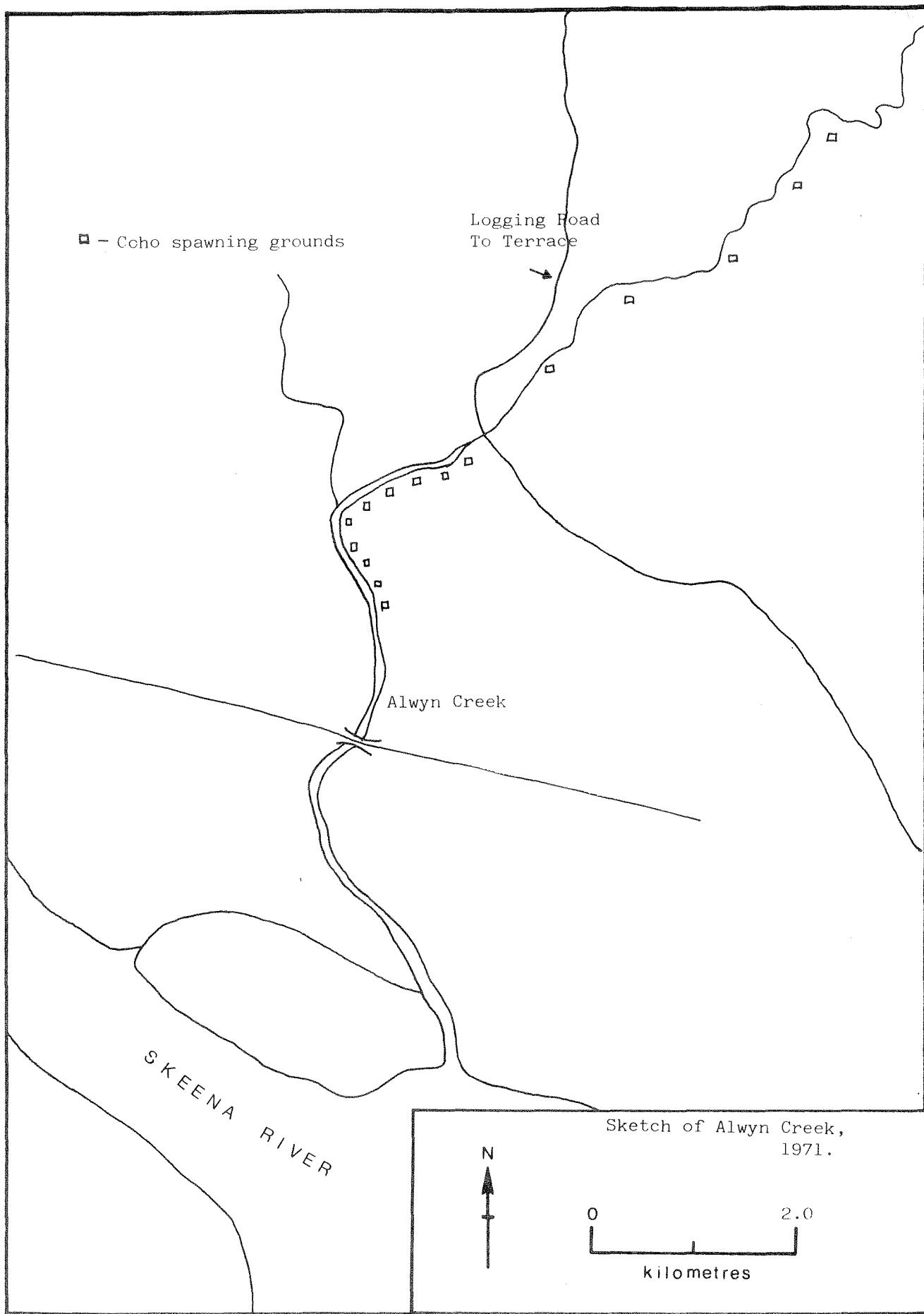
1971 Recommended removal of beaver dams.

1980 Numerous fry observed.

Heavy silting in lower 1.6 km due to logging debris -- some scouring (20%) after heavy rainfall.

Normal water levels

No predators observed except for 1980 when a heavy bear population in area.



ESCAPEMENT RECORD FOR

ALWYN CREEK

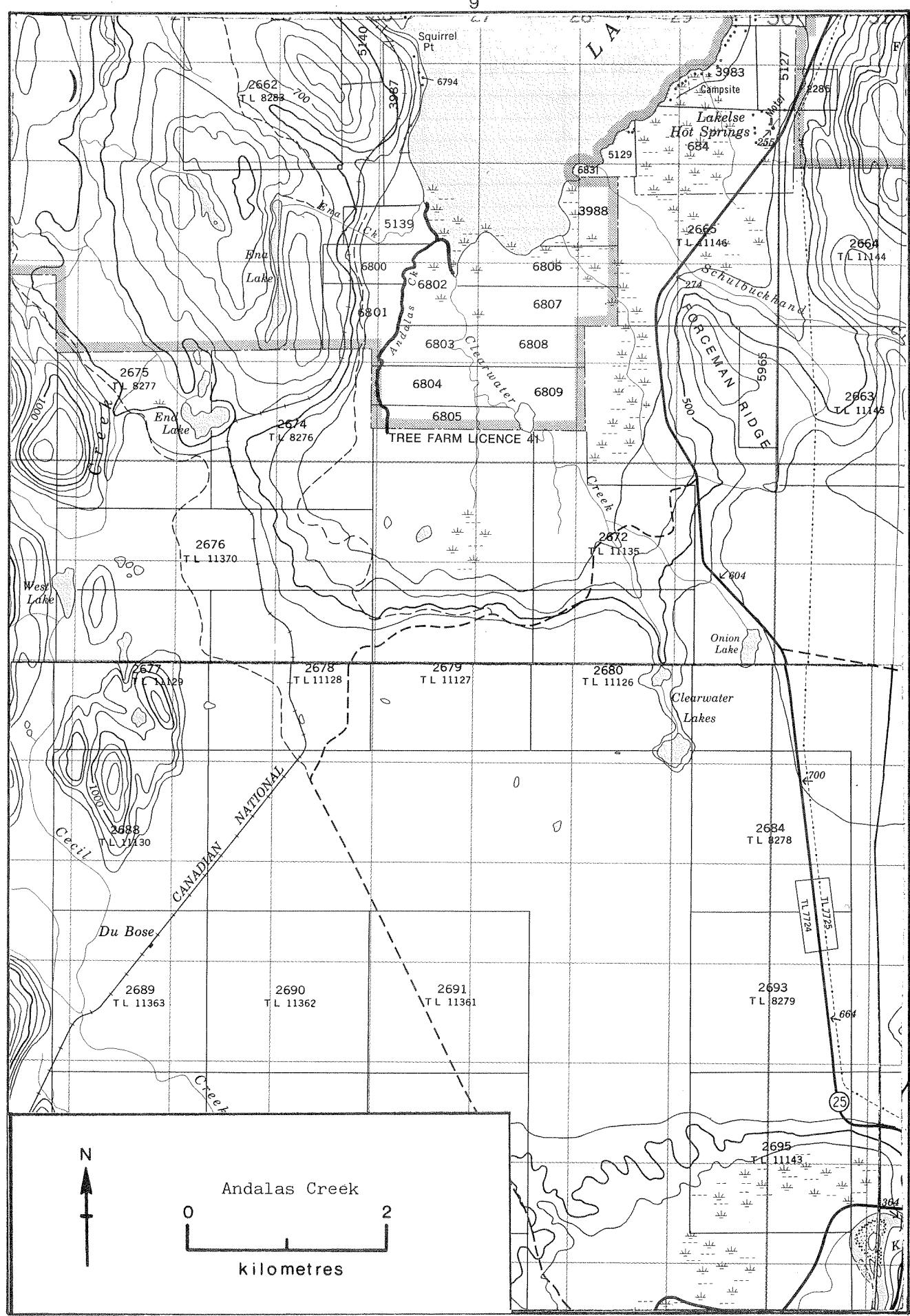
YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57						
58						
59						
60						
61						
62						
63						
64						
65						
66						
67						
68						
69						
70		25				
71		25				
72		25				
73		25				
74		25				
75		25				
76		25				
77		25				
78		75				
79		N/R				
80		25				
81		50				
82						
83						
84						
85						

TIMING

ARRIVE		OCT				
START		E OCT				
PEAK		M NOV				
END		DEC				

REMARKS N/R - No record

Two Chinook observed in 1980



NAME OF STREAM ANDALAS CREEK (Andulus Creek)

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows NE. into S. end of Lakelse Lake, Rge., 5 Coast Dist.

POSITION 54 128 SW

LENGTH _____ km WIDTH _____ m DRAINAGE _____ km²

COMPOSITION: BEDROCK _____ BOULDER _____ COARSE _____ FINE _____

SILT & SAND _____ UNCLASSIFIED _____

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA _____ m² SPAWNING AREA _____ m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

Passable beaver dams at various distances from stream mouth.

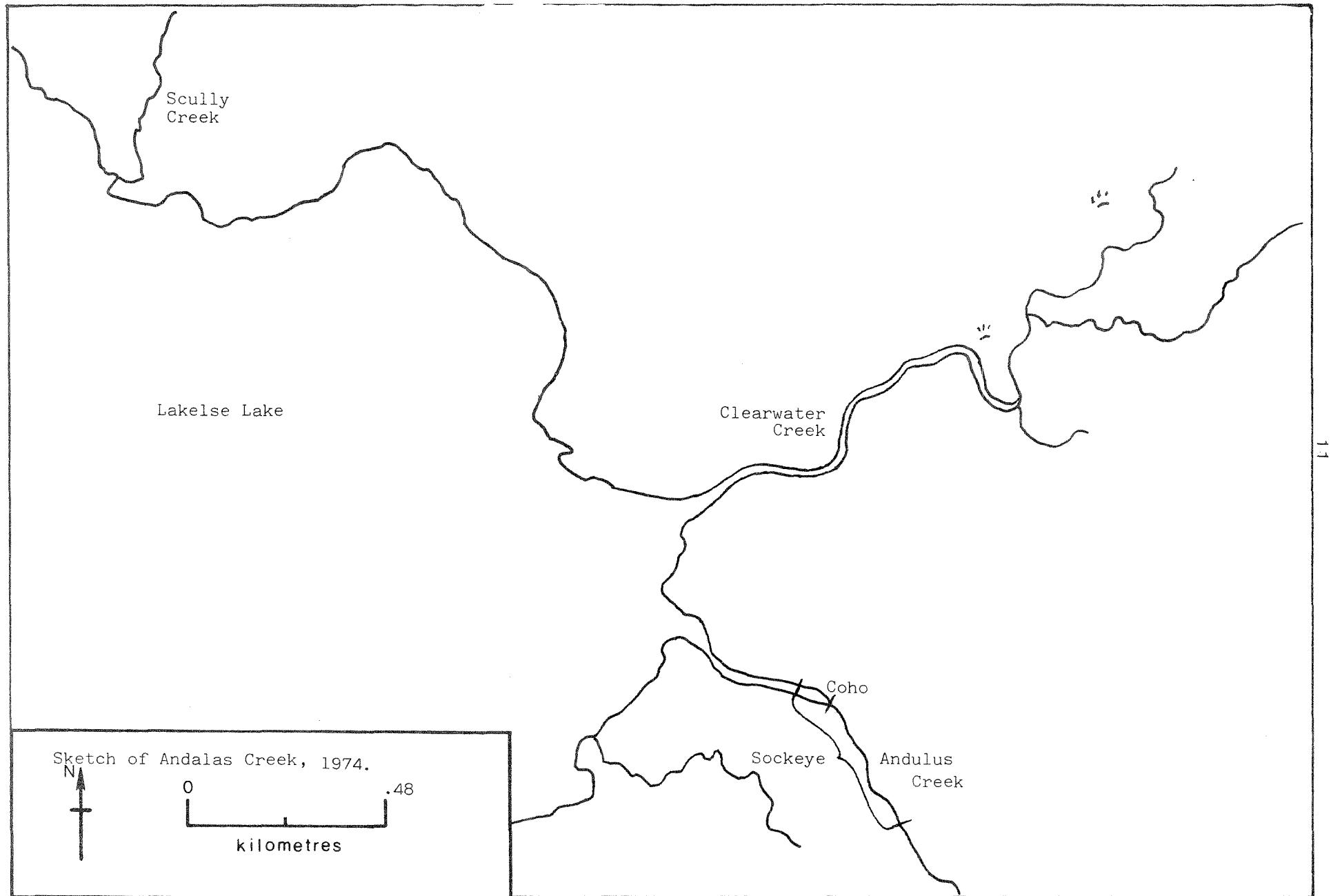
SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- most spawning occurs on 183 m of gravel located 0.8 km above stream mouth
CHINOOK	
COHO	- from mouth to 0.8 km
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS 1949 - Fish moved through system over a two month period.
1960 - Forest debris 2.4 km from mouth. Suggested removal as required.
1962 - Late coho was not inspected.
1964 - 1968 and 1970 - 1981 Removed beaver dams in low marshy region of stream as required.
1965 - Winter logging expected to proceed in vicinity.
1967 - Marshy area functions as rearing for Lakelse Lake stock.

Small stream -- muddy bottom for first 1.6 km.
Subject to seasonal fluctuations in water levels.
Predators: bears and eagles.



ESCAPEMENT RECORD FOR

ANDALAS CREEK

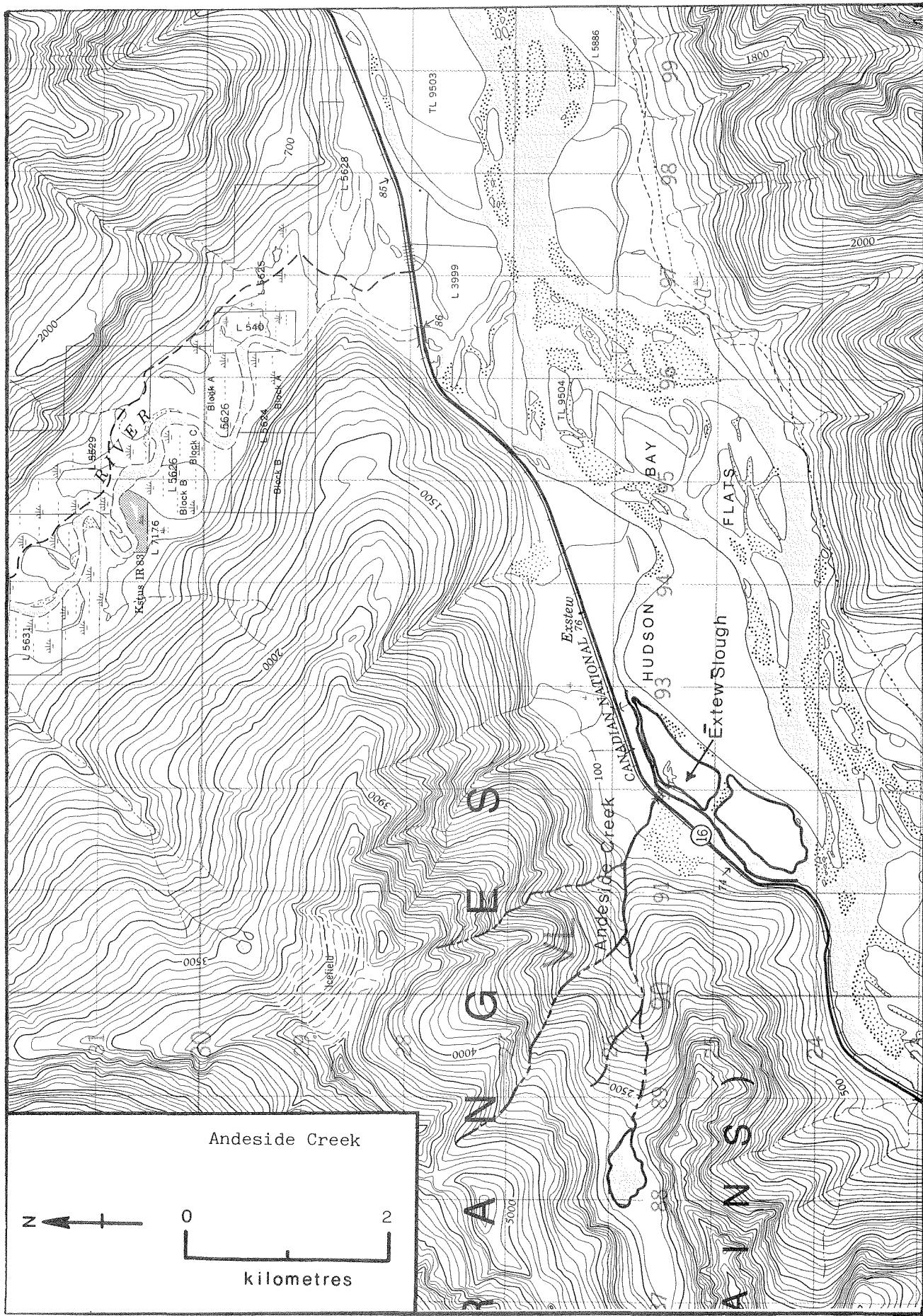
(Andulus Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947			200			
48			200			
49			200			
50			70			
51			100			
52			100			
53			25			
54			75			
55			75			
56			75			
57			200			
58			200			
59			N/I			
60			400			
61			N/I			
62			N/I			
63			200			
64			500			
65	25		750			
66	N/0		50			
67	25		400			
68	150		300			
69	25		25			
70	25		25			
71	25		25			
72	25		25			
73	25		25			
74	25		25			
75	25		25			
76	25		75			
77	25		75			
78	25		75			
79						
80	20		225			
81	20		100			
82						
83						
84						
85						

TIMING

ARRIVE	E AUG		E OCT			
START	M-L AUG		M OCT - E NOV			
PEAK	L AUG - E SEPT		M NOV			
END	M-L SEPT		M NOV - DEC			

REMARKS N/I - Not inspected



(Anderside Creek)

NAME OF STREAM _____
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Flows into Skeena River, near Extew Slough.
 POSITION 54 129 SE.
 LENGTH 2 km WIDTH _____ m DRAINAGE _____ km²
 COMPOSITION: BEDROCK _____ BOULDER _____ COARSE _____ FINE _____
 SILT & SAND _____ UNCLASSIFIED _____

PERCENT GRADIENT
 0.00 - 0.25 |
 0.25 - 0.50 |
 0.50 - 0.75 |
 0.75 - 1.00 |
 > 1.00 |

WETTED AREA _____ m² SPAWNING AREA _____ m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____ cascading rapids 2km from mouth.

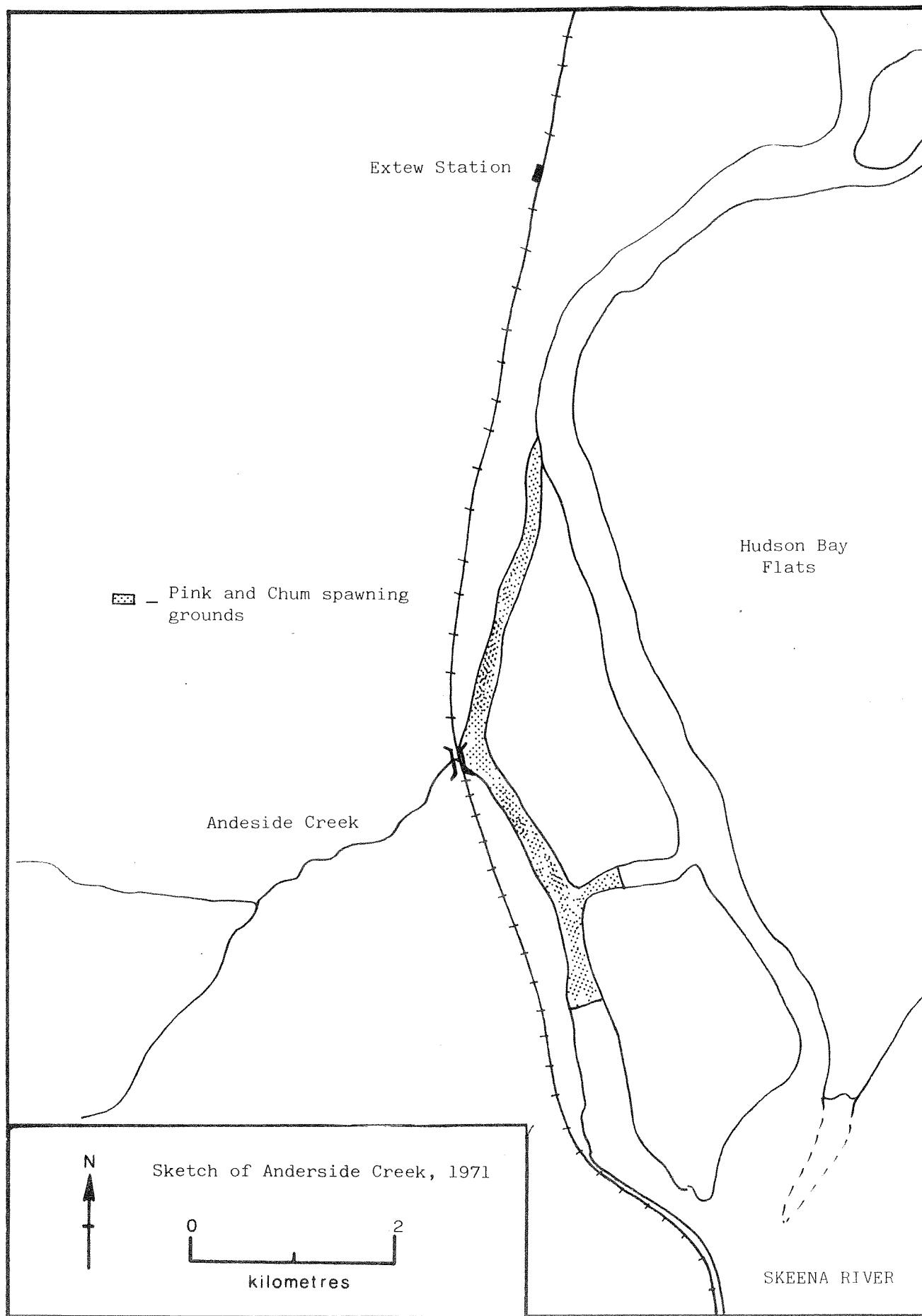
SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	- in slough below C.N.R.Bridge.
PINK (ODD YEAR)	- " "
PINK (EVEN YEAR)	- " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS 1965 Minor stream but supplies slough with good flow of cold, clear mountain water, and fish spawn in slough below stream.
1966 - Swift upper reaches, steep rocky contours. Flood controls channelled.
1967 - Annual flash flood, scouring, sand and silt .
1969-70 Water levels fluctuate seasonally.
1974 - Heavy erosion, silting and scouring during Autumn floods, 1975 scouring near mouth.

Predators: light, a few eagles.

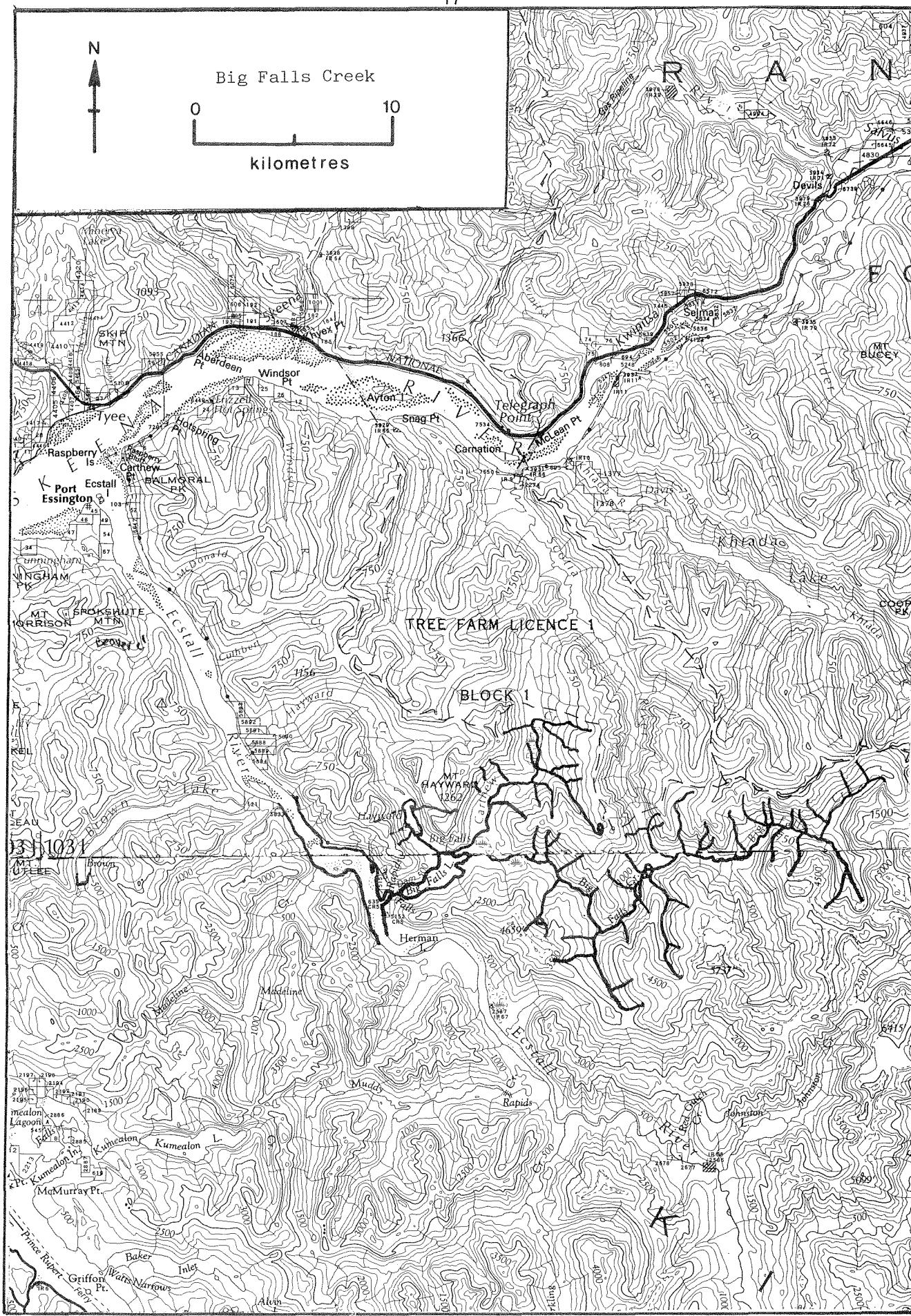


YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57						
58						
59						
60						
61						
62						
63						
64						
65			400	400		
66			200	75		
67			100	200		
68			400	400		
69			200	200		
70			750	200		
71			400	200		
72			1500	750		
73			750	200		
74			400	25		
75			200	-		
76			200	400		
77			25	25		
78			800	50		
79			-	-		
80			150	25		
81			20	200		
82						
83						
84						
85						

TIMING

ARRIVE		Aug	Aug
START		Aug-L Aug	EAug-M Aug
PEAK		LAug-M Sept	ESept-L Sept
END		Sept	Sept-Oct

REMARKS



NAME OF STREAM BIG FALLS CREEK

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows W. into Ecostall R., Rge.4, Coast Dist.

POSITION 53 129 NW

LENGTH km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25
0.25 - 0.50
0.50 - 0.75
0.75 - 1.00
> 1.00

WETTED AREA m² SPAWNING AREA m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT Power dam 365m from stream mouth. Passable rock falls 91m from mouth.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- below power house
COHO	
CHUM	
PINK (ODD YEAR)	- on gravel bars below falls 274m from stream mouth.
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1953 Some scouring of streambed when dam sluice gates open due to turbulence. Tidal influence and power plant overflow prevent ice formation and reduces desiccation threat.

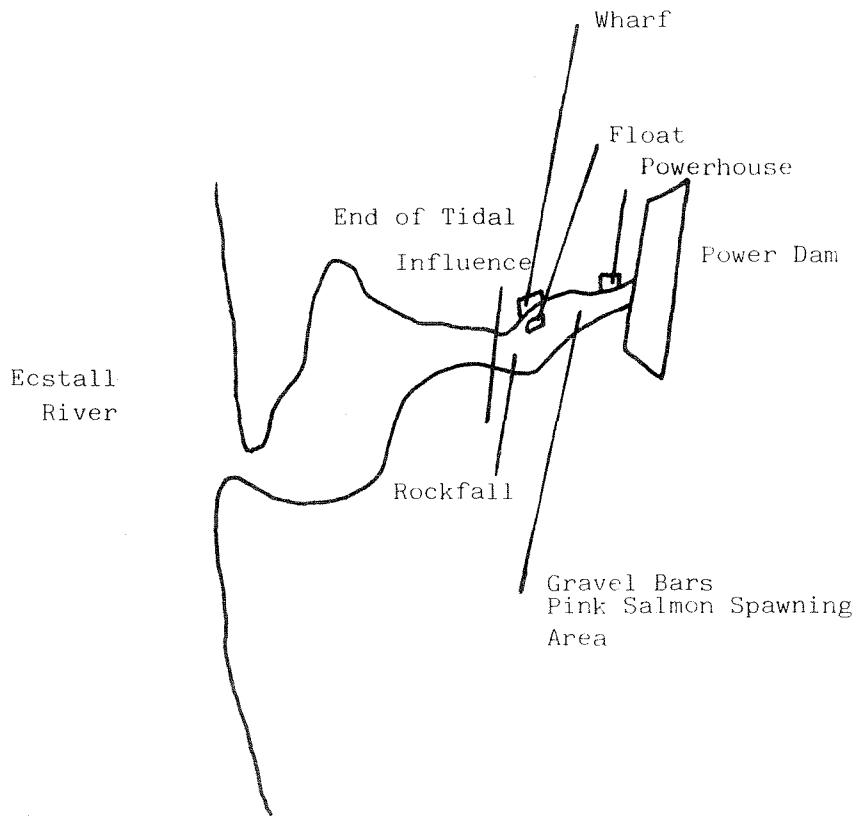
1954-1956 average weight of pink salmon ranged between 1.86 kg and 2.54kg About 2100 square meters of spawning area. Remainder of stream silty and tidally affected.

Small spawning population. Good water quality. Good gravel deposit. Flows controlled by power dam following 1953. Subject to seasonal fluctuations prior to 1953.

1981 D.B.Lister and Associates prepared a comprehensive study and made spawning observations for B.C.Hydro.

1976 Extremely limited spawning area below dam; possibility for enhancement is almost nil.

Predators: trout and hair seals.



Sketch of Big Falls Creek

0

.32

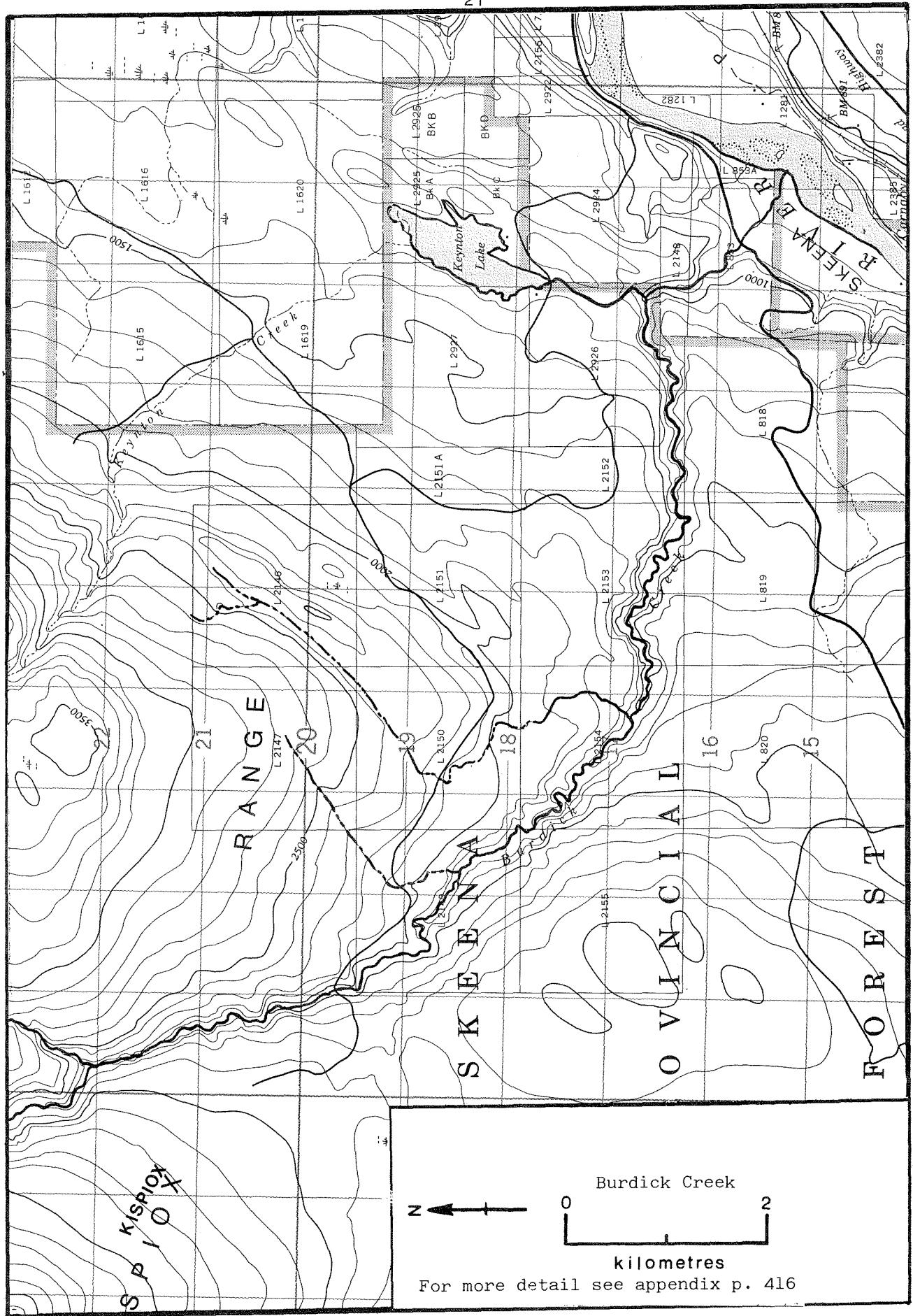
kilometres

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947					750	
48					400	
49					1000	
50					200	
51					300	
52					1000	
53					400	
54					500	
55		75			1500	
56					50	
57					75	
58		50			100	
59		25			400	
60		50			25	
61		25			50	
62		25			25	
63					750	
64		25			25	
65		25		200	400	
66		25		N/O	N/O	
67		N/O		25	200	
68		50			400	
69		25		200	N/O	
70		N/O		N/O	N/O	
71		N/O		N/O	N/O	
72		50			N/O	
73		20		N/O	50	
74		N/O			N/O	
75		N/O			N/O	
76		N/O			N/O	
77		N/O			N/O	
78		N/O			N/O	
79		25				
80		27				
81						
82						
83						
84						
85						

TIMING

ARRIVE	M AUG					
START	L AUG				AUG	
PEAK	E SEPT				SEPT	
END	L SEPT-OCT				OCT	

REMARKS N/O - None observed



NAME OF STREAM BURDICK CREEK (Burdock, Stoney Creek)

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows S.E. into Skeena River, N. of Carnaby, Cassiar Dist.

POSITION 55 127 SW

LENGTH km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	
PINK (ODD YEAR)	- from mouth to 3.2km upstream
PINK (EVEN YEAR)	- " " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

1952, 1954-58, 1961 - Not observed during coho spawning season.

1960 - Bouldery substrate near bridge. Low water 1960-61 prevented fish from entering creek.

1962 - Heavy scouring destroying habitat. Rock falls 3.6m located 0.8km from mouth.

Steep terrain - 10% grade.

Subject to occasional low flows.

Predators: bears.

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947			25		200	
48					200	
49			25		400	
50			75		400	
51			75		1000	
52			N/I		200	
53			-		300	
54			N/I		750	
55			N/O		750	
56			N/I		200	
57			N/I		750	
58			N/I		75	
59			N/I		N/I	
60			N/I		N/O	
61			N/I		N/O	
62						
63						
64						
65						
66						
67						
68						
69						
70						
71						
72						
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75						
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83						
84						
85						

TIMING

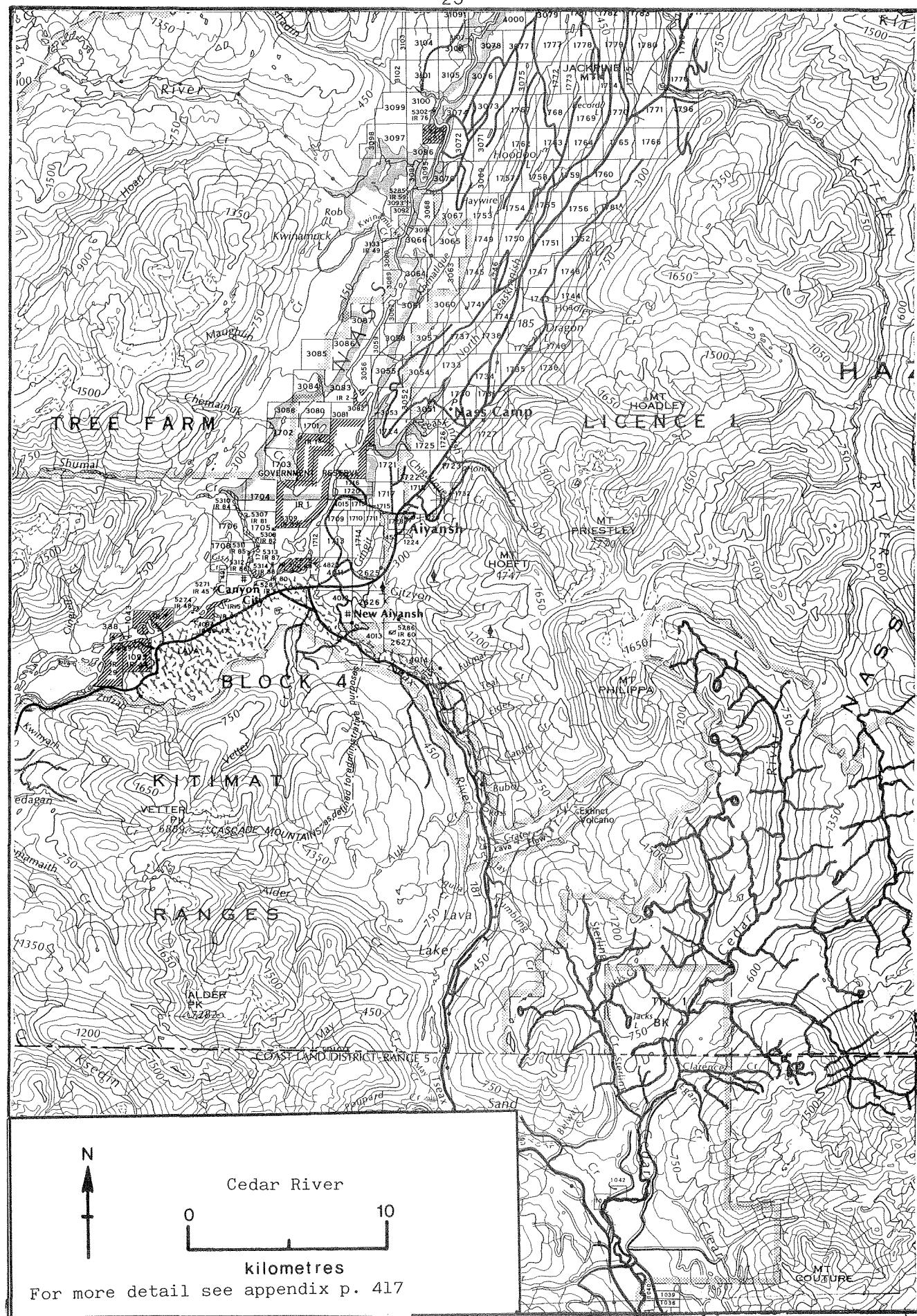
ARRIVE						
START			E SEPT			
PEAK			M SEPT			
END			L SEPT			

REMARKS 1958 Coho reported on this stream by hunters

1962 Report: No fish seen; too rocky and steep. Scoured out.

N/I - Not inspected

N/O - None observed



For more detail see appendix p. 417

NAME OF STREAM CEDAR RIVER (Beaver River)
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Flows S. into Kitsumkalum River, N.W. of N. end of Kitsumkalum
 Lake, Rge. 5, Coast Dist. POSITION 54 128 NW
 LENGTH 16 km WIDTH m DRAINAGE km²
 COMPOSITION: BEDROCK BOULDER COARSE FINE
 SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT Numerous passable log jams. Swift, bouldery canyons 26-29km upstream.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1965-66 Stream cleared. Opened up spawning area for approx 16km.
 Good gravel and spawning potential.

1962 -- Logging reducing timber canopy within Columbia Cellulose Management area.
 Protective clauses required in cutting permits to assure 40.2m of timber edge. Sub contractors operate under Columbia Cellulose direction.

1963 - Logging off watershed C.C.Co tree farm area.

1965 - Clear to canyons. Checked 32km by helicopter compliments of Columbia Cellulose Co.

continued.....

continued.

GENERAL REMARKS CEDAR RIVER

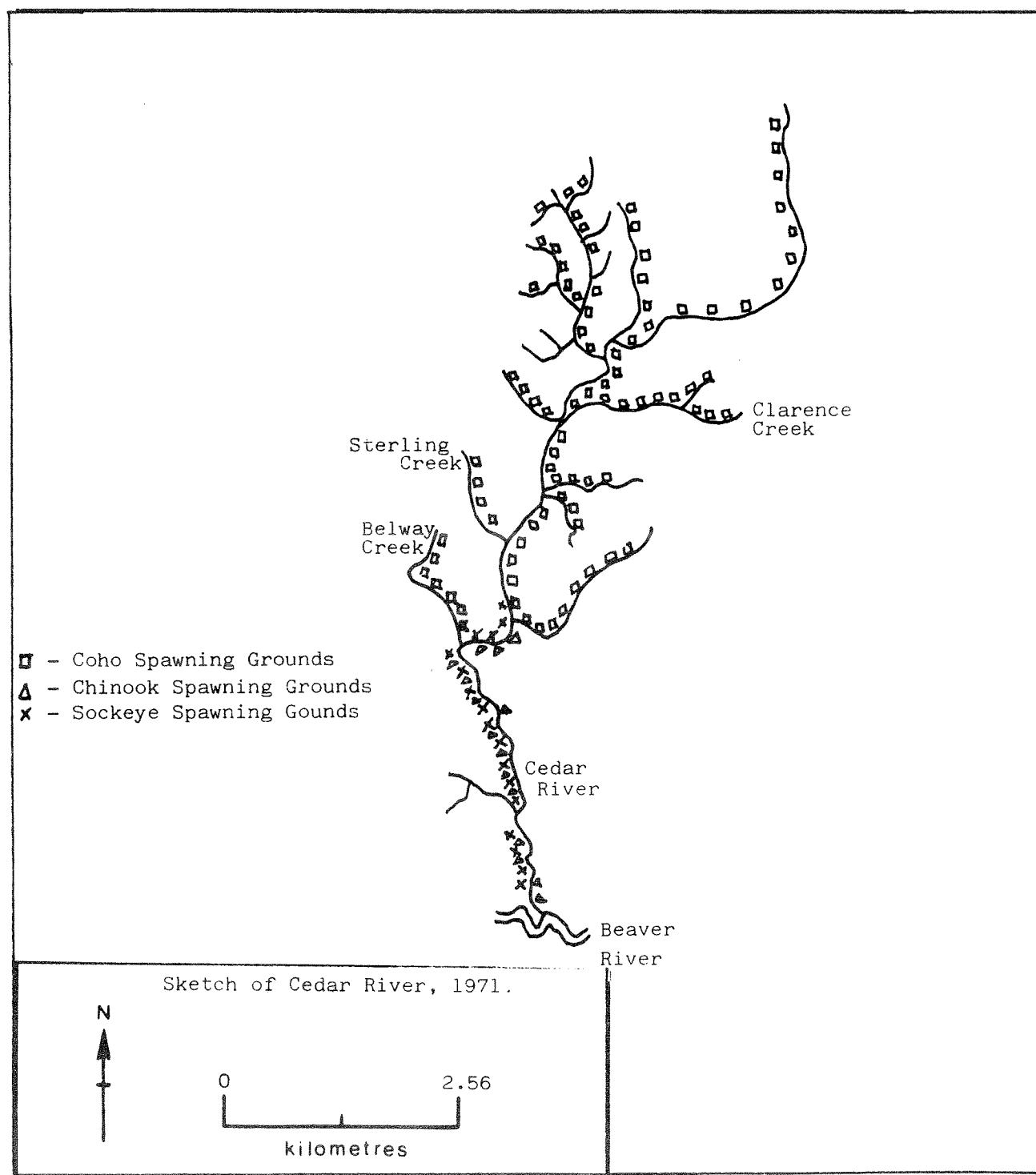
Silting, erosion and scouring mentioned in 1967-77 reports.

Frequent changes in stream course in lower section.

Watershed has been extensively logged. Stream is prone to flash floods causing extensive erosion in upper section and forming new channels in lower section.

1973 - Log jams, blow downs and debris in lower 11-12km.

Numerous log jams but not impassable for fish. Recommend removal as necessary.



ESCAPEMENT RECORD FOR

CEDAR RIVER

28

(Beaver River)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947	400	N/O	400			
48						
49	500	Obs	Obs			
50	Obs	Obs				
51						
52	*N/I					
53	*N/I					
54	*N/I					
55	N/O	750	N/O			
56	750	750	N/O			
57	N/O	1500	Obs			
58	750	1500	Obs			
59	N/I	N/I	N/I			
60	400	200	25			
61	400	25	75			
62	750	25	25			
63	1500					
64	3000	100	2000			
65	1500	200	1500	25		
66	1500	25	200			18
67	1000	50	200			N/O
68	1500	25	1500			X
69	1500	200	200			N/O
70	1500	400	200			N/O
71	1500	400	1500			X
72	1500	400	1500			
73	1500	750	1500			
74	750	750	1500			
75	750	750	1500			
76	400	750	750			
77	400	4000	1500			
78	500	750	750			
79						
80	200	600	750			
81	100	600	700			
82						
83						
84						
85						

TIMING

ARRIVE	AUG	JULY	OCT			
START	M Aug-Sept	JUL-L AUG	OCT-E NOV			M SEPT
PEAK	L Aug-L Sep	M AUG-L SEP	OCT-L NOV			L SEPT
END	L Sept-Nov	M - L SEP	OCT - DEC			DEC

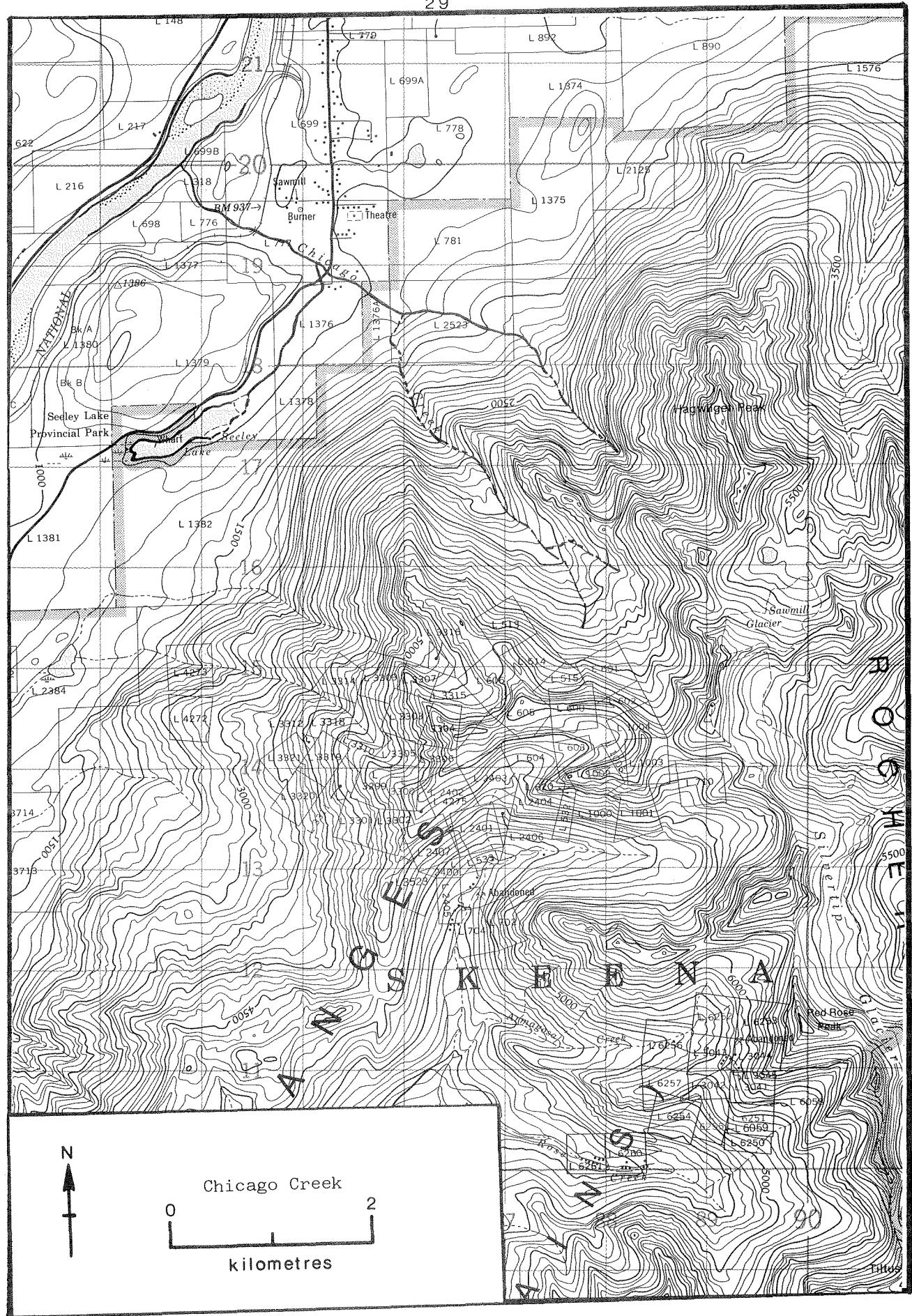
REMARKS * 1952/3/4 Settlers reported average to good sockeye runs

X 1968 and 1971 Anglers reported normal Steelhead run

N/I - Not inspected

N/O - None observed

Obs - Observed



(Seeley Creek)

NAME OF STREAM CHICAGO CREEK

CONSERVATION DISTRICT 8

STATISTICAL AREA 4

LOCATION OF MOUTH Flows W. into Skeena River N. of Seeley Lake, Cassiar Dist.

POSITION 55 127 SW

LENGTH km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25

0.25 - 0.50

0.50 - 0.75

0.75 - 1.00

> 1.00

WETTED AREA m²SPAWNING AREA m²DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT C.N.R.culvert 3.2 km from mouth is difficult to negotiate during low flow.

SPAWNING DISTRIBUTION

SPECIES

SECTION OF STREAM USED

SOCKEYE

CHINOOK

COHO

- to C.N.R.culvert and beyond in years of high flow.

CHUM

PINK (ODD YEAR)

- near mouth

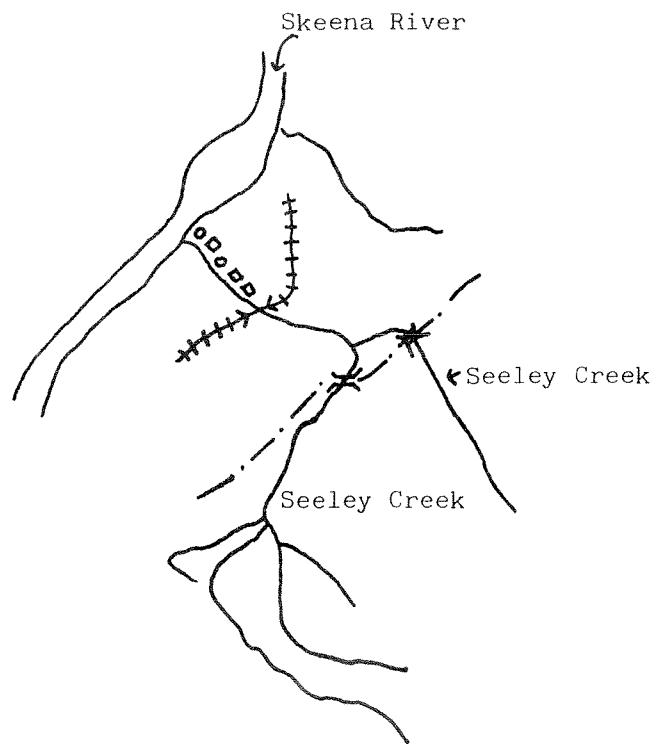
PINK (EVEN YEAR)

- " "

STEELHEAD

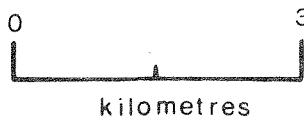
POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1947 Coho had difficulty entering stream due to low water levels
 1958 - Low water prevented coho from entering stream. in Skeena.
 1962 - Popular campsite and trout fishing resort.
 1965 - Meanders through swamps near mouth. Suggest stop logs be installed to raise water level in culvert and ease the 1m drop between culvert and water surface.
 1966 - Numerous side channel rearing grounds.
 1970,76,77,78 Scouring during high water and C.N.R.agreed to construct fishway at lower end of culvert to enable fish to pass upstream.
 1980 - High water enabled coho to get beyond the C.N.R.culvert. To date no fishway built.
 Subject to seasonal fluctuating water levels.
 Predators: bears.



- ◻ - Coho Spawning Grounds
- - Pink Spawning Grounds
- - Railway Bridge (C.N.R.)
- - Railway (C.N.R.)
- - Road (Highway 16)
- - Road Bridge (Highway 16)

Sketch of Chicago Creek,
1971.



ESCAPEMENT RECORD FOR

CHICAGO CREEK

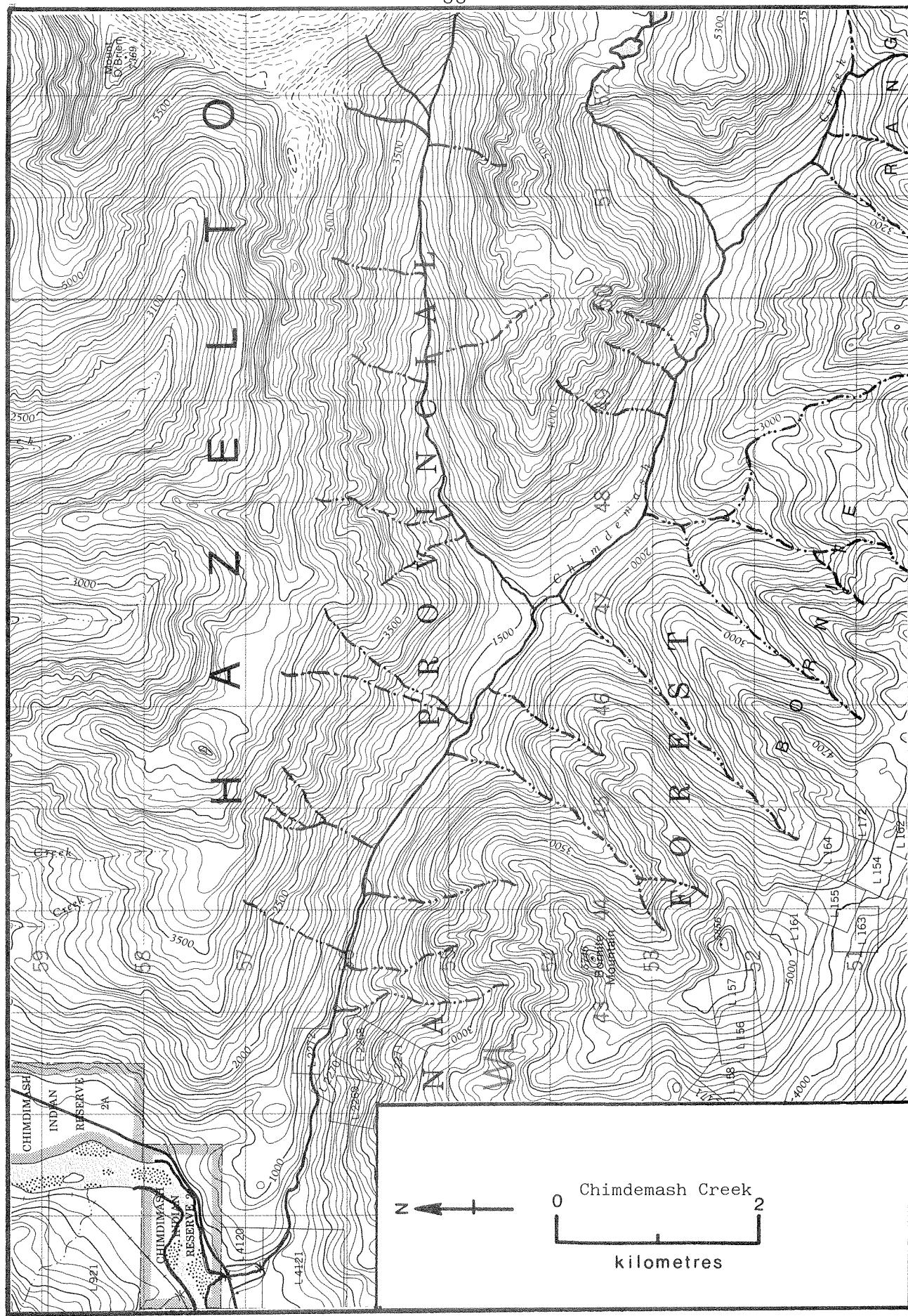
(Seeley Creek).

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947			400		25	
48			200		25	
49			400		25	
50			400		75	
51			200		25	
52			300			
53			100		75	
54			25		75	
55			200		200	
56			75			
57			75			
58			N/0			
59			N/0			
60			25			
61			75			
62			25			
63			75			
64			75		25	
65			25			
66			75			
67			N/I			
68			N/0			
69			N/0			
70			25			
71			25			
72			N/0			
73			N/0			
74						
75						
76			N/0			
77			N/0			
78			75		200	
79			N/0		25	
80					200	
81					200	
82						
83						
84						
85						

TIMING

ARRIVE			OCT		AUG	
START			E-M OCT		M AUG	
PEAK			M OCT -M NOV		L AUG -E SEP	
END			L OCT - DEC		SEPT	

REMARKS



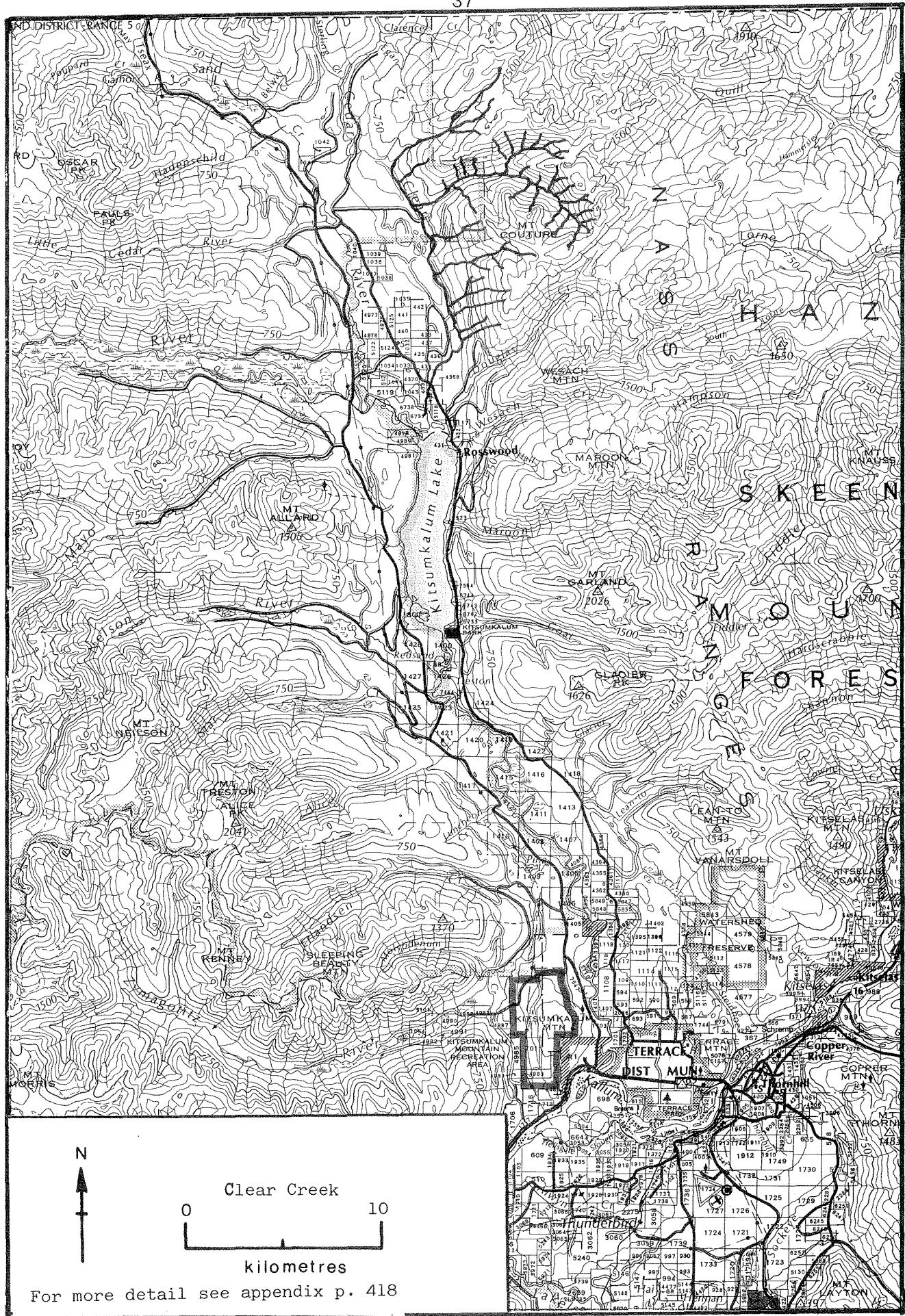
NAME OF STREAM	CHIMDEMASH CREEK		
CONSERVATION DISTRICT	8	STATISTICAL AREA	4
LOCATION OF MOUTH	Flows W. into Skeena River, E. of S. end of Kitsumkalum Lake, Rge.5,		
Coast Dist.	POSITION 54 128 NE.		
LENGTH	km	WIDTH	m DRAINAGE km ²
COMPOSITION: BEDROCK	BOULDER	COARSE	FINE
SILT & SAND	UNCLASSIFIED		
PERCENT GRADIENT			
0.00 - 0.25			
0.25 - 0.50			
0.50 - 0.75			
0.75 - 1.00			
> 1.00			
WETTED AREA	m ²	SPAWNING AREA	m ²
DISCHARGE (m ³ /s)			
TEMPERATURE (°C)			
BARRIERS OR POINTS OF DIFFICULT ASCENT			
SPAWNING DISTRIBUTION			
SPECIES	SECTION OF STREAM USED		
SOCKEYE			
CHINOOK			
COHO			
CHUM			
PINK (ODD YEAR)			
PINK (EVEN YEAR)			
STEELHEAD			
POTENTIAL OF INACCESSIBLE PORTION OF STREAM			
GENERAL REMARKS			
1960 Rocky, steep, swift to Skeena			
1960,61,62,65,66. Subject to flash-floods and rapid changes in water levels.			
1961 Minor producer--poor spawning area--sparse gravel bars--doubtful fish ever use system--laden with glacial silt--cold mountain runoff. Suggest file be closed.			
1962 and 1965 Clear for 1.6 km to canyon.			
1962 Trees removed near construction site of new highway 16 bridge.			
1964 Silting at mouth where a few pinks spawned in odd years 1950-60			
1965 Gravel fan developed at stream mouth. Highway 16 bridge completed.			
1967,80 Water course channelized and scoured.			

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57						
58						
59					N/I	
60					N/O	
61					N/O	
62					N/O	
63					N/O	
64					N/O	
65					N/O	
66					N/O	
67						
68						
69						
70						
71						
72						
73						
74						
75						
76						
77						
78						
79						
80						
81						
82						
83						
84						
85						

TIMING

ARRIVE						
START						
PEAK						
END						

REMARKS 1957 Dead Pinks observed near mouth1967 Report: No fish observed since early 1950-1960



For more detail see appendix p. 418

NAME OF STREAM CLEAR CREEK

CONSERVATION DISTRICT 8

STATISTICAL AREA 4

LOCATION OF MOUTH Flows S. into Kitsumkalum River, Rge.5, Coast Dist.

POSITION 54 128 NW

LENGTH km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25

0.25 - 0.50

0.50 - 0.75

0.75 - 1.00

> 1.00

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Passable log jams

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- throughout up to 6.4 km
CHINOOK	- up to 6.4 km
COHO	- throughout, especially in main stem headwaters and tributaries.
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

1948 - small log jams help prevent scouring and cause channel formation.

1949 - average numbers of chinook observed by locals in August.

1950-64 new channel cut for short distance below bridge.

1951 - stream clearance work recommended.

1960,64,67,69,70,71, 1972-78 and 1980 windfalls to 6.4 km

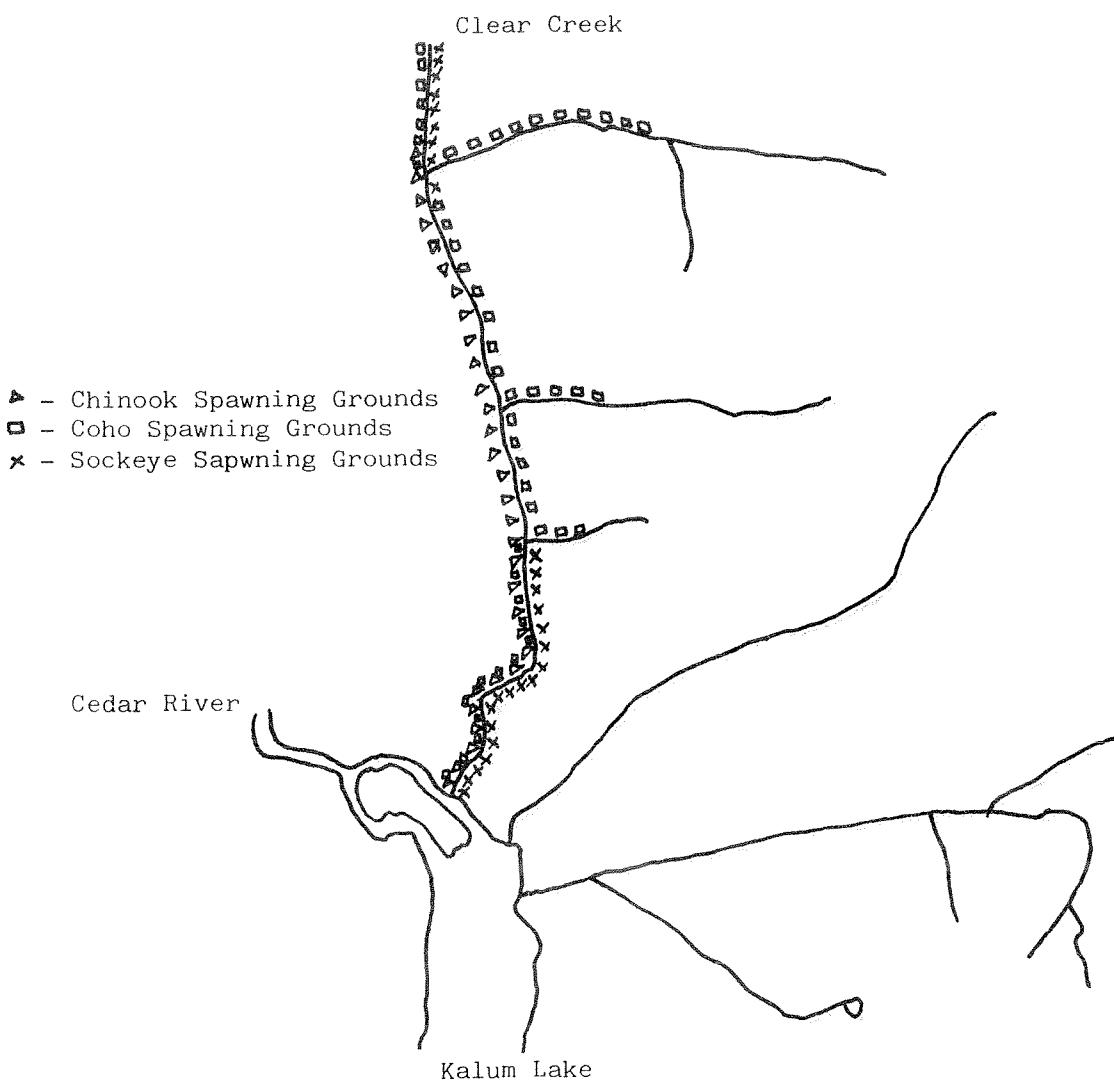
1952 - sockeye runs in August and October.

1960 - live sockeye observed November 25.

1961,64,65,67 very sandy at Kalum Lake head.

Good stream; clear water; large drainage basin, dominated by lake. 1961 Opened log-jam at Rosswood to provide spawning salmon with 4.8km of habitat.

Subject to seasonal fluctuation in water levels. Predators: bears and wolves.



Sketch of Clear Creek, 1971.



0

5.12

kilometres

ESCAPEMENT RECORD FOR

CLEAR CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947	400	200				
48	750		200			N/O
49	500	OBS	300			
50	1000		200			
51	1000		450			
52	1400		400			
53	500		75			
54	1500		400			
55	* N/O	OBS	N/O			
56	750	200	400			
57	200	400	400			
58	1500	400	400			
59	750	400	N/I			
60	400	200	75			
61	750	400	400			75
62	750	25	200			
63	1500	200				
64	1500	75	1500			
65	750	75	750			
66	750	25	200			
67	500+	100	75			OBS
68	750	75	750			OBS
69	75	75	200			N/O
70	75	75	200			N/O
71	750	200	400			N/O
72	400	75	750			N/O
73	400	200	400			
74	400	200	400			
75	200	200	400			
76	200	75	200			
77	1000	200	400			
78	50	75	200			
79						
80	25	250	400			
81	50	150	400			
82						
83						
84						
85						

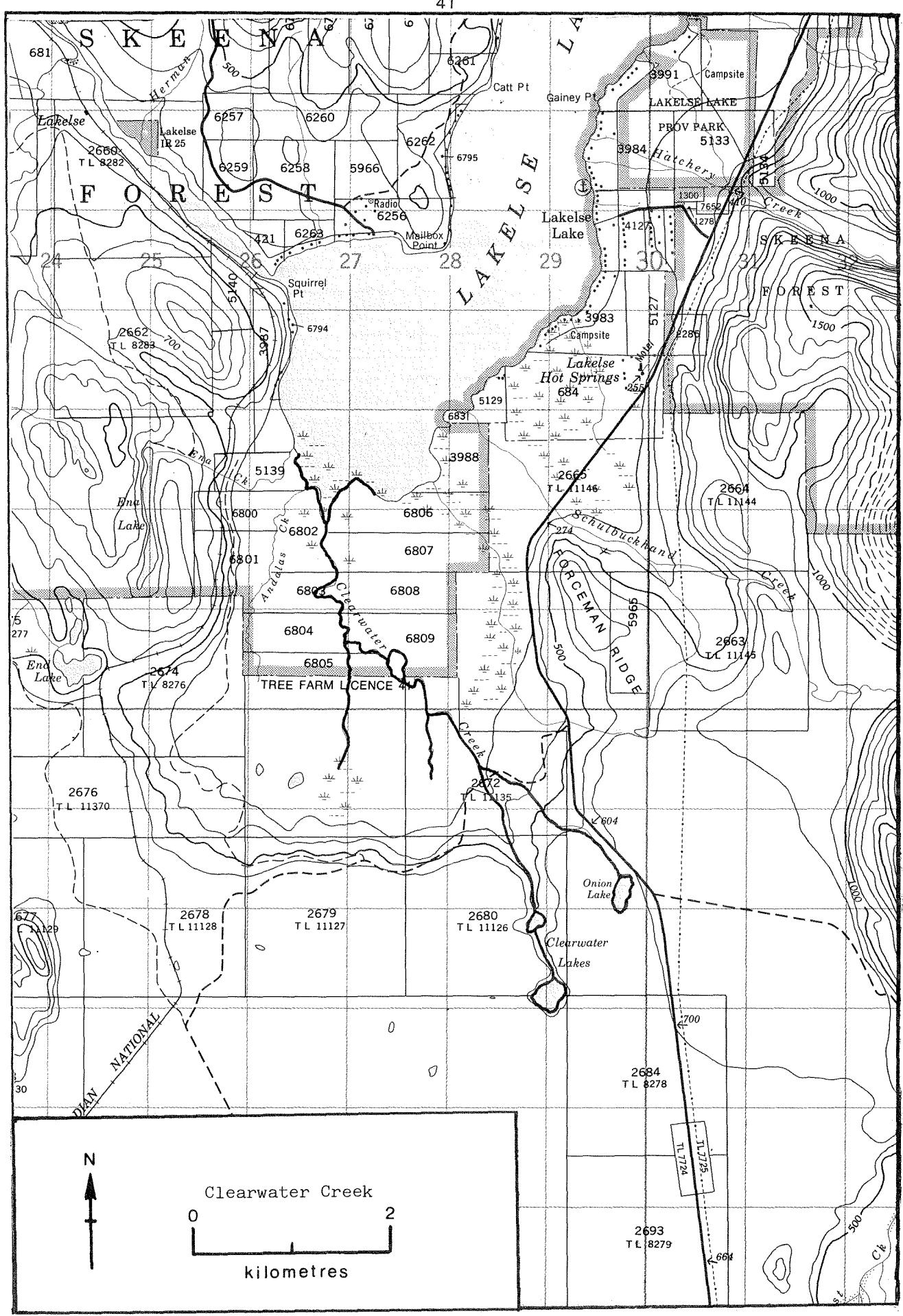
TIMING

ARRIVE						
START						
PEAK						
END						

REMARKS * 1955 Report: Neither Sockeye nor Coho were found on either inspection.
This is the first time that this has happened.

N/I - Not inspected

N/O - None observed



NAME OF STREAM CLEARWATER CREEK
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Flows N into S. end of Lakelse Lake, Rge. 5 Coast Dist.
 LENGTH 6.4km km WIDTH m DRAINAGE km²
 COMPOSITION: BEDROCK BOULDER COARSE FINE
 SILT & SAND UNCLASSIFIED

PERCENT GRADIENT
 0.00 - 0.25 |
 0.25 - 0.50 |
 0.50 - 0.75 |
 0.75 - 1.00 |
 > 1.00 |

WETTED AREA m² SPAWNING AREA m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

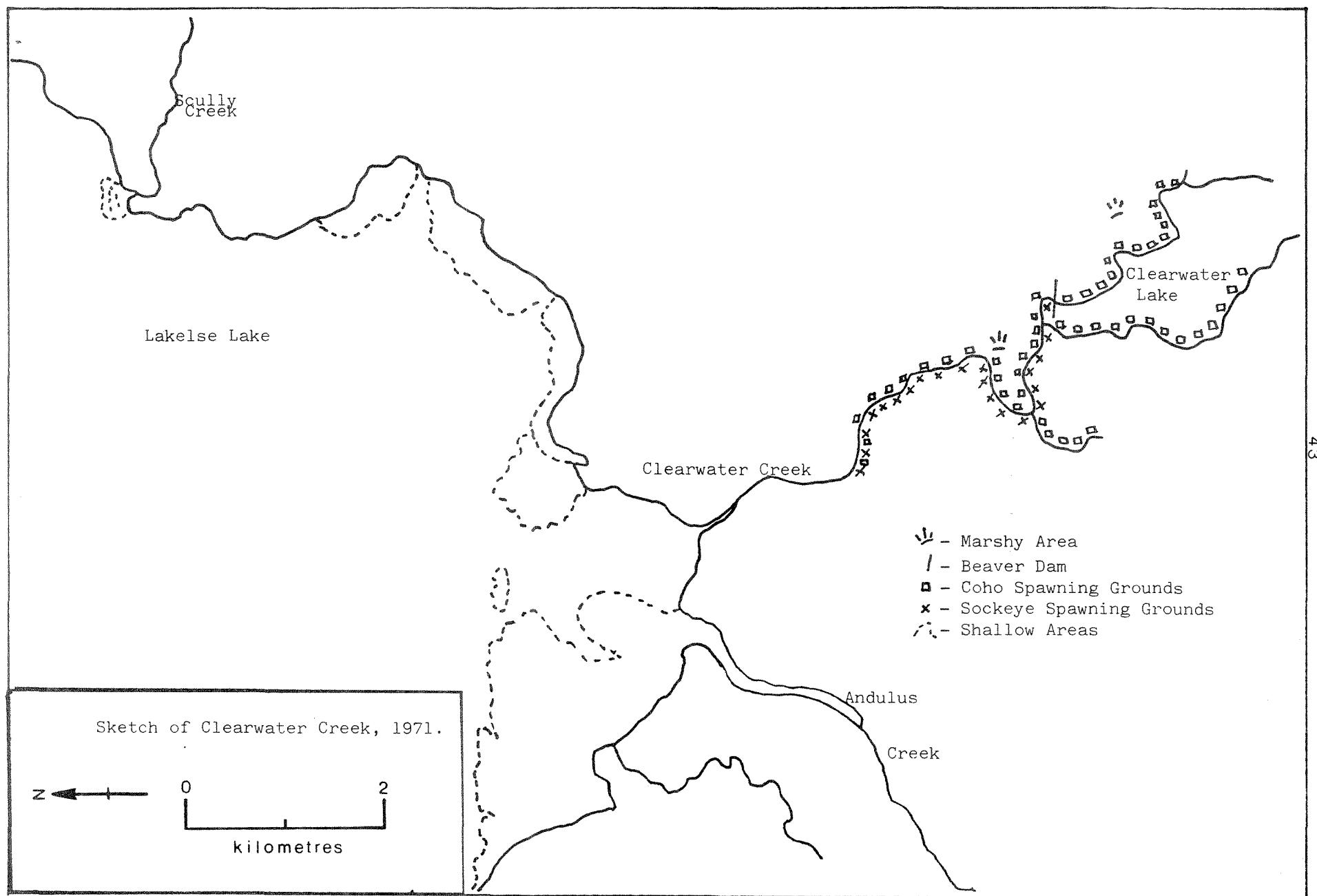
SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- from 1.6km to 4.8km below lake.
CHINOOK	
COHO	- throughout from mouth to headwaters within 2.4 km from lake.
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1960-61 Lakelse data covers this system. Counts taken at Lakelse Fence.
1964 - Large coho assisted through marshy section. Beaver dams stabilized flow.
1965 - Winter logging initiated.
1966 - Logging opened access to upper reaches of stream.
1974 - Some erosion, silting and scouring in lower 6.4km during 2nd week October.
1980 - Numerous fry observed in lower 1.6km of river.

Subject to seasonal fluctuations in water levels.
Predators: bears and eagles.
Beaver dams in lower section removed as required.
First 1.6 km muddy streambed.



ESCAPEMENT RECORD FOR

CLEARWATER CREEK

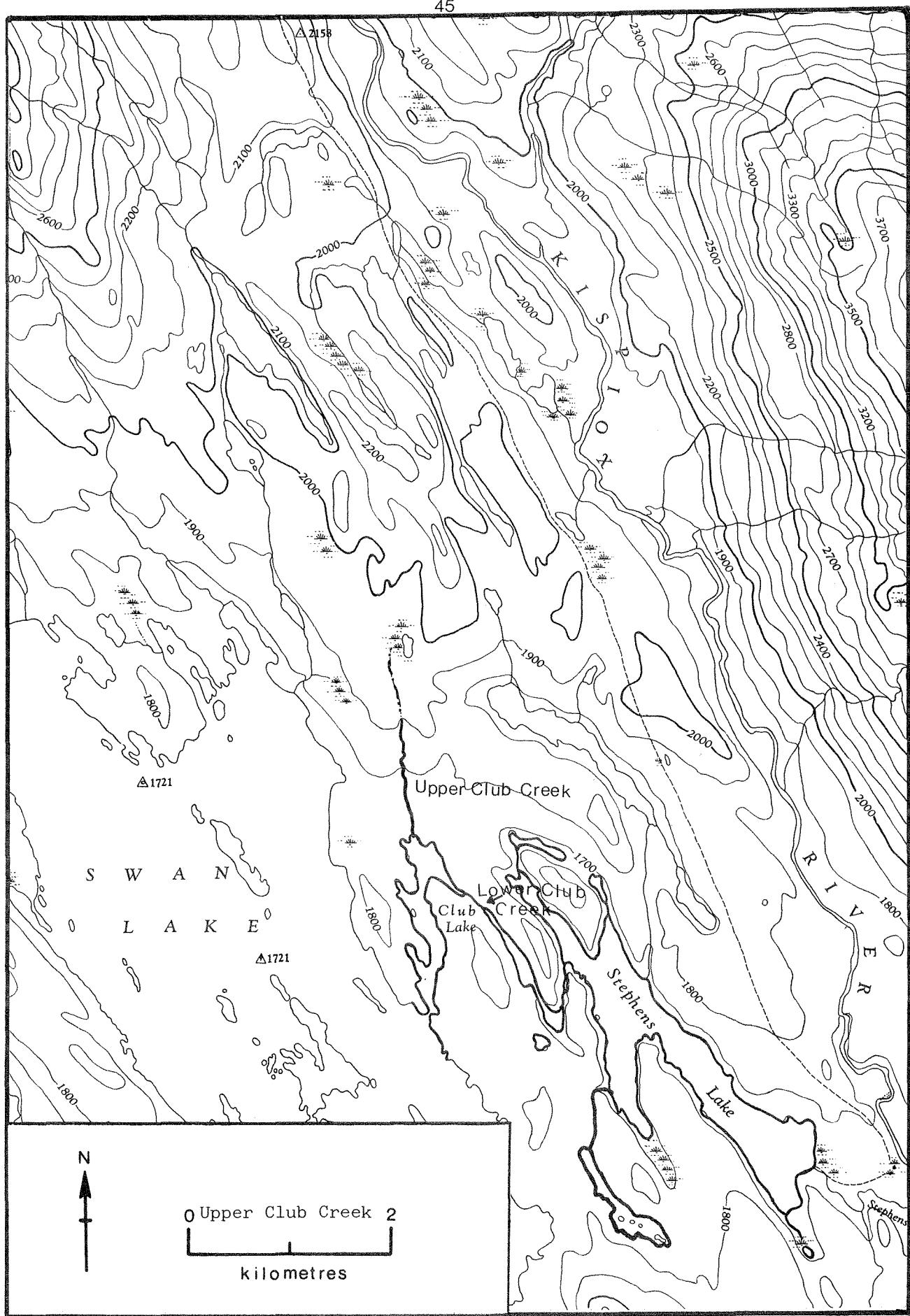
44

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947			750			
48			400			
49			400			
50			150			
51			450			
52	40		150			
53			75			
54			400			
55			400			
56			400			
57			200			
58			400			
59			N/I			
60			N/I			
61			N/I			
62			N/I			
63			750			
64	204		1500			
65	400		3500			
66	200		750			
67	100		200			
68	400		3500			
69	75		400			
70	75		400			
71	25		200			
72	25		200			
73	25		75			
74	25		75			
75	75		75			
76	25		400			
77	25		75		25	
78	25		400			
79	25		1000			
80						
81	25		350			
82						
83						
84						
85						

TIMING

ARRIVE	AUG		OCT		AUG	
START	M SEPT		L OCT		E SEPT	
PEAK	L SEPT		OCT-M NOV		M SEPT	
END	OCT		L NOV - DEC		L SEPT	

REMARKS N/I - Not inspected



NAME OF STREAM _____ (Club Creek - Upper)

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows E. into Club Lake, Cassiar Dist.

POSITION 55 128 NE

LENGTH 0.8 km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25

0.25 - 0.50

0.50 - 0.75

0.75 - 1.00

> 1.00

WETTED AREA m² SPAWNING AREA m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- for 0.4 - 0.8km between Swan and Club Lakes.
CHINOOK	
COHO	
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

1959 - Pan American Oil Company has drilling site in this area and disturbance could have scared away fish.

1961 - Weather conditions inhibited inspection.

1962 - Considerable log debris in stream.

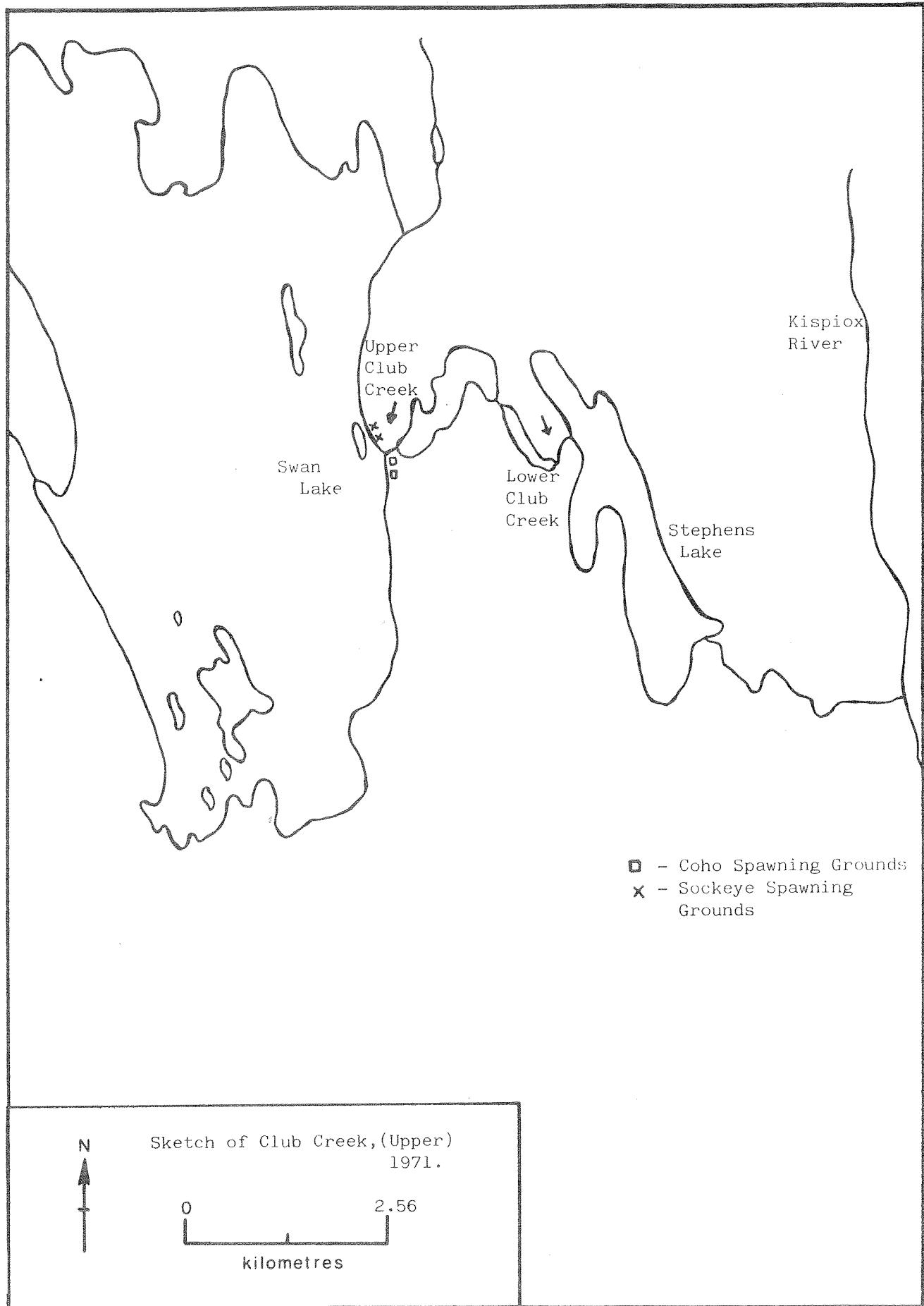
1965 - 1967 Isolated area. Popular sportsmen's paradise.

1978 - Unable to inspect stream following flood.

Subject to seasonal fluctuations in water levels, but moderated by lakes.

Shallow, clear, stream: rocky streambed, sparse spawning gravel.

Cleared of debris as required.



ESCAPEMENT RECORD FOR

(Club Creek - Upper)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48	750					
49	400					
50	200					
51	400					
52	200					
53	100					
54	25					
55	200					
56	750					
57	750					
58	750					
59	25					
60	750					
61	N/I					
62	N/O					
63	200		OBS			
64	1500	25	2000			
65	750	25	400			
66	1500		400			
67	2500	100	800			
68	N/O	N/O	N/O			
69	1500	N/O	400			
70	400	N/O	400			
71	1500		400			
72	1500		400			
73	750		200			
74	750		200			
75	750		200			
76	25		400			
77	400		200			
78	N/O		N/I			
79	1500		200			
80	750		250			
81	2000		25			
82						
83						
84						
85						

TIMING

ARRIVE	AUG		AUG			
START	E SEPT	E SEPT	M SEPT			
PEAK	M-L SEPT	M SEPT	L SEPT - OCT			
END	E OCT	L SEPT	OCT - NOV			

REMARKS OBS - Observed

N/O - None observed

N/I - Not inspected

Club Creek (Lower)

See Club Creek (Upper) p.45

NAME OF STREAM _____ (Club Creek-Lower)

CONSERVATION DISTRICT 8 STATISTICAL AREA 4LOCATION OF MOUTH Flows E. into Stephens Lake, Cassiar Dist.POSITION 55 128 NE.LENGTH km WIDTH m DRAINAGE km²COMPOSITION: BEDROCK BOULDER COARSE FINE SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25				
0.25 - 0.50				
0.50 - 0.75				
0.75 - 1.00				
> 1.00				

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s) TEMPERATURE (°C) BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED			
SOCKEYE	- scattered through length between lakes	--	heaviest spawning	
CHINOOK			in 1st .8 km	
COHO	- scattered through length	"	"	"
CHUM				
PINK (ODD YEAR)				
PINK (EVEN YEAR)				
STEELHEAD				

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1947 - Trout infected with worms in intestines and flesh.
Indians reported steelhead run.

1948 - Evidence of egg digging by late spawners.

1954 - Beaver dam .8 km from mouth removed to facilitate upstream migration of sockeye.

1956 - Some egg digging.

1962 - Requires thorough survey.

1965 - Logging development expected.

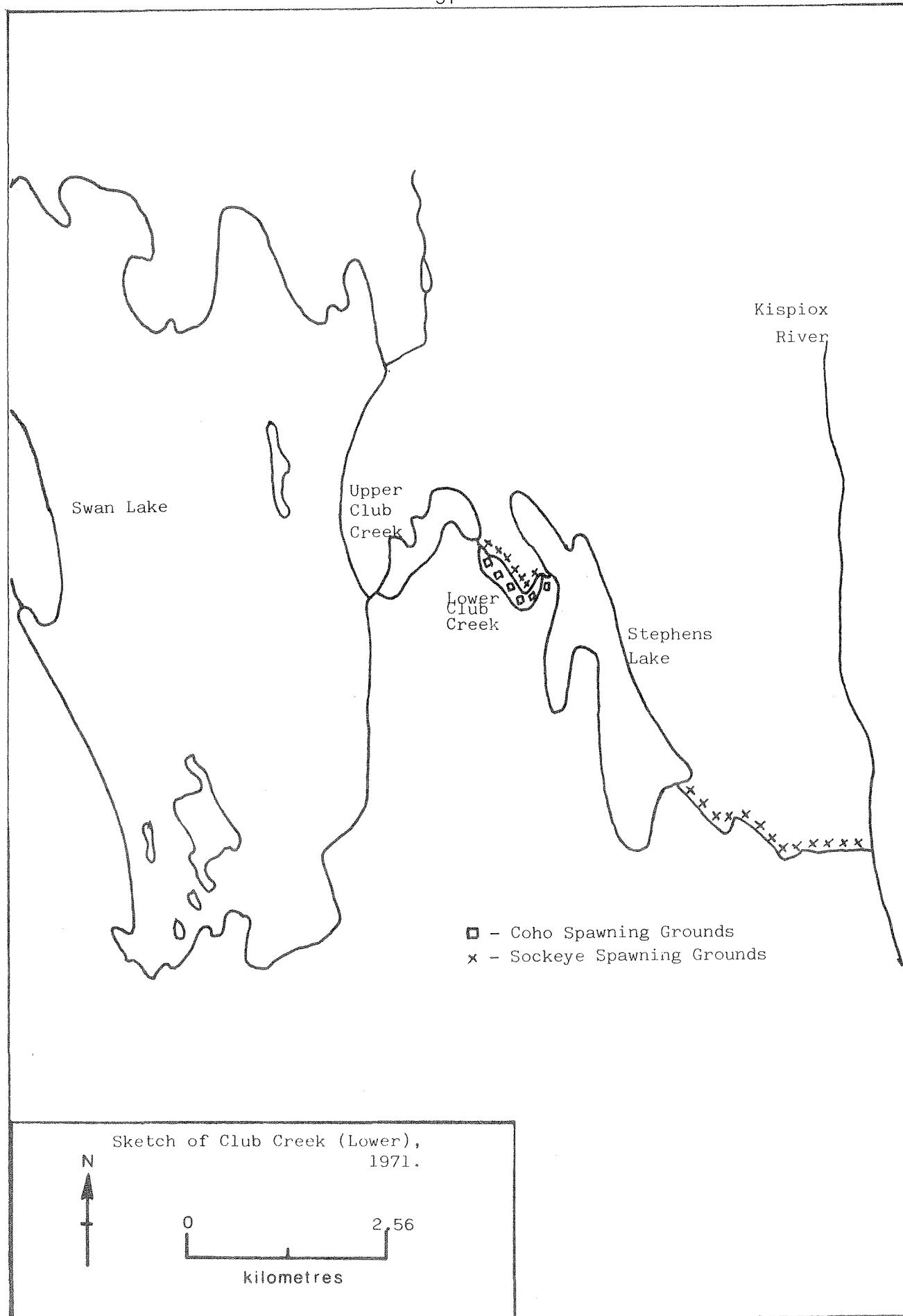
1966 - Good seeding

1978 - Flood damage minimal because lakes stabilized flow.

1981 - Suggested that baffles be installed in culvert.

Subject to seasonal fluctuations in water levels, but moderated by lakes.

Beaver dams removed as required.



ESCAPEMENT RECORD FOR

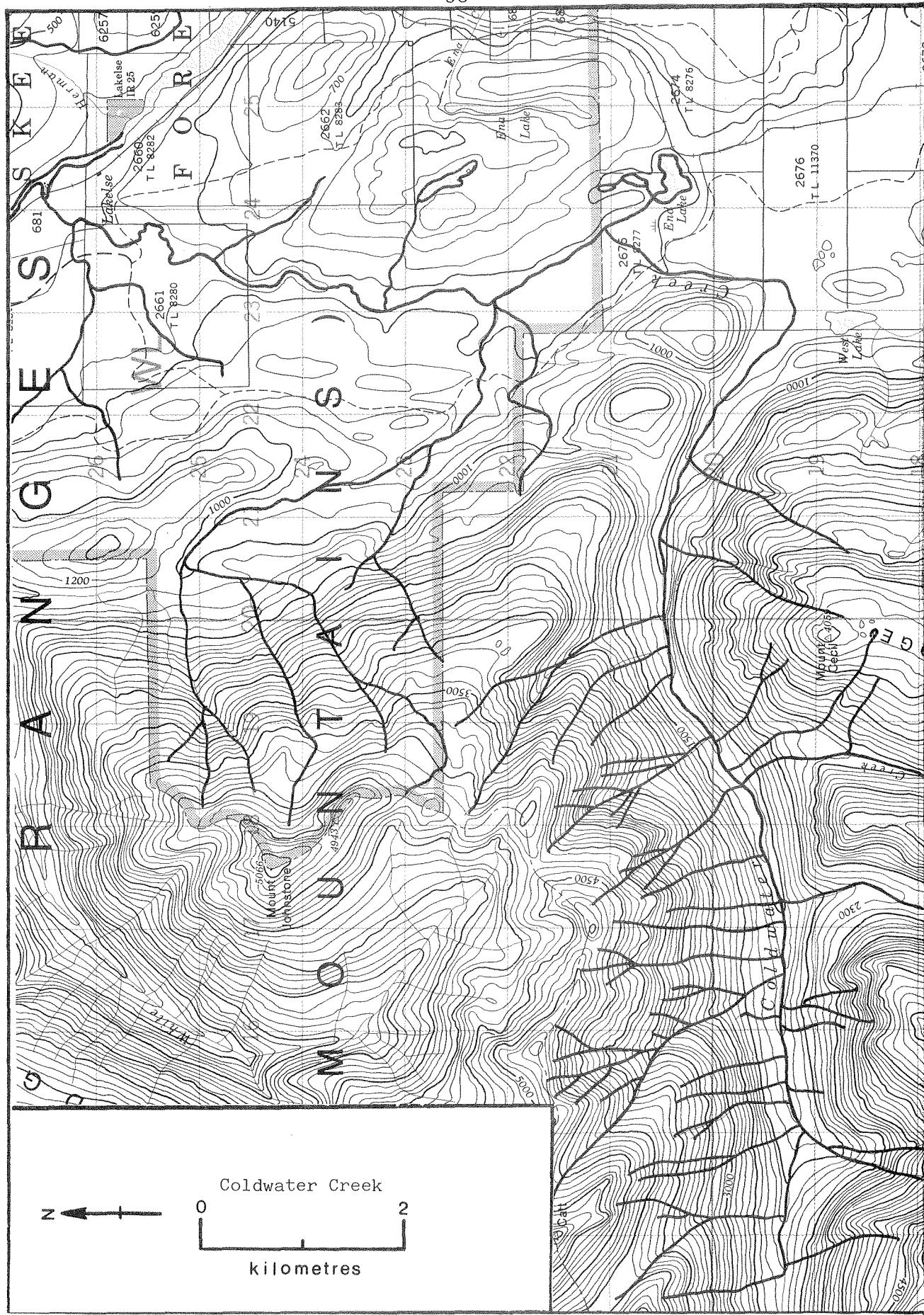
(Club Creek-Lower)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947	2500					
48	3500		400			
49	1000		300			
50	500		500			
51	1100		600			
52	3000		500			
53	500		200			
54	200		750			
55	750		400			
56	7500		750			
57	3500		500			
58	3500		1500			
59	750		200			
60	2500		N/O			
61	750		400			
62	OBS					
63	3500		200			
64	1500		1000			
65	750		1500			
66	1500		400			
67	2000		200			
68	3500		1500			
69	3500		750			
70	3500		400			
71	3500		750			
72	3500		750			
73	3500		750			
74	3500		750			
75	3500		750			
76	400		750			
77	3500		200			
78	200		750			
79	3500		400			
80	3000		450			
81	3000		75			
82						
83						
84						
85						

TIMING

ARRIVE	AUG		AUG			
START	L SEPT		M SEPT			
PEAK	M-L SEPT		L SEPT-E OCT			
END	SEPT-OCT		M-L OCT			

REMARKS OBS - Observed



NAME OF STREAM COLDWATER CREEK
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Flows E. into Lakelse River, W. of Lakelse Lake, Rge. 5, Coast Dist.
 POSITION 54 128 SW
 LENGTH _____ km WIDTH _____ m DRAINAGE _____ km²
 COMPOSITION: BEDROCK _____ BOULDER _____ COARSE _____ FINE _____
 SILT & SAND _____ UNCLASSIFIED _____

PERCENT GRADIENT

0.00 - 0.25

0.25 - 0.50

0.50 - 0.75

0.75 - 1.00

> 1.00

WETTED AREA _____ m² SPAWNING AREA _____ m²DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT Passable windfalls and log jams at various locations. Recommend that obstruction not be removed as provides protection.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- scattered throughout
COHO	
CHUM	
PINK (ODD YEAR)	- scattered throughout
PINK (EVEN YEAR)	- " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS 1980/81 Normal water levels. Some erosion, silting and scouring reported in 1980.

Predators: Eagles and bears.

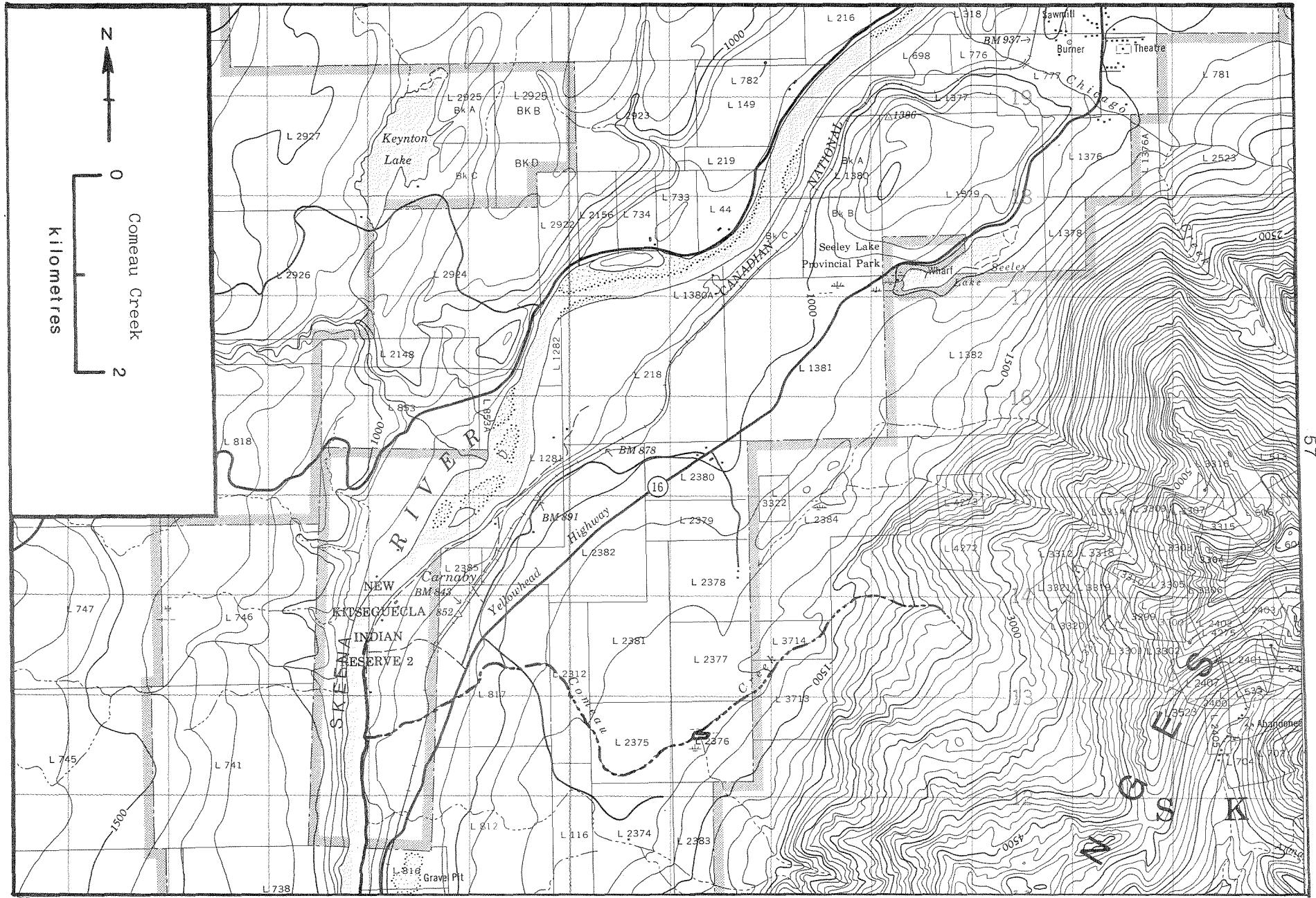
ESCAPEMENT RECORD FOR COLDWATER CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57						
58						
59						
60						
61						
62						
63						
64						
65						
66						
67						
68						
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72						
73						
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75						
76						
77						
78						
79						
80		25			565	
81		10			650	
82						
83						
84						
85						

TIMING

ARRIVE		July			Aug.	
START		E. Aug- M. Aug.			M Aug.	
PEAK		Aug-M Sept.			M Aug-E Sep.	
END		Sept.			Sept.	

REMARKS



NAME OF STREAM	COMEAU CREEK	(Carnaby Creek)	
CONSERVATION DISTRICT	8	STATISTICAL AREA	4
LOCATION OF MOUTH	Flows W. into Skeena River, Cassiar Dist.		
	POSITION 55 127 SW.		
LENGTH	1.6 km	WIDTH	m DRAINAGE km ²
COMPOSITION:	BEDROCK	BOULDER	COARSE FINE
	SILT & SAND	UNCLASSIFIED	
PERCENT GRADIENT			
0.00 - 0.25			
0.25 - 0.50			
0.50 - 0.75			
0.75 - 1.00			
> 1.00			
WETTED AREA	m ²		SPAWNING AREA m ²
DISCHARGE (m ³ /s)			
TEMPERATURE (°C)			
BARRIERS OR POINTS OF DIFFICULT ASCENT			
<hr/>			
SPAWNING DISTRIBUTION			
SPECIES	SECTION OF STREAM USED		
SOCKEYE			
CHINOOK			
COHO			
CHUM			
PINK (ODD YEAR)			
PINK (EVEN YEAR)			
STEELHEAD			
POTENTIAL OF INACCESSIBLE PORTION OF STREAM			
<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>			
GENERAL REMARKS			
1947 - Reason for decline in spawners unknown.			
1951 - Low water delayed run.			
1957 - No estimate made.			
1958 - Beaver dams present. Small stream used only during big pinks year when water levels favourable.			
- Beaver dams caused flooding of adjacent land in 1960, 62, 66.			
- Beaver dams opened in 1961 and 1965			
1964 - Swampy, silted. Numerous beaver dams in lower reaches. Steep and turbulent upstream where good spawning gravel found.			
1965 - C.N.R. culvert at Woodcock Farm obstructs fish passage.			
1966 - Occasionally odd-year flood coho survive to produce minor runs 50-100			
Subject to seasonal fluctuations in water levels.			

ESCAPEMENT RECORD FOR COMEAU CREEK

60

(Carnaby Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			200		200	
49			200		25	
50			75		25	
51			N/I		200	
52						
53			N/I		300	
54						
55			N/I		N/I	
56			N/I		N/I	
57					Obs.	
58			N/O		N/O	
59			N/I		N/I	
60			N/O		N/O	
61			N/O		N/O	
62			N/O		N/O	
63						
64						
65			25			
66			N/O		N/O	
67						
68						
69						
70						
71						
72						
73						
74						
75						
76						
77						
78						
79						
80						
81						
82						
83						
84						
85						

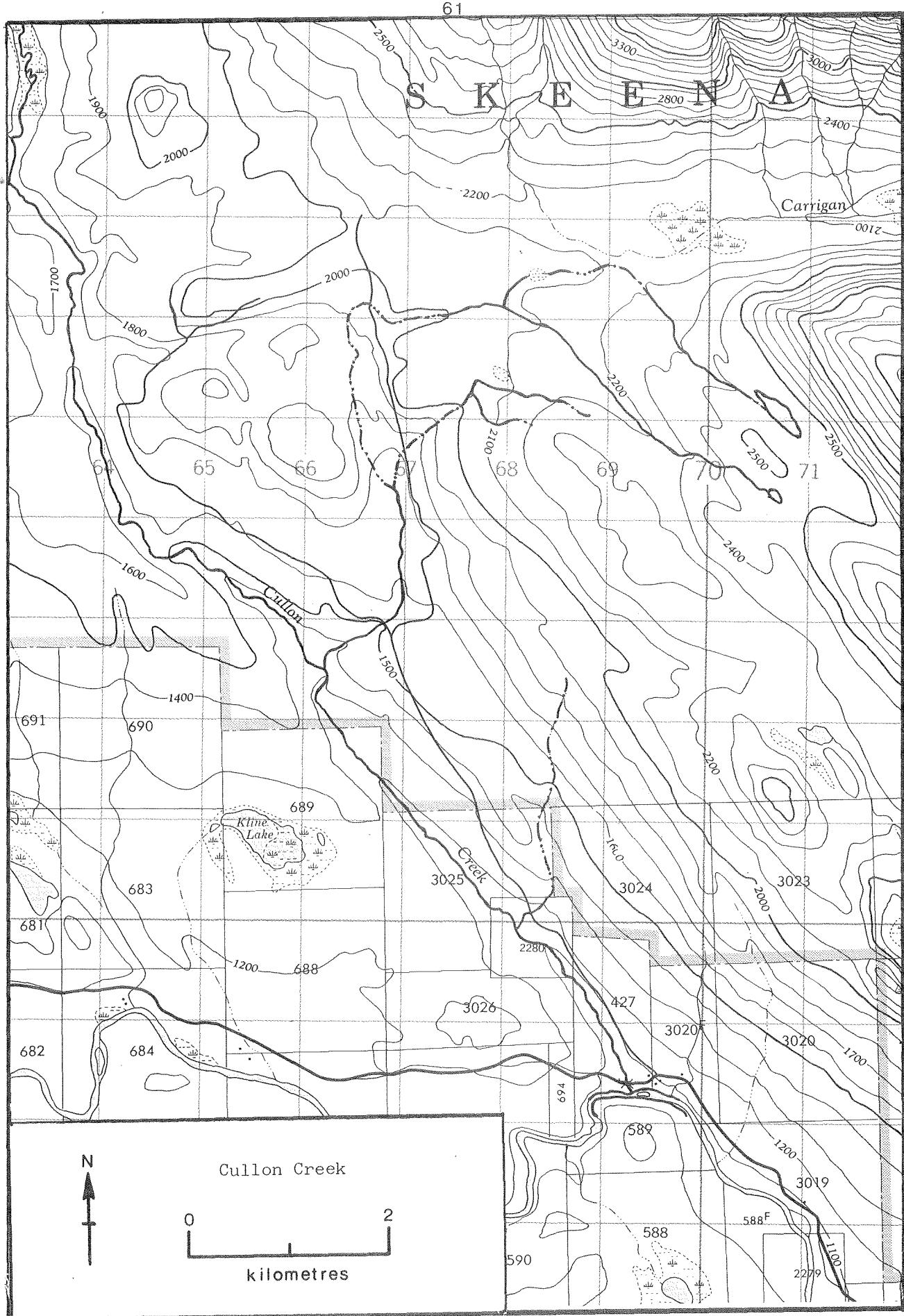
TIMING

ARRIVE					
START			E SEPT-OCT		M AUG
PEAK			L SEPT-OCT		L AUG
END			M OCT-NOV		M SEPT

REMARKS N/I - Not inspected

N/O - None observed

Obs. - Observed



NAME OF STREAM CULLON CREEK (Grouse Creek)

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows S, into Kispiox River, NW of Sammon Lake, Cassiar Dist.

POSITION 55 127 NW

LENGTH 12.8 km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25
0.25 - 0.50
0.50 - 0.75
0.75 - 1.00
> 1.00

WETTED AREA m² SPAWNING AREA m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT Culverts are impassable at low and high velocities unless baffled.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- in upper section and tributaries.
CHUM	
PINK (ODD YEAR)	- in lower reaches
PINK (EVEN YEAR)	- " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

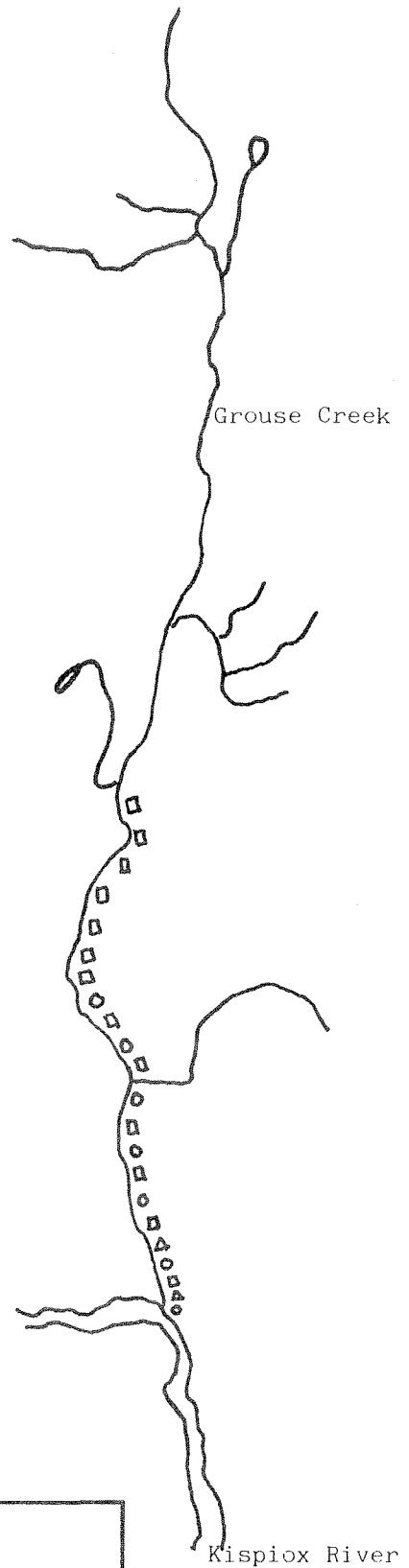
good stretch of gravel above culvert increased pink and coho runs.

GENERAL REMARKS

- 1961 - Windfall debris cleared annually as required.
- Several beaver dams were removed from lower reaches 1962, 66, 68, 70, 78, 80
- fish stayed below culverts all season.
- 1964 - Flooding problem.
- 1965 - Infested with small lamprey. Culverts baffled to reduce velocity.
- 1974 - 1978 Silting, scouring and erosion in lower reaches.

Subject to seasonal fluctuation in water levels.

- - Coho Spawning Grounds
- - Pink Spawning Grounds
- △ - Chinook spawning grounds



Sketch of Cullon Creek
1971.



0 2
kilometres

ESCAPEMENT RECORD FOR

CULLON CREEK

64

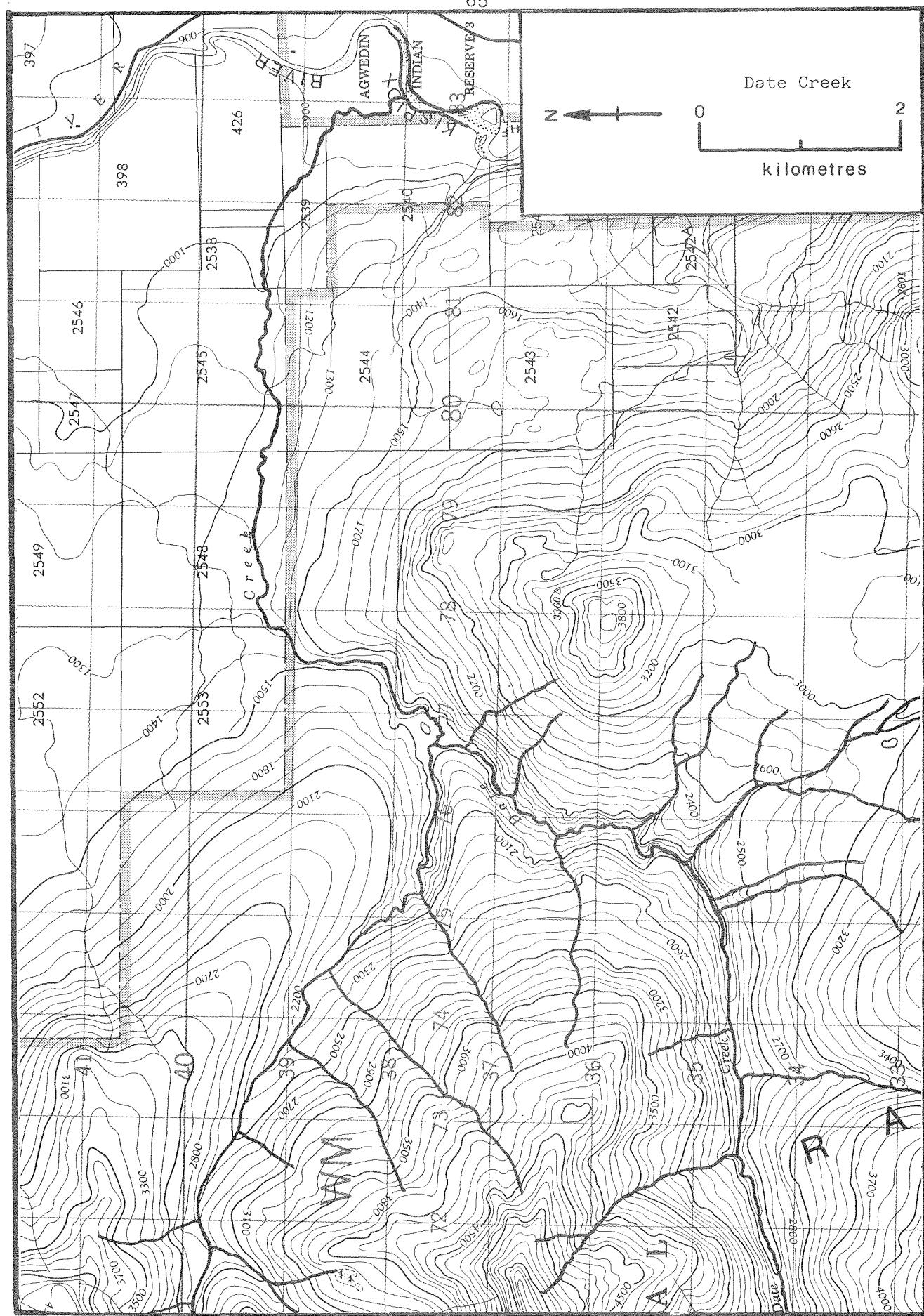
(Grouse Creek)

YEAR	Sockeye	Chinook	Coho	Chum	Pink	Steelhead
1947			200		200	
48			200		200	
49			400		400	
50			200		400	
51			N/O		N/O	
52					Obs	
53			N/I		N/I	
54			N/I		N/I	
55					Obs.	
56			N/I		N/I	
57			N/I		N/I	
58			N/I		N/I	
59			N/I		N/I	
60			N/I		75	
61			35		400	
62					200	
63			N/I		N/I	
64			400		25	
65			200			
66		25	200			200
67		N/O	25		N/O	
68		25	400		25	
69		25	200		25	
70		25	75		25	
71		25	400		1500	
72		25	75		75	
73		25	75		75	
74		25	75		25	
75		25	75		75	
76		25	75		25	
77		25	75		75	
78		N/O	75		N/O	
79		N/O	N/O		N/O	
80		N/O	N/O		N/O	
81		N/O	N/O			
82						
83						
84						
85						

TIMING

ARRIVE		AUG	SEPT		AUG	
START		M AUG	M SEP - M OCT		E -M AUG	MAY
PEAK		L AUG	L SEP - M NOV		M - L AUG	JUNE
END		SEPT	L OCT-DEC		L AUG-L SEP	JUNE

REMARKS N/I - Not inspected
 N/O - None observed
 Obs. - Observed



NAME OF STREAM DATE CREEK (Dale Creek)

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows E. into Kispiox River, N. of Kispiox, Cassiar Dist.

POSITION 55 127 SW

LENGTH 4.8 km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION within 4.8km of mouth.

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- exact grounds unknown.
COHO	- scattered in upper reaches.
CHUM	- in riffles at confluence with Kispiox River.
PINK (ODD YEAR)	- grounds unknown.
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1952,54 Good run of pinks reported by local inhabitants.
 1961 - Used in odd years when Kispiox runs are heavy.
 1964 - Windfall debris passable. Logging development and improved access expected.
 1965 - Logging road expected to extend into area.
 1966 - Debris in stream cleared as required.
 1967 - Cut bank erosion 0.8km from stream mouth. Flash floods scour gravel bars in lower reaches.
 1974 - 20% of lower section affected by scouring, erosion and siltation.
 1978 - Possible streambed damage following October flooding. 1979- Scouring and log jams in lower reaches caused by 1978 flood.

Swift, bouldery stream. Basically good gravel. Generally clear.

ESCAPEMENT RECORD FOR

DATE CREEK

(Dale Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947			75		200	
48						
49			400		400	
50			75		200	
51					200	
52					0bs.	
53					200	
54					0bs.	
55			N/I		400	
56			N/I		N/O	
57			N/I		N/O	
58						
59					400	
60			N/O	75		
61			N/I			
62				75		
63						
64		50	300	500		
65				400		
66				200		
67		25		150		
68		25	200			
69			25	25		
70			25			
71			25			
72			25		200	
73			25		75	
74			25		200	
75			25	,	200	
76			25		75	
77			25		25	
78			25	25	25	
79			N/O			
80						
81			N/O	25		
82						
83						
84						
85						

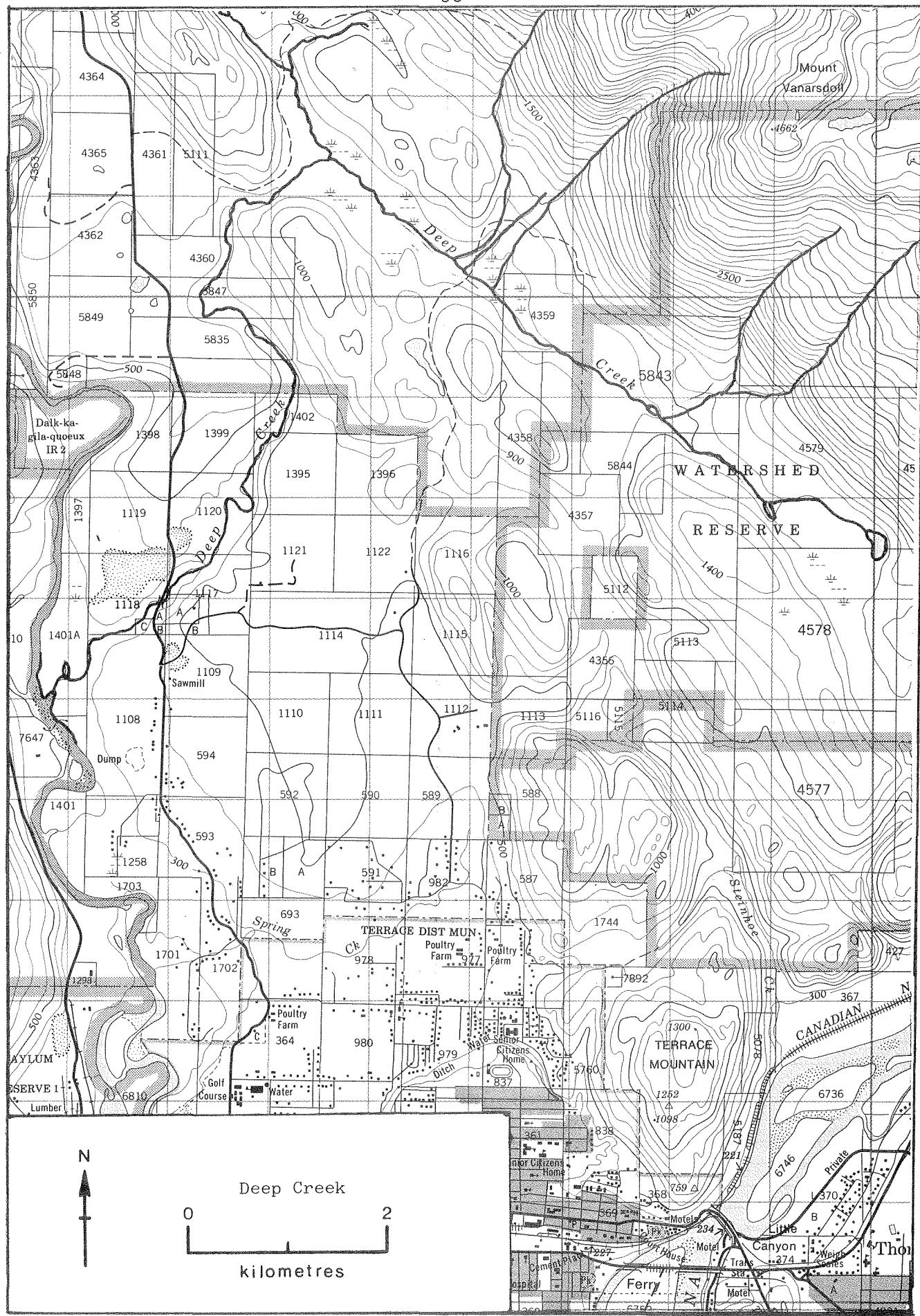
TIMING

ARRIVE			E SEP - OCT		AUG	
START			E SEP-M OCT	M - L AUG	L AUG - SEP	
PEAK			L SEP-M NOV	L AUG-E SEP	AUG - SEP	
END			L OCT - DEC	M SEPT	SEP - OCT	

REMARKS N/I - Not inspected

N/O - Not Observed

Obs - Observed



NAME OF STREAM DEEP CREEK

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows SW. into Kitsumkalum River, Rge.5, Coast Dist.

POSITION 54 128 NW

LENGTH 9.6 km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT Rock cascade 9.6km upstream from mouth.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED		
SOCKEYE			
CHINOOK	- 0.8 to approx. 4.8km from mouth.		
COHO	- scattered up to 9.6km from mouth		
CHUM	- 0.8 to approx 4.8km from mouth		
PINK (ODD YEAR)	" " "		
PINK (EVEN YEAR)	" " "		
STEELHEAD			

POTENTIAL OF INACCESSIBLE PORTION OF STREAM Potential of region above cascades not fully assessed in 1965.

GENERAL REMARKS 1951 A few coho fry in L May sampling. 1952 Stream bed silty during Spring sampling period.

1953 - Approx. 180m of stream bed effected by slide triggered by public works road crews.

1958 - Low water restricted entrance of chums and pinks. Coho were observed but not counted.

1960 - Terrace water supply. Considerable muddy sections.

1961 - Logging begun in watershed expected to increase in 1962-63 with proposed sawmill.

1962 - Municipal application to withdraw 22.5 million litres per day protested. Outlet to Kalum River silted for 274m. Some evidence of unspawned pinks and egg digging by late spawning fish

continued.....

GENERAL REMARKS (cont'd) DEEP CREEK

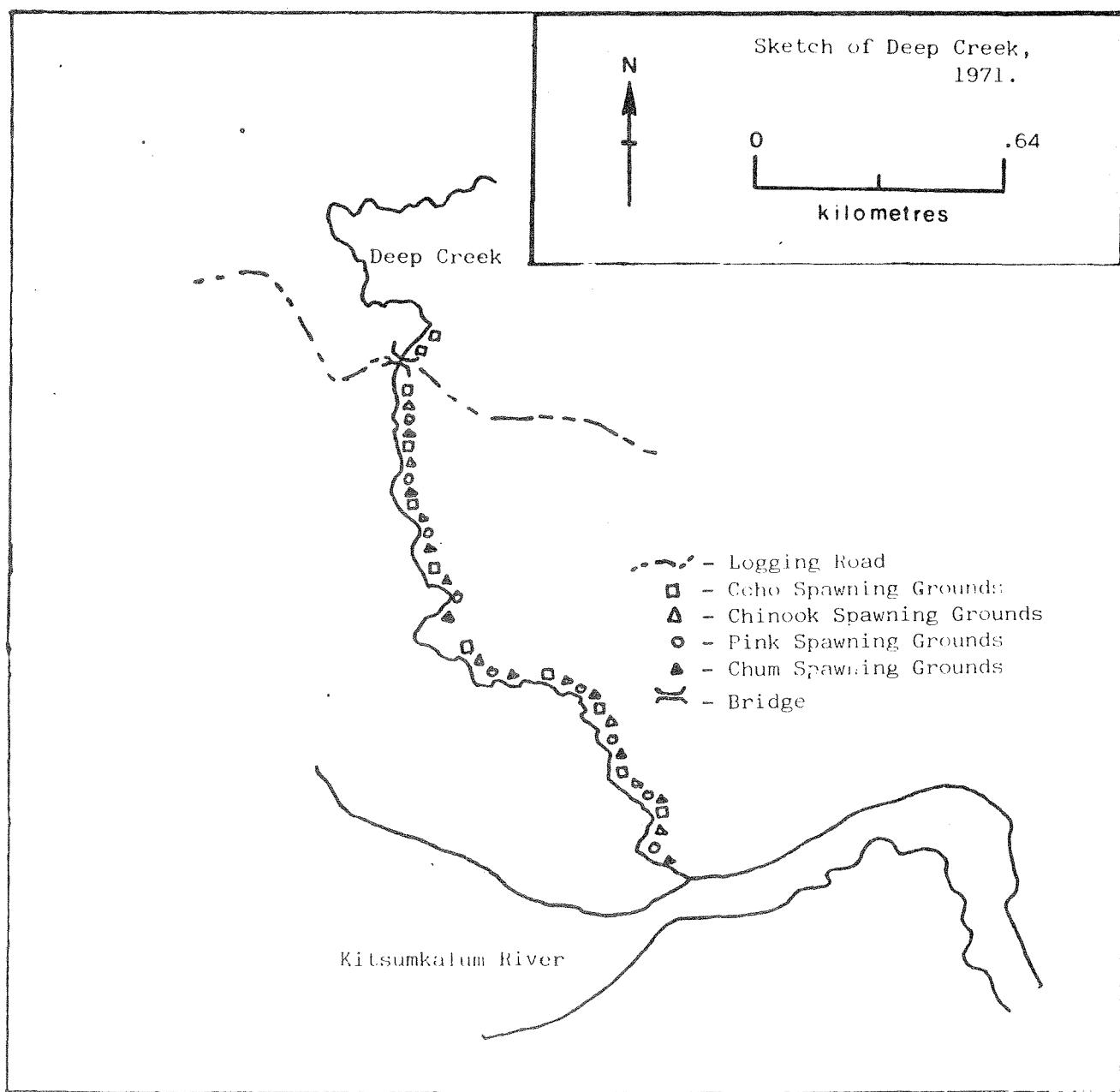
- 1962 - Numerous log jams and beaver dams removed. Municipal water supply diversion dam and modification survey pending.
- 1964 - Terrace municipal drawoff reduces flow considerably and requires study to assure that there are adequate flows during dry years. Protested application approved.
- 1965 - Suspect that municipal draw down and fish flow requirements cannot be met in years of prolonged drought or if water is impounded above the dam.
- 1978 - November flood caused some silting and scouring.

Predators: bears and eagles.

Subject to seasonal fluctuations in water levels.

Windfalls, log jams and beaver dams cleared as required.

Good stream, clear water, good gravel, mountain catch basin, deep valley.



ESCAPEMENT RECORD FOR DEEP CREEK

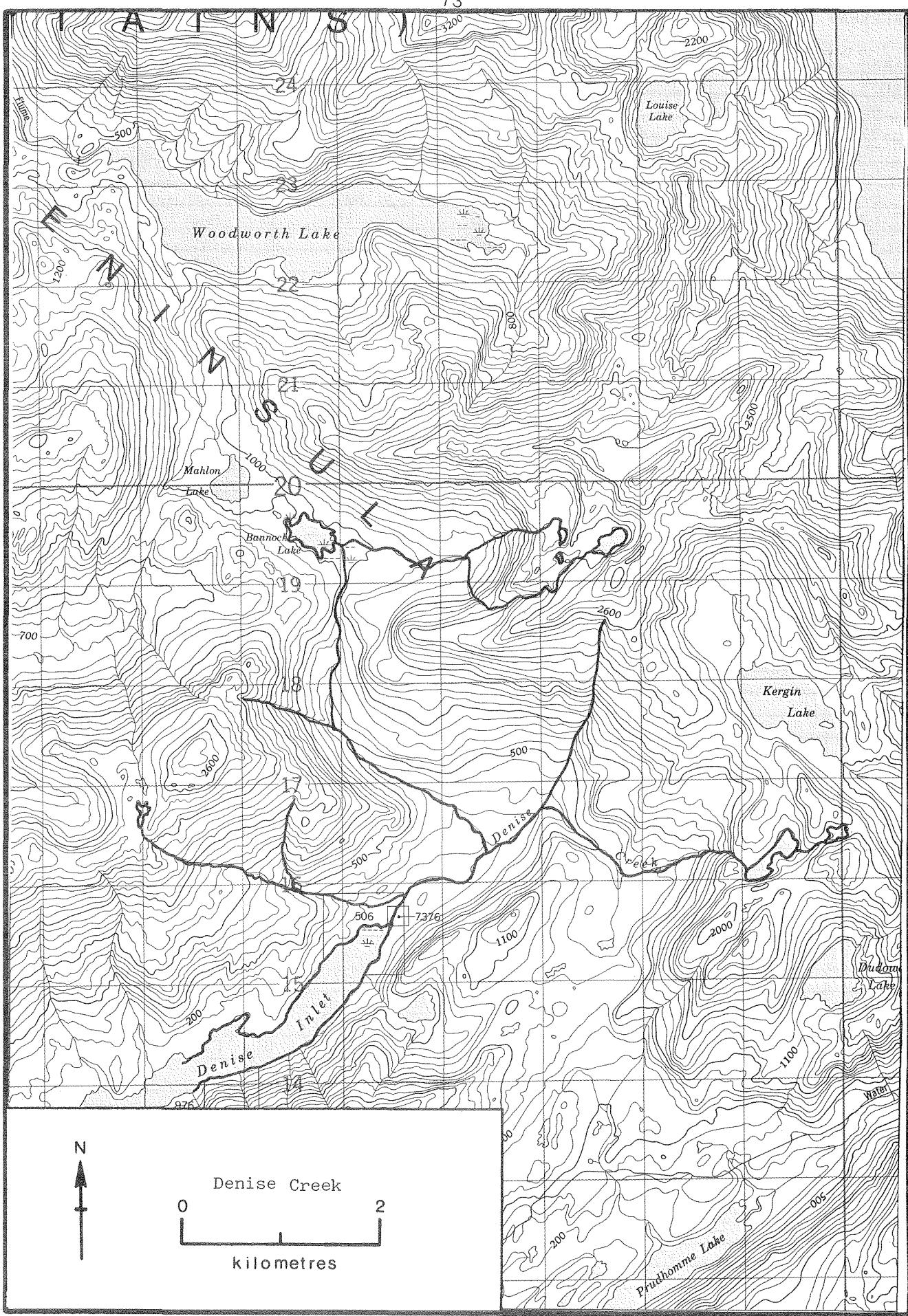
YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947			75	200	750	25
48		25	75	200	1500	N/0
49		N/0	300	N/0	900	
50			100	200	1200	N/0
51			300	100	900	
52			200	N/0	1500	
53			50	15	600	
54			400	75	750	
55			400	25	750	
56			200	25	750	
57			200	25	1500	
58			Obs	N/0	N/0	
59				25	1500	
60			25	25	25	
61			200	75	7500	
62			200	200	400	
63				75	750	
64		100	1000	75	500	
65		400	1500	75	400	
66		25	400	75	1500	
67		200	400	75	750	
68		75	1500	75	1500	
69		200	400	75	1500	
70		75	400	75	1500	
71		25	400	75	3500	
72		25	400	75	750	
73		25	200	75	400	
74		25	200	25	200	
75		25	200	25	3500	
76		25	200	25	25	
77	25	75	1500	25		200
78		25	200	25	75	
79						
80						
81		N/0	50		400	
82						
83						
84						
85						

TIMING

ARRIVE	AUG	AUG	SEPT	AUG	AUG	
START	E Sept	AUG - E SEP	E SEP - M OCT	M AUG-E SEP	M AUG-E SEP	M MAY
PEAK	M SEPT	M SEPT	M OCT- M NOV	M SEPT	L AUG-M SEP	L MAY
END	L SEPT	L SEPT	OCT - DEC	L SEPT	M - L SEPT	JUNE

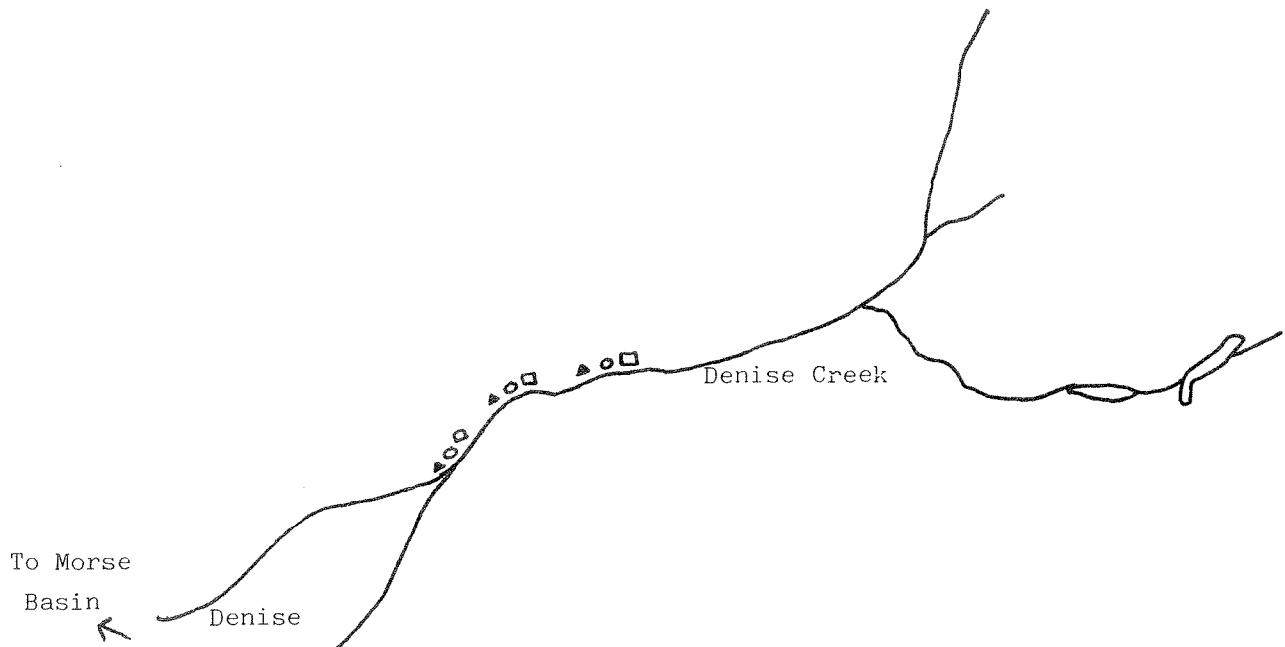
REMARKS N/O None observed

Obs Observed

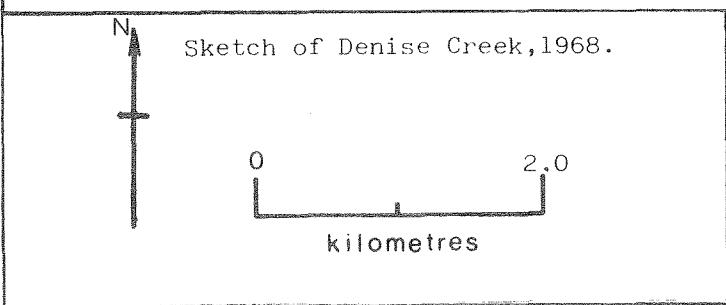


GENERAL REMARKS (cont'd) DENISE CREEK.

- 1967 - 5% of first 400m up from mouth affected by siltation and erosion. Flash flood undercut stream banks and caused minor shifts in channels and gravel bars. The reduced pink and chum runs, from this formerly productive stream, might indicate that pollution from the Port Edward pulp mill has had some adverse effect on fry migrating seaward through Wainwright Basin.
- 1971 - Prior to 1954 this stream supported fair runs of pink and chum salmon. These runs have been almost eliminated and the cause can be directed toward industrial pollution in the area.
- 1972 - Continued industrial pollution in the vicinity of Morse Basin appears to be adversely affecting this stream.
- 1973 - Low oxygen levels and toxic pollutants in Morse Basin are probably affecting the productivity of this stream.
- 1974 - Slight erosion, siltation and scouring. Since 1954 the number of spawners using this stream has dropped to drastically low levels and these runs can be considered nearly extinct.
- 1976 - Runs in this stream are very low and continue to decline.
- 1978 - Heavy rains in November may have caused some streambed damage and scouring in the lower reaches.



- - Coho Spawning Grounds
- - Pink Spawning Grounds
- ▲ - Chum Spawning Grounds



ESCAPEMENT RECORD FOR DENISE CREEK

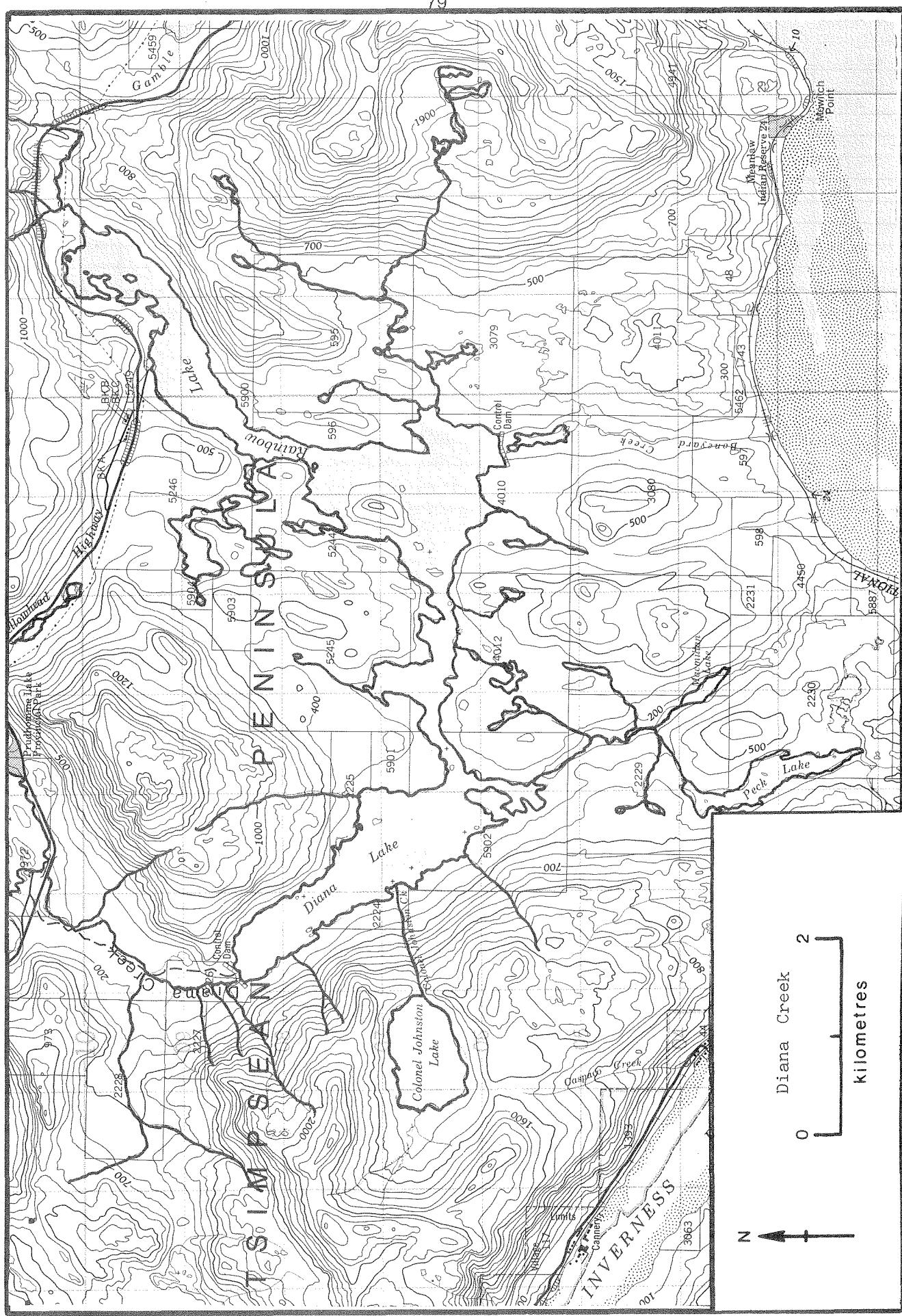
YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947				25	25	
48				3500	3500	
49				1500	4000	
50				300	500	
51		40		100	1000	
52			N/O	2000	3000	
53				1500	750	
54				300	500	
55				N/O	25	
56				14	9	
57		50		1500	400	
58				50	130	
59				25	25	
60			25	N/O	N/O	
61				75		
62				25		
63				NOT INSPECTED		
64				NOT INSPECTED		
65			Obs			
66			400	N/O	N/O	
67			75	25	N/O	
68			N/O	N/O	N/O	
69			75	N/O	N/O	
70			N/O	N/O	N/O	
71			20		6	
72			75	20		
73			20	20	N/O	
74			20	N/O	N/O	
75			20	N/O	N/O	
76			20	20	N/O	
77			20	N/O	N/O	
78			25			
79			N/O			
80			UNK		N/O	
81			25			
82						
83						
84						
85						

TIMING

ARRIVE			AUG - SEPT	AUG - M SEP		
START			AUG - L SEP	AUG - L SEP	AUG	
PEAK			L SEP- OCT	SEP - E OCT	SEPT	
END			OCT - NOV	M OCT	OCT	

REMARKS N/O - Not inspected

UNK - Unknown



(Diana Creek)

NAME OF STREAM _____
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Prudhomme Lake, expansion of Kloiya River, Rge. 5, Coast Dist.
 POSITION 54 130 SE.
 LENGTH 4.8 km WIDTH m DRAINAGE km²
 COMPOSITION: BEDROCK BOULDER COARSE FINE
 SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- lower 0.8km in Diana and Prudhomme Creeks.
CHINOOK	
COHO	- lower 1.6km " " "
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

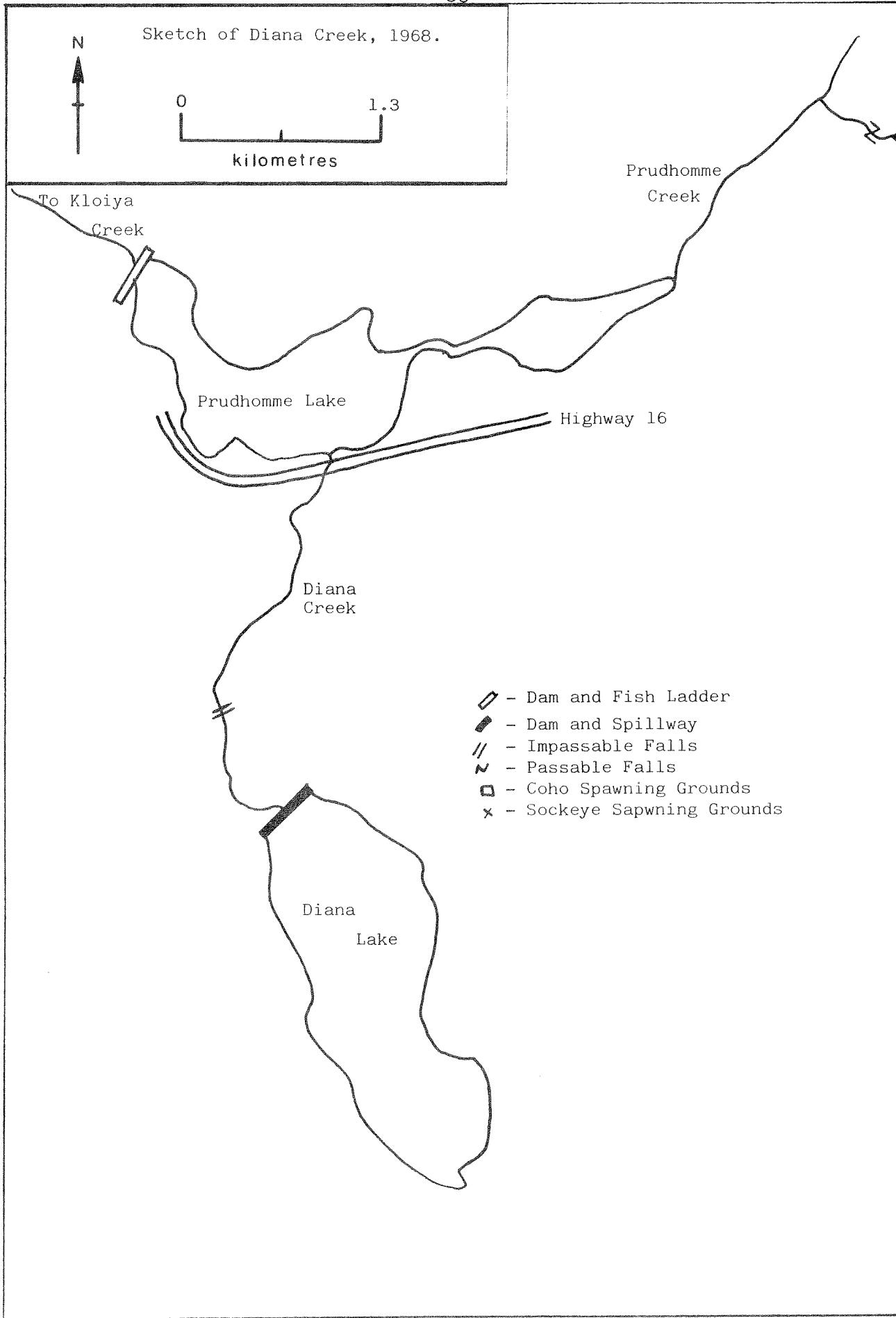
GENERAL REMARKS 1951 - Since dam installed at Prudhomme Lake outlet, the water has backed up in Diana Creek for approx. 0.8km.
1952 - Redd sampled in early March showed good survival rate.
1953 - Dam flooding resulted in lake water backing into stream. Discoloured water in first 1.6km of stream. Flooding provides constant covering of gravel and may become attractive to coho and sockeye spawners now that Kloiya Creek fishway is operating.
1954 - Since Kloiya Creek dam was installed some spawning beds in the lower 0.8km have been lost.
1955,57 High water hampered observation of spawners. Beaver activity has caused numerous channels.

continued

- 1958 - Good seeding resulted from restricted fishing regulations in effect in the Skeena River area.
- 1960 - A dam is to be constructed in the winter at the outlet of Diana Lake. As a result, water levels in the stream may change.
- 1961 - Control of Diana Lake Dam by Columbia Cellulose Company has caused drastic fluctuations in water levels. On September 4, 1982 water was completely shut off.
- 1965 - Some silting resulting from construction on Diana Lake Dam.
- 1966 - Minimum flow conditions through impounding dam area are 15 cfs mean monthly and 7.5 cfs instantaneous.
- 1967 - A flood in September caused diversion of channels, stream bank erosion and damaged 25% of the streambed 1.6km from the mouth.
- 1968 - Because Diana is easily accessible to the public and is a popular recreation area, it requires regular patrols by Fisheries Officers and Guardians.
- 1972 - Fluctuations in water levels due to impounding dam control..

Predators: eagle,hair seals,bear and wolves.

Good spawning gravel below falls.



ESCAPEMENT RECORD FOR

84

(Diana Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947	75				75	
48	750	25			400	
49	5000				85	
50	5000				N/O	
51	5500					
52	6000					
53	3500		7500			
54	5000		1500			
55	N/R		N/R			
56	2000		3500			
57	750		3500			
58	10000		1500		200	
59	7500		400		N/O	
60	3500		400			
61	3500		1500			
62	3500		3500			
63	7500		750			
64	3500		750			
65	3500	N/O	400		N/O	
66	1500		1500			
67	4500	25	400	N/O		
68	3500	200	1500	25	400	
69	3500	400	1500		N/O	
70	3500	N/O	400		N/O	
71	2000	150	400		N/O	
72	1000	100	350	N/O	N/O	
73	1000	N/O	UNK	N/O		UNK
74	500	N/O	UNK	N/O		
75	1000	N/O	UNK	N/O		
76	700	N/O	UNK	N/O		
77	1500	N/O	N/O	N/O		
78	500		200	N/O		
79	1200		250			
80	*		400			
81	400		200			
82						
83						
84						
85						

TIMING

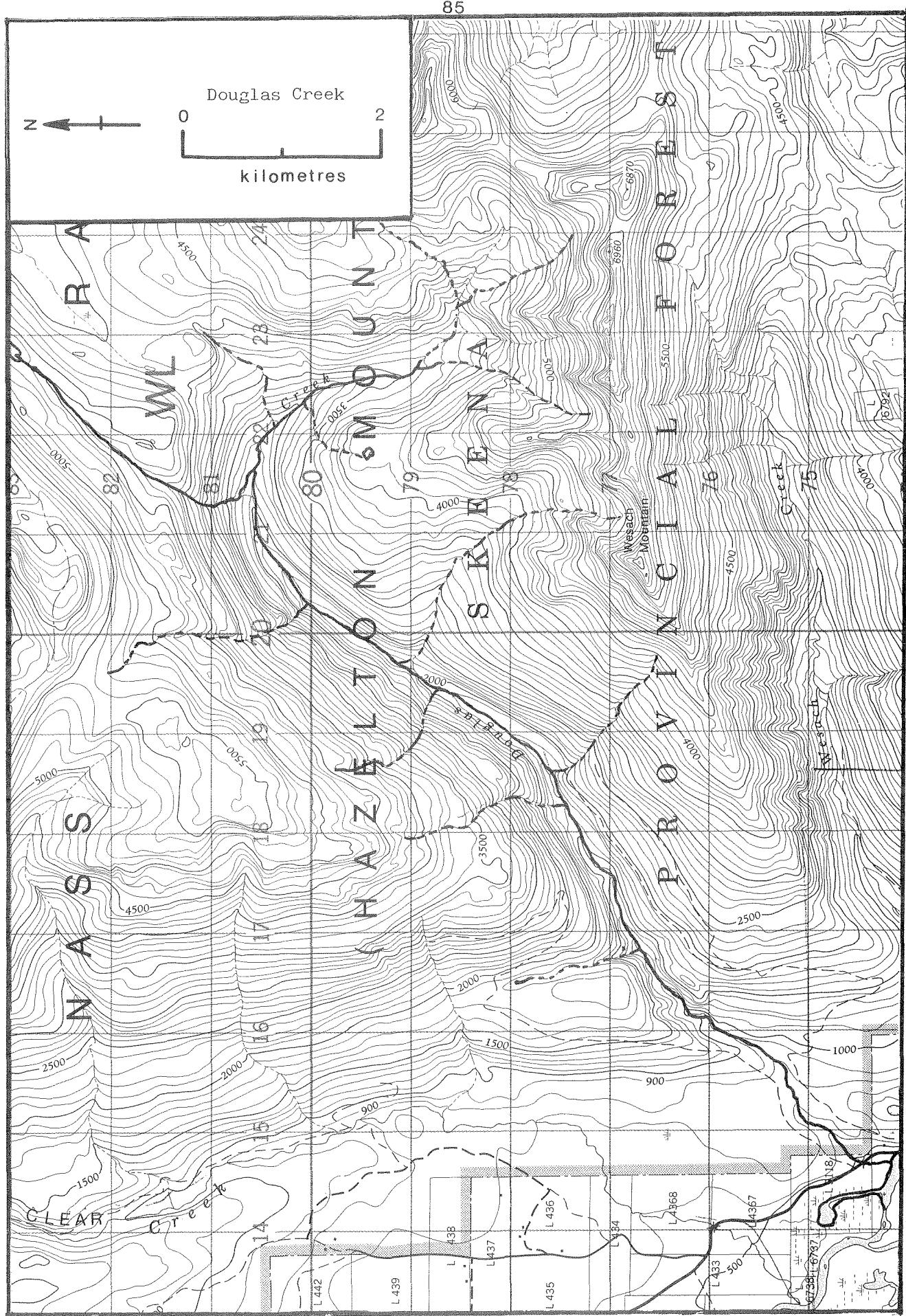
ARRIVE	AUG - SEPT	AUG - L SEP	M-L SEPT			
START	L AUG -M SEP	SEPT -E OCT	L SEP -E OCT	E SEPT	E SEPT	
PEAK	M SEP-L SEP	SEPT- M OCT	L OCT		M SEPT	
END	M OCT-L OCT	L OCT	L OCT - NOV		L SEPT	

REMARKS 1980 * High water prevented spawning estimates.

N/O - None observed

N/R - No records

UNK - Unknown



NAME OF STREAM DOUGLAS CREEK (Dry Creek)

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows SW. into Kitsumkalum Lake, Rge.5, Coast. Dist.

POSITION 54 128 NW.

LENGTH 9.6 km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

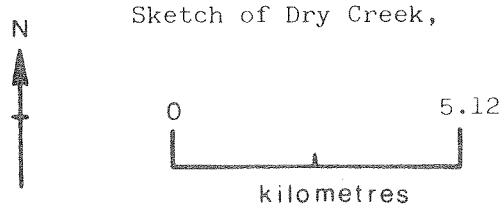
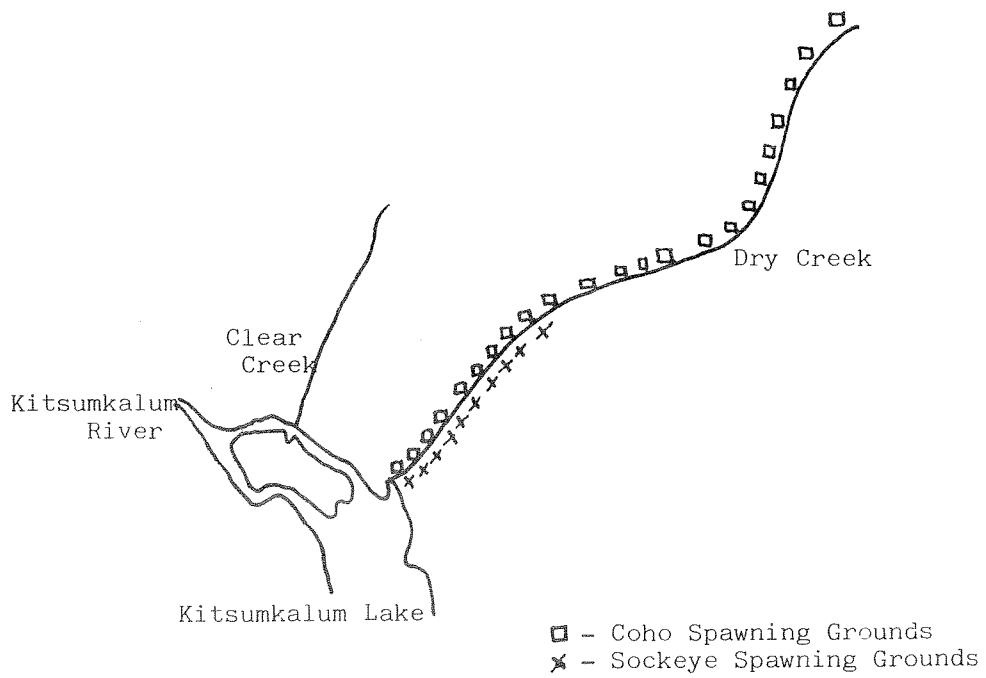
BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1960,76,77 - Windfalls observed between 0.8km and 3.2km.
 1962,62 - Cleared windfall debris. 1967,68 Cleared beaver dams.
 1962,64 - Some scouring at mouth.
 1965,66 - Sandy for 1.6km from swampy bayou to Clear Creek. Improved swampy area near mouth.
 1974 - Some erosion and silting during second week in October.
 1978 - Beaver dam 3.2km upstream.
 1980 - Fish passage hampered by low flow conditions.
 Subject to seasonal fluctuations in water levels.
 Predators: bears and eagles.
 Good spawning and rearing conditions in lower channelled swampy terrain.



YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947	75		25			
48						
49	300		100			
50	200		75			
51	200		200			
52	500		400			
53	200		20			
54	200		200			
55	200		75			
56	75		200			
57	25		25			
58	200		200			
59	200		N/I			
60	25		25			
61	200		25			
62	200		25			
63	N/O		N/O			
64						
65	400	ORS	750			
66	25		200			
67	25		25			
68	75		750			
69	200		400			
70	75		400			
71	200		400			
72	200		400			
73	200		200			
74	200		200			
75	200		200			
76	75		200			
77	200		650			
78	75		750			
79						
80	75		225			
81	75		150			
82						
83						
84						
85						

TIMING

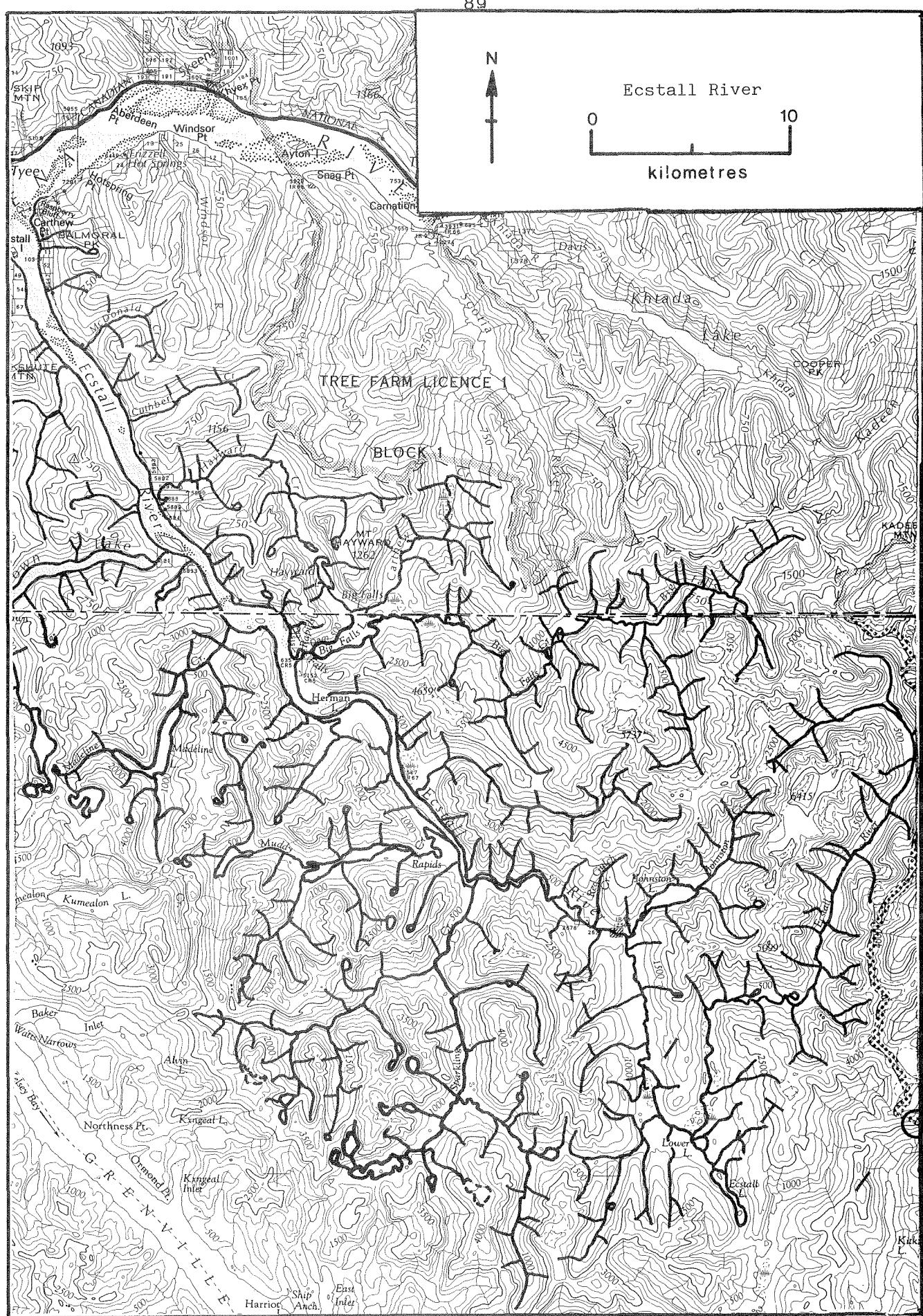
ARRIVE	AUG		SEPT-NOV			
START	L AUG-E SEP		L SEP-E NOV			
PEAK	M SEP		M OCT-M DEC			
END	L SEP-L OCT		M NOV - JAN			

REMARKS N/I - Not inspected
 N/O - None observed



Ecstall River

0 10
kilometres



NAME OF STREAM ECSTALL RIVER
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Flows NW. into Skeena River near mouth, Rge.5, Coast Dist.
 POSITION 54 129SW
 LENGTH 100 km WIDTH m DRAINAGE km²
 COMPOSITION: BEDROCK BOULDER COARSE FINE
 SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25
0.25 - 0.50
0.50 - 0.75
0.75 - 1.00
> 1.00

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT Rapids 40.2km upstream.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- in Johnson L. and between Upper and Lower Ecstall Lakes.
CHINOOK	- above Johnson Creek from 3.2km - 32km
COHO	- throughout
CHUM	- just below Johnson Creek to 56km above confluence.
PINK (ODD YEAR)	- scattered throughout, same area as chinooks.
PINK (EVEN YEAR)	- scattered throughout " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1956 - High silt concentration particularly in warm weather.
 1963 - High water in L. Sept. hampered inspection.
 1965 - Large coho run reported though none observed.
 1971 - Silting scouring and erosion in lower reaches (also 72,74,75,76)
 1972 - River system is not producing to its capacity with regard to chinook and chums.
 1973 - Equipment and manpower restrictions prevented adequate escapement studies through on-site inspection. (also 72,74,76)
 1981 - Poor stock assessment due to lack of funds for helicopter survey.

continued....

Large river in remote inaccessible country.

Good looking above tidal waters. Silty up to 43.5km from mouth. Good gravel for 12.9km then 9.6km of sandy silty bottom. Rocky further upstream. Good water supply.

Subject to seasonal fluctuations in water levels.

Predators: hair seals, bears, wolves and wild fowl.

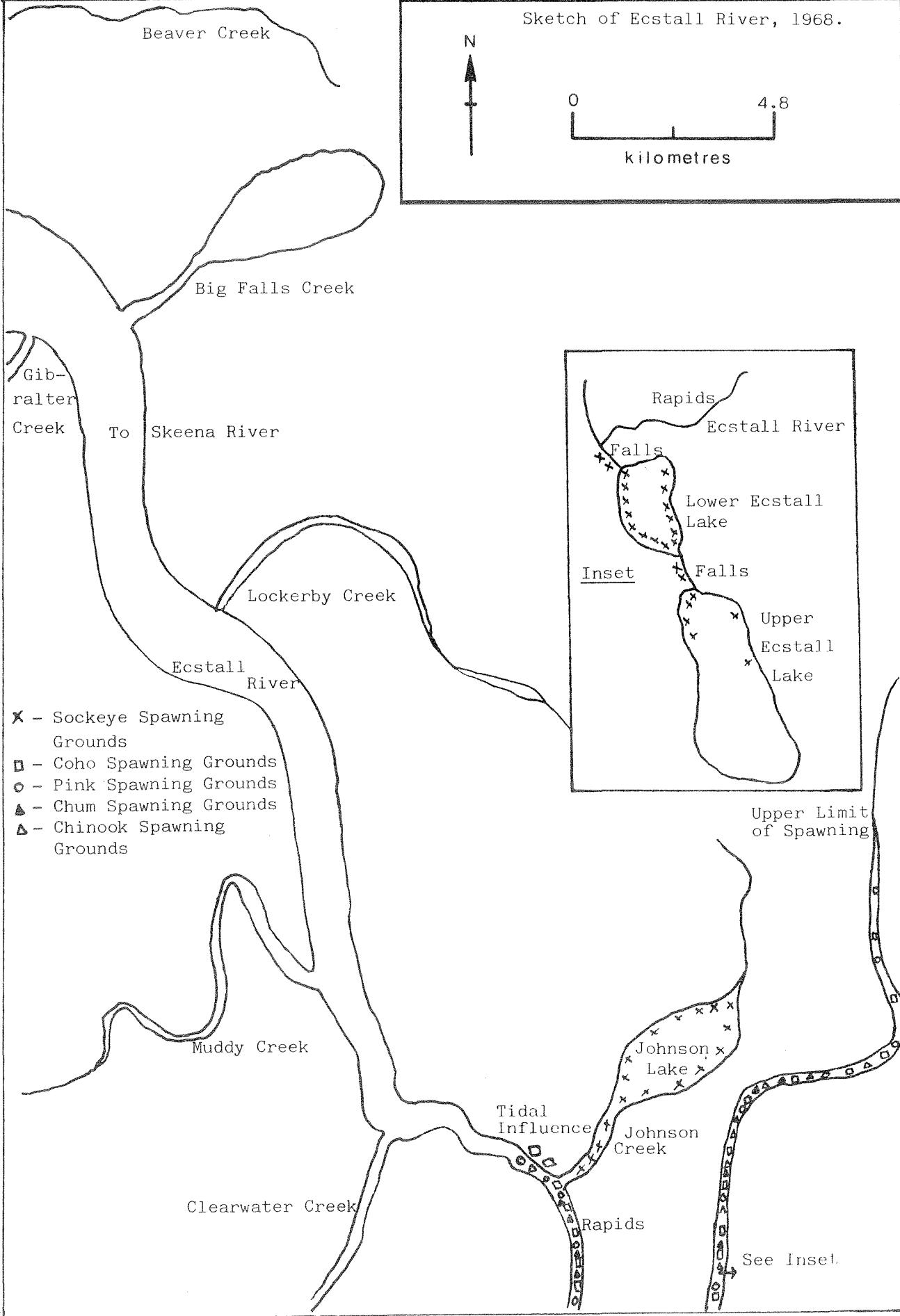
Good spawning conditions and potential.

Spawning areas separated by silty patches.

Sketch of Ecstall River, 1968.



0 4.8
kilometres



YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947				3500	7500	
48				7500	7500	
49				3500	15000	
50				10000	15000	
51				3000	10000	
52				15000	25000	
53				1500	1500	
54				15000	1000	
55				200	7500	
56				N/O	N/O	
57		3500		1000	1000	
58				3000	20000	
59		3500	N/O	N/O	7500	
60		1500	N/I	N/O	N/O	
61		1500	Obs	35000	Obs	
62		1500	N/O	7500	Obs	
63		3500	Obs		3500	
64		1500	3500	N/O	3500	
65		8750	N/O	3500	20000	
66		3500	3500	15000	1500	
67		1500	1500	12000	750	
68		1500	750	7500	400	
69		750	750	7500	1500	
70		750	750	7500	200	
71		450	2000	2000	1500	
72		1000	1000	20500	N/O	
73	250	3500	UNK	15000	500	
74		2500	UNK	6000	500	
75		2000	UNK	5000		
76		1000	UNK	5000	400	
77		2500	N/O	5000	N/O	
78		750	N/O	3500	200	
79		1000	UNK	3000	N/O	
80						
81		1500	UNK	8000	N/O	
82						
83						
84						
85						

TIMING

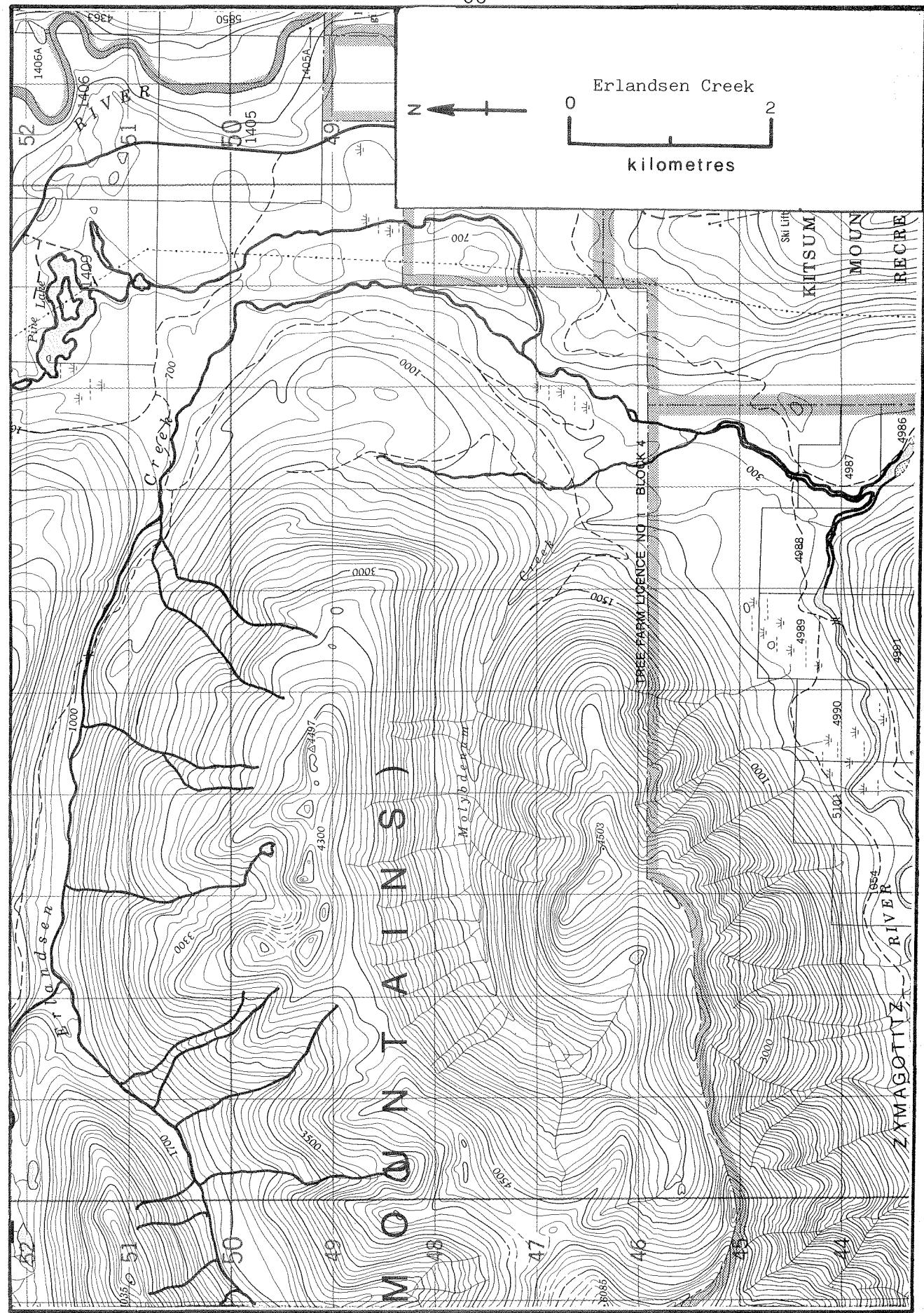
ARRIVE		M AUG	E AUG - SEP	AUG	AUG	
START		M AUG-E SEP	M-L SEPT	M-L AUG	M AUG- E SEP	
PEAK		M SEPT	L SEP-OCT	E SEPT	E-M SEPT	
END		L SEP-M OCT	L OCT -NOV	M SEP-OCT	L SEPT-OCT	

REMARKS N/O - None observed

Obs - Observed

N/I - Not inspected

95



96

NAME OF STREAM ERLANDSEN CREEK

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows S. into Zymagotitz River, S. of Kitsumkalum L., Rge.5
Coast Dist.
 POSITION 54 128 NW.

LENGTH _____ km WIDTH _____ m DRAINAGE _____ km²

COMPOSITION: BEDROCK _____ BOULDER _____ COARSE _____ FINE _____
 SILT & SAND _____ UNCLASSIFIED _____

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA _____ m² SPAWNING AREA _____ m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- lower three miles
COHO	
CHUM	- " "
PINK (ODD YEAR)	- lower three miles
PINK (EVEN YEAR)	- " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS 1980,81 Water levels normal.

No predators observed.

Some sweepers but passable.

ESCAPEMENT RECORD FOR

98
ERLANDSEN CREEK

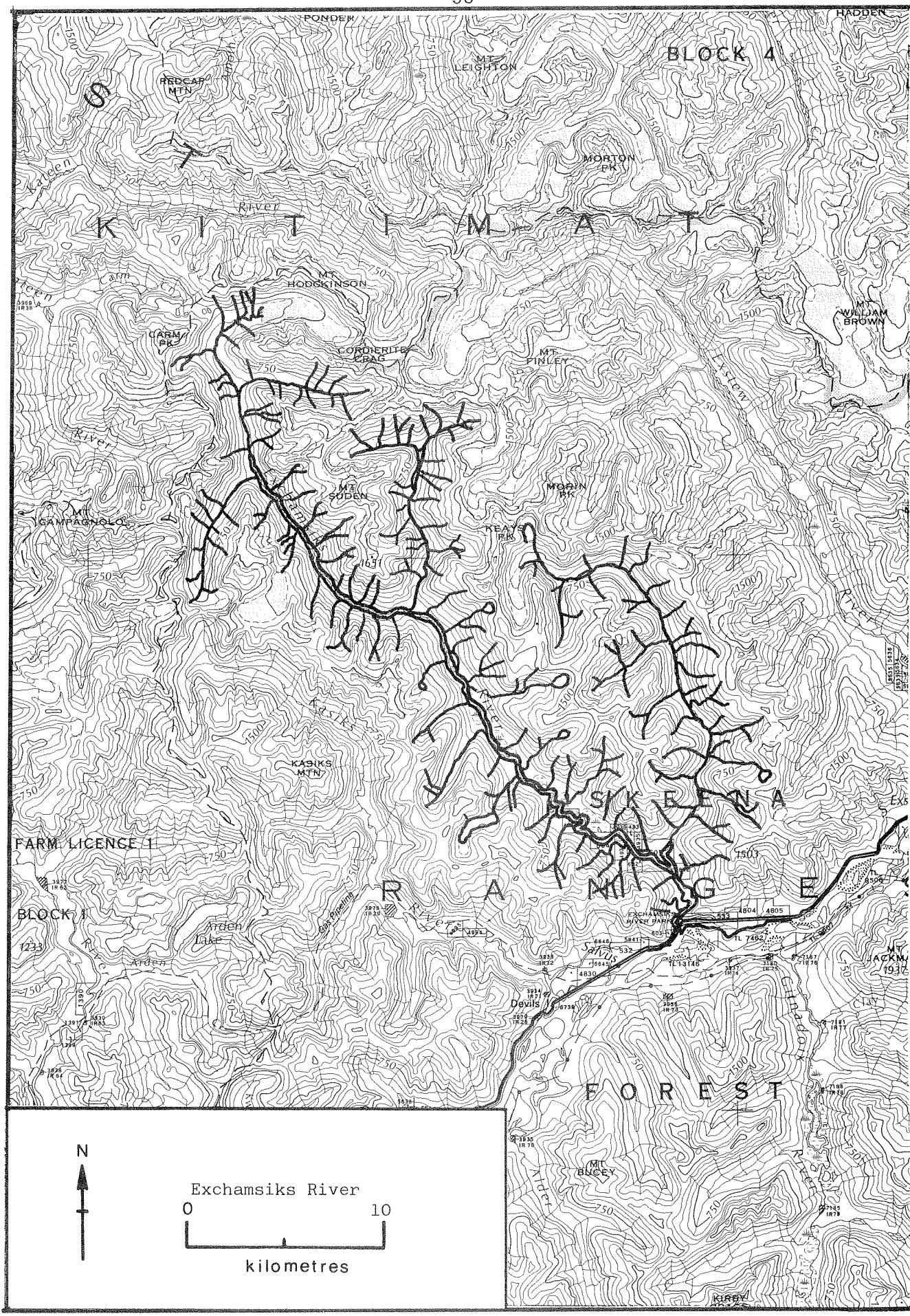
98

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57						
58						
59						
60						
61						
62						
63						
64						
65						
66						
67						
68						
69						
70						
71						
72						
73						
74						
75						
76						
77						
78						
79						
80		30		6	36	
81		10		20	50	
82						
83						
84						
85						

TIMING

ARRIVE		AUG		AUG	AUG	
START		M AUG		M AUG	M AUG	
PEAK		L AUG		L AUG	L AUG	
END		SEPT		SEPT	SEPT	

REMARKS



NAME OF STREAM EXCHAMSIKS RIVER
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Flows SE. into Skeena River, Rge.5, Coast Dist.
 POSITION 54 129 SE.
 LENGTH 24.0 km WIDTH m DRAINAGE km²
 COMPOSITION: BEDROCK BOULDER COARSE FINE
 SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25

0.25 - 0.50

0.50 - 0.75

0.75 - 1.00

> 1.00

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s)

TEMPERATURE (°C)

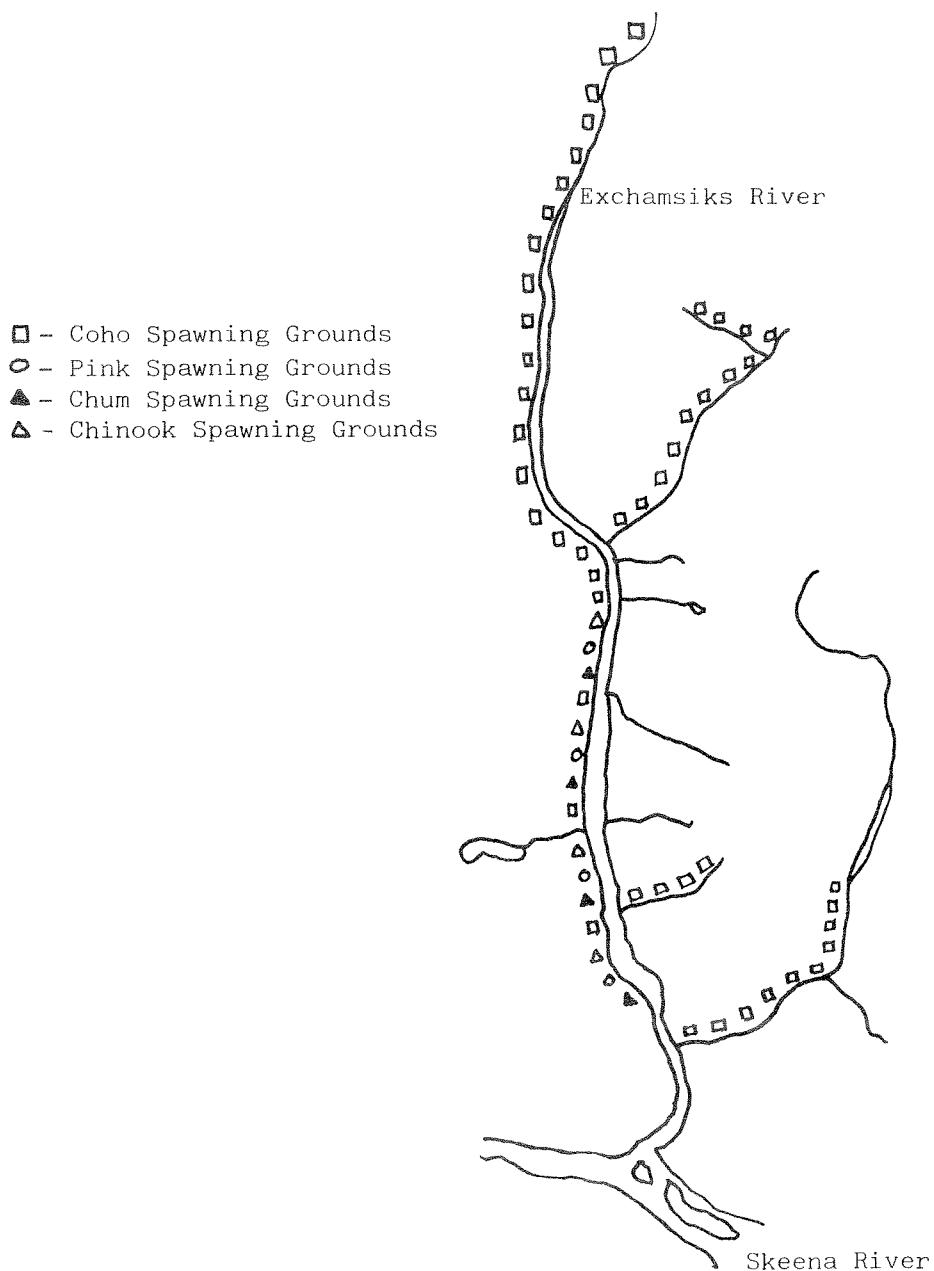
BARRIERS OR POINTS OF DIFFICULT ASCENT Passable cascades at 8-16km and 24km.

SPAWNING DISTRIBUTION various locations from mouth to approx. 24 km upstream.

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- usually above 9km upstream
COHO	- in deep water near mouth also in upper reaches and trib.
CHUM	- 8-9km upstream
PINK (ODD YEAR)	- in lower 4 - 6km of stream.
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1948 - Poor visibility prevented estimate of pink spawners this year and 1949-55 and 1957.
 1958 - Indian trappers reported good coho run in November.
 1960 - Incomplete coho inspection.
 1962 - Parks site popular for late fall coho sport fishing.
 - Predators: seals and bears.
 - Some erosion and silting in lower areas -- scouring in upper reaches.
 - Glacial stream, observation hampered by turbid water.
 - Large drainage area, steep glacial runoff approx 40.2km.
 - Best observation from helicopter, sandy in lower 4.8km.
 - Wide flood plain, swift side channels with gravel bars 30-45m wide.
 - Scrub brush and meadows to glaciers, very turbulent in flood.



Sketch of Exchamsiks River, 1971.



0

10.4

kilometres

ESCAPEMENT RECORD FOR

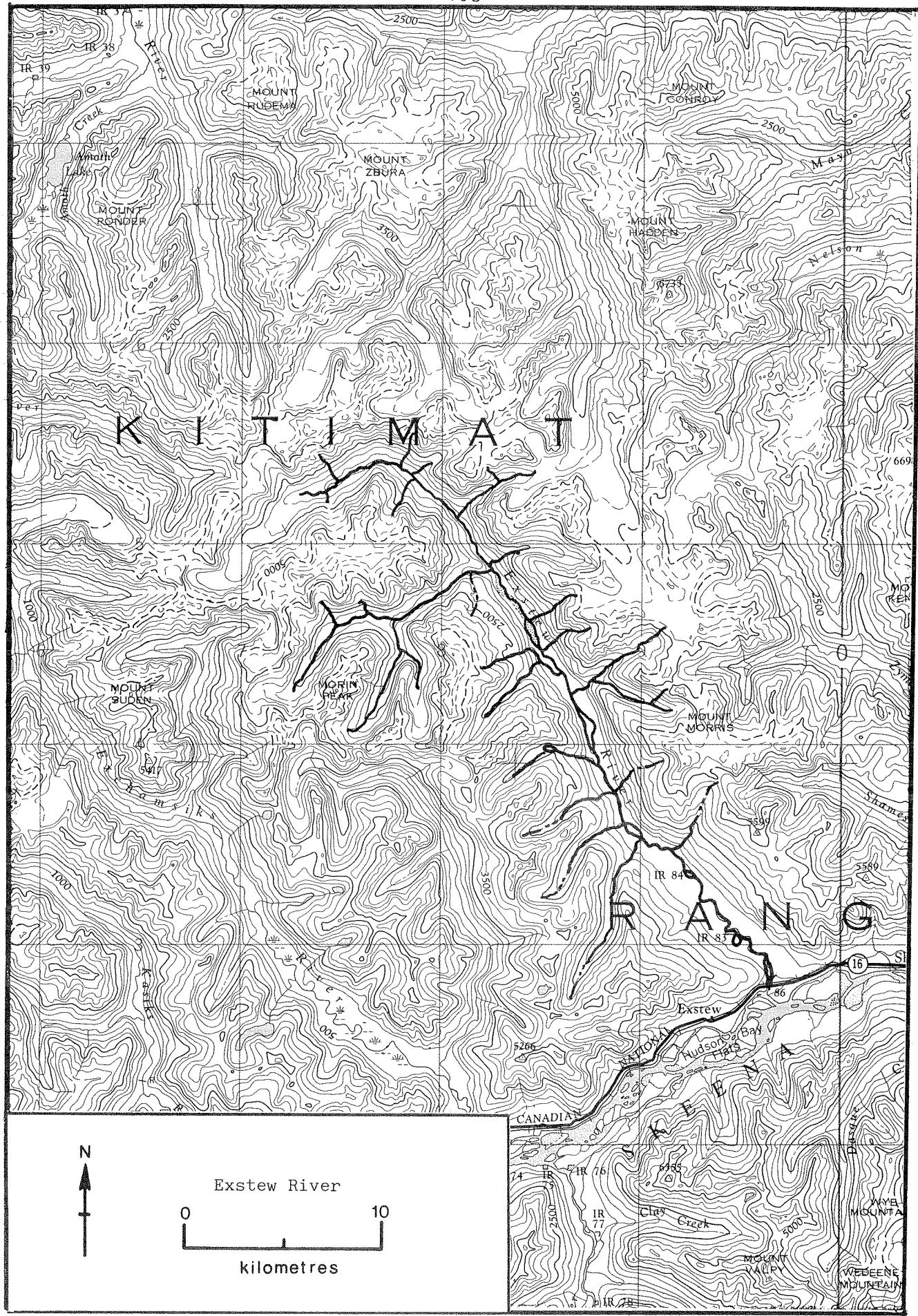
102
EXCHAMSIKS RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			50			
49			1000		OBS	
50			300		OBS	
51			800		OBS	
52			1500		OBS	
53			500		OBS	
54			750	OBS	OBS	
55			750	OBS	OBS	
56			1500			
57			400	OBS	OBS	
58			OBS		OBS	
59				NOT INSPECTED		
60			N/O			
61					75	
62			25		25	
63			N/O		N/O	
64		300	400	250	25	
65		75	3500	25	7500	
66		25	200	25	200	
67	400	200	750	25	400	
68		75	750		750	
69		75	750	75	750	
70		75	1500	75	750	
71		75	1500	75	750	
72		75	750	200	1500	
73		75	750	200	750	
74		75	750	200	200	
75		75	750	200	200	
76		75	1500	200	75	
77		75	750	200	400	
78		25	200	50	75	
79		25	500		25	
80						
81						
82						
83						
84						
85						

TIMING

ARRIVE		AUG	SEPT	AUG	AUG
START		E AUG	M OCT	E AUG	E AUG
PEAK		M AUG-SEPT	OCT-M NOV	M AUG-SEPT	M AUG
END		SEPT	OCT-DEC	SEPT	SEPT

REMARKS N/O - None observed



NAME OF STREAM EXTEW RIVERCONSERVATION DISTRICT 8 STATISTICAL AREA 4LOCATION OF MOUTH Flows SE. into Skeena River, NE. of Extew, Rge., 5 Coast Dist.POSITION 54 129 SELENGTH 27.4 km WIDTH m DRAINAGE km²COMPOSITION: BEDROCK BOULDER COARSE FINE SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

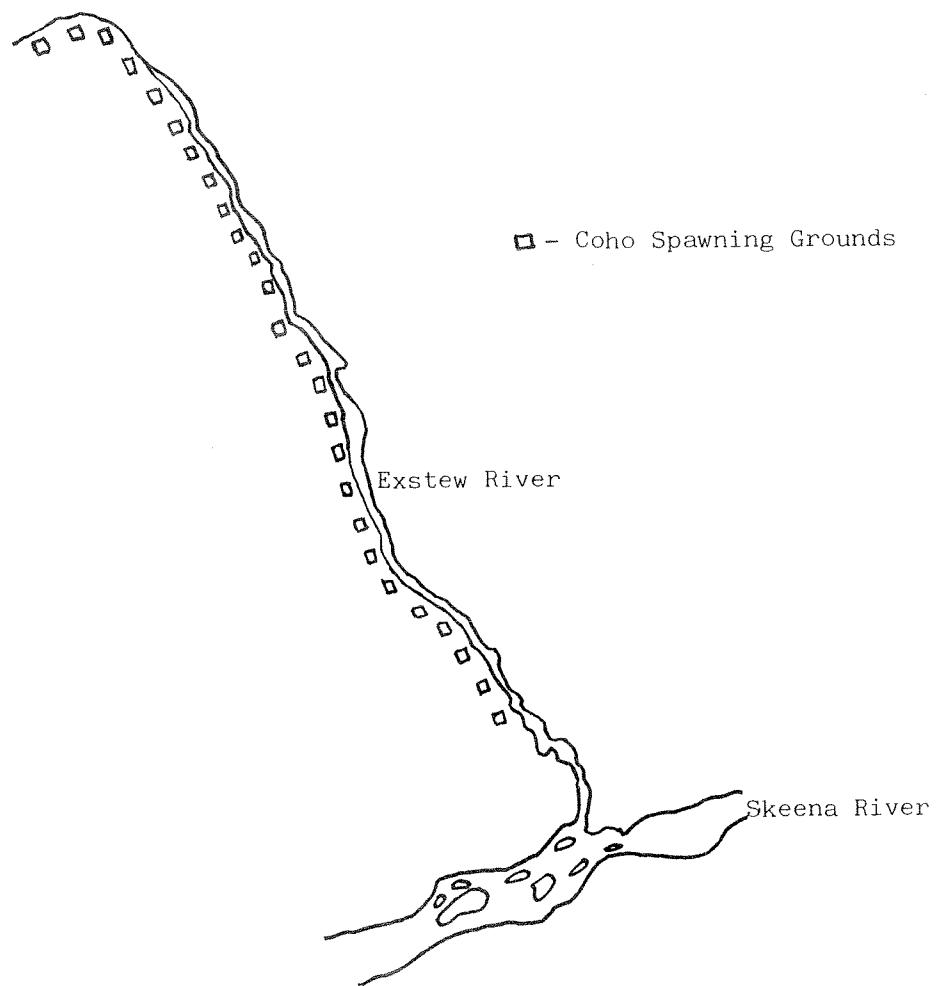
0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s) TEMPERATURE (°C) BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- 9.6km upstream
CHINOOK	- from 8.0 to 27.4km from mouth
COHO	- upper reaches
CHUM	
PINK (ODD YEAR)	- about 3.2km above bridge
PINK (EVEN YEAR)	- " "
STEELHEAD	- lower reaches

POTENTIAL OF INACCESSIBLE PORTION OF STREAM GENERAL REMARKS 1948 - Poor weather conditions prevented inspection in most years 1948-661957 - No damage resulted from gravel removal in Extew Slough.1964 - Road maintainance work to protect wooden bridge structure.1965 - Some scouring in lower reaches also in 1968,69. Complete survey of valley required.1981 - Heavy erosion and silting in lower 6.4km and scouring in upper portion in most years.Alteration in channel.- Numerous passable log jams along water course.Subject to seasonal fluctuations in water levels.Predators : seals and bears



Sketch of Extew River, 1971.



0 10.4
kilometres

ESCAPEMENT RECORD FOR

EXTEW RIVER

106

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			OBS		OBS	
49			OBS			
50			N/O		OBS	
51			500			
52			OBS			
53			OBS		OBS	
54			OBS			
55						
56					OBS	
57			OBS			
58						
59				NOT INSPECTED		
60			N/O			
61			N/O			
62					200	
63				NOT INSPECTED		
64			N/O			
65				25	750	
66			N/O	N/O	N/O	
67	200		750			
68			75			
69			400			
70			3500			
71			3500			
72		25	3500		1500	
73		200	1500		1500	
74		200	1500		200	
75		200	750		200	
76		75	750		25	
77		75	1500		75	
78		25	750		75	
79		25	700		25	
80						
81						
82						
83						
84						
85						

TIMING

ARRIVE	E OCT	AUG	OCT	AUG	AUG	
START	E OCT	E AUG	NOV	E AUG	E AUG	
PEAK	M OCT	L AUG	M NOV	L AUG	L AUG	
END	L OCT	SEPT	DEC	L AUG	E SEPT	

REMARKS N/O - None observed

(Extew Slough)

See Andeside Creek P.13

NAME OF STREAM _____ (Extew Slough)

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows into Skeena River at confluence of Anderside Creek.

POSITION 54 129SE.LENGTH _____ km WIDTH _____ m DRAINAGE _____ km²

COMPOSITION: BEDROCK _____ BOULDER _____ COARSE _____ FINE _____

SILT & SAND _____ UNCLASSIFIED _____

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA _____ m² SPAWNING AREA _____ m²DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	- primarily in 1.6km of slough and near confluence with
PINK (ODD YEAR)	- " " "
PINK (EVEN YEAR)	- " " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS 1955 - High Silty water prevented accurate observations.
 1957 - Indian Trappers reported fair run of coho, also in 1958.
 1958 - Turbid water during inspections. Fish seldom enter Anderside Creek from Slough.
 1960 - 50% of channel affected by mud and silt from Skeena River.
 1961 - Skeena River fallfloods carried considerable sand and silt into slough.
 Mortalities expected, also in 1965.
 1962 - Runs depend of Skeena River flow regime for continued survival.
 1964 - Silty bottom deterred spawning. Area used as booming ground without harmful effects.
 1966 - Slow winter flows caused drying gravel bars.
 - 50% of slough affected by siltation during high water.
 - Predation: eagles and bears.

ESCAPEMENT RECORD FOR

EXTEW SLOUGH

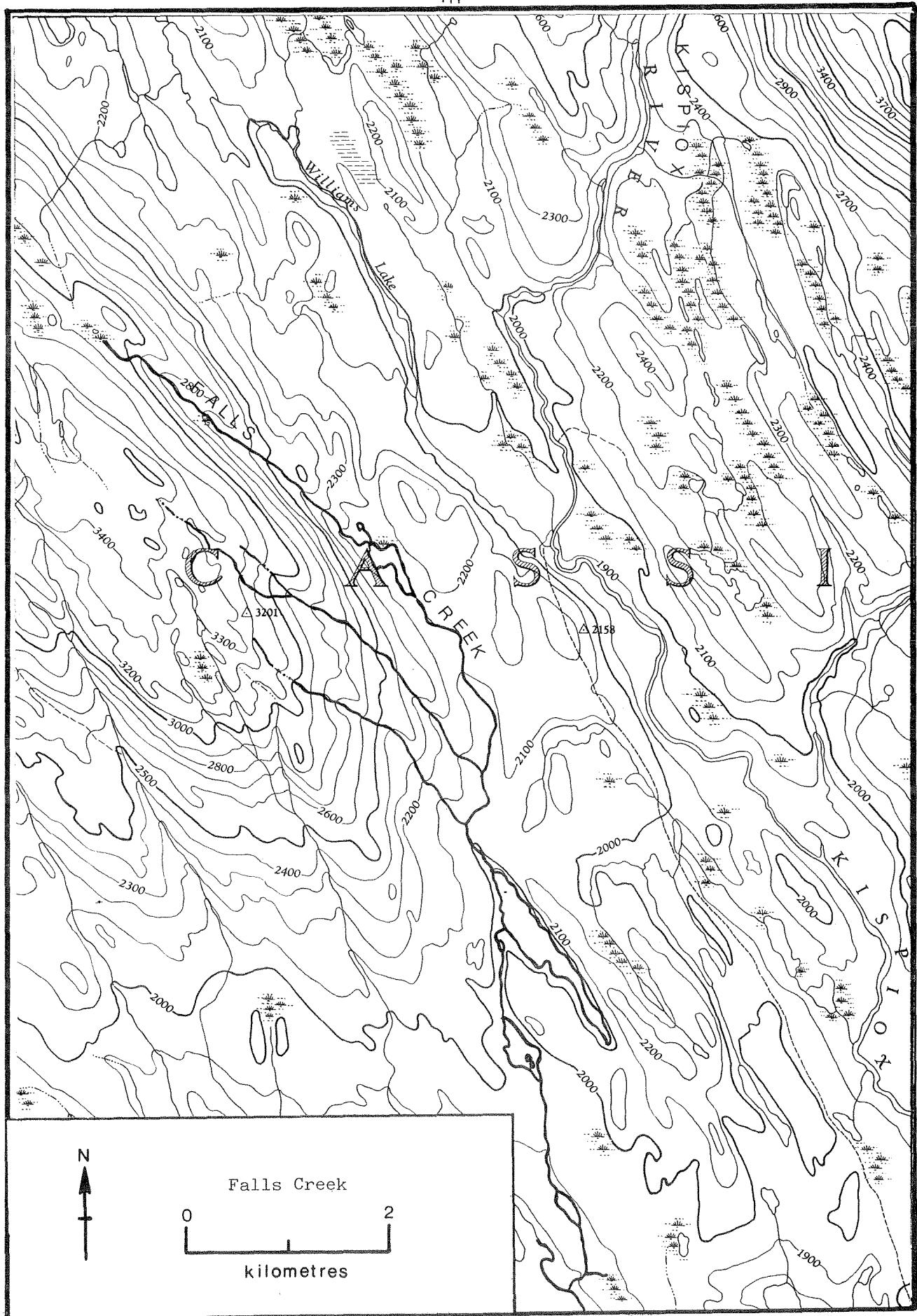
110

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48				825		
49				30		
50				300		
51				350		
52				50		
53				100		
54				400		
55		OBS		200	200	
56				75		
57				200	75	
58		OBS		400	25	
59				200	75	
60				N/O	25	
61					100000	
62					2500	
63			NOT INSPECTED			
64				N/O	N/O	
65				25	400	
66				30	400	
67				75	200	
68					750	
69				75	750	
70				75	750	
71						
72						
73						
74						
75						
76				25	25	
77				25	25	
78				200	25	
79						
80						
81				20	200	
82						
83						
84						
85						

TIMING

ARRIVE				AUG	AUG	
START				AUG - E SEPT	E SEPT	
PEAK				M SEPT	M SEPT	
END				L SEPT-OCT	L SEPT	

REMARKS N/O - None Observed



NAME OF STREAM _____ (Falls Creek)

CONSERVATION DISTRICT _____ 8 STATISTICAL AREA _____ 4

LOCATION OF MOUTH _____ Swan Lake.

POSITION $55^{\circ} 45'$ $128^{\circ} 40'$ LENGTH _____ 0.8 km WIDTH _____ m DRAINAGE _____ km²

COMPOSITION: BEDROCK _____ BOULDER _____ COARSE _____ FINE _____

SILT & SAND _____ UNCLASSIFIED _____

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA _____ m² SPAWNING AREA _____ m²DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT Impassable falls 0.8km from mouth.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- to falls or within 1st 0.5km
CHINOOK	
COHO	
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM No potential above falls --inadequate gravel.

GENERAL REMARKS 1948 - Only a short stream and badly overcrowded.

1950 - Beaver dam partially cleared.

1954,55,56,57 Coho schooled of stream mouth--large beaver dam removed to facilitate

1964 -1966 Recommend complete survey of upper stream area. migration.

Subject to seasonal fluctuation in water levels.

Predators: Bears.



Sketch of Falls Creek, 1971.

0

5.12

kilometres

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947	900					
48	15000					
49	2500					
50	500					
51	2000					
52	5000		500			
53	500					
54	75		400			
55	750		400			
56	7500		0BS			
57	3500		100			
58	1500					
59	400		nil			
60	100					
61	N/I					
62	N/O					
63	25		N/O			
64	500					
65	400		400			
66	25					
67	N/R					
68	N/O					
69	N/O					
70	N/O					
71	N/O					
72	25					
73	N/O					
74	N/O					
75	N/O					
76	N/O					
77	N/O					
78	N/I					
79	N/O					
80	N/I					
81						
82						
83						
84						
85						

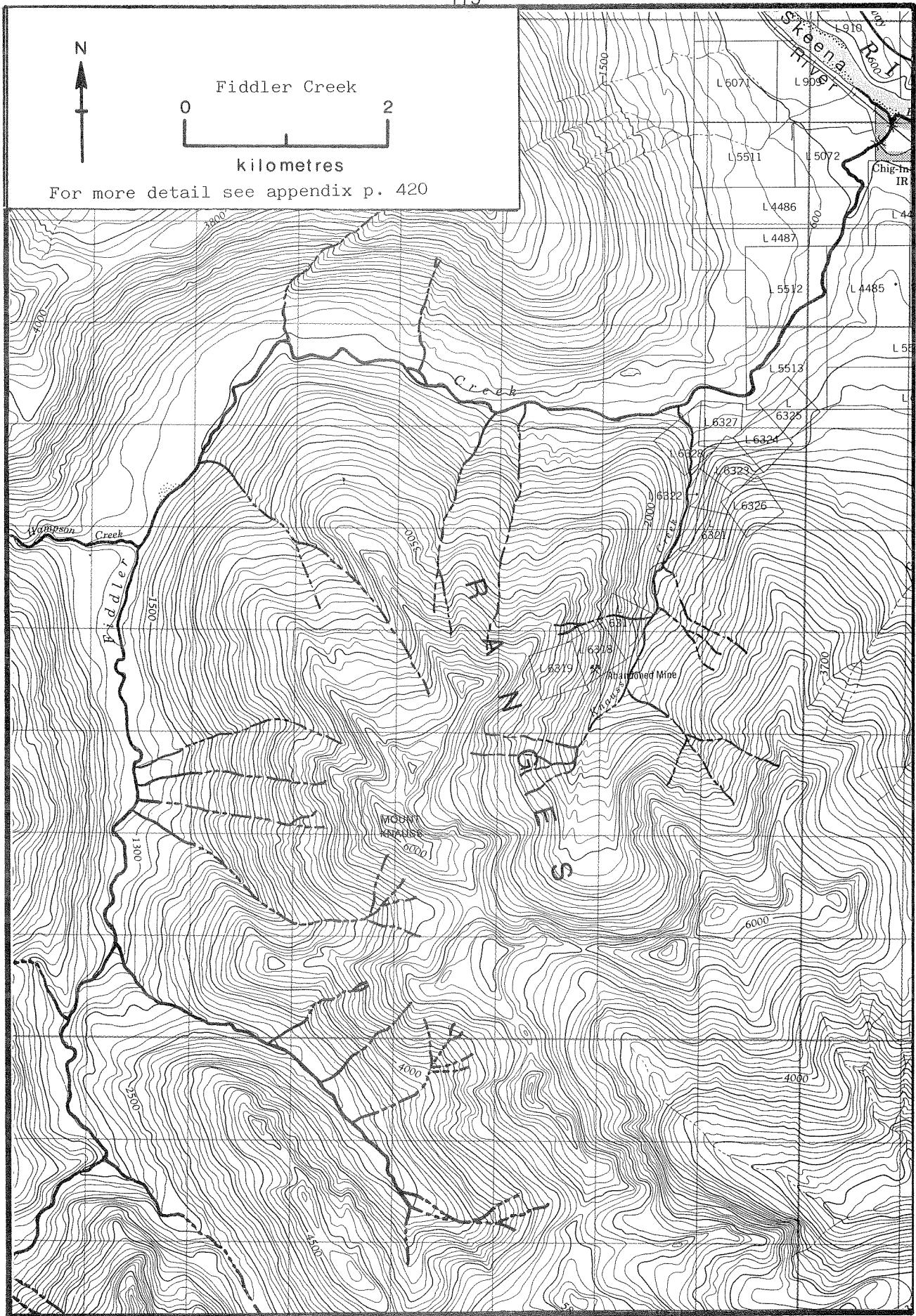
TIMING

ARRIVE						
START	AUG-E SEPT		SEPT-E OCT			
PEAK	AUG-L SEPT		SEPT-M OCT			
END	L SEPT-E OCT		L OCT			

REMARKS N/O - None observed

N/I - Not inspected

N/R - No record



NAME OF STREAM _____ (Fiddler Creek)

CONSERVATION DISTRICT _____ 8 STATISTICAL AREA _____ 4

LOCATION OF MOUTH Flows N.E. into Skeena River, above Devils Elbow.

POSITION $54^{\circ} 52' 128^{\circ} 23'$ LENGTH 6.4 km WIDTH _____ m DRAINAGE _____ km²

COMPOSITION: BEDROCK _____ BOULDER _____ COARSE _____ FINE _____

SILT & SAND _____ UNCLASSIFIED _____

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA _____ m² SPAWNING AREA _____ m²DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT
Rock cascades 3.2 - 6.4km from mouth -- passable depending on flows.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- as far upstream as 9.6km
COHO	- " "
CHUM	- lower 1.6km
PINK (ODD YEAR)	- " "
PINK (EVEN YEAR)	- " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM
16 - 24km of good gravel above cascades plus numerous tributaries suitable for coho.

GENERAL REMARKS 1948-51 Not formally inspected though residents reported medium - good pink and coho runs.

1952-56 - Residents reported good pink run.

1964 - Good trout fishing, coho taken on rods off stream mouth. Residents reported an early chum run.

1965 - Placer gold mining still actively licensed.

1966 - Placer gold mine licenses issued and active approx. 3.2-4.0 km above C.N.R. line.

1974 - Heavy erosion, silting and scouring in lower river probably destroyed pink and chum runs.

1978 - Erosion and scouring caused by November flood.

1980 - Alluvial fan developed at stream mouth.

continued.

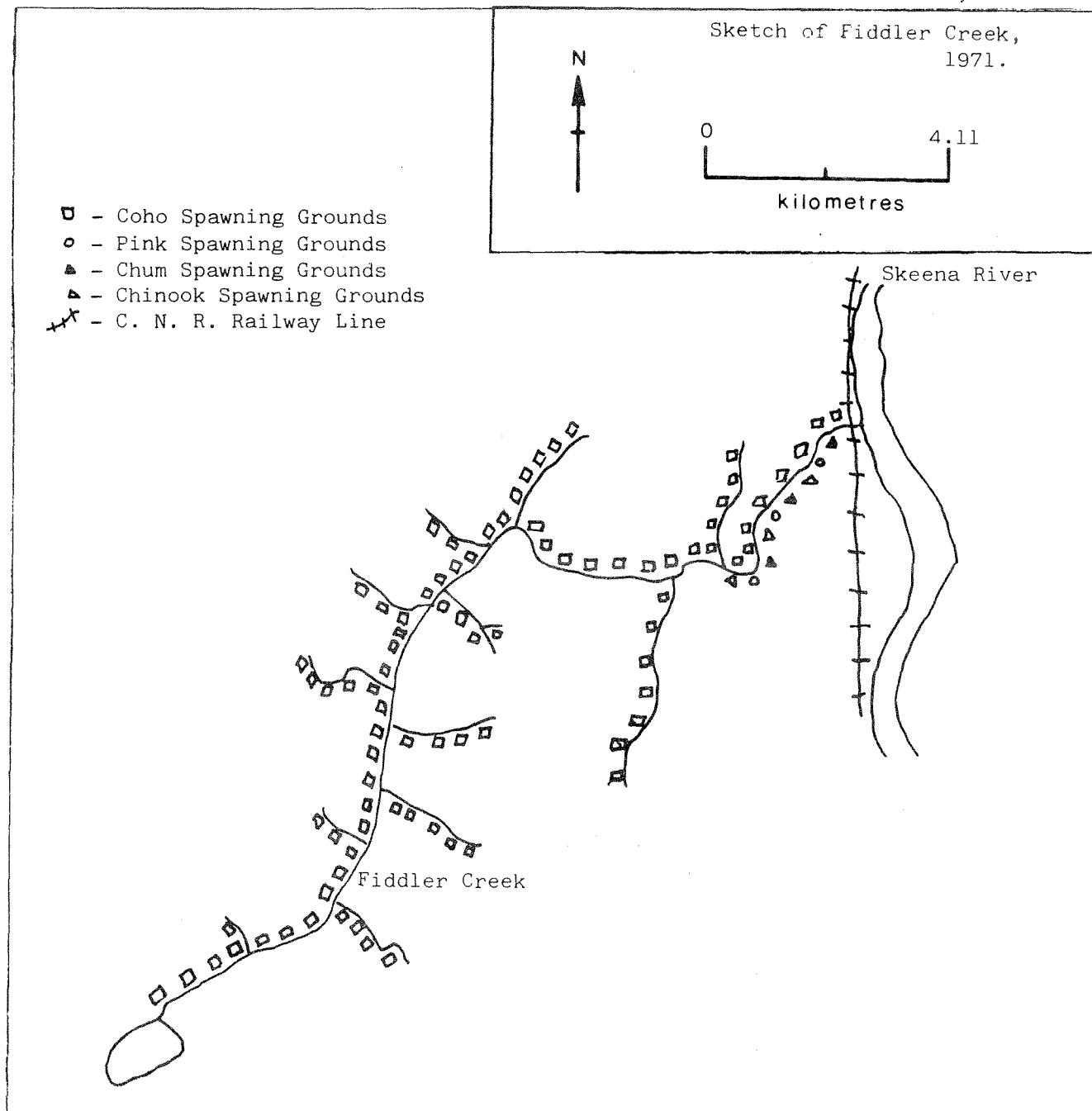
GENERAL REMARKS. (Fiddler Creek)

1981 - Streambed channelized by railroad.

Subject to seasonal fluctuations in water levels.

Stream clear with bouldery substrate--canyon in upper reaches--steep gradient.
Fast flows cause scouring during floods. Dry near mouth at low flows.

Predators: bears.



YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947			400		750	
48			OBS		OBS	
49			OBS		100	
50			100		500	
51			N/I		OBS	
52			OBS		OBS	
53			N/I		OBS	
54			N/I		OBS	
55			N/I		OBS	
56			N/I		OBS	
57			N/I		750	
58			N/I		N/I	
59			N/I		N/I	
60			N/I		200	
61			25		400	
62					25	
63						
64			75			
65			400			
66		25	200	25	200	
67		75	400		75	
68		200	750	75	1500	
69		200	200	75	75	
70		200	750	75	750	
71		200	750	75	750	
72		25	750	200	1500	
73		200	750	200	750	
74		200	750	200	200	
75		200	750	75	400	
76		25	750	75	75	
77		75	750	75	200	
78		25	400	75	100	
79		25	200	25	25	
80						
81		N/0	75	N/0	25	
82						
83						
84						
85						

TIMING

ARRIVE		E Aug	Sept	Aug	Aug
START		E-M Aug	Sept-Oct	E-M Aug	M Aug
PEAK		L Aug	Sept-Nov	M-L Aug	M-L Aug
END		Sept	Oct-Dec	Sept	Sept

REMARKS N/I - Not inspected
 N/O - None observed



NAME OF STREAM GITNADOIX RIVER 120
CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows N. into Skeena River, Rge., 5 Coast Dist.

POSITION 54 129 SE.

LENGTH 27.3 km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- throughout length of stream.
COHO	- " " "
CHUM	- in lower reaches
PINK (ODD YEAR)	- " "
PINK (EVEN YEAR)	- " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1948 Scouring and water course changes reported in a number of years.

1950, 52, 58 - Inspection too late to estimate pink spawners.

1960 - Incomplete inspection.

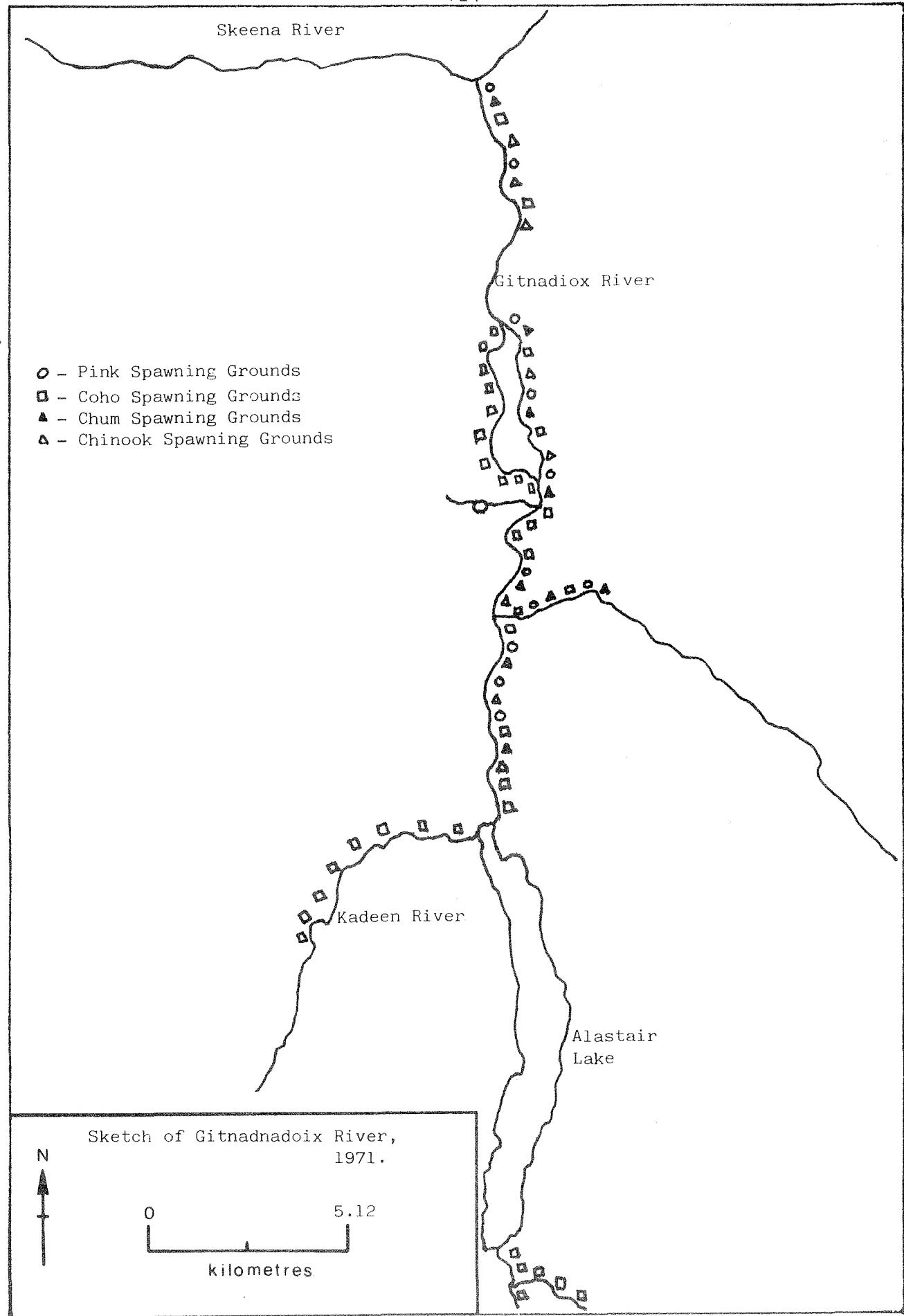
1962 - Sandy at stream outlet.

1963 - Not inspected for coho and chums.

1980 - High incidence of sport fishing during coho run.

Predation: bears, seals, eagles.

Subject to seasonal fluctuation in water levels.



ESCAPEMENT RECORD FOR

GITNADOIX RIVER

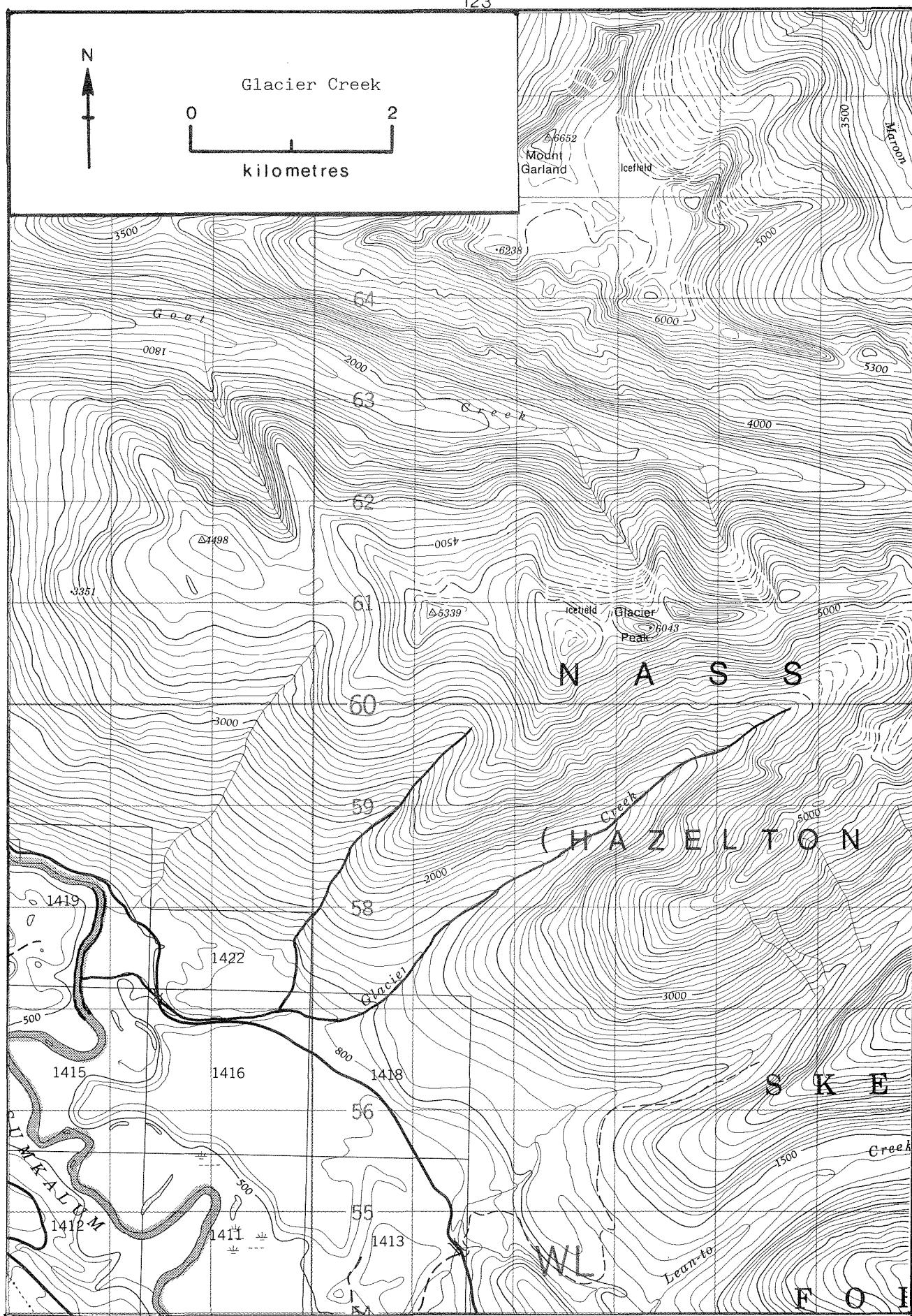
YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947			N/I	750		
48		N/O	7500	400	7500	
49			8000	OBS	OBS	
50			5000	500		
51			6000	OBS	OBS	
52			6000	OBS	OBS	
53			5000			
54			7500	OBS	OBS	
55			7500	OBS	OBS	
56		25	15000		OBS	
57		N/O	15000		OBS	
58			35000		OBS	
59			N/I			
60			N/O			
61		OBS	750		3500	
62			3500		400	
63			N/I	N/I	7500	
64			N/O			
65						
66			7500	200	400	
67		750	7500	200	750	
68		750	15000	400	1500	
69		75	7500	400	750	
70		75	7500	400	1500	
71		75	7500	400	1500	
72		75	3500	3500	7500	
73		400	1500	1500	3500	
74		400	750	750	400	
75		400	400	750	1500	
76		75	7500	1500	200	
77		400	400	1500	1500	
78		25	750	200	100	
79						
80		200	2000	1100	7000	
81		200	7000	200	3500	
82						
83						
84						
85						

TIMING

ARRIVE		JULY	OCTOBER	JULY	AUGUST	
START		AUGUST	OCTOBER	AUGUST	M AUGUST	
PEAK		M AUGUST	M NOVEMBER	L AUGUST	L AUGUST	
END		SEPTEMBER	DECEMBER	SEPTEMBER	SEPTEMBER	

REMARKS N/O - None observed

N/I - Not inspected



NAME OF STREAM GLACIER CREEK
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Flows W. into Kitsumkalum River, S.of Kitsumkalum Lake,
Rge. 5, Coast Dist. POSITION 54 128 NW.
 LENGTH 2.4 km WIDTH m DRAINAGE km²
 COMPOSITION: BEDROCK BOULDER COARSE FINE
SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0,00 - 0,25

0.25 - 0.50

0.50 - 0.75

0.75 - 1.00

≥ 1.00

WETTED AREA

DISCHARGE (m³/s)

TEMPERATURE (°C)

TERMINATION (—)

BARRIERS OR POINTS OF DIFFICULT ASCENT
Impassable falls 3.4km from

Impassable falls 2.4km from mouth.

SPawning Distribution

SPECIES	SECTION OF STREAM USED
SOCKEYE	- to falls
CHINOOK	
COHO	- to falls
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

1965, 78, 80, 81 Erosion, silting and scouring.

1965, 66 Some clean up of windfall debris.

Good gravel and with minor improvements thought suitable for coho production and rearing.

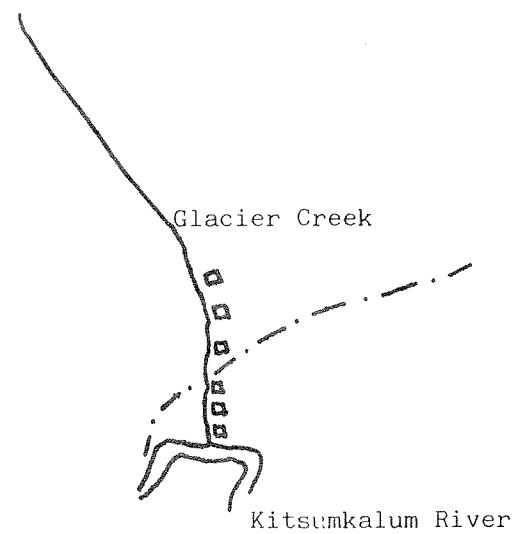
1978, 1980 Stream changed course near mouth.

Predators: eagles and bears.

Seasonal fluctuations in water levels.

Mountain glacier fed stream.

□ - Coho Spawning Grounds
- - - Kitsumkalum Lake Road



Sketch of Glacier Creek, 1971.



0

5.12

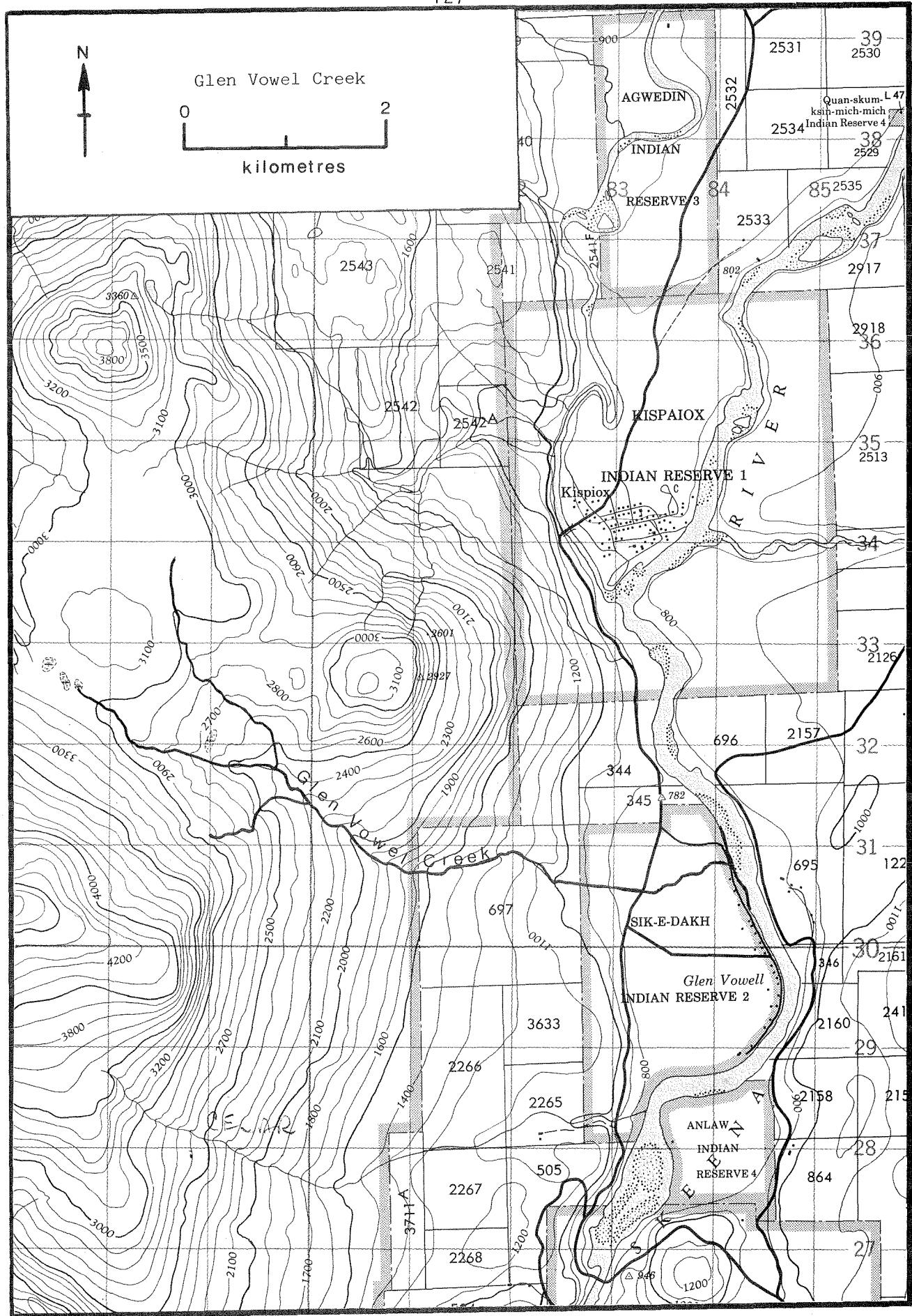
kilometres

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57						
58						
59						
60						
61						
62						
63						
64						
65			750			
66			200			
67			25			
68	750					
69			200			
70			200			
71			200			
72			200			
73			75			
74			25			
75			25			
76			25			
77			25			
78			25			
79						
80			25			
81			N/O			
82						
83						
84						
85						

TIMING

ARRIVE	OCT		OCT			
START	M OCT		OCT-E NOV			
PEAK	M NOV		M NOV			
END	E DEC		DEC			

REMARKS New file 1965



NAME OF STREAM _____ CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Flows into Skeena River North of Hazelton, Cassiar Dist. POSITION 55 127 SW.
 LENGTH 6.4 km WIDTH m DRAINAGE km²
 COMPOSITION: BEDROCK BOULDER COARSE FINE
SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

<u>0.00 - 0.25</u>	
<u>0.25 - 0.50</u>	
<u>0.50 - 0.75</u>	
<u>0.75 - 1.00</u>	
<u>> 1.00</u>	

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

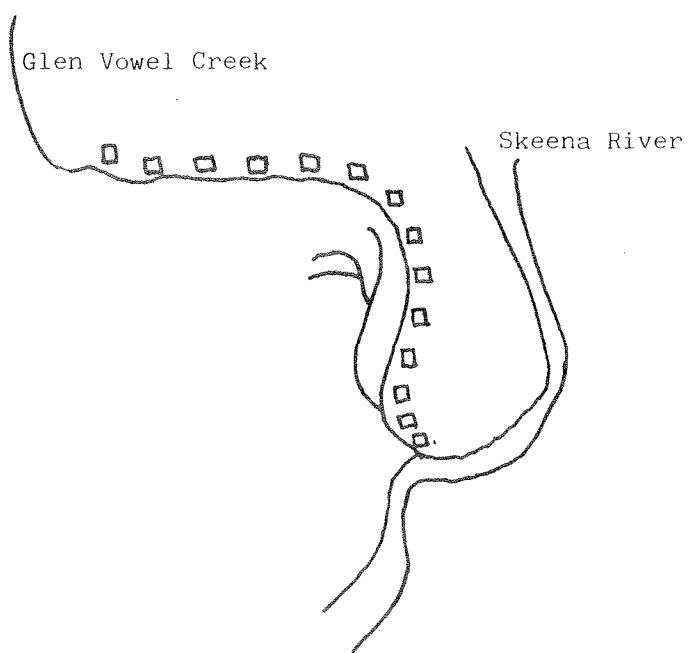
SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- scattered over lower 4.0km
CHUM	
PINK (ODD YEAR)	- scattered over lower 4.0km
PINK (EVEN YEAR)	- " " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

 _____GENERAL REMARKS 1956,58,61,62,64,65 Low water.1965 - Good buildup of coho for minor feeder stream.1965/67 and 1970-80 Blow down debris in lower reaches. Cleared as required.1966 - Native Indian villagers gaff and net fish.Fish can only enter stream in years of high flow.
 Subject to seasonal fluctuations in water levels.

□ - Coho Spawning Grounds



Sketch of Glen Vowell Creek,



0

3

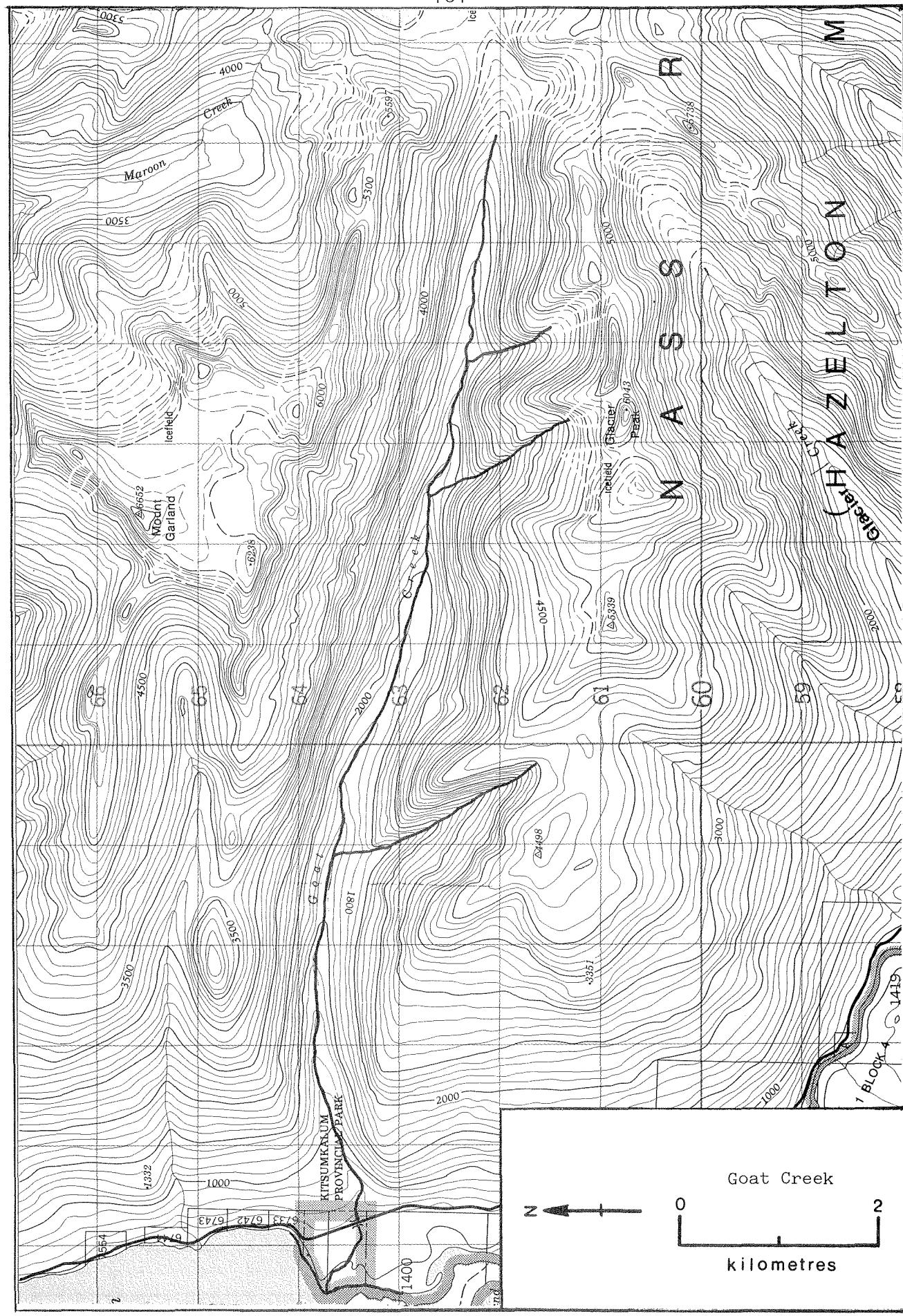
kilometres

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49			200		200	
50			75		200	
51			75		75	
52			50		100	
53			25		N/O	
54			N/I		75	
55			75			
56			N/O		N/O	
57			N/O		N/O	
58			N/O		N/O	
59			N/I		N/I	
60			N/O		N/O	
61			N/I		N/O	
62			N/O		N/O	
63					N/O	
64			75			
65			75			
66			75			
67			N/O			
68			200			
69			25			
70			25			
71			25			
72			25		200	
73			25		25	
74			25		25	
75			25		25	
76			25		25	
77			25		25	
78			25		N/O	
79			N/O		N/O	
80			N/O		N/O	
81			N/O		N/O	
82						
83						
84						
85						

TIMING

ARRIVE		SEPT		AUG	
START		E SEP-E OCT		M-L AUG	
PEAK		L SEP-M NOV		L AUG-E SEP	
END		L OCT-DEC		M SEPT	

REMARKS N/I - Not inspected
 N/O - None observed



NAME OF STREAM GOAT CREEK 132

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows W. into S. end of Kitsumkalum Lake, Rge. 5, Coast Dist.

POSITION 54 128 NW

LENGTH 3.2 km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25

0.25 - 0.50

0.50 - 0.75

0.75 - 1.00

> 1.00

WETTED AREA m² SPAWNING AREA m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable falls 3.2km from mouth.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- Lakeshore at North end near Kitsumkalum River.
CHINOOK	- Lower 3.2km.
COHO	- Lower 3.2km.
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

1962,74,78- Flash flooding accompanied by scouring and silting.

1966,67,68- Windfall debris in lower reaches cleared as required.

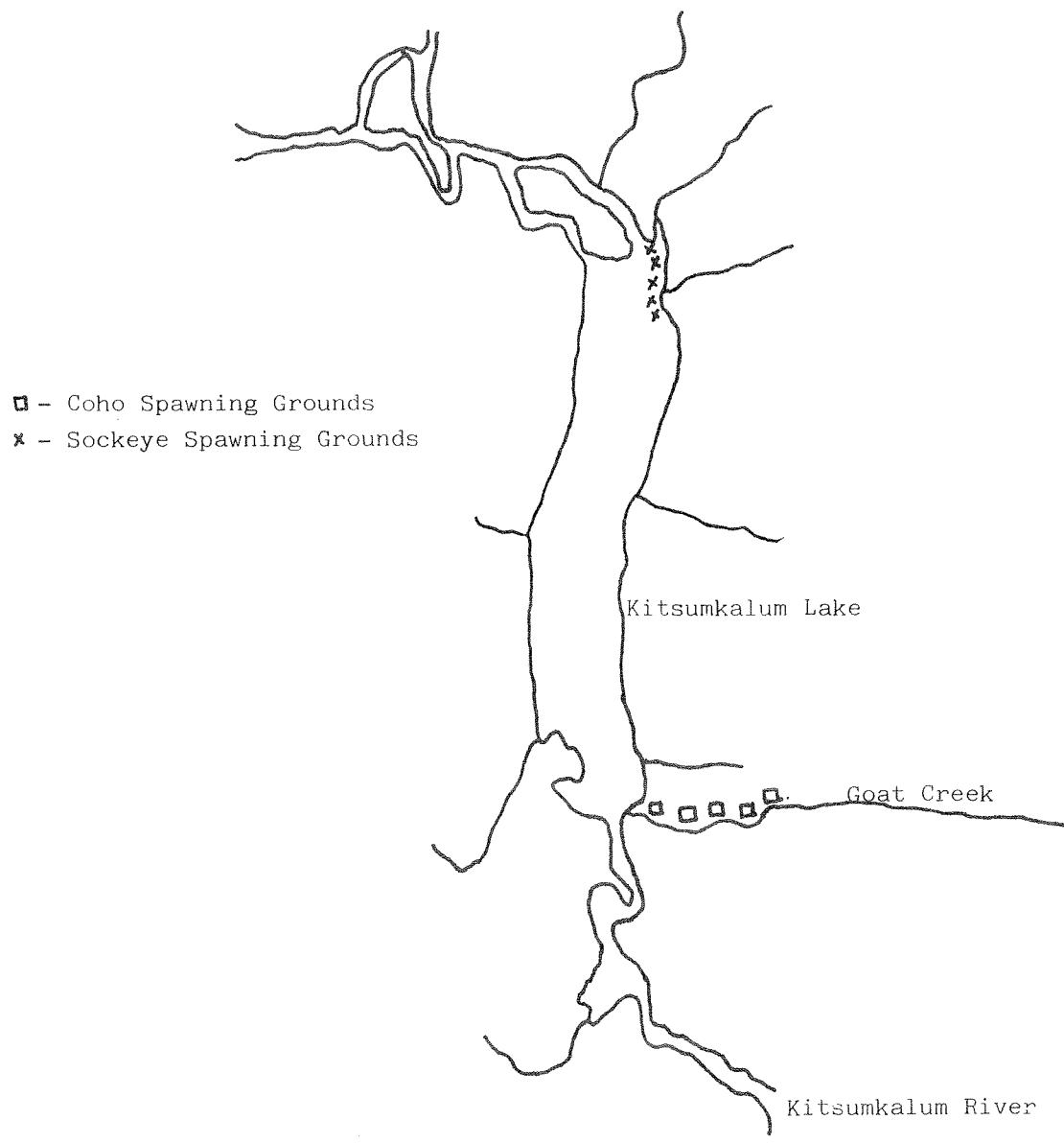
1976 - Lower 0.8km changed course during October flood.

1977 - Scouring during October flood.

1978,81 - Channel shifted during November flood.

- Seasonal fluctuation in water levels.

- Predators: bears, eagles and poachers.



Sketch of Goat Creek, 1971.



0

5.12

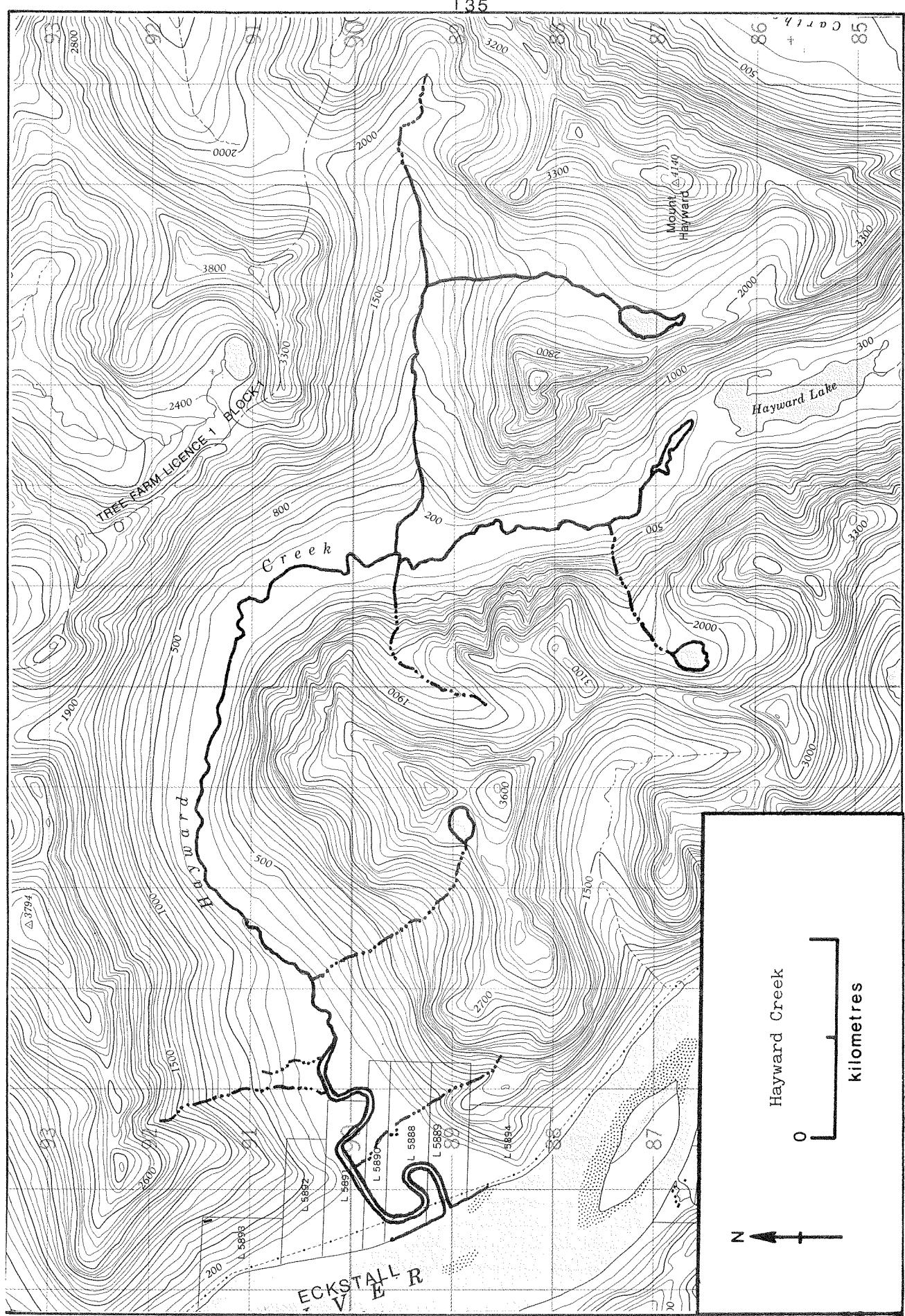
kilometres

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			25			
49			70			
50			50			
51			100			
52			100			
53			25			
54			75			
55			75			
56			75			
57			75			
58			75			
59			N/I			
60			N/O			
61			OBS			
62			25			
63			N/I			
64						
65						
66		25	400			
67	25		25			
68			400			
69			75			
70			200			
71	400		200			
72			75			
73			75			
74			75			
75			75			
76			200			
77			200			
78			200			
79						
80		100	25			
81			N/O			
82						
83						
84						
85						

TIMING

ARRIVE	Sept	July	Oct		
START	M Sept	July - Aug	E Oct - E Nov		
PEAK	Sept - E Oct	Aug	L Oct - M Nov		
END	M Oct	Aug - Sept	M Nov - Dec		

REMARKS N/I - Not inspected



NAME OF STREAM HAYWARD CREEK (Beaver Creek)

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows W, into Ecstall R. near mouth, Rge. 5, Coast Dist.

POSITION

LENGTH 8.0 km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable falls 6.4 - 8km upstream from mouth.
Cascade type falls 2.4km from mouth.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	see sketch
CHUM	
PINK (ODD YEAR)	see sketch
PINK (EVEN YEAR)	" "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1953 - Inspection incomplete.

1956 - Run size does not warrant stream improvement.

1962 - Survey suggested to determine the extent of spawning gravel above the falls.

1963 - Suggested feasibility study of the possibility of using side channels to circumvent falls.

1968-71 Silted throughout tidal influence -- a distance of 1.6km.

1971 - Light scouring of stream bed.

1971-81 Logging debris and subsequent silting seriously affected stream, especially pink spawning grounds in the lower 1.6km.

1974 - Because of reduced runs suggestion made that escapements be included with Ecstall River figures.

continued.....

continuation.....

| 37

GENERAL REMARKS HAYWARD CREEK (Beaver Creek)

1978 - Heavy November rains caused considerable streambed damage.

1980 - Poor visibility during September inspection.

Poor spawning habitat, rocky bottom, few gravel bars suitable for spawning.

Subject to seasonal fluctuations in flow rates.

First 4.0km slow flow, turbid, brackish water.

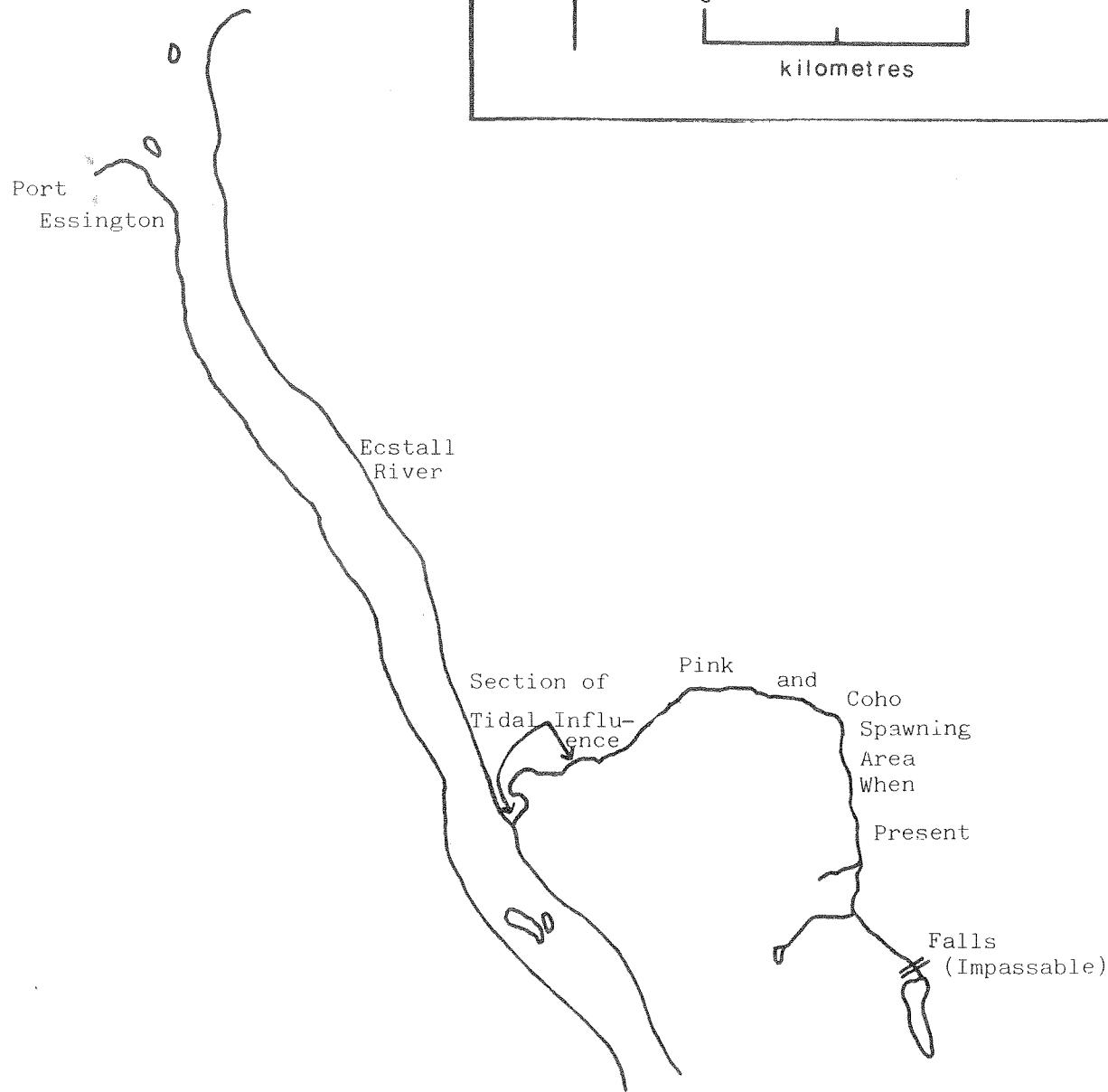
Predators: bears, eagles and seals.

Sketch of Hayward Creek,
1968.

0

3.2

kilometres



ESCAPEMENT RECORD FOR

HAYWARD CREEK

140

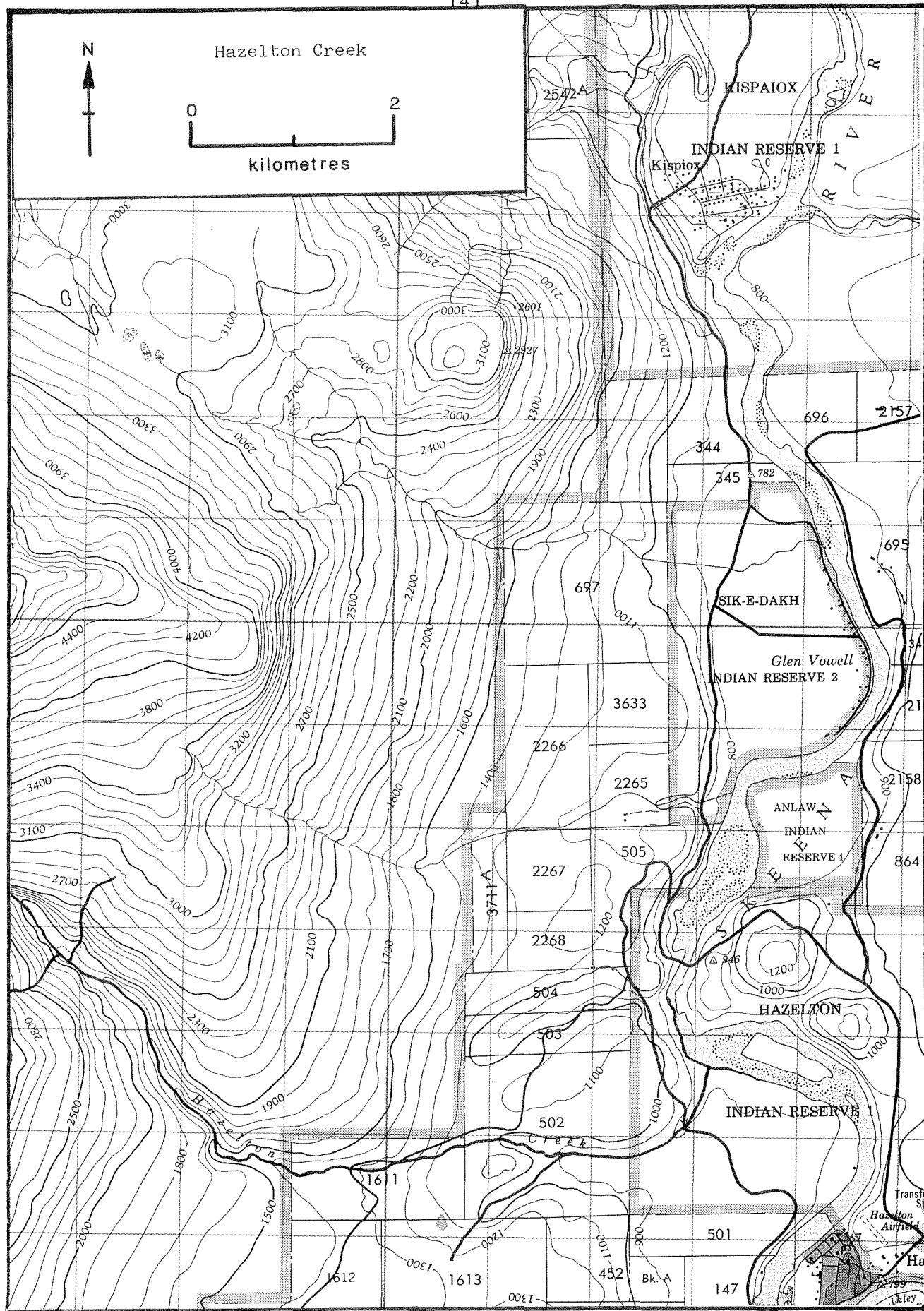
(Beaver Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49					1,000	
50					2,000	
51					4,000	
52					5,000	
53					300	
54					600	
55			N/0		400	
56					20	
57					1,500	
58					50	
59					1,500	
60					25	
61					N/0	
62			25		25	
63						
64			NOT	INSPECTED		
65					750	
66			200		200	
67			N/0		200	
68			N/0	N/0	3,500	
69			N/0		1,500	
70			N/0		N/0	
71			N/0		UNK	
72			N/0		UNK	
73			N/0		N/0	
74			N/0		N/0	
75			N/0		N/0	
76			N/0		N/0	
77			N/0		N/0	
78			N/0		N/0	
79			N/0		N/0	
80			UNK		N/0	
81			UNK		UNK	
82						
83						
84						
85						

TIMING

ARRIVE					
START					Aug
PEAK					Sept
END					Oct

REMARKS



NAME OF STREAM HAZELTON CREEK (Cedar Creek)

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows into Skeena River, near four mile canyon on Kitwanga Rd.

POSITION 55 127 SW

LENGTH km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	
PINK (ODD YEAR)	- Area between mouth and 1.6 km upstream
PINK (EVEN YEAR)	- " " " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

- 1960,1962 Indian smokehouse at stream mouth. Popular trout fishing site.
- 1961-1977 Sand build-up near mouth
- 1965 One or two sockeye and pink sighted at Indian Fishery location.
- 1967 Scouring from late fall floods.
- 1972 The pinks that spawned during the current season are the first salmon to utilize Cedar Creek since 1962.
- 1980 Unstable banks 1 km upstream from mouth.

Subject to seasonal fluctuations in flow rates. Steep rocky bottom.

Predators: Bears.

ESCAPEMENT RECORD FOR

HAZELTON CREEK

144

(Cedar Creek)

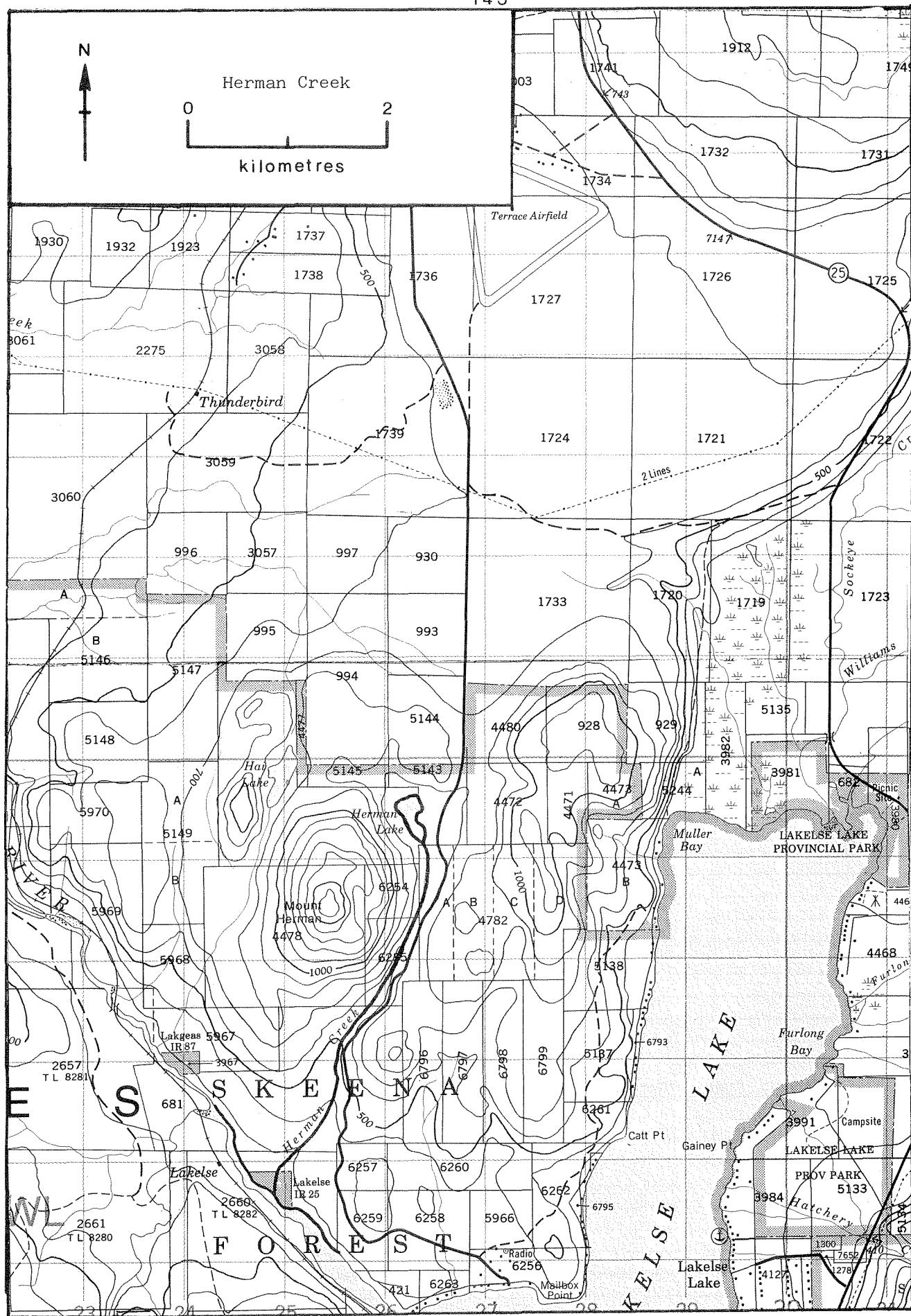
YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947					75	
48					200	
49					200	
50					200	
51					400	
52					500	
53					300	
54					400	
55					400	
56					75	
57					400	
58					*	
59					400	
60					N/O	
61					N/O	
62					100	
63					N/O	
64					N/O	
65					N/O	
66					N/O	
67					N/O	
68		No fish observed				
69		since 1959				
70						
71						
72					1500	
73					400	
74					25	
75					25	
76					N/O	
77					25	
78						
79						
80						
81						
82						
83						
84						
85						

TIMING

ARRIVE					AUG	
START					M AUG-E SEPT	
PEAK					L AUG-M SEPT	
END					L SEPT	

REMARKS * 1958 No fish entered this stream due to low water

N/O None observed



NAME OF STREAM Herman Creek
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Flows S. into Lakelse River, W. of Lakelse Lake, Rge.5 Coast Dist.
 LENGTH 2.4 km WIDTH m DRAINAGE km²
 COMPOSITION: BEDROCK BOULDER COARSE FINE
 SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25
0.25 - 0.50
0.50 - 0.75
0.75 - 1.00
> 1.00

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s) TEMPERATURE (°C) BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- scattered to Herman Lake when unobstructed.
CHUM	
PINK (ODD YEAR)	- lower 0.8km
PINK (EVEN YEAR)	- " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1964 - Late coho most likely spawned on top of pink redds.

1964 - Some windfall debris, Assessed and cleared as required (65,66,69,72,73)

1965 - Stream clearance improved spawning conditions.

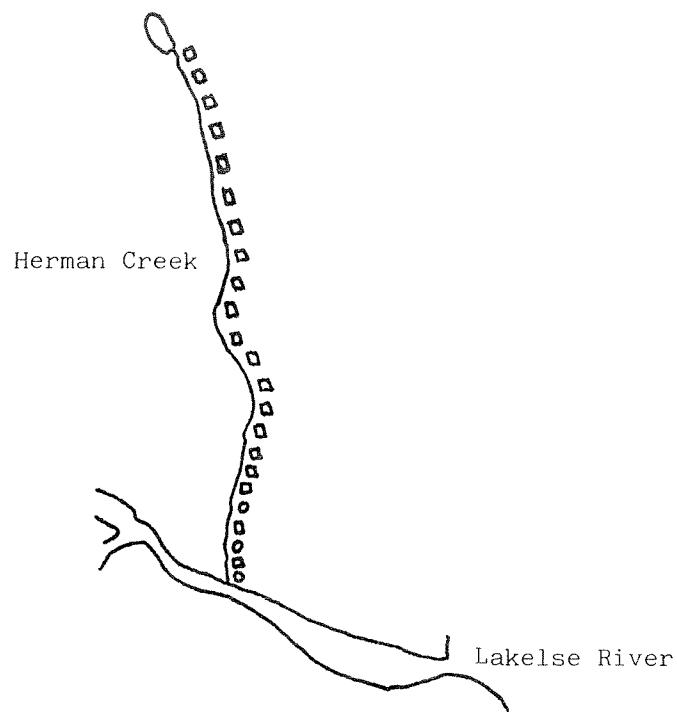
1974 - Log jams 2.4km from mouth

1974 - Some silting and scouring.

1980 - High water removed beaver dams.

Small streamSubject to seasonal fluctuations in water levels.Predators: bear and eagles.

□ - Coho Spawning Grounds
○ - Pink Spawning Grounds



N

Sketch of Herman Creek, 1971

0

kilometres

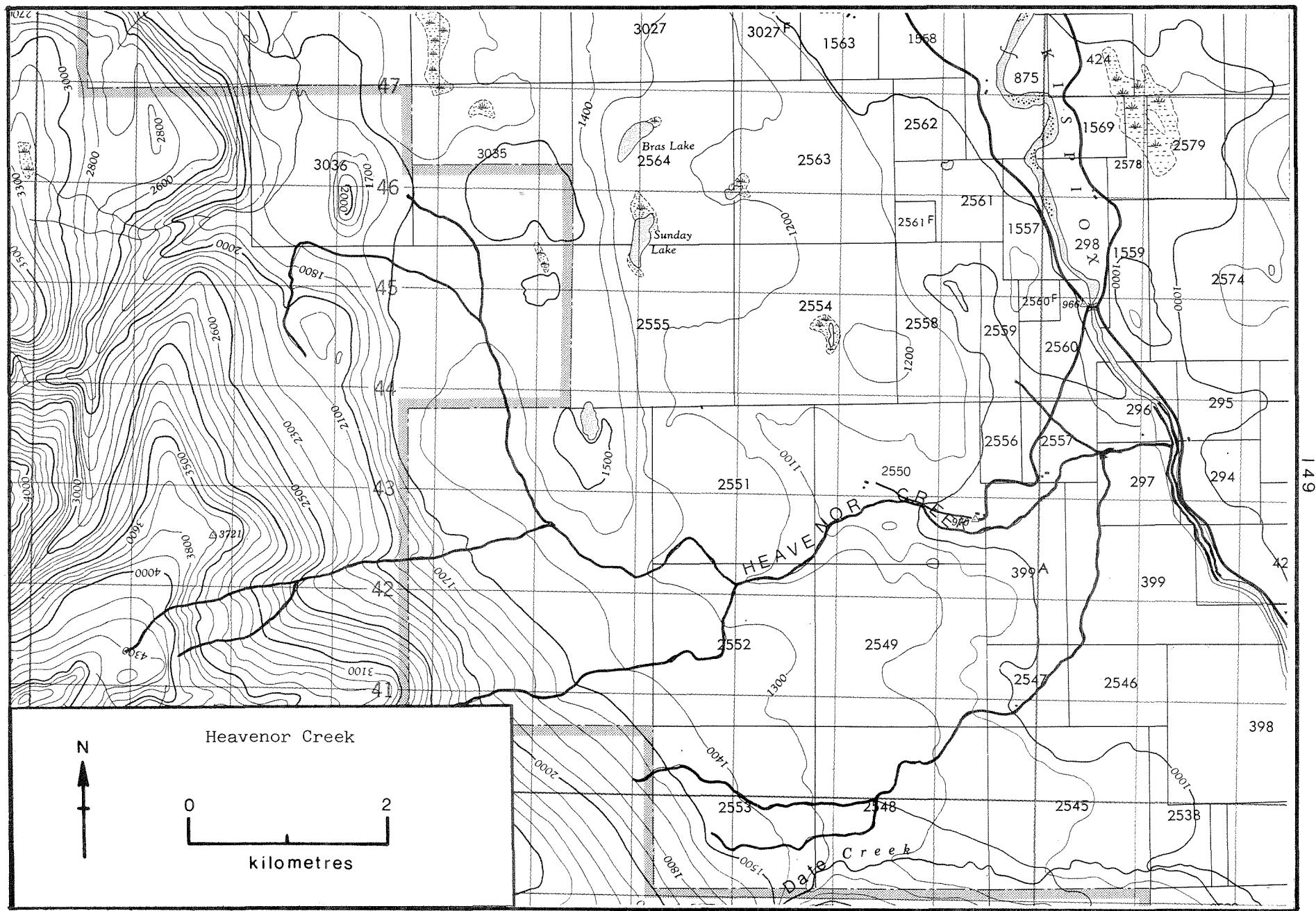
2

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947			75			
48			25		1500	
49			50		50	
50			N/0		N/0	
51			50		N/0	
52			100		N/0	
53			25		OBS	
54			75		75	
55			75		100	
56			75		75	
57			75		OBS	
58			N/I		OBS	
59			N/I		N/I	
60			N/0		N/I	
61			N/I		N/0	
62			N/0		N/I	
63			400		N/0	
64			1,500		500	
65			200		400	
66			200		75	
67			1,500		N/R	
68			200		N/0	
69			200		200	
70			75		400	
71			75		400	
72			25		25	
73			25		25	
74			25		25	
75			25		25	
76					25	
77			25		25	
78						
79			250		25	
80			25		N/0	
81						
82						
83						
84						
85						

TIMING

ARRIVE		Sept		Aug
START		E-M Oct		E Aug-L Sept
PEAK		M Oct - M Nov		LAug - EO Oct
END		L Nov - Dec		Sept - LOct

REMARKS N/I - Not inspected



NAME OF STREAM 150 (Heavenor Creek) (McQueen Creek)
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Flows E. into Kispiox River.
 LENGTH 3.2 km WIDTH m DRAINAGE km²
 COMPOSITION: BEDROCK BOULDER COARSE FINE
 SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

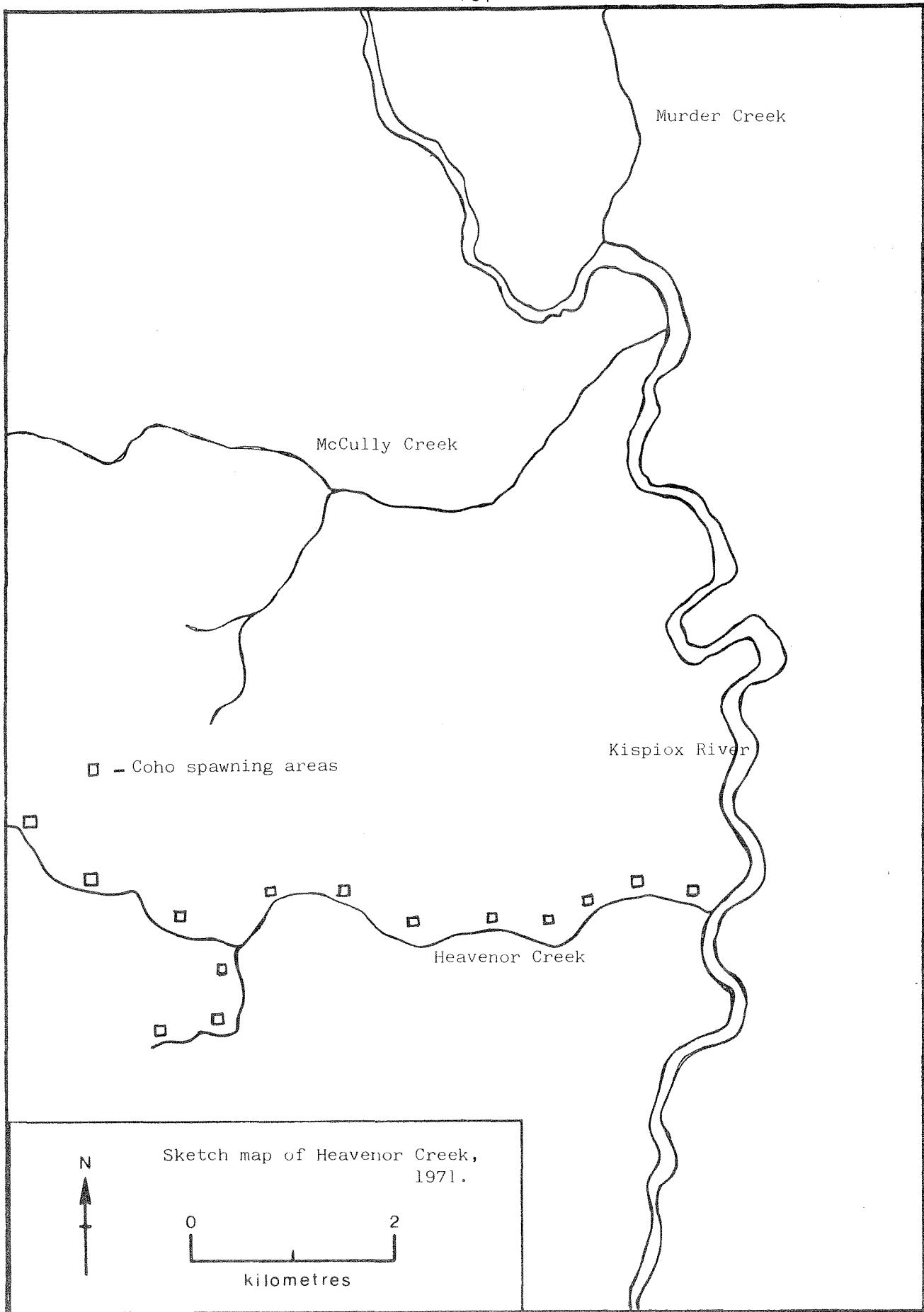
BARRIERS OR POINTS OF DIFFICULT ASCENT Beaver dams 1-6km from mouth -- removed
as required.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- from mouth to 3.2km upstream
CHUM	
PINK (ODD YEAR)	- " " " "
PINK (EVEN YEAR)	- " " " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1949,50 - Heavy beaver activity though not considered serious.
 1961,62 - Suggest file be closed--unproductive stream.
 1964 - L.H. and Logging plan to improve access road in 1965.
 1965 - Recommend removal of blowdowns.
 1966 - File closed.
 1968 - File re-opened as McQueen Creek.
 Creek runs through partially swampy flat country.
 Subject to drying in the summer and generally erratic flow patterns.
 1970 - Oct. 3 men spent 3 days removing 14 beaver dams. Work carried out
under Winter Works Stream Clearance Programme.
 1972 - Large beaver dam removed by blasting. 1979/80 Beaver dams removed by
S.E.P.Crew.

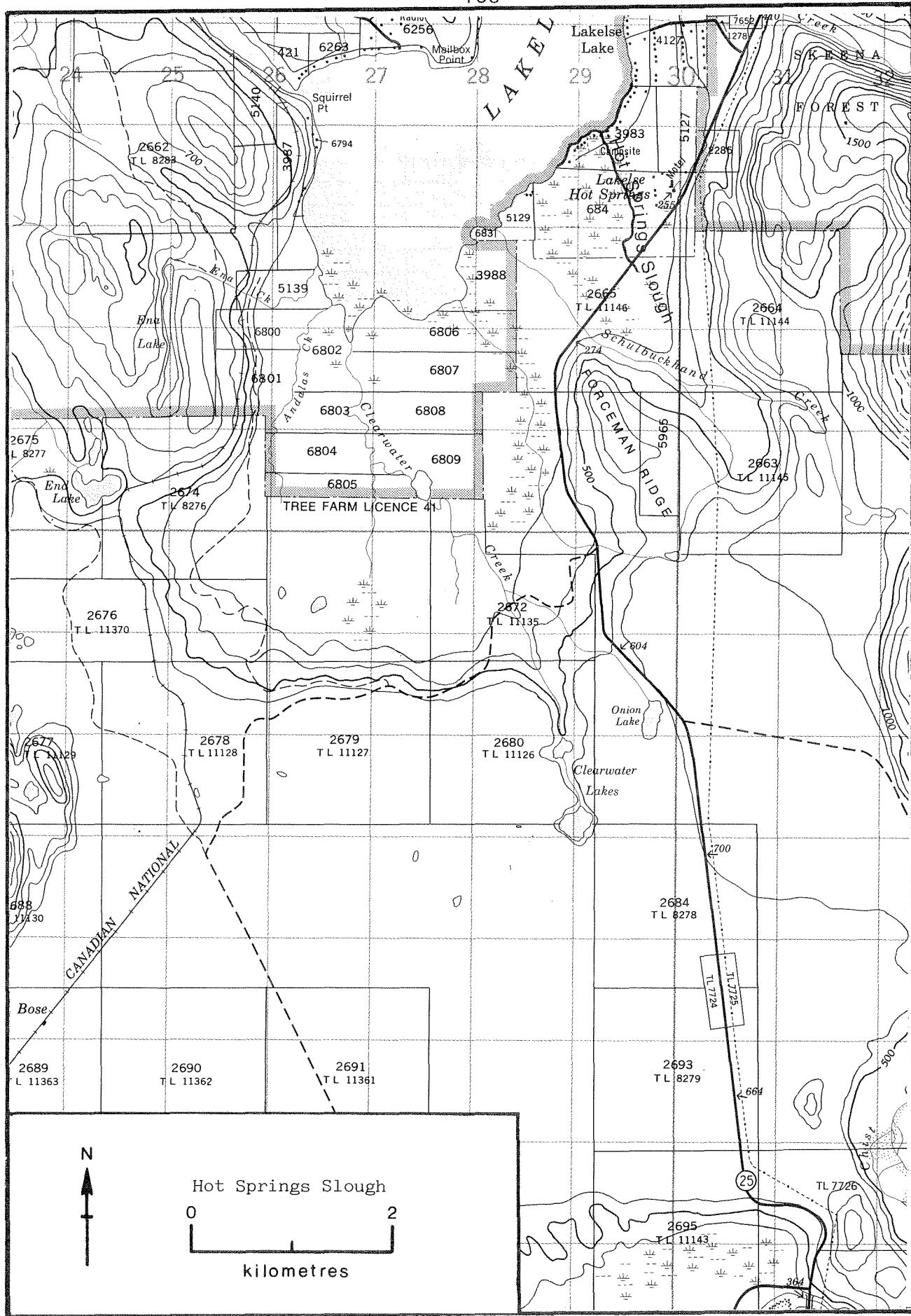


YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947			75		75	
48			200		75	
49			200		200	
50			75		200	
51			75		75	
52			N/I		N/I	
53			N/I		N/I	
54			N/I		N/I	
55			N/I		200	
56			N/I		N/I	
57			N/I		N/I	
58			N/O		N/O	
59			N/I		N/I	
60			N/O		N/O	
61			N/O		N/O	
62			N/O		N/O	
63			N/O		N/O	
64			N/O		N/O	
65			N/O		N/O	
66			OBS		N/O	
67			-		-	
68			750		-	
69			200		-	
70			200		-	
71			200		200	
72			200		200	
73			200		-	
74			200		-	
75			200		-	
76			200		-	
77			200		-	
78			400		-	
79			25		-	
80			300		-	
81			200		-	
82						
83						
84						
85						

TIMING

ARRIVE		Sept - Oct
START		M Sept-MNov
PEAK		Oct - M Nov
END		M Oct - Nov

REMARKS N/I - Not inspected



NAME OF STREAM Hot Springs SloughCONSERVATION DISTRICT 8 STATISTICAL AREA 4LOCATION OF MOUTH Flows into Lakelse Lake, through hot springs.POSITION 54 128SWLENGTH _____ km WIDTH _____ m DRAINAGE _____ km²

COMPOSITION: BEDROCK _____ BOULDER _____ COARSE _____ FINE _____

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT Obstructed by windfalls and beaver dams.
Recommend removal as required.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- lower portion of slough
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS First report 1980.

ESCAPEMENT RECORD FOR

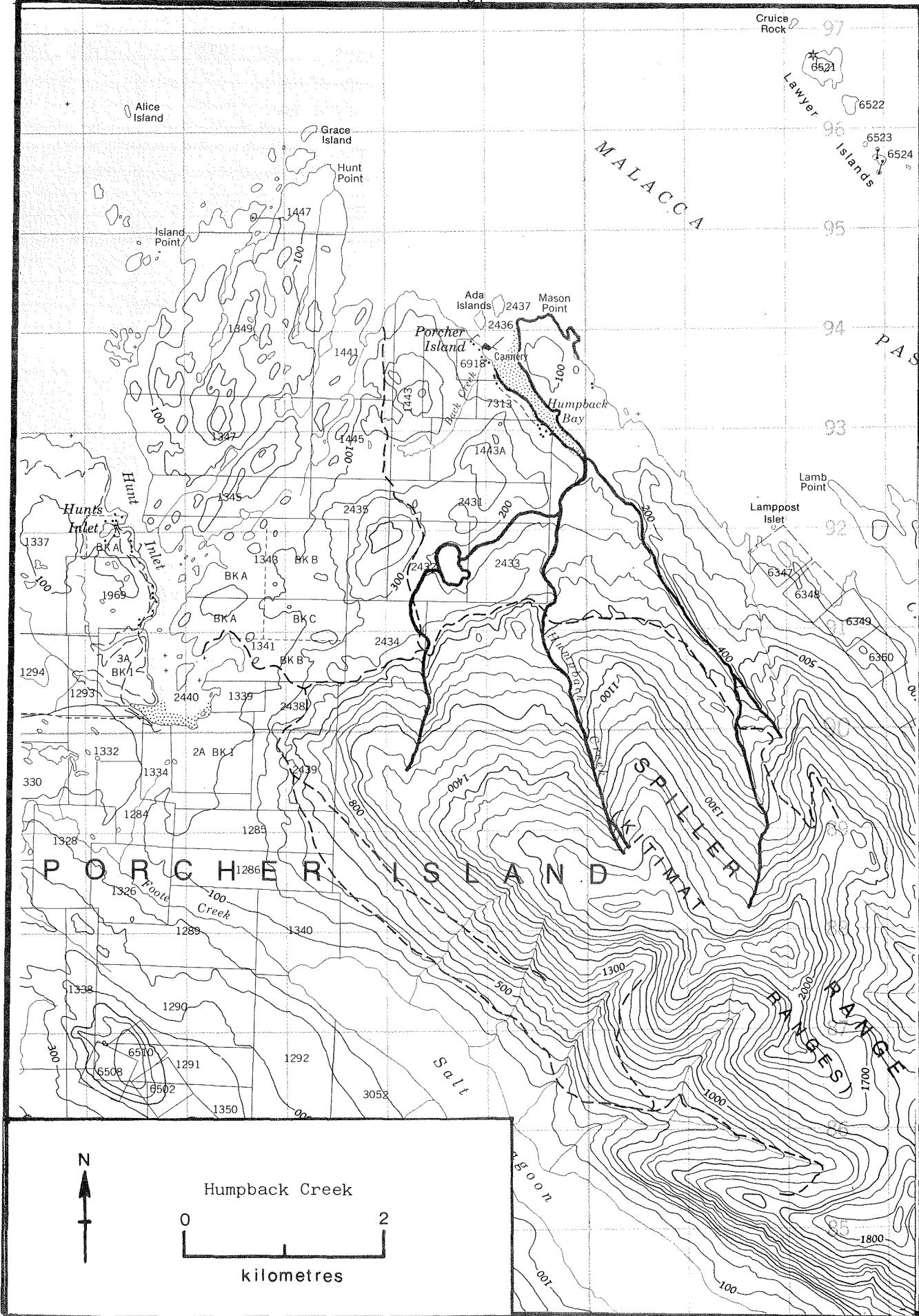
(Hot Springs Slough)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57						
58						
59						
60						
61						
62						
63						
64						
65						
66						
67						
68						
69						
70						
71						
72						
73						
74						
75						
76						
77						
78						
79						
80			24			
81			20			
82						
83						
84						
85						

TIMING

ARRIVE			Sept.			
START			E. Oct.			
PEAK			L. Oct.			
END			Nov.			

REMARKS



NAME OF STREAM HUMPBACK CREEK (Humpback Bay Creek)CONSERVATION DISTRICT 8 STATISTICAL AREA 4LOCATION OF MOUTH Flows N. into Humpback Bay, N. Side of Porcher Island, Rge.5,
Coast Dist.POSITION 54 130 SE.LENGTH 4.0 km WIDTH m DRAINAGE km²COMPOSITION: BEDROCK BOULDER COARSE FINE SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

<u>0.00 - 0.25</u>
<u>0.25 - 0.50</u>
<u>0.50 - 0.75</u>
<u>0.75 - 1.00</u>
<u>> 1.00</u>

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s) TEMPERATURE (°C) BARRIERS OR POINTS OF DIFFICULT ASCENT Cascades 4.0km from mouth -- passability
depends on water levels.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	
PINK (ODD YEAR)	Historically throughout, but following clear cut logging in
PINK (EVEN YEAR)	1966, spawning restricted to lower 1.2-2.4km
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM GENERAL REMARKS 1948-49 Log jam near mouth, however not affecting upstream migration.
1957 - Many small log jams prevent scouring.1959 - Large number of fish off creek mouth at time of inspection.1964 - Rock falls 3.2km from mouth.1965, 68 Logging debris removed.- Silting, scouring and erosion most years between 1966-81.1966 - Indiscriminate logging practices caused extensive removal of forest cover
and debris now washes into the stream at each freshet.1967 - Logging off forest cover has affected water conditions. Gravel shifts
noticeably after each heavy rain with very low water levels between rains.Flood conditions prevail after each heavy rain. Classical example of a small
stream in a logged off watershed. Potential limited until there is some
forest regrowth.

continued.....

continuation.

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GENERAL REMARKS (Humpback Bay Creek)

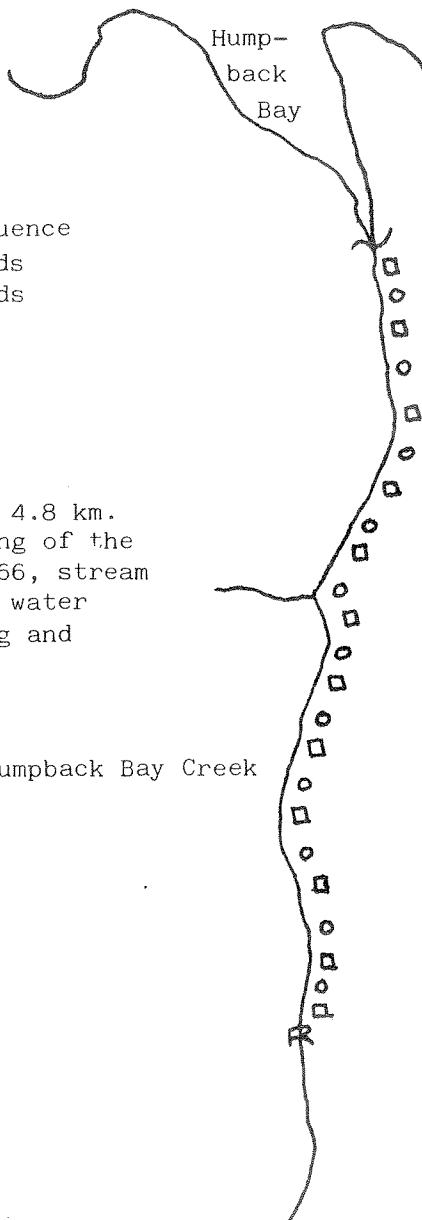
- 1971 - Second growth starting to take hold, and stream system beginning to stabilize.
- 1972 - Some loose eggs observed. Excellent seeding this year.
- 1976/77 Impassable log jam 2.4km from mouth. Advise removal as causing stream to re-rout and restricting fish to lower 1.2km.
- 1978 - One log jam opened. Some scouring, loss of spawn and stream bed damage caused by heavy fall rains.
- 1980 - Approx. 150 pinks died unspawned in estuary. Reason for mortality unknown.

Subject to rapid fluctuations in water levels.

First 1.6km lowland, brackish marshy habitat.

Predators: seals, eagles, otter and wolves.

Malacca Passage



- ~ - Limit of Tidal Influence
- - Pink Spawning Grounds
- - Coho Spawning Grounds
- R - Cascades

* Note- Fair Gravel for 4.8 km.
Following logging of the watershed in 1966, stream subject to poor water levels, flooding and erosion.

Humpback Bay Creek



Sketch of Humpback Bay Creek,

1968.

1 33

kilometres

ESCAPEMENT RECORD FOR

HUMPBACK CREEK

(Humpback Bay Creek)

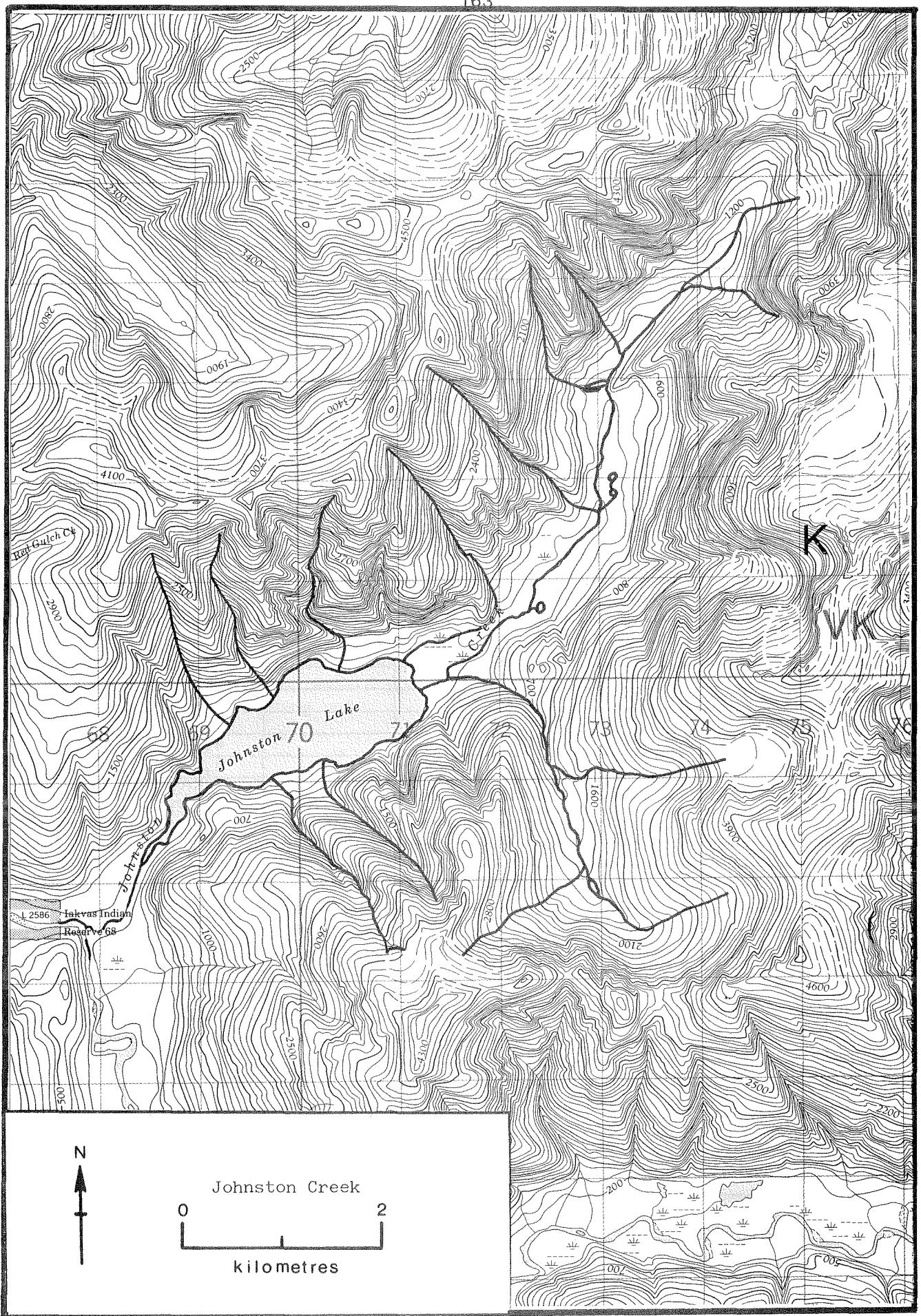
162

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947					7,500	
48					15,000	
49					25,000	
50					15,000	
51					2,000	
52					30,000	
53					1,500	
54					7,000	
55					750	
56					5,500	
57					3,500	
58					3,000	
59					3,500	
60					1,500	
61					3,500	
62					3,500	
63					3,500	
64					1,500	
65		25			25	
66		400			3,500	
67		75			200	
68		75			3,500	
69		N/0			200	
70		N/0			3,500	
71		N/0			3,000	
72		75			10,000	
73		UNK			750	
74		UNK			1,500	
75		UNK			4,000	
76		UNK			5,000	
77		UNK			1,500	
78		UNK			1,000	
79		UNK			5,800	
80						
81			UNK		1,000	
82						
83						
84						
85						

TIMING

ARRIVE			E Aug - E Sept
START	M Oct		Aug - M Sept
PEAK	L Oct		M-L Sept
END	M Nov		L Sept - Oct

REMARKS



NAME OF STREAM JOHNSTON CREEK
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Flows SW into Ecstall River, Rge. 4, Coast District.
 POSITION 53 129 NE
 LENGTH _____ km WIDTH _____ m DRAINAGE _____ km²
 COMPOSITION: BEDROCK _____ BOULDER _____ COARSE _____ FINE _____
 SILT & SAND _____ UNCLASSIFIED _____

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA _____ m² SPAWNING AREA _____ m²DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

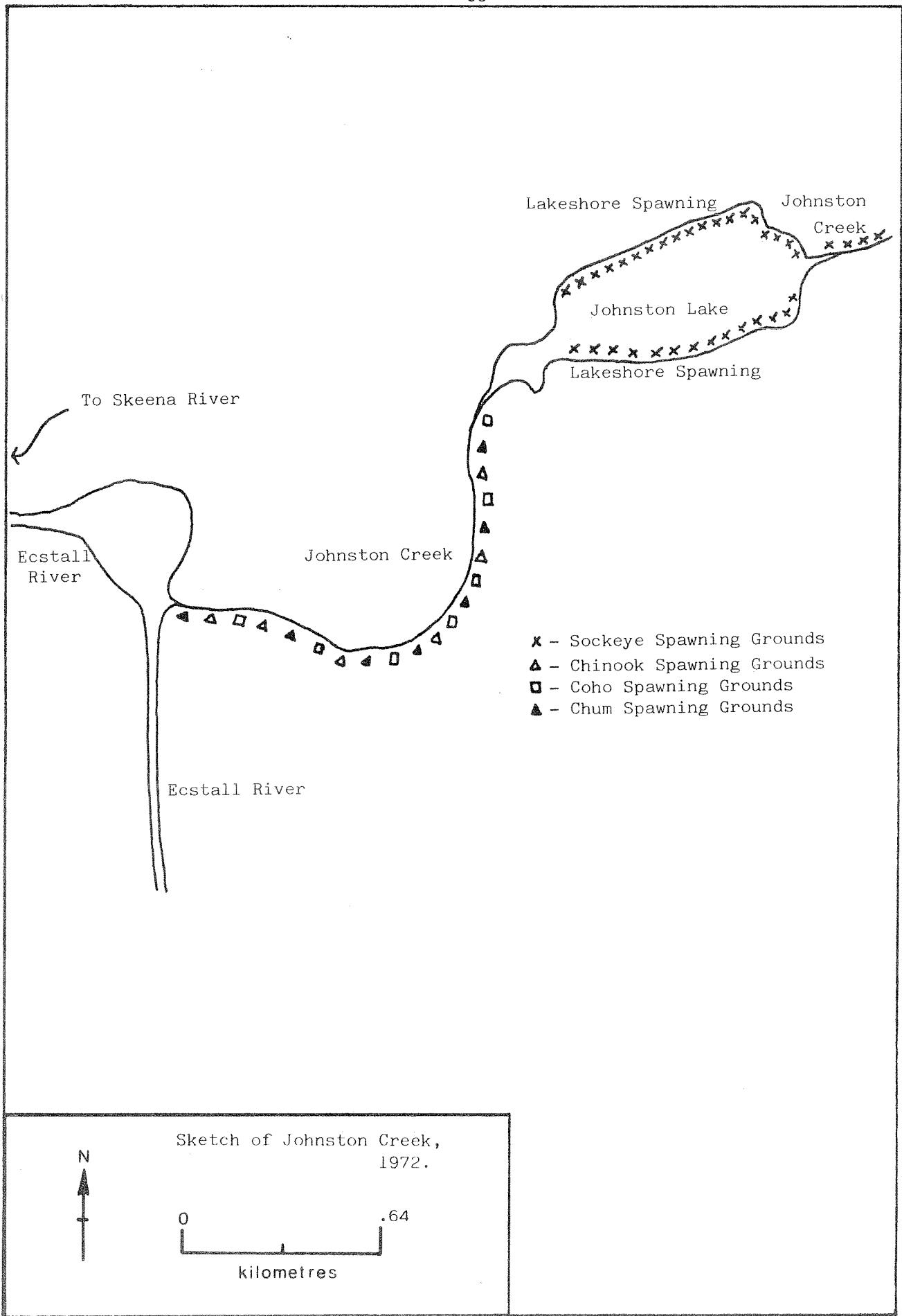
BARRIERS OR POINTS OF DIFFICULT ASCENT
canyon rapid 1.2km from mouth during flood flows.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED			
SOCKEYE				
CHINOOK	-	evenly from mouth to Johnston Lake		
COHO	-	"	"	"
CHUM	-	"	"	"
PINK (ODD YEAR)	-	"	"	"
PINK (EVEN YEAR)	-	"	"	"
STEELHEAD				

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

- GENERAL REMARKS 1949, 57 - Coho late.
 1958 - Expected to become a popular sports-fishing stream and may require strict control in future.
 1971 - Slight silting and scouring.
 1972, 73 Rugged terrain hampers complete assessment.
 1978 - November rains may have caused some streambed damage.
- Stream flow stabilized by Johnston Lake.
 - Seasonal fluctuations in water levels.
 - Predators: seals, bears, wolves, eagles, ravens and mergansers.

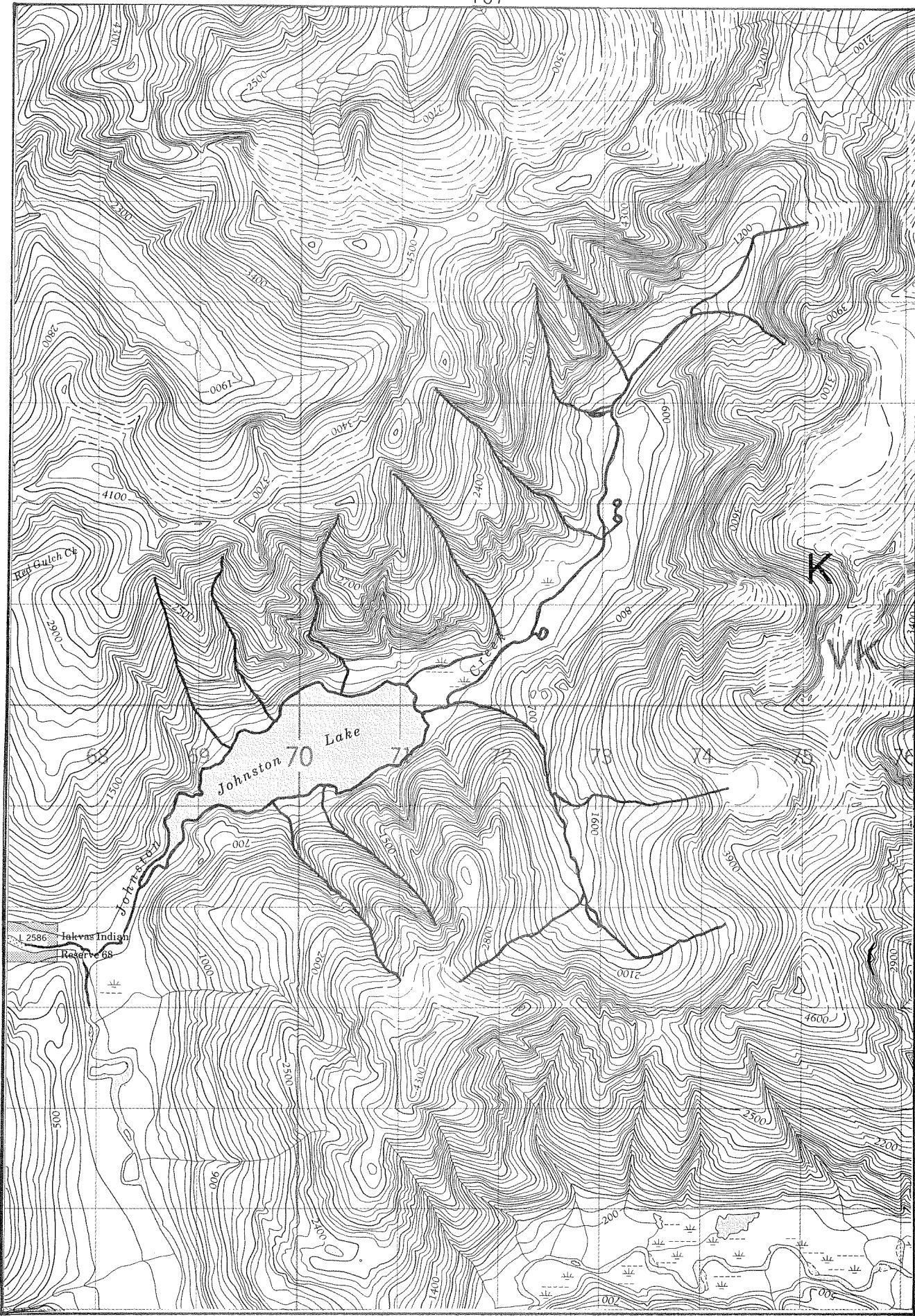


YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947		3,500	25		750	
48		1,500	25		200	
49		1,500	25		1,000	
50		2,000	20		500	
51		3,000	1,000		500	
52		3,000	500		4,500	
53		1,500	200			
54		3,500	200	1,000	300	
55		3,500	25	25	75	
56		2,500			200	
57		3,500		1,500	1,500	
58		3,000	1,000	500	1,000	
59		3,500	N/I	N/I	1,500	
60		3,500		200	N/I	
61		3,500		1,500	3,500	
62		3,500				
63		1,500		75	3,500	
64		750		400	N/I	
65		N O	I N S P E C T E D			
66		750	400	200		
67		1,500	N/I	400	N/I	
68		3,500		750		
69		7,500	N/I	N/I	N/I	
70		750	N/I	N/I	N/I	
71		300	UNK	300	600	
72		800	500	500		
73		500	UNK	N/I		
74		300	UNK	N/I		
75		300	UNK	N/I		
76		500		500		
77		200		N/I		
78		500		100		
79		500	N/I	150		
80		400	UNK	200		
81		200	UNK	300	25	
82						
83						
84						
85						

TIMING

ARRIVE	Aug	Aug - Sept		Aug - Sept
START	L Aug - Sept	Sept - Oct	Aug	L Aug - M Sept
PEAK	E-M Sept	Sept - Oct	Sept	M-L Sept
END	Sept - E Oct	Oct - Nov	Oct	L Sept - Oct

REMARKS N/I - Not inspected



NAME OF STREAM JOHNSTON LAKE
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Expansion of Johnston Creek, N. of Ecstall River, Rge.4, Coast Dist.

		POSITION	
LENGTH	<u>3.2</u>	KM	WIDTH
COMPOSITION:	BEDROCK	BOULDER	COARSE
SILT & SAND	UNCLASSIFIED		

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	Lake
CHINOOK	Lakehead.
COHO	"
CHUM	Lake outlet.
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS 1957 - Inspection made late in year and may account for no trace of fish.

1960,64,66 - Poor observation conditions -- lake turbid due to glacial runoff stream.
1971 - Appear to be two runs of sockeye in system this year.

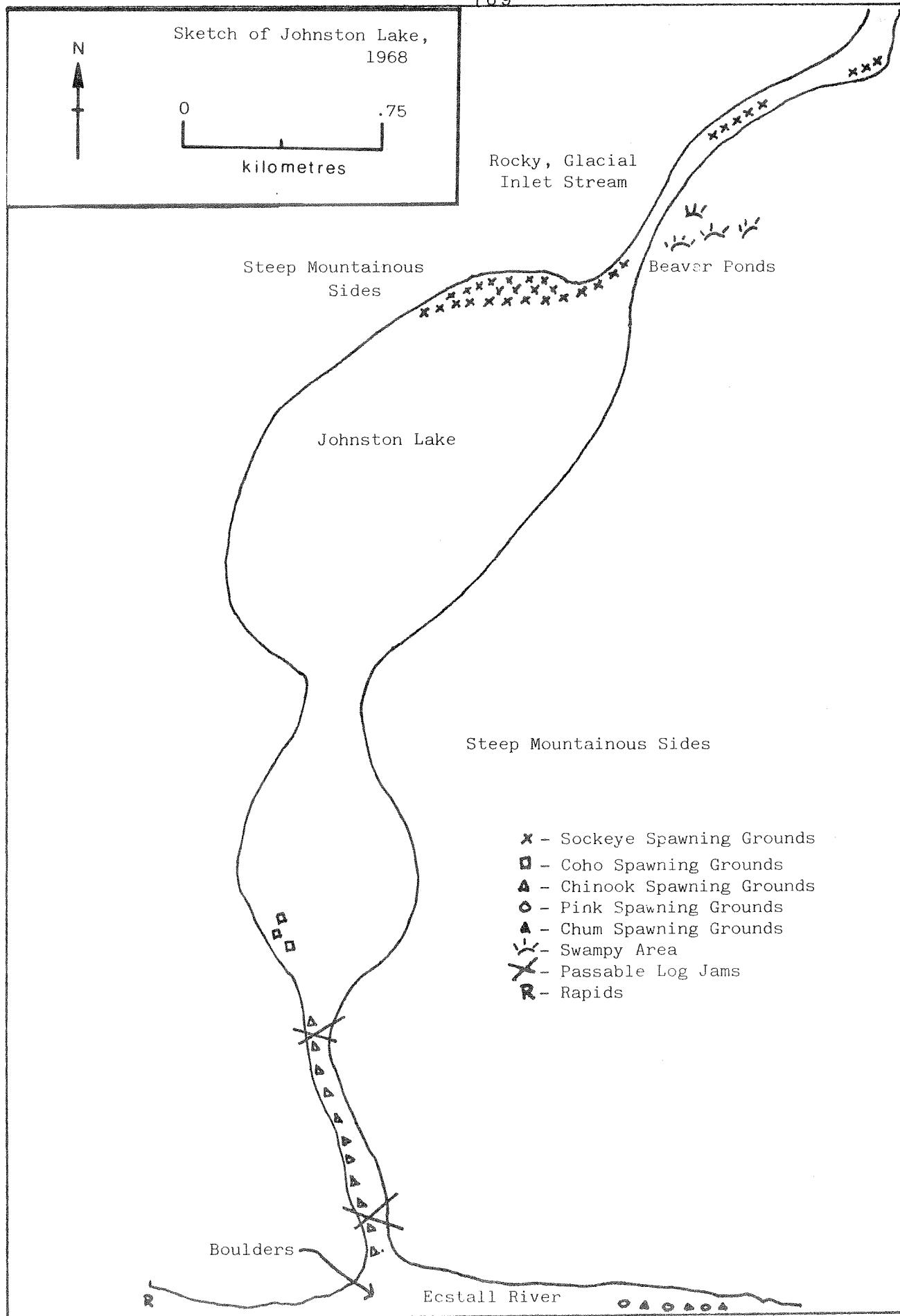
- Inlet stream considered too cold for spawning and unstable.

-Lake 3.2km long.

Subject to rapid fluctuations in water levels.

Predators: seals,eagles,otter wolves.

first 1.6km lowland, brakish,marshy habitat.

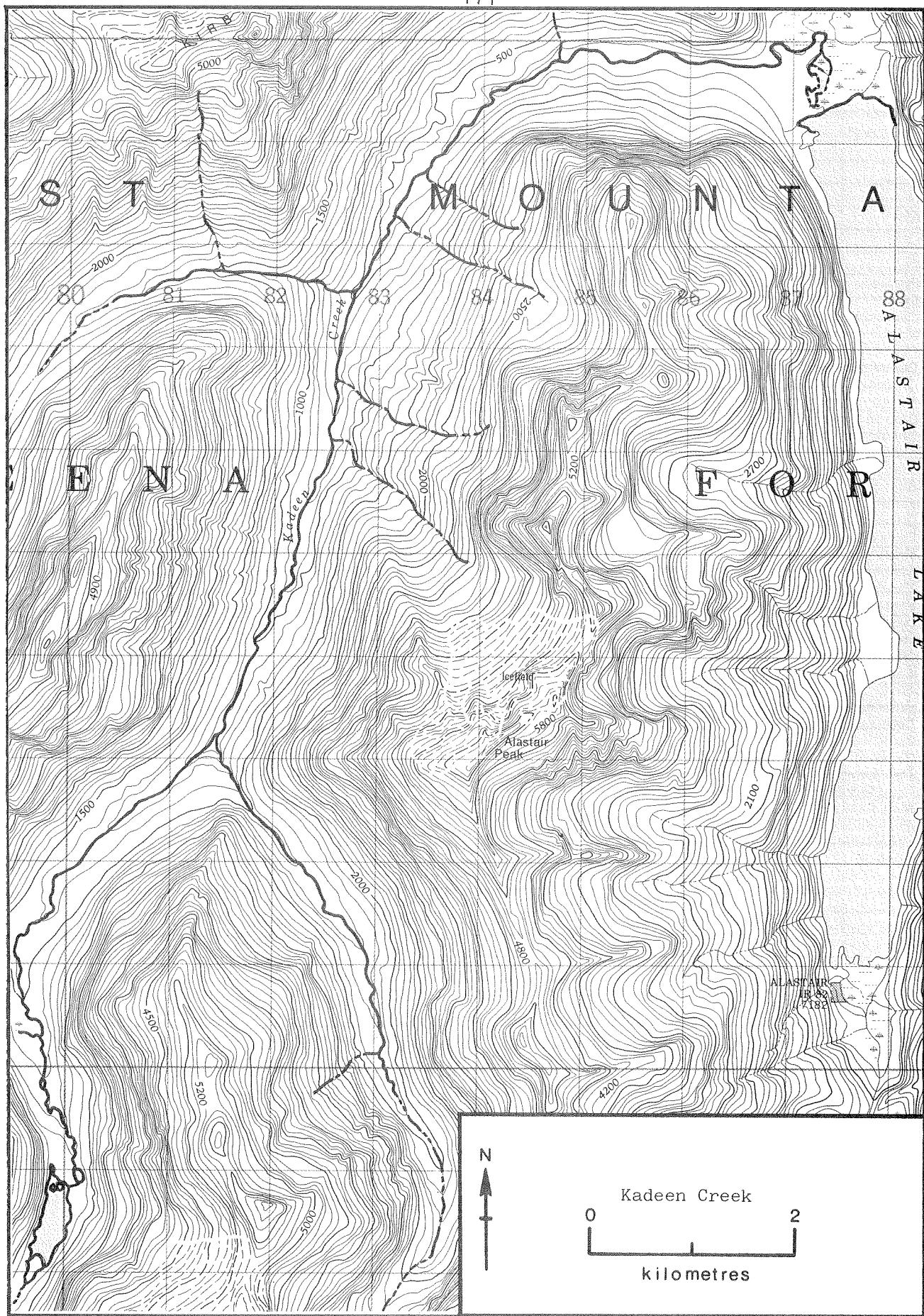


YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947	750					
48	400					
49	750					
50	2,500					
51	2,700					
52	5,000					
53	500					
54	500	25		20		
55	25	25		25		
56	5			100		
57	N/0	N/0		N/0		
58	50	N/0		N/0		
59	UNK					
60	UNK					
61	UNK					
62	N/I					
63	UNK					
64	UNK					
65	2					
66	25	25	75	75		
67	750	25	75	75		
68	750	200				
69	400	N/0	N/0	N/0		
70	3,500	N/0	N/0	N/0		
71	5,000	N/0	UNK	N/0		
72	7,500	N/0	UNK	N/0		
73	3,000					
74	750					
75	1,000					
76	3,000					
77	500					
78	500					
79	N/0					
80	N/0					
81	500					
82						
83						
84						
85						

TIMING

ARRIVE	E Aug					
START	L Aug-M Sept	L Aug	L Aug	L Aug		
PEAK	Sept - E Oct	E Sept	Sept	E Sept		
END	Oct - M Oct	L Sept - Oct		M Sept - Oct		

REMARKS



NAME OF STREAM KADEEN CREEK
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Flows N. into Gitnadoix River, Rge.5, Coast Dist.
 POSITION 54 129 SE.
 LENGTH 4.8 km WIDTH m DRAINAGE km²
 COMPOSITION: BEDROCK BOULDER COARSE FINE
SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25
0.25 - 0.50
0.50 - 0.75
0.75 - 1.00
> 1.00

WETTED AREA m² SPAWNING AREA m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT Bouldery cascades beginning at 4.5km may cause migration delays depending on water levels.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- up to 4.8km from mouth.
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1960, 61, 62, 64 Aircraft inspection.
1964 - Suitable gravel bars for coho and chinook spawning.
1967 - Slight scouring.
1978 - Heavy silting during November flood.

Large, turbulent, glacial stream. Subject to seasonal fluctuations in water levels.

Predators: bears and eagles.

Sketch of Kadeen Creek, 1971



0

2.56

kilometres

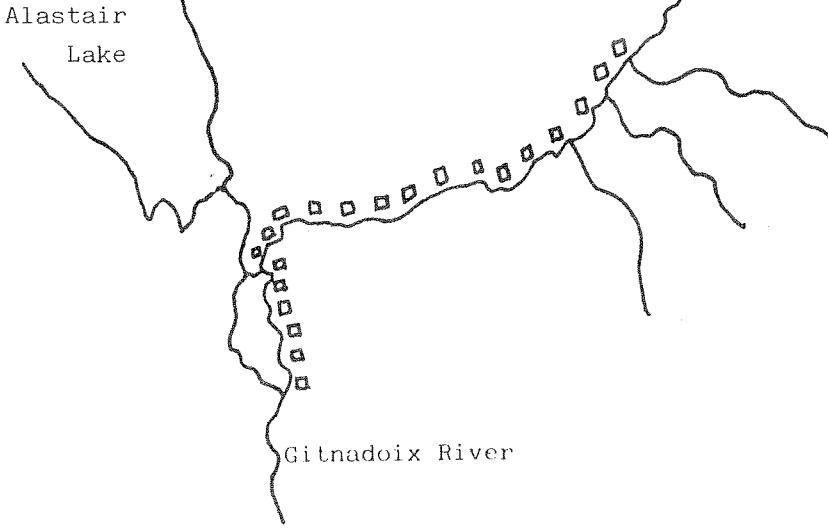
□ - Coho Spawning Grounds

Kadeen Creek

Kadeen Creek

Alastair
Lake

Gitnadoix River

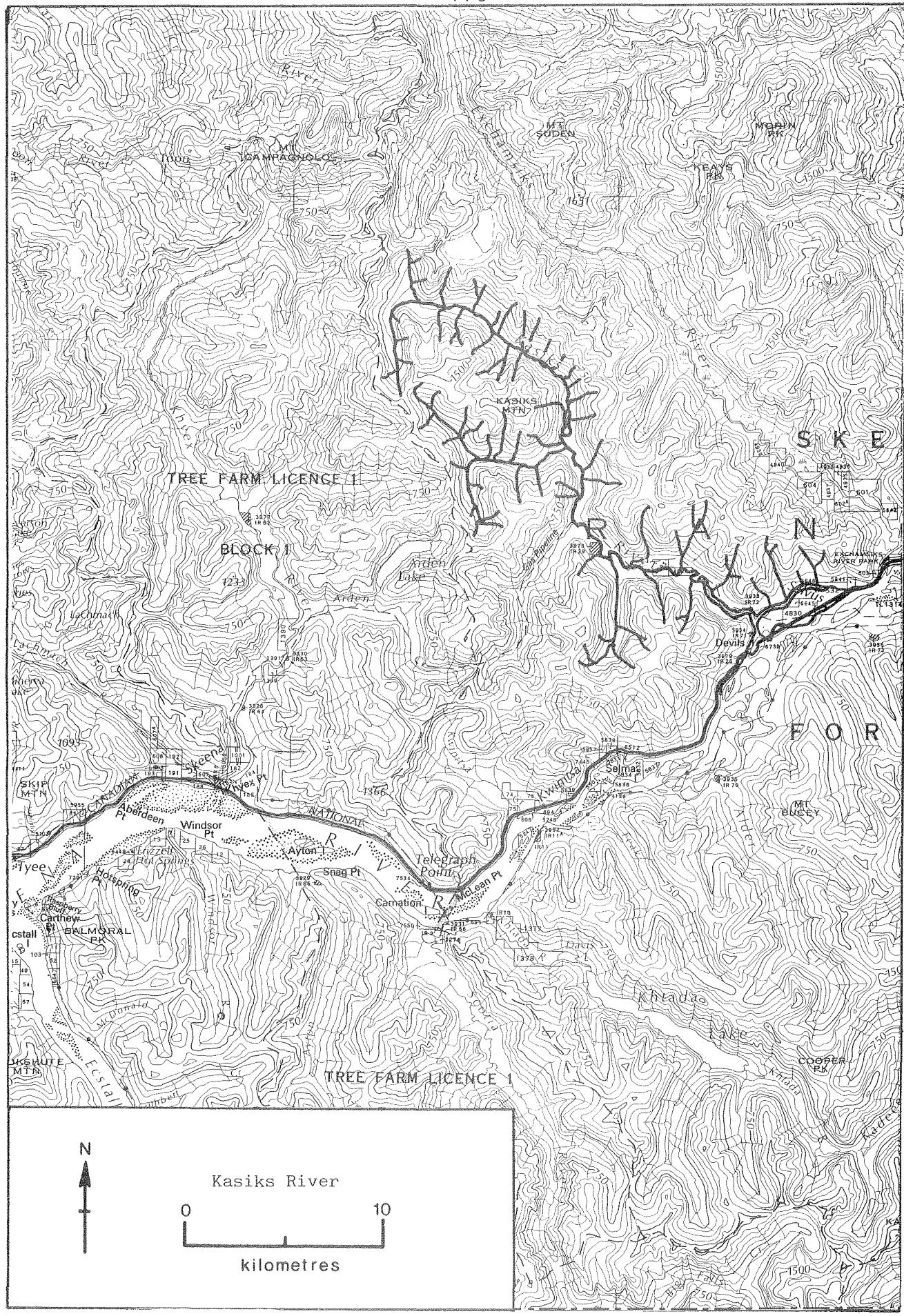


YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947	25		N/I	25	25	
48	N/0		N/0	N/0	N/0	
49						
50						
51						
52						
53						
54						
55	N/I		N/I	N/I	N/I	
56			750			
57	N/I		N/I	N/I	N/I	
58			1,500			
59			N/I			
60			N/0			
61			N/0			
62			N/0			
63			N/I			
64			N/0			
65			N/0			
66			N/0			
67			25			
68			400			
69			3,500			
70			3,500			
71			3,500			
72			3,500			
73			1,500			
74			1,500			
75			1,500			
76			1,500			
77			750			
78			750			
79						
80			750			
81			500			
82						
83						
84						
85						

TIMING

ARRIVE		Sept		
START	Aug	M Oct	Aug	Aug
PEAK		M Nov		
END		Dec		

REMARKS N/I - Not inspected



NAME OF STREAM KASIKS CREEK
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Flows SE. into Skeena River, Rge. 5, Coast Dist.
 POSITION 54 129 SE.
 LENGTH 22.5 km WIDTH m DRAINAGE km²
 COMPOSITION: BEDROCK BOULDER COARSE FINE
 SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

<u>0.00 - 0.25</u>
<u>0.25 - 0.50</u>
<u>0.50 - 0.75</u>
<u>0.75 - 1.00</u>
<u>> 1.00</u>

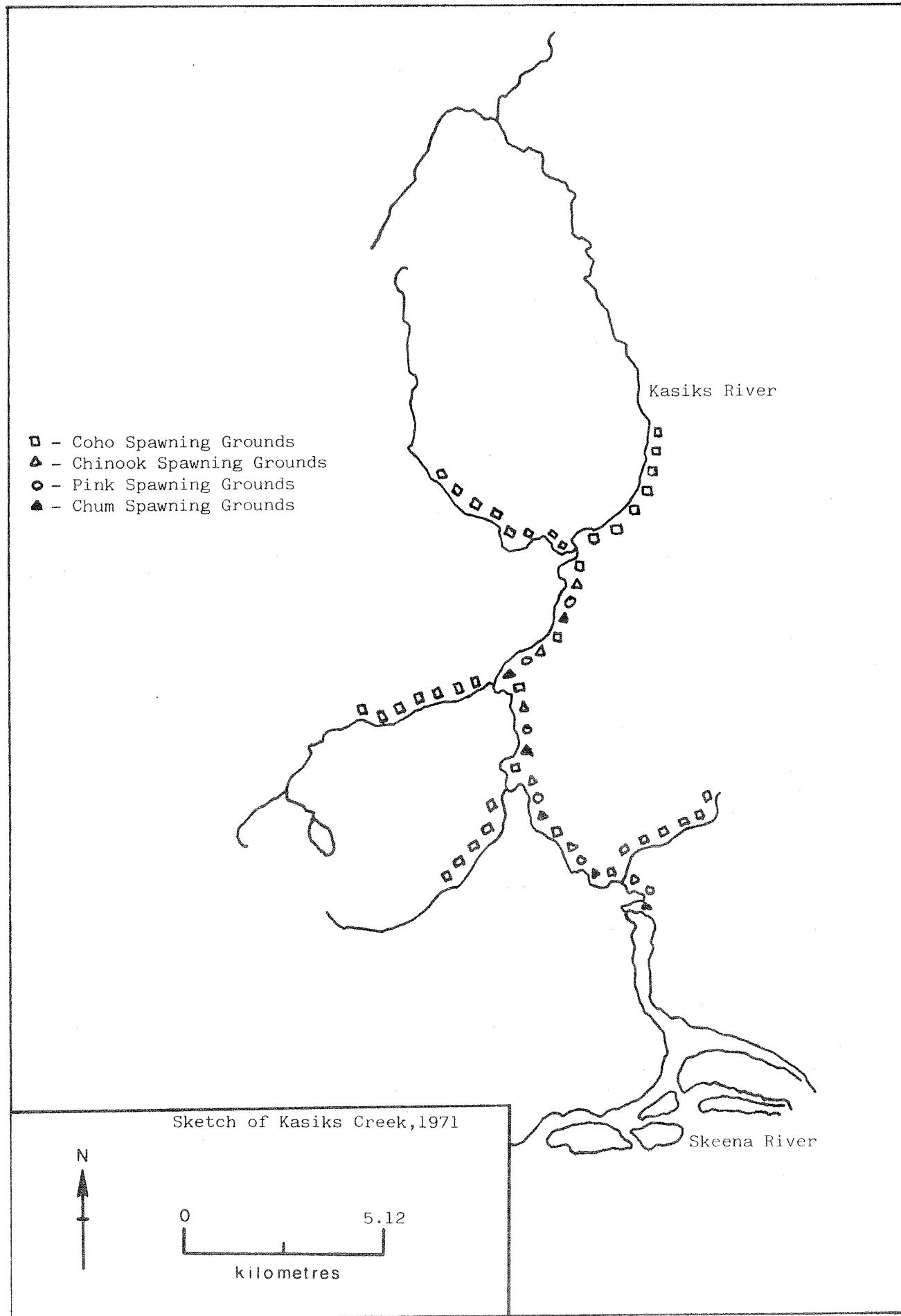
WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s) TEMPERATURE (°C) BARRIERS OR POINTS OF DIFFICULT ASCENT Impassable cascade type falls 22.5km from mouth.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- 6.4 to 25km from mouth
CHINOOK	- " "
COHO	- main stem and small tributaries.
CHUM	- 6.5 to 25km from mouth
PINK (ODD YEAR)	- " "
PINK (EVEN YEAR)	- " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1955 - Chum run light; pink run moderate.
1959 - Not formally inspected; however, local people report light coho run.
1960 - Silting in lower river most years between 1960-81
1961 - Winter logging and utilization of sloughs for booming proposed.
1962 - No evidence of logging yet.
1964 - Indian food fishery 150-200 coho; good coho sports fishery; 18-27kg chinook seen.
1965 - Wide valley flood plain and subject to severe flood attack.
1974 - October floods resulted in scouring, siltation and erosion in the lower river. The pinks and chinook which spawn in this area could have sustained considerable damage. Predators: seals, bears and eagles.



YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50			600	OBS	OBS	
51			1000	300		
52			1000	200		
53			2000	200		
54			1500	200		
55			1500	OBS	OBS	
56			1500	OBS	OBS	
57			3500	OBS	OBS	
58			3500			
59			N/I			
60		25	UNK			
61			UNK	100		
62			1500			
63			UNK	UNK		
64		400	400	400	200	
65		N/O	750	25	400	
66		25	7500	25	N/O	
67	400	25	1500	200	750	
68		400	3500	400	1500	
69		400	3500	400	750	750
70		400	3500	400	1500	
71		400	3500	400	1500	
72		200	1500	400	1500	
73		400	1500	400	750	
74		400	1500	400	200	
75		200	400	200	750	
76		75	750	200	400	
77		200	750	400	750	
78		75	400	200	200	
79						
80		30	1500	250	50	
81		100	2000	25	300	
82						
83						
84						
85						

TIMING

ARRIVE		Aug	Sept	Aug	Aug	Sept
START	Aug	M Aug	M Oct	M Aug	M Aug	
PEAK		E Sept	L Oct	L Aug	E Sept	
END		Sept	M-L Nov	Sept	M Sept	

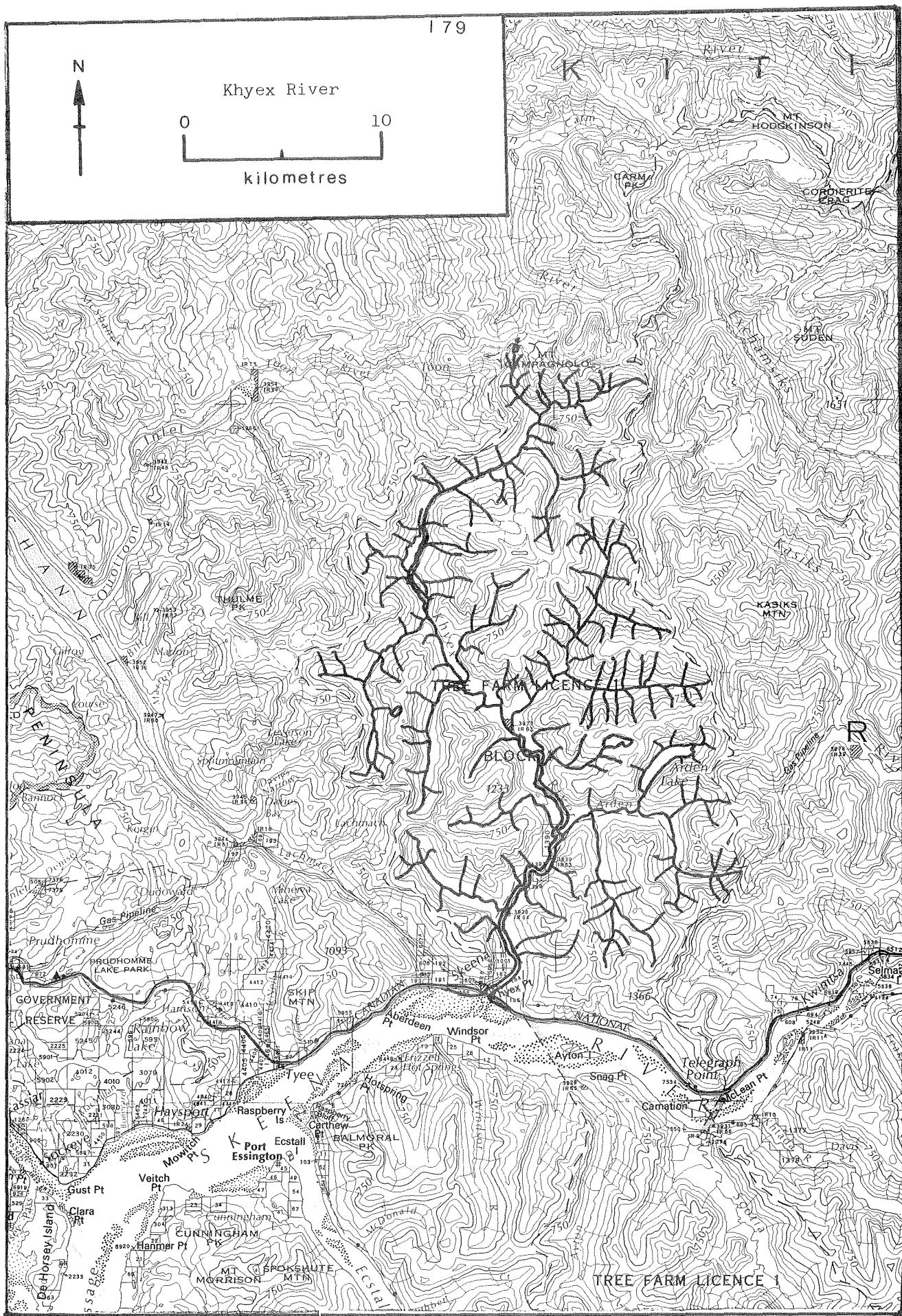
REMARKS N/I - Not inspected

179



Khyex River

0 10
kilometres



NAME OF STREAM KHYEX RIVERCONSERVATION DISTRICT 8 STATISTICAL AREA 4LOCATION OF MOUTH Flows S. into Skeena River, NE. of Haysport Rge. 5, Coast Dist.POSITION 54 129 SW.LENGTH 45 km WIDTH m DRAINAGE km²COMPOSITION: BEDROCK BOULDER COARSE FINE SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s) TEMPERATURE (°C) BARRIERS OR POINTS OF DIFFICULT ASCENT Impassable cascade falls 29km from mouth.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- upper reaches.
COHO	- throughout.
CHUM	- upper reaches
PINK (ODD YEAR)	- main stem and tributaries
PINK (EVEN YEAR)	- " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1948-50 - Some good gravel beds in stream.

1953 - Few males and small females.

- First few km muddy.

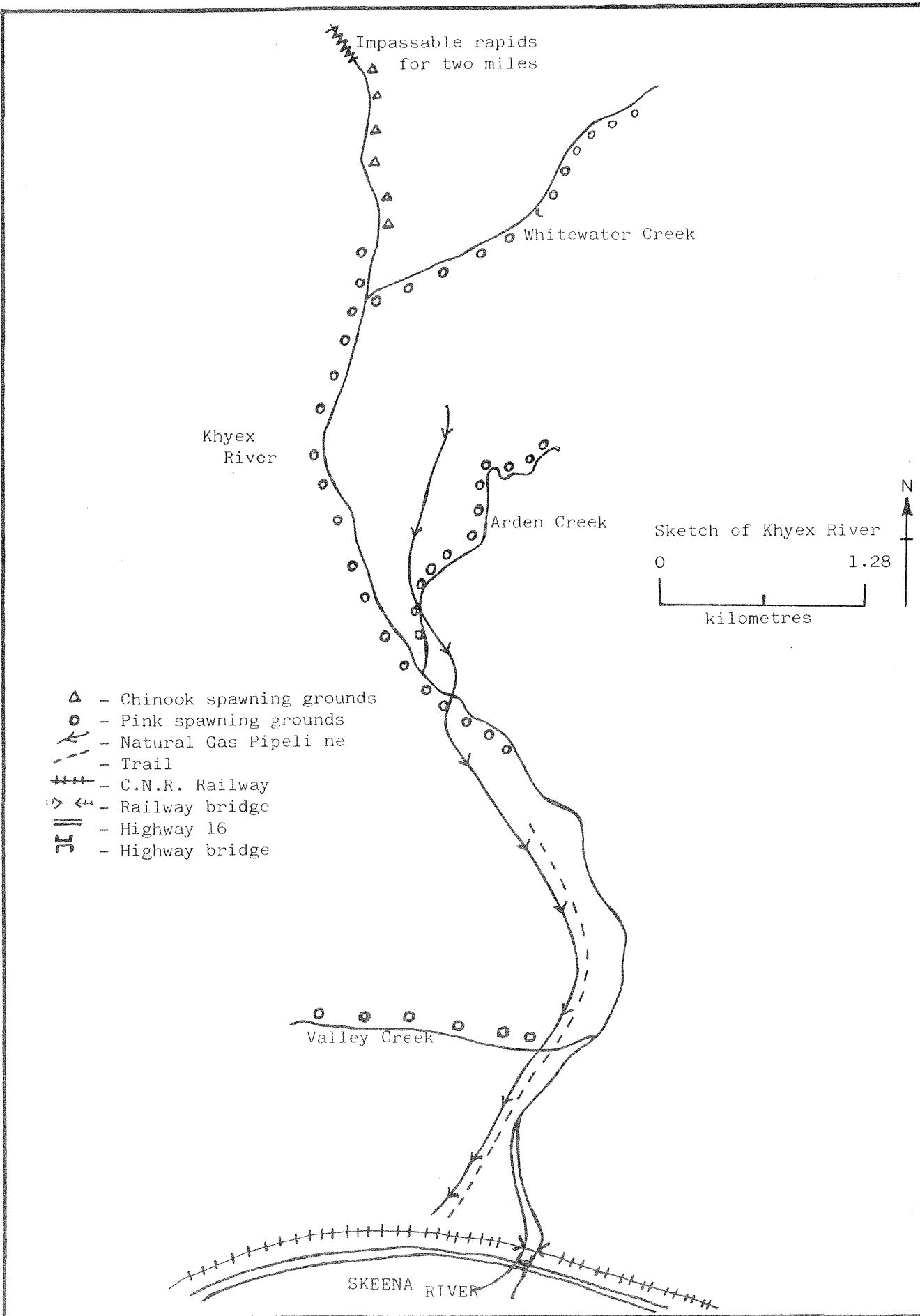
1961 - Chums and pinks observed but too early to make an accurate estimate.

1967,72 Only 8km in 1st 29km has satisfactory gravel. 16 km of good gravel above cascades.

1967 - Main stem has large stretches of silty bottom due to tidal action in the lower river.

1968 - Main river turbid, side creeks clear.

Subject to seasonal fluctuations in water levels. Predators: seals, bears, eagles and wolves.

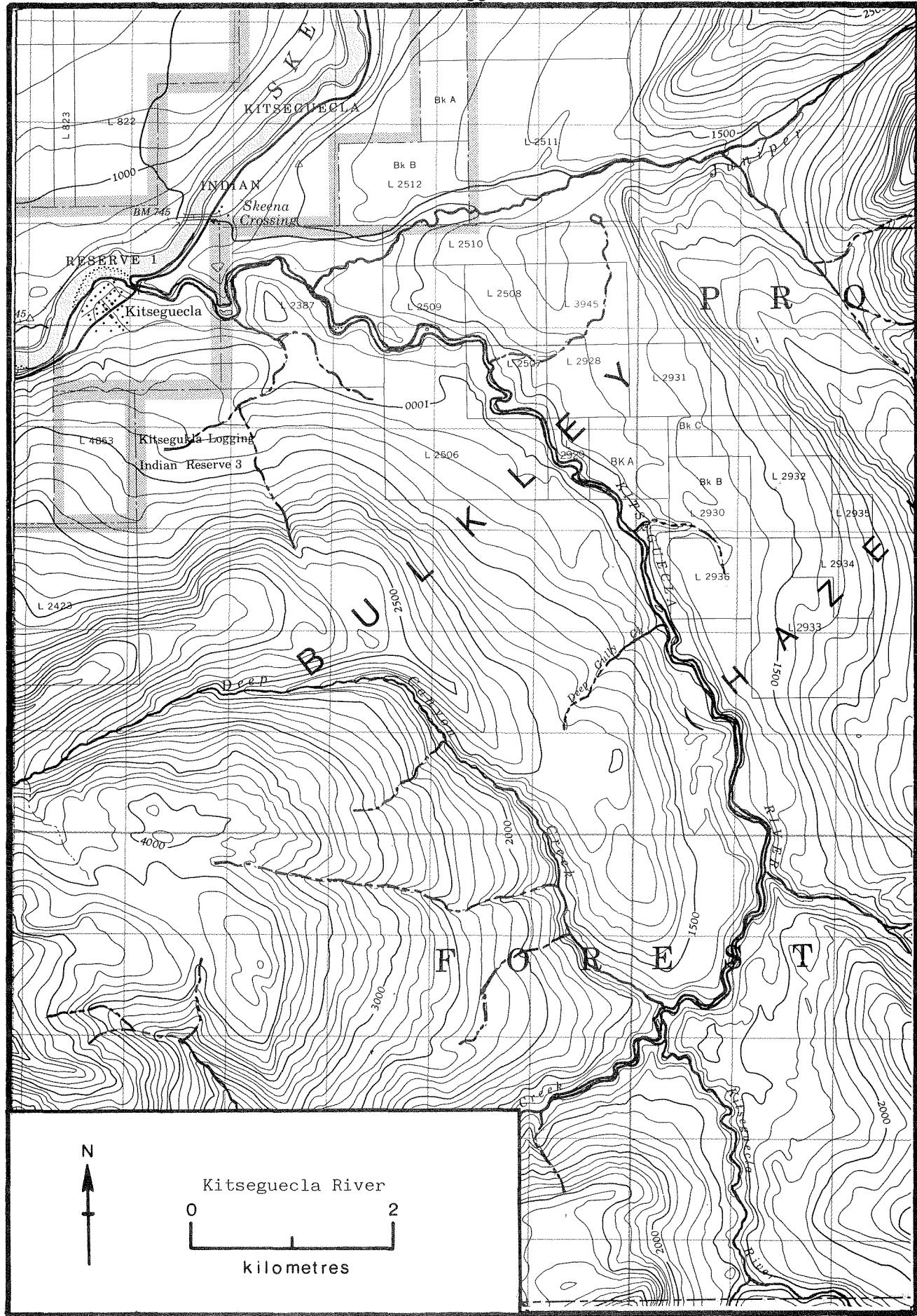


YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947				750	1500	
48				200	400	
49				400	20000	
50					7000	
51				700	3000	
52				10000	20000	
53				400	1500	
54				500	3000	
55					7500	
56					400	
57				200	3500	
58		200		N/0	1500	
59	400			N/0	3500	
60	750		N/0	N/0	750	
61	OBS			OBS	1500	
62	OBS				3500	
63		1500			3500	
64	25				400	
65	N/0	750		N/0	60000	
66	25	3500		200	400	
67	25	750		200	7500	
68	N/0	750		N/0	3500	
69	N/0	1500		400	7500	
70		N/0		N/0	200	
71	50	UNK		N/0	10000	
72	30	UNK		400	10000	
73	100	UNK		300	20000	
74		UNK		N/0	5000	
75	N/0	UNK		N/0	5000	
76	30	UNK		400	4500	
77	N/0	UNK		N/0	4000	
78	10	UNK		50	500	
79	N/0	UNK		N/0	300	
80	25	UNK		50	1600	
81	UNK	UNK		UNK	2500	
82						
83						
84						
85						

TIMING

ARRIVE	E. Aug	A	E Aug	Aug - Sept
START	MAug - ESept	MAug - Sept	M-L Aug-Sep	LAug-ESept
PEAK	Sept	Oct	M Sept	M Sept
END	M Sept - Oct	L Oct	Sept - Oct	LSept - Oct

REMARKS



NAME OF STREAM KITSEGUECLA RIVER

184

(Kitsegukela River)

CONSERVATION DISTRICT 8

STATISTICAL AREA 4

LOCATION OF MOUTH Flows NW. into Skeena River, S. of Skeena Crossing, Cassiar Dist.

POSITION 55 127 SW.

LENGTH 32 km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- up to approx 12.8km
COHO	- " "
CHUM	
PINK (ODD YEAR)	- " "
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS Silty conditions prevented close inspection of spawners in a number of years between 1954-66

- 1961 Subject to scouring and erosion--noted in most years between 1961-80
- 1964 Sawmill operating near river.
- 1965 Logging and sawmilling road will improve access for inspection.

Glacial stream, swift flow, bouldery poor salmon producer.
Subject to seasonal fluctuations in water levels.

ESCAPEMENT RECORD FOR

KITSEGUECLA RIVER

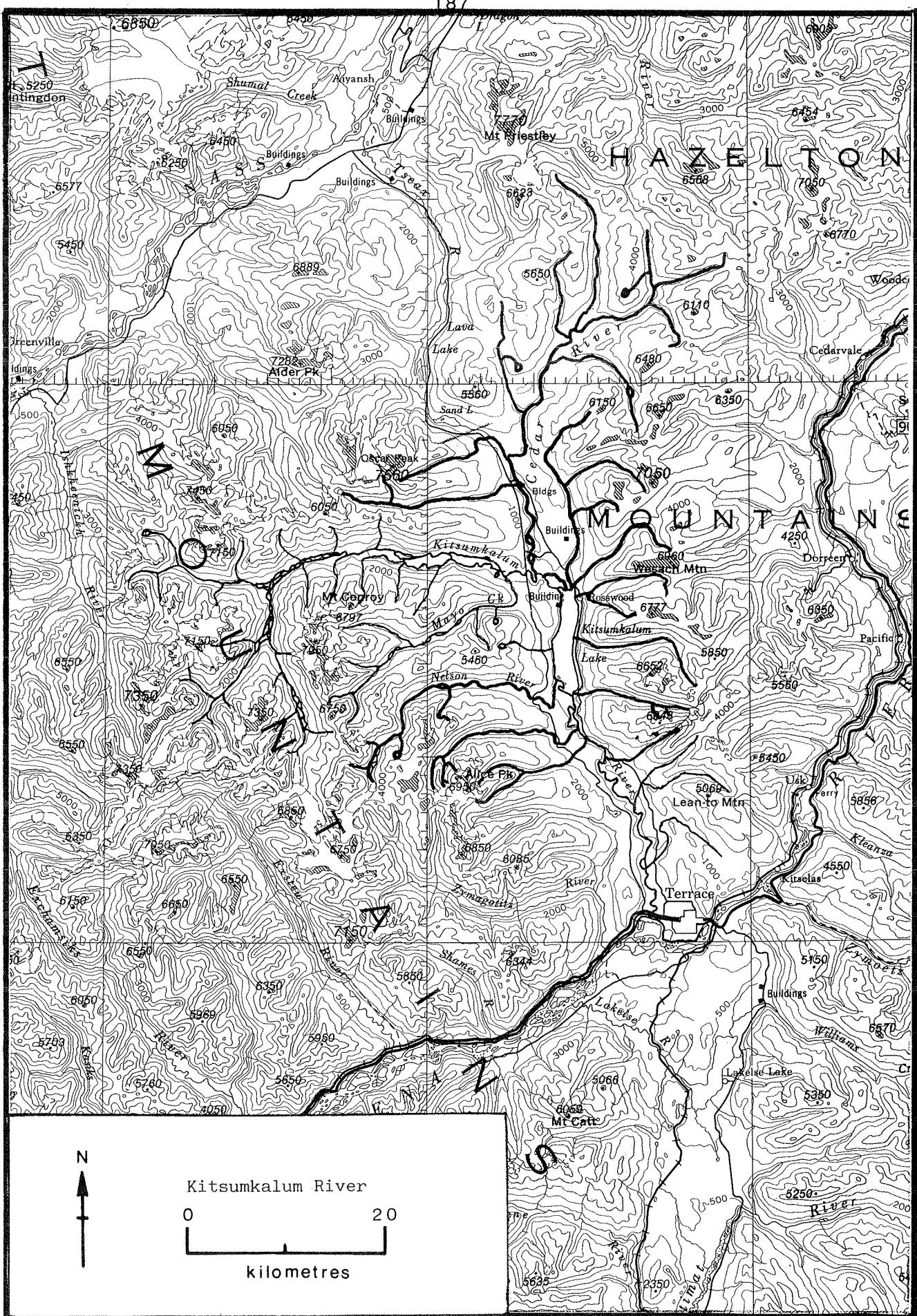
(Kitsegukela River)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947			200		200	
48			200		200	
49			400		200	
50			75		200	
51			200		300	
52			N/I		N/I	
53						
54			OBS		OBS	
55			N/I		N/I	
56			N/I		N/I	
57					OBS	
58			N/I		N/I	
59			N/I		N/I	
60			N/0		N/0	
61			N/0		N/0	
62			N/I		N/I	
63			N/0		N/0	
64			OBS		N/0	
65			750			
66		25	200			
67			400			
68			1500			
69			N/0			
70			N/0			
71						
72			N/0			
73			N/0			
74						
75			N/0			
76						
77						
78		25	200			
79			25			
80		25	25			
81		25	200			OBS
82						
83						
84						
85						

TIMING

ARRIVE	July - Aug		
START	M July - E Aug		M Aug
PEAK	L July - L Aug		L Aug
END	M Aug - Sept		M Sept

REMARKS N/I - Not inspected



NAME OF STREAM KITSUMKALUM RIVER (Lower)

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows S. into Skeena River, Rge. 5, Coast Dist.

POSITION 54 128 NW.

LENGTH km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	<u> </u>
0.25 - 0.50	<u> </u>
0.50 - 0.75	<u> </u>
0.75 - 1.00	<u> </u>
> 1.00	<u> </u>

WETTED AREA m² SPAWNING AREA m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	<u> </u>
CHINOOK	- scattered from mouth to Kitsumkalum Lake.
COHO	- " " "
CHUM	- " " "
PINK (ODD YEAR)	- " " "
PINK (EVEN YEAR)	- " " "
STEELHEAD	- " " "

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1953 - Light sports catches of coho and chinook.

1954 - Good catch of coho in sports fishery.

1955 - " chinook "

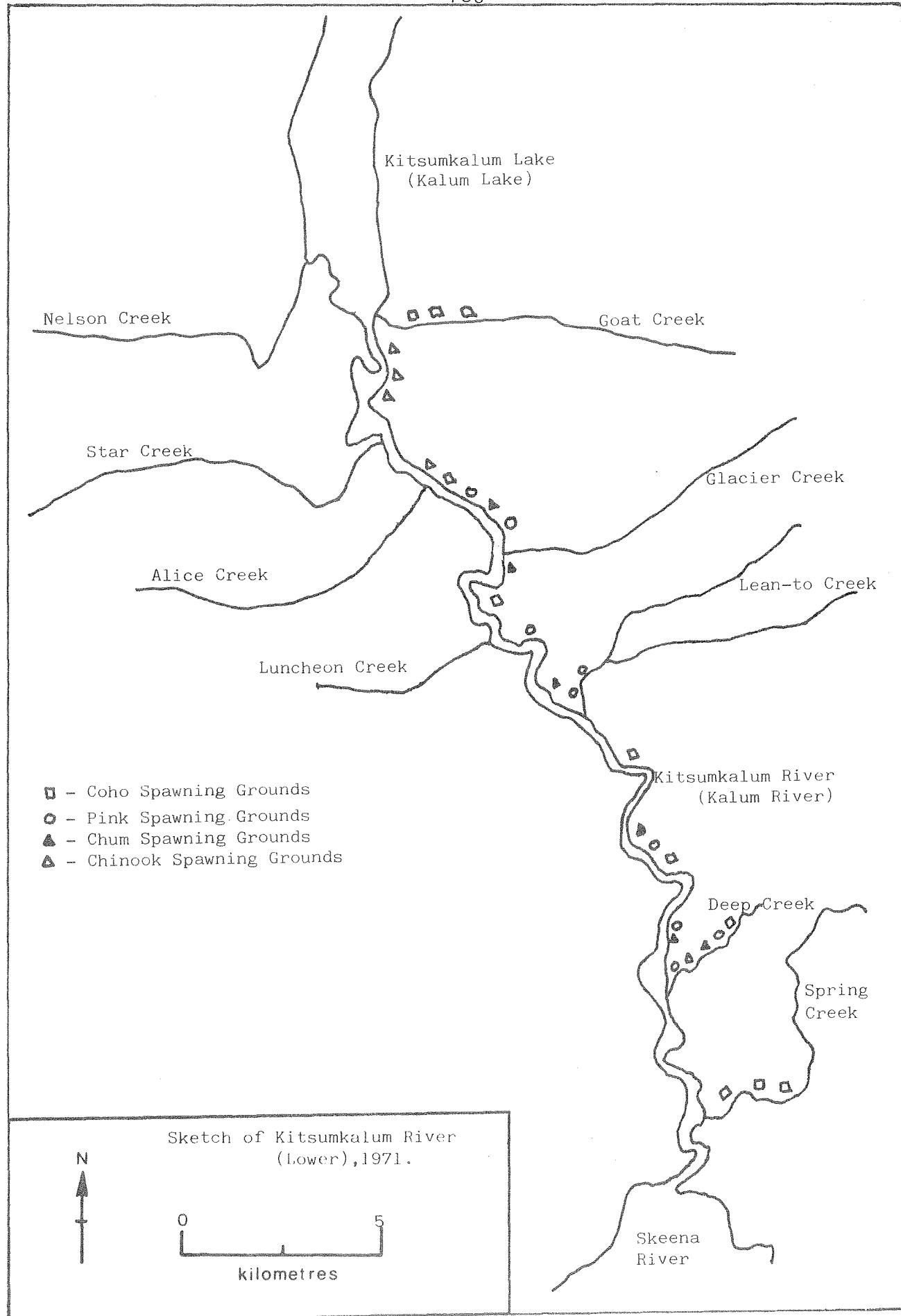
1960 - Silting and erosion also 61,78. Heavy sports fishery near mouth.

1961 - Previous river work seems to have stabilized flow.

1964 - 18-29kg chinook taken in sports fishery.

1965 - Log driving discontinued on river and recommend side channels and sloughs be reopened to provide additional spawning and rearing habitat.

Stream has high silt content --often difficult to estimate number of spawners present. Predators: bears and eagles. Seasonal fluctuations in water levels.



ESCAPEMENT RECORD FOR

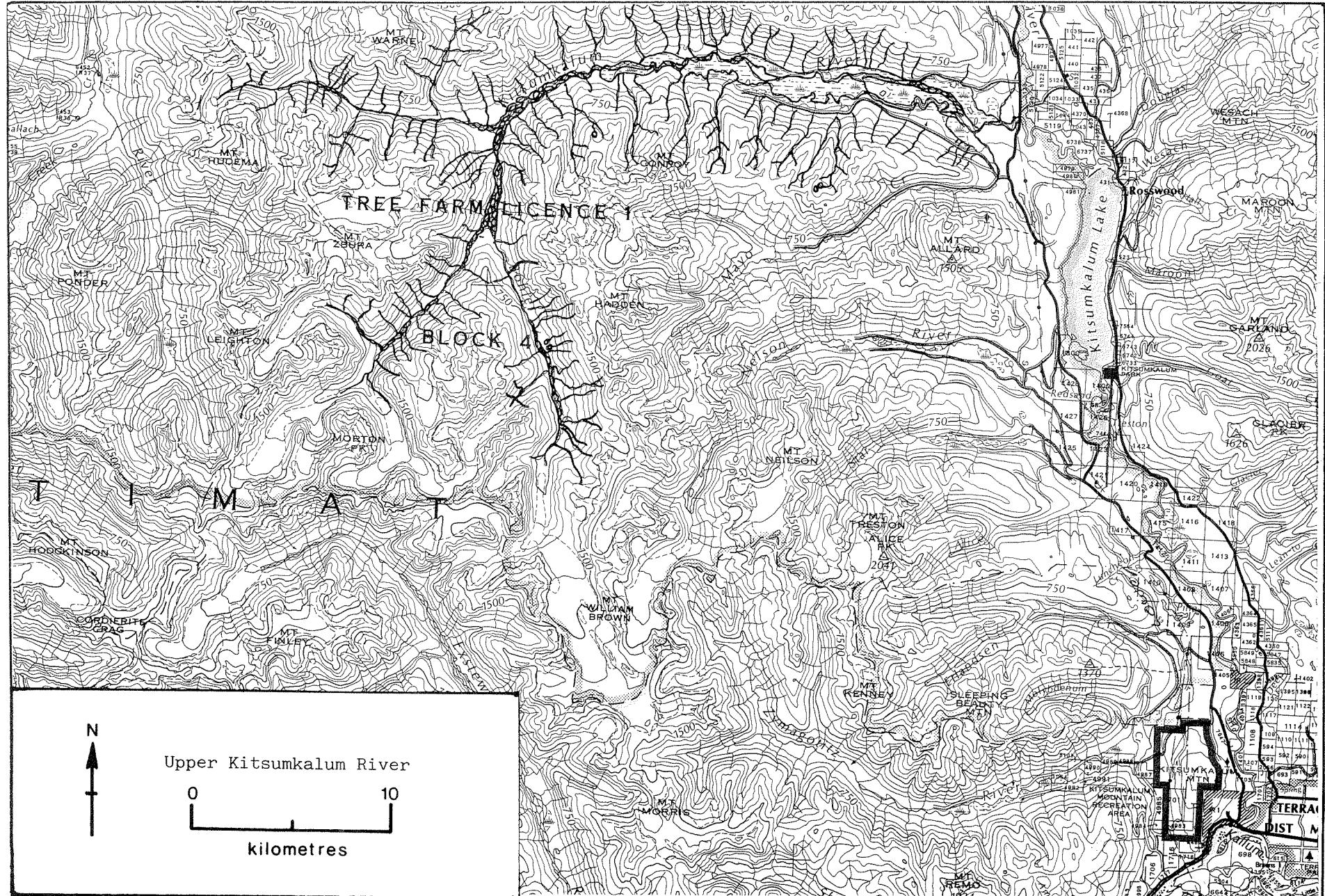
KITSUMKALUM RIVER (Lower)

YEAR	SOCKEYE	CHINOOK	190	CHUM	PINK	STEELHEAD
			COHO			
1947		750	3500	750	7500	
48		OBS	OBS	OBS	OBS	
49						
50		OBS	OBS	OBS		
51		OBS	OBS	OBS		
52						
53		OBS	OBS	OBS	OBS	
54		OBS	OBS		OBS	OBS
55		OBS	OBS	OBS	OBS	OBS
56		OBS	OBS	OBS	OBS	OBS
57		OBS	OBS	OBS	OBS	
58		OBS	OBS	OBS	OBS	
59		OBS	OBS	OBS	OBS	
60		OBS	OBS	OBS	OBS	OBS
61		750		75	15000	
62		750	3500	75	200	light
63		OBS	OBS	OBS	3500	
64		2000	1000	300	400	UNK
65		1500	N/O	25	400	good
66						
67						
68		1500	1500	400		OBS
69		7500	400	400		
70		7500	400	400		
71		7500	400	400		
72		3500	400	1500		
73		5000	400	1500		
74		5000	400	400		
75		3500	400	400		
76		3500	750	400	25	
77		9000	400	1000	10000	
78		8000	1500	300	200	
79						
80		4200	750	1800	500	
81		9300	3000	N/O	50000	
82						
83						
84						
85						

TIMING

ARRIVE	July	Sept	Aug	E Aug
START	L Aug	M Oct	Aug	M Aug
PEAK	M Sept	E Nov	M Aug	L Aug
END	Oct	Dec	Sept	Sept

REMARKS	chinook	coho	chum	pink	steelhead
48	medium	medium	medium	heavy	
50	below average	light	medium	heavy	
51	light	medium	average	good	
53	average	light	light	average	
54	average	heavy		average	good
55	good	medium	light	heavy	medium
56	medium	good	light	light	average
57	average	normal	light	normal	
58	average	good	light	light	
59	average	very light	light	fair	
60	average	good	light	normal	good



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NAME OF STREAM KITSUMKALUM RIVER (Upper) (Beaver River)

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH flows into Kitsumkalum Lake, N. of Terrace, Rge. 5, Coast Dist.

POSITION
 LENGTH 40.2 km WIDTH m DRAINAGE km²
 COMPOSITION: BEDROCK BOULDER COARSE FINE
SILT & SAND UNCLASSIFIED

PERCENT GRADIENT	
0.00 – 0.25	
0.25 – 0.50	
0.50 – 0.75	
0.75 – 1.00	
> 1.00	

DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- see sketch map
CHINOOK	- " "
COHO	- " "
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1950-51 Passable log jam about 2.4km from river mouth.

1954, 56 - Poor inspection conditions--high, murky water.

1961 - Some stream bed disturbance also in 1968, 69, 80, 81.

1962 - Main coho producer in Kitsumkalum system.

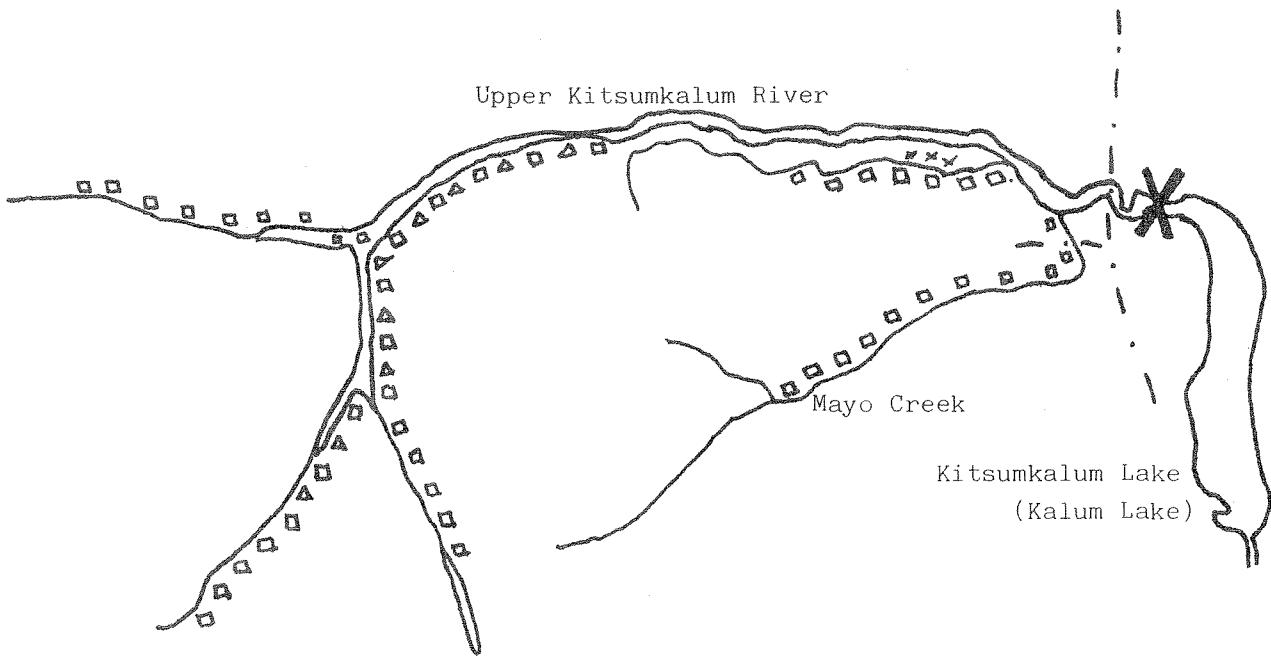
1966 - Access to stream by extension of Columbia Cellulose logging road.

Blow downs in lower 8km -- wide flood plane.

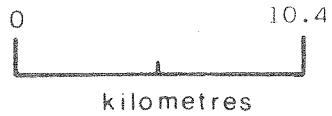
Seasonal fluctuations in water levels.

Predators: eagles and bears.

- △ - Chinook Spawning Grounds
- ✗ - Sockeye Spawning Grounds
- ◻ - Coho Spawning Grounds
- - - Nass Road
- ✗ - Passable Log Jams



Sketch of Kitsumkalum River,
(Upper), 1971.



ESCAPEMENT RECORD FOR KITSUMKALUM RIVER --UPPER

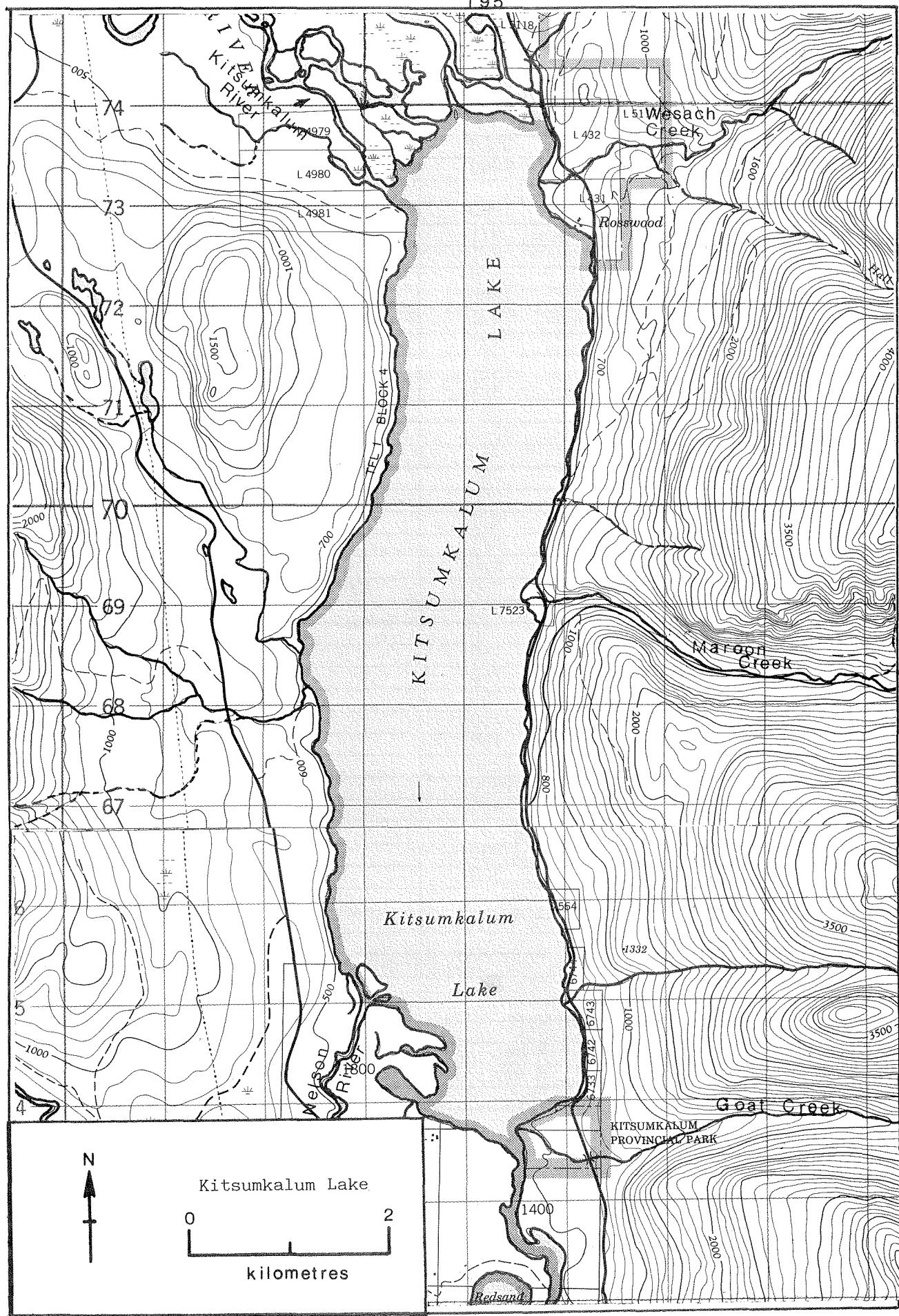
YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			3500			
49			6000			
50						
51			3000			
52			N/I			
53			N/I			
54			N/O			
55			7500			
56			N/I			
57			N/I			
58			7500			
59			N/I			
60			OBS			
61		25	3500	N/O	N/O	
62			750			
63			OBS			
64			1250			
65		6	N/I			
66			N/I			
67		N/O	N/O	N/O	N/O	
68		N/O	N/O	N/O	N/O	OBS
69	200	400	750		N/O	
70	1500	200	750		N/O	
71	750	200	750			
72	400	200	750			
73	400	200	750			
74	400	400	750			
75	400	400	750			
76	400	400	1250			
77	400	400	1500			
78	200	25	400			
79						
80	200	300	400			
81	150	N/O	300			
82						
83						
84						
85						

TIMING

ARRIVE	Aug	Aug	Oct		
START	E Sept	E Sept	M Oct		
PEAK	M Sept	M Sept	M Nov		
END	M Oct	Oct	Dec		

REMARKS N/I - Not inspected

195



196

NAME OF STREAM	KITSUMKALUM LAKE		
CONSERVATION DISTRICT	8	STATISTICAL AREA	4
LOCATION OF MOUTH	Expansion of Kitsumkalum River, North of Terrace, Rge.5 Coast Dist.		
		POSITION	54 128 NW
LENGTH	km	WIDTH	m DRAINAGE km ²
COMPOSITION: BEDROCK	BOULDER	COARSE	FINE
SILT & SAND	UNCLASSIFIED		
PERCENT GRADIENT			
0.00 - 0.25			
0.25 - 0.50			
0.50 - 0.75			
0.75 - 1.00			
> 1.00			
WETTED AREA	m ²	SPAWNING AREA	m ²
DISCHARGE (m ³ /s)			
TEMPERATURE (°C)			
BARRIERS OR POINTS OF DIFFICULT ASCENT			
SPAWNING DISTRIBUTION			
SPECIES		SECTION OF STREAM USED	
SOCKEYE	NE. end of lake near shore at mouths of creeks and Kalum River entrance.		
CHINOOK			
COHO			
CHUM			
PINK (ODD YEAR)			
PINK (EVEN YEAR)			
STEELHEAD			
POTENTIAL OF INACCESSIBLE PORTION OF STREAM			
GENERAL REMARKS 1962 and 1965 Log towing and booming may be initiated at Northern end of lake.			
1980 - Numerous trout and fry sighted. Canoe would be best method of counting in this area.			
Sand bars dry out at low lake levels--sand deposit in upper end of lake from upper Kiksumkalum R. gradually covering spawning beds. Subject to seasonal fluctuations in water levels.			

ESCAPEMENT RECORD FOR

KITSUMKALUM LAKE

198

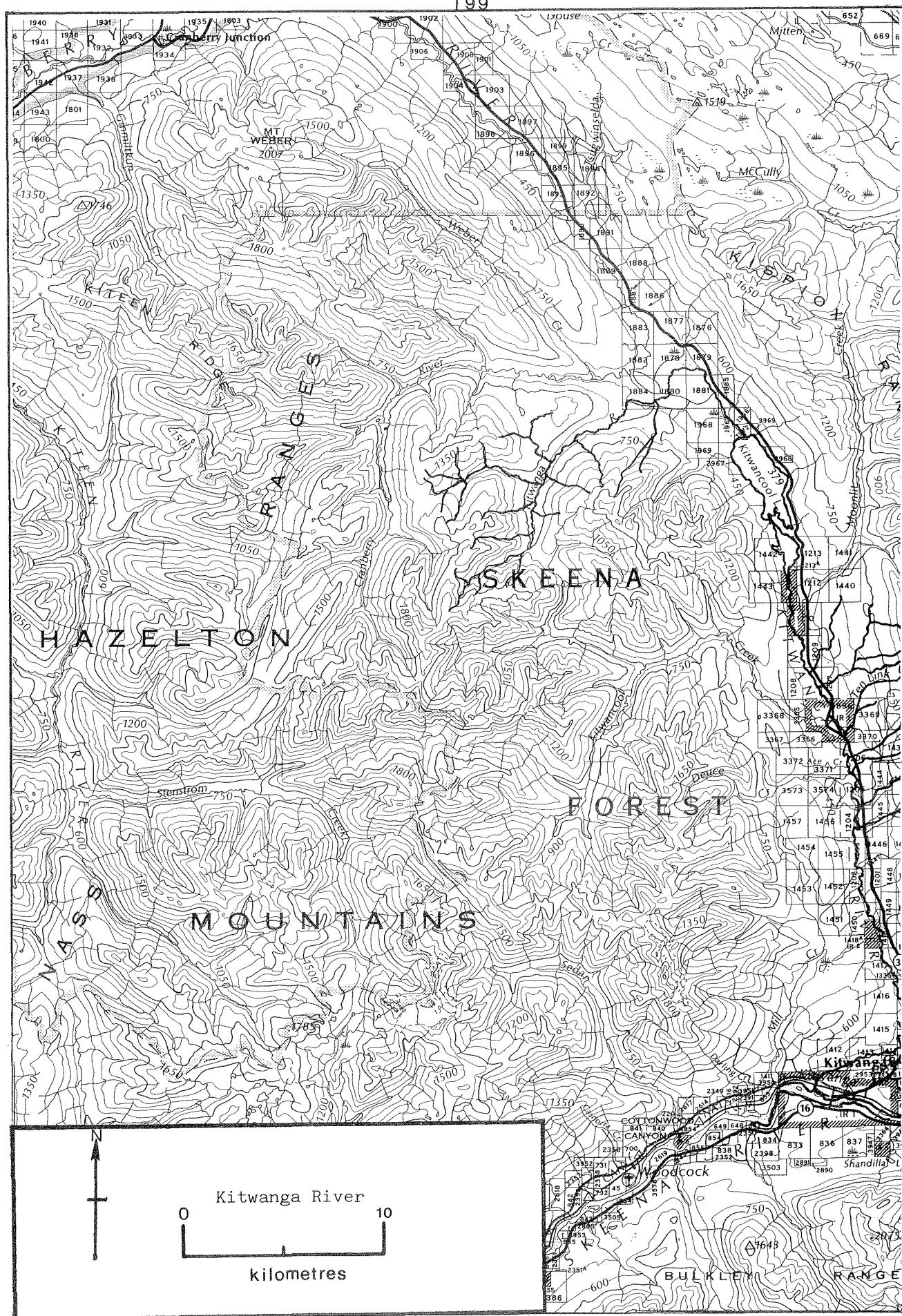
YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947	750					
48	2000					
49						
50	2000					
51	3000					
52	3000					
53	2000					
54	3500					
55	1500					
56	3500					
57	750					
58	1500					
59	1500					
60	200					
61	400					
62	400					
63	400					
64	300					
65	400					
66	400					
67	750					
68	400					
69	400					
70	400					
71	1500					
72	1500					
73	1500					
74	1500					
75	750					
76	400					
77	750					
78	400					
79						
80	150					
81	100					
82						
83						
84						
85						

TIMING

ARRIVE	Aug - Sept					
START	MAug - MSept					
PEAK	LSept - MOct					
END	Oct - M Nov					

REMARKS

199



NAME OF STREAM KITWANGA RIVER (Kitwancool River)

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows S. into Skeena River, W of Kitwanga, Cassiar Dist.

POSITION 55 128 SE.

LENGTH 34 km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- in lake
CHINOOK	- see sketch map, scattered spawning throughout although concentrated
COHO	- " " between mouth and lake.
CHUM	- " "
PINK (ODD YEAR)	- " "
PINK (EVEN YEAR)	- " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1949 - Good coho run observed by local population.
 1952,54,55,58 - More sockeye than usual taken in Indian food fishery.
 1953 - Sports fishermen reported good showing of steelhead.
 1957,62 - Eggs dislodged from gravel in lower reaches.
 1958 - Beaver dam may require removal to enable fish passage next season.
 1959 - Beaver dam washed out.
 1960 - Counting fence operated at river mouth.
 1962 - Heavy U.S.late fall coho and steelhead sports fishery opening.
 Logging opened up in lake area. Indian food fishery near village.
 1964,65 - Windfall debris requires annual monitoring and removal if necessary.

continued....

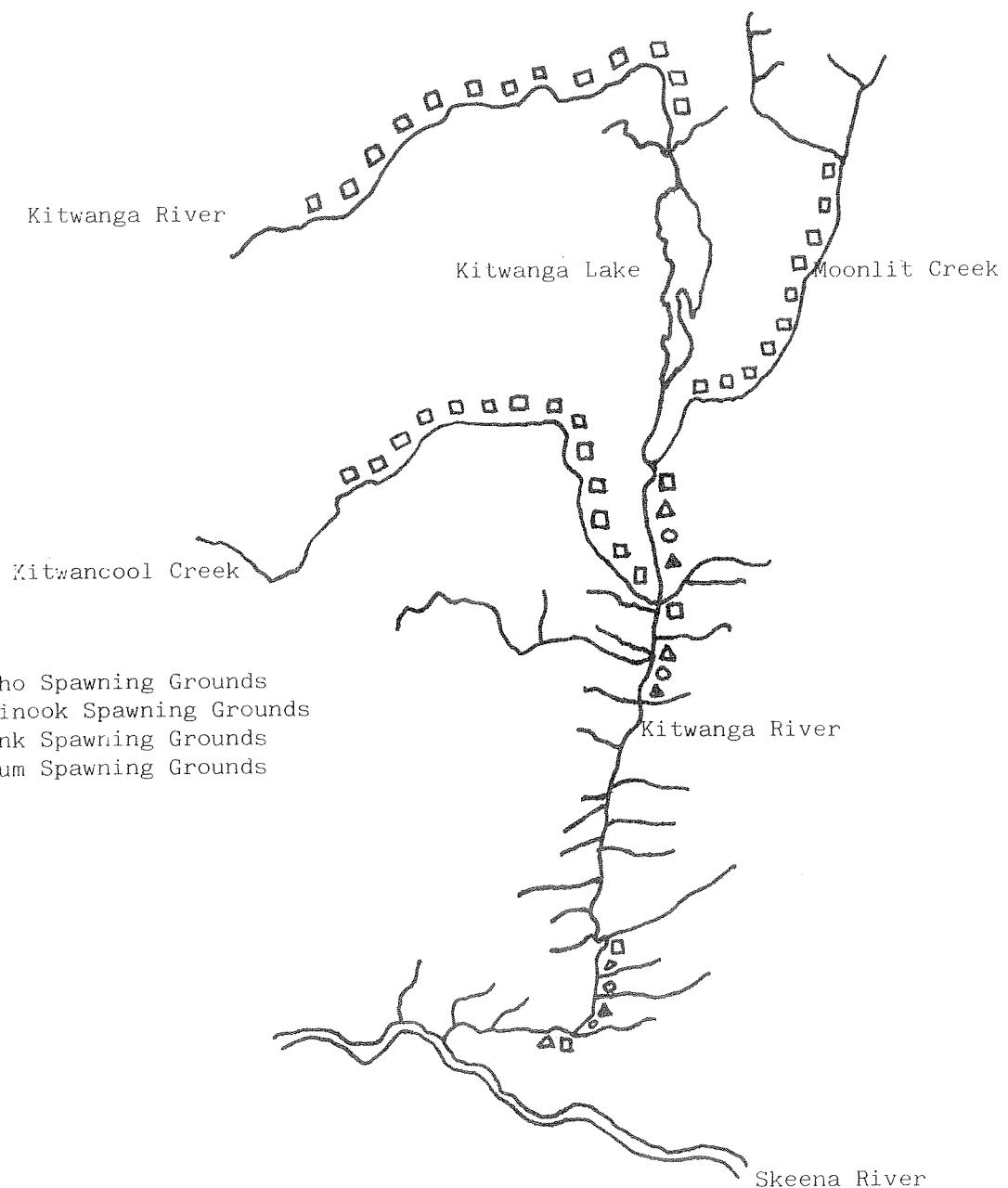
continuation.....

201

GENERAL REMARKS KITWANGA RIVER (Kitwancool River)

- 1964 Flood reopened old channel providing increased spawning habitat.
- 1965 Columbia Cellulose started logging on second tree farm license.
- 1966 Improved road access has increased sports fishing pressure on chinooks, coho and steelhead, and expanded Native food fishery.
- 1974 Heavy scouring in lower portions of river likely caused considerable damage to salmon spawn.
- 1978 Kitwanga Lake kept high water in check so minimal damage to spawning beds.
Subject to seasonal fluctuations in water levels.
Predators: bears and eagles.

202



Sketch of Kitwanga River,
1971.

0 10.4
Kilometres

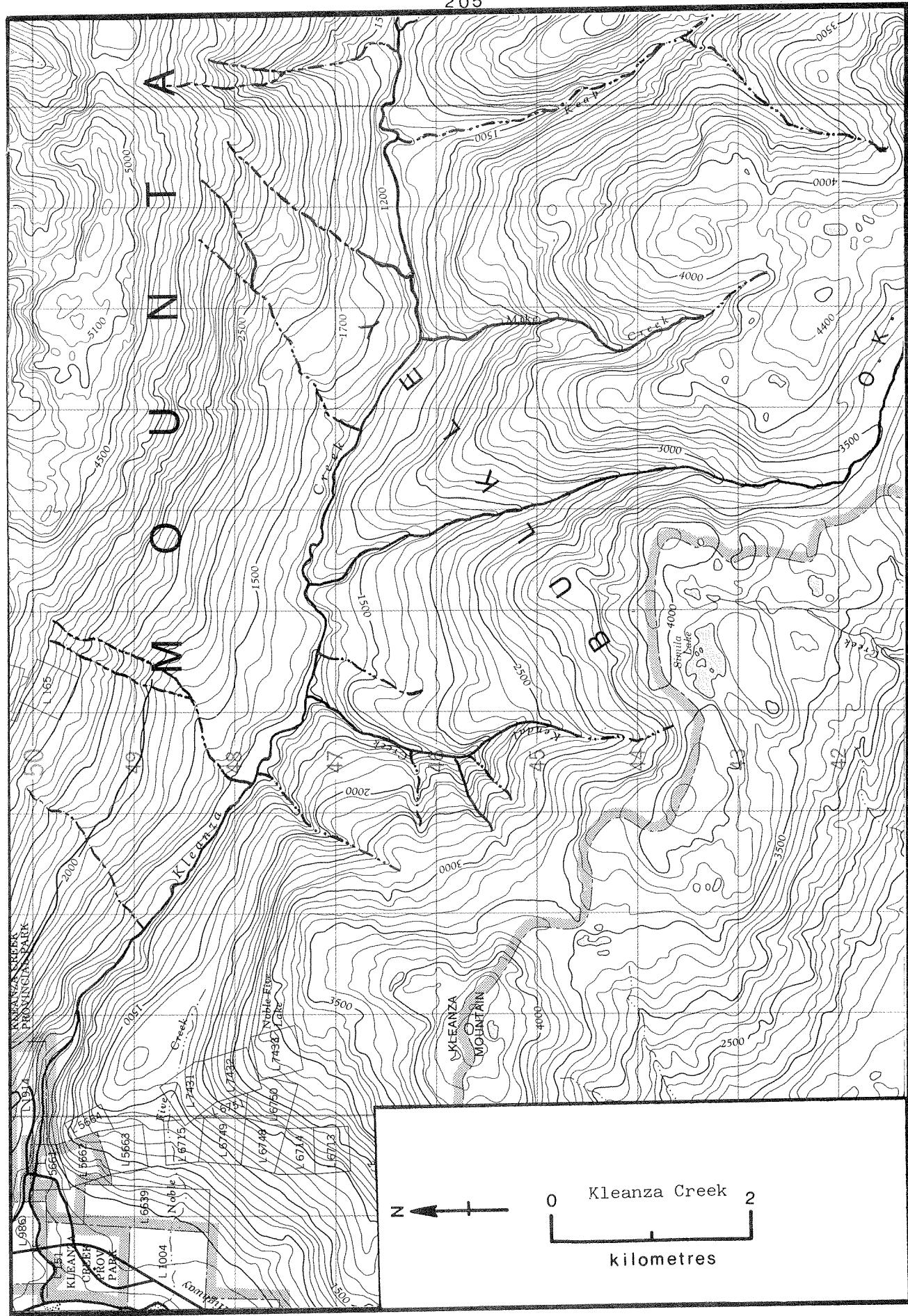
ESCAPEMENT RECORD FOR KITWANGA RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49		600		1000	70000	
50	OBS	700	OBS	5000	100000	
51		400	OBS	5000	100000	
52				800	150000	
53		400		3000	70000	OBS
54	OBS			3500	75000	N/I
55				1500	100000+	
56	3500	400		3500	35000	OBS
57		400		400	200000	
58		400		400	100000	
59		400		750	250000	
60	400	25	25	25	25000	UNK
61	200	25	200	25	110000	25
62	200	25	400	25	77500	75
63			400		170000	
64	200	N/0	200	25	50000	UNK
65	400	25	75	25	35000	OBS
66	200	25	200	25	70000	UNK
67	N/R	N/R	N/R	N/R	100000	
68	200	25	400	75	150000	
69	N/0	75	400	75	175000	
70	N/0	75	400	75	200000	
71	N/0	75	750	75	235000	OBS
72	N/0	75	750	750	175000	
73	N/0	200	400	400	139000	
74	N/0	200	400	400	20000	
75	N/0	200	400	200	200000	
76		75	400	75	200000	
77	25	200	400	200	200000	
78	75	200	2000	200	300000	
79		25	75		15000	
80	100	25	700	N/0	35000	
81	N/0	N/0	200	N/0	110000	
82						
83						
84						
85						

TIMING

ARRIVE	L July	Aug	Sept	E Aug	Aug	
START	M Aug	M Aug	M Oct	M Aug	M Aug	Aug - Nov
PEAK	LAug-E Sept	L Aug	M Nov	L Aug	L Aug	Sept - Dec
END	M Sept	Sept	Dec	LSep- Oct	Sept	Nov - Mar

REMARKS N/I - Not inspected



continuation

GENERAL REMARKS KLEANZA CREEK (Gold Creek)

- 1961 - About 100 coho observed above fence following its dismantling in late October.
- some erosion noted 1964,67,68-75,78
- 1962 - Hatchery destroyed by fire and approx 1.5 million pink alevis and fry lost.
- 1965 - Flood scoured and diverted channel causing drying and freezing of pink spawning grounds.
- 1966 - Flood scoured lower river sections. High runoff velocities now common. Remedial action required to stabilize stream bed.
- 1974 - Heavy erosion, silting and scouring likely destroyed most pink salmon spawn in the lower 3.2km.
Subject to seasonal fluctuations. Predators: eagles.

Sketch of Kleanza Creek,
1971.

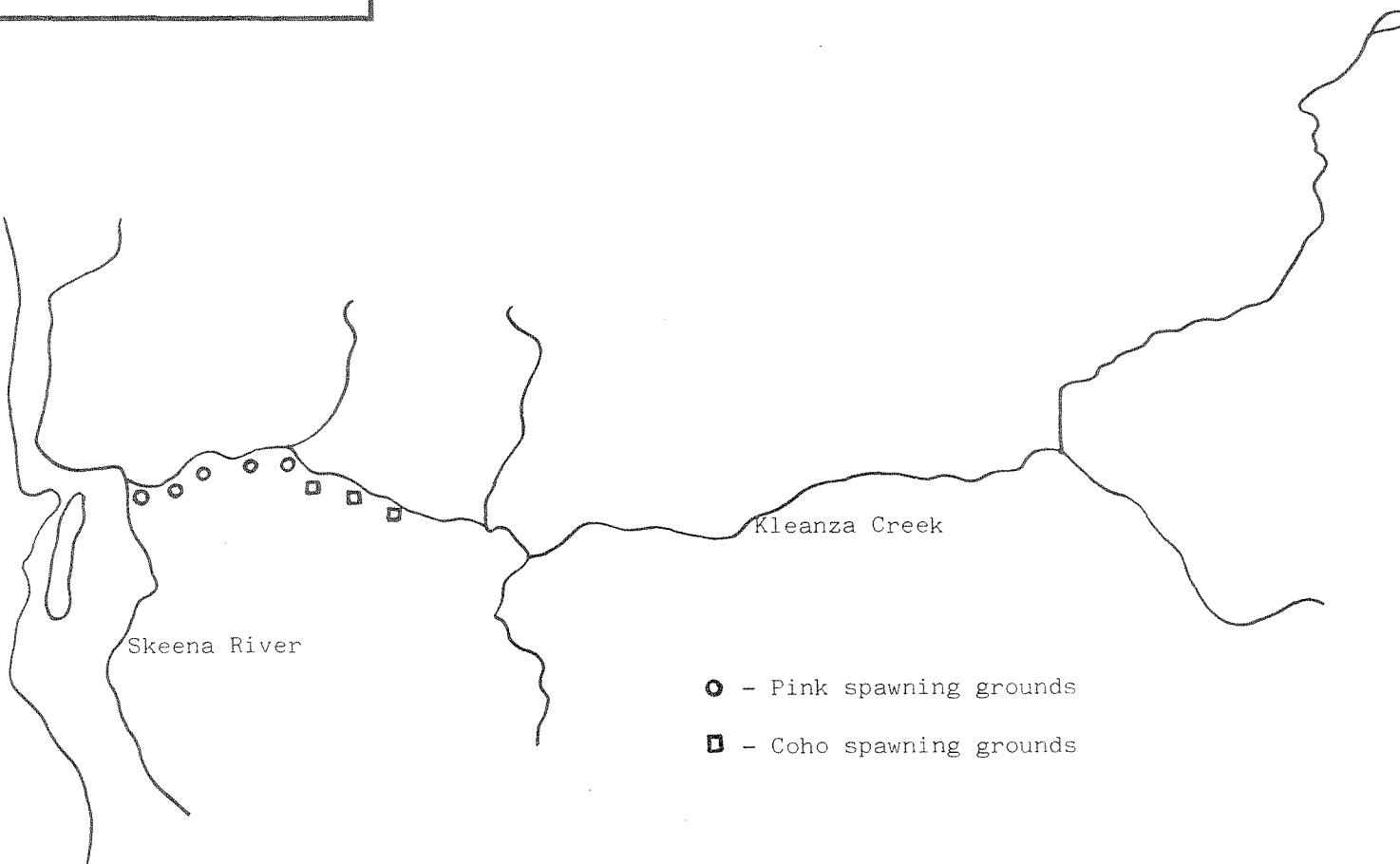
N

O

5.12

kilometres

209



ESCAPEMENT RECORD FOR

KLEANZA CREEK

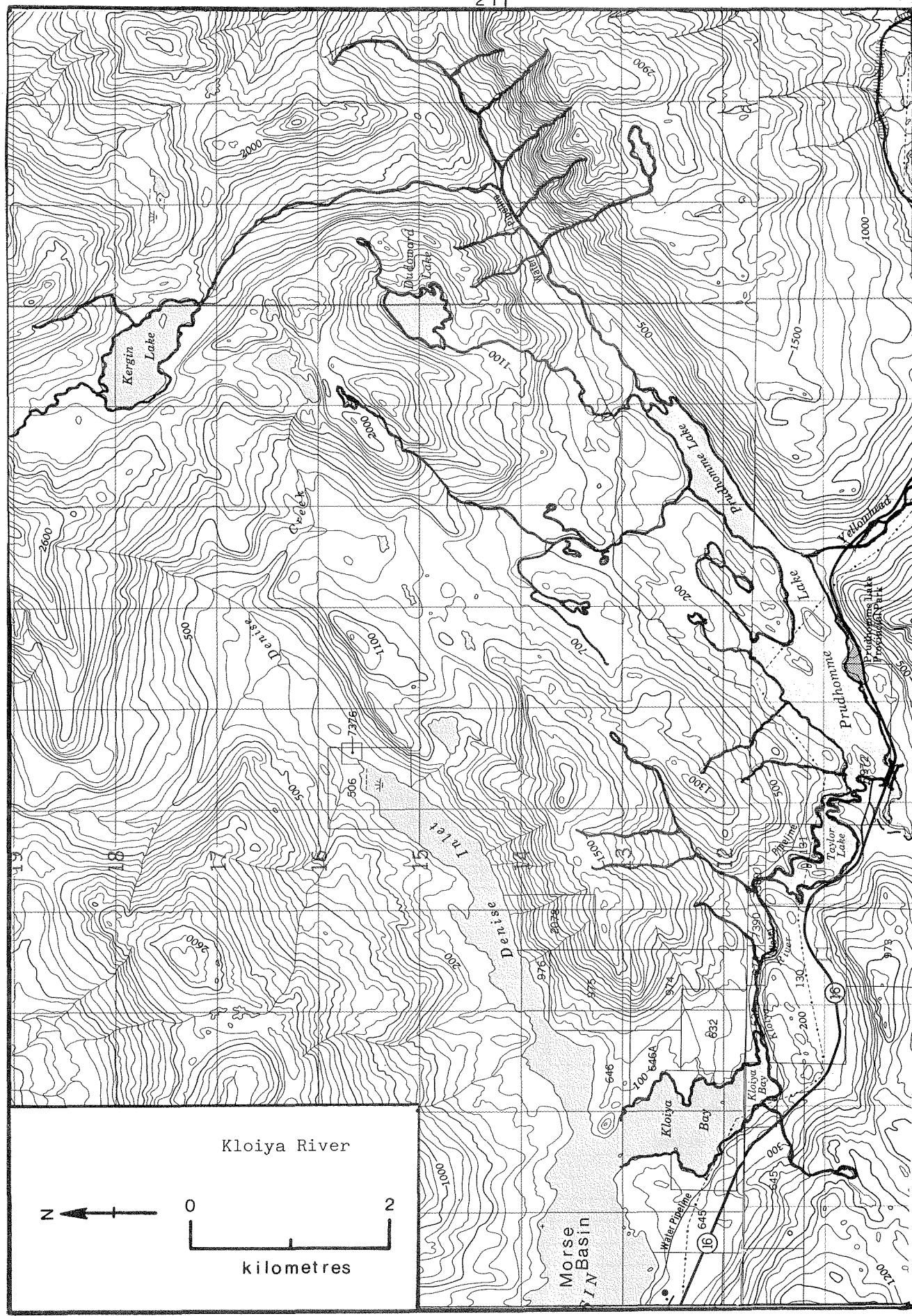
210

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947			400	200	750	
48			200	400	7500	N/0
49			400	N/0	2000	
50			75	100	9000	
51			300	100	3000	
52			300	25	10000	OBS
53			70	25	5000	
54			200	75	7500	OBS
55			200	25	750	
56					1000	
57						
58	7		OBS	OBS	660	59
59			N/I	N/I	1500	
60			OBS		600	
61	2		27	37	3000	33
62			N/0	N/0	N/0	
63				400	200	
64	UNK	UNK	25	25	75	
65	N/0	N/0	25	25	7500	
66		25	200	25	25	25
67		25	200	25	25	
68			400	N/0	200	
69			750	N/0	75	
70			750	N/0	200	
71			750	N/0	200	
72			750	N/0	1500	
73			400	N/0	400	
74			400	N/0	200	
75		25	75		200	
76		N/0	75		25	
77		25	25		200	
78		N/0	75		75	
79						
80	2	N/0	25		36	
81	N/0	N/0	100		350	
82						
83						
84						
85						

TIMING

ARRIVE	Aug	July	Sept	Aug		UNK
START	E Aug	E Aug	M Oct	E Aug	Aug	UNK
PEAK	M Aug	L Aug	M Nov	M Aug	Aug-E Sept	UNK
END	L Aug	Sept	L Nov - Dec	E-L Sept	L Sept	UNK

REMARKS N/I - Not inspected



NAME OF STREAM KLOIYA RIVER (Cloyah Creek)

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows N.W. into Kloiya Bay, Morse Basin, Rge. 5, Coast Dist.

POSITION 54 130SE.

LENGTH km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25

0.25 - 0.50

0.50 - 0.75

0.75 - 1.00

> 1.00

WETTED AREA m² SPAWNING AREA m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT Passable falls 1.2km from mouth

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
Sockeye	- pass through ladder to lake L June to July
Chinook	- 1.6km downstream from dam
Coho	- " " most pass through to Diana and Prudhomme
Chum	- in pool below dam System.
Pink (Odd Year)	- mouth of Cloyah Creek to fishway.
Pink (Even Year)	
Steelhead	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM Fishway 1.6km from stream mouth enables fish to utilize area above the ladders.

GENERAL REMARKS 1952 - Coho observed using fish ladders.
1953,57 Good coho run and fair sockeye run used fish ladders to ascend to Diana Creek spawning gravel at head of Lake System.
1954 - 5000 Sockeye and 1500 coho ascended the fish ladder and entered Diana Creek.
1958 - Large run of sockeye passed through fishway to Prudhomme Lake spawning grounds.
1960 - Fall impassable at low flows which could be corrected by spilling more water.

continued.....

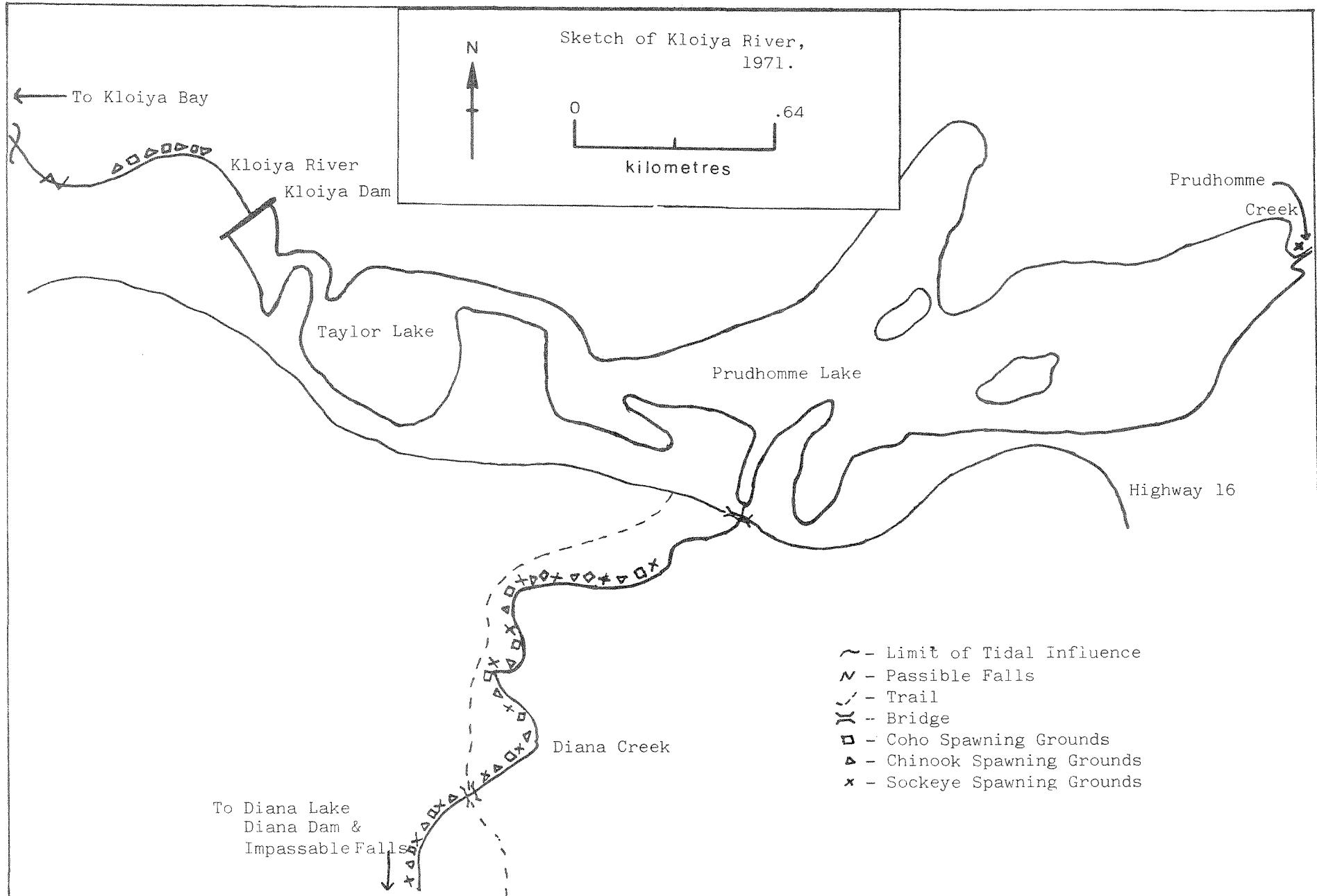
KLOIYA RIVER (Cloyah Creek)

- 1961,67 - Good sports fishing.
- 1962 - Columbia Cellulose built a chain fence to stop migrating sockeye from jumping over the sides of the fishway.
- 1963,66 -Diverting water over the falls in low flows would ensure fish passages.
- 1967 -.42 m³/sec established as minimum flow required. The complete absence of pink and chum in recent years may indicate that migrating fry are adversely affected by minor scouring and shifting of gravel bar below water recording station.
- 1973 Impounding dams at Prudhomme and Diana Lake stabilize system.
- 1981 10 adult chinook taken for Troller Association incubation box.
1 diseased female collected for pathological testing.

Seasonal fluctuations in water levels.

Predators: hair seals, bears, wolves,wildfowl.

Flow controlled by fishway and checked periodically be regional staff.
Good lake system beyond this stream.



ESCAPEMENT RECORD FOR

KLOYIA RIVER

216

(Cloyia Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947					1500	
48					1500	
49				3500	4000	
50		200			2500	
51		200			2500	
52		N/0	OBS		2500	
53					400	
54					200	
55		200			750	
56		750			750	
57		750			1500	
58		300			500	
59		750		200	750	
60		400		400	N/0	
61		400	400	75	200	
62		200	200			
63		1500	200		3500	
64		400	200			
65		400	400		N/0	
66		750	750		4	
67		350	75	N/0	2	
68		750	750	75	400	
69		400	400	N/0	N/0	
70		400	1500	N/0	N/0	
71		200	100	N/0		
72		150	300	N/0	N/0	
73		250	* 1500	N/0	N/0	
74		200	x 700	25	N/0	
75		200	x 500			
76		100	x 600		100	
77		300	x 500		N/0	
78		300	N/0	25		
79		400	100		20	
80		400	200		50	
81						
82						
83						
84						
85						

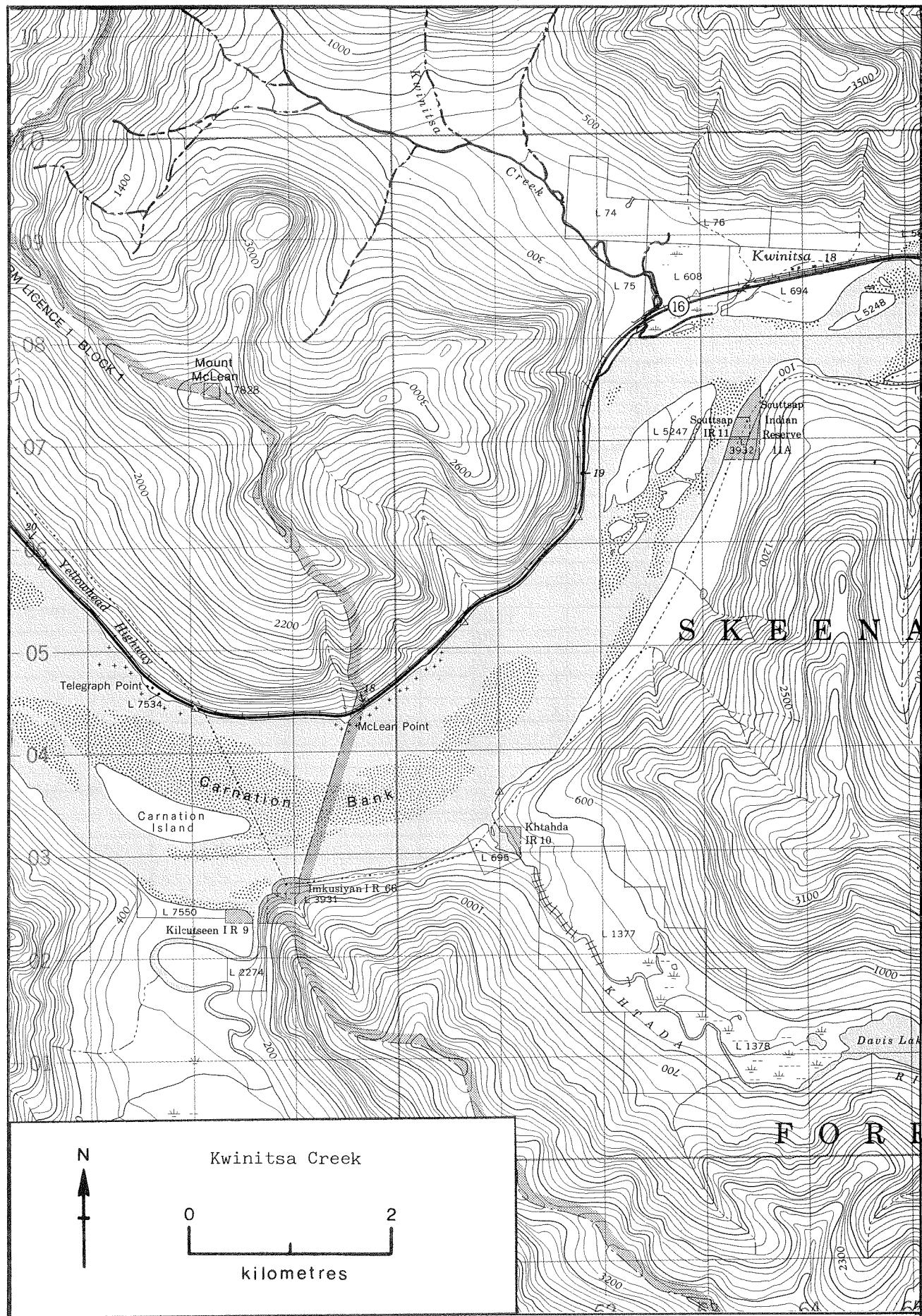
TIMING

ARRIVE	July	Aug - Sept	July	Aug
START	Aug - Sept	Aug - MOct	L July	M Aug
PEAK	Aug - EOct	Sept - Nov	Aug	L Aug-Sept
END	Sept - MOct	L Oct - Dec	E Sept	M Sept -Oct

REMARKS

* Taken from Guardian's observations at fishway & streampools.

x Includes Diana & Prudhomme Creeks



NAME OF STREAM KWINTSA RIVER

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows S. into Skeena River, W of Kitsumkalum River, Rge 5,
Coast Dist.

POSITION 54 129 SW

LENGTH km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable cascade-type falls 3.2 km from mouth.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED		
SOCKEYE			
CHINOOK			
COHO	- from mouth upstream 3.2km		
CHUM			
PINK (ODD YEAR)	-	"	"
PINK (EVEN YEAR)	-	"	"
STEELHEAD			

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

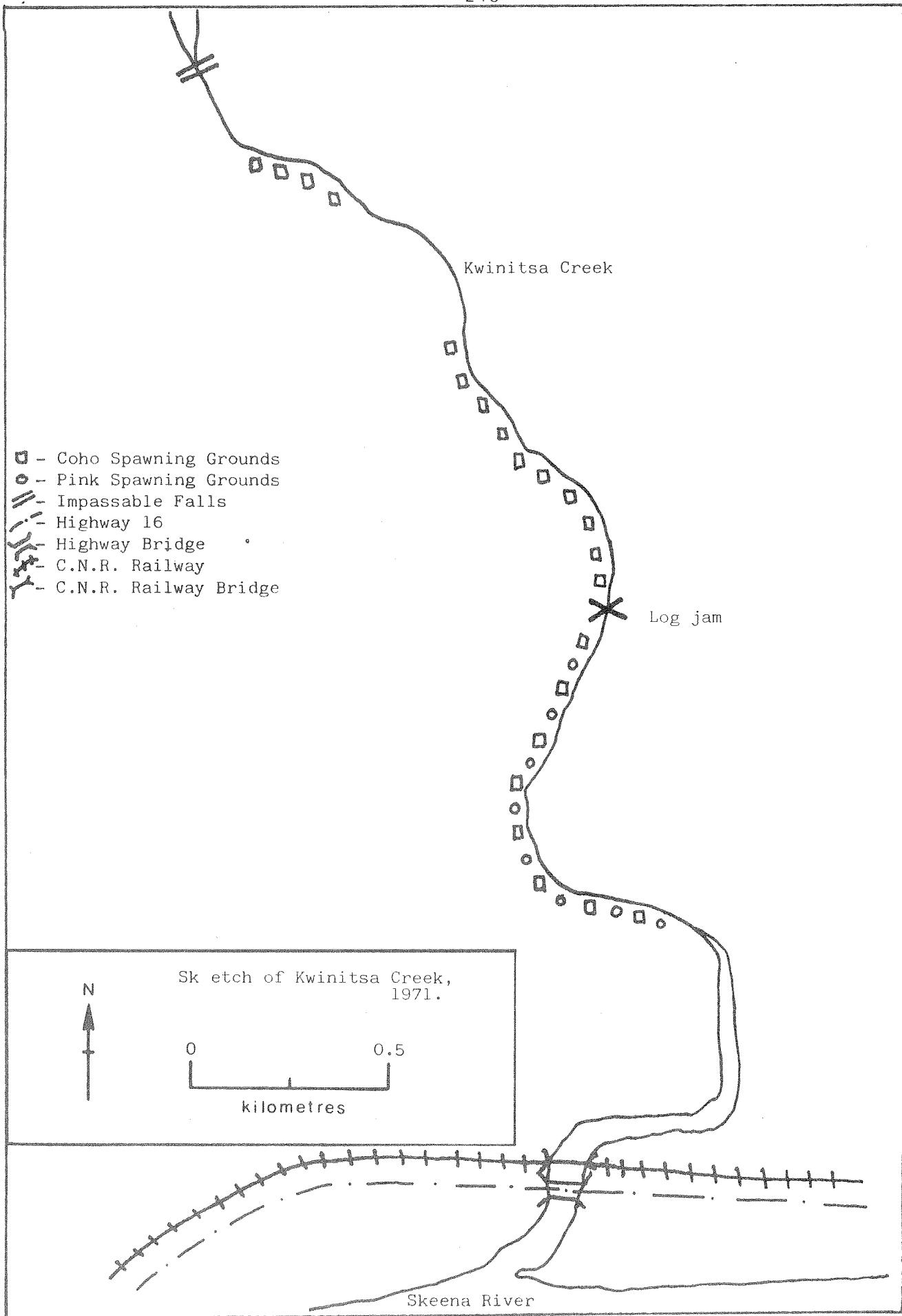
1960, 61, 62, 64, 66 Sand bars developing at mouth for distance of 0.8km

1971-78 - Moderate to heavy silting in lower 1.6km.

Seasonal fluctuations in water levels.

Slow moving stream of glacial origin--clear of debris--swampy.

Predators: seals and bears.

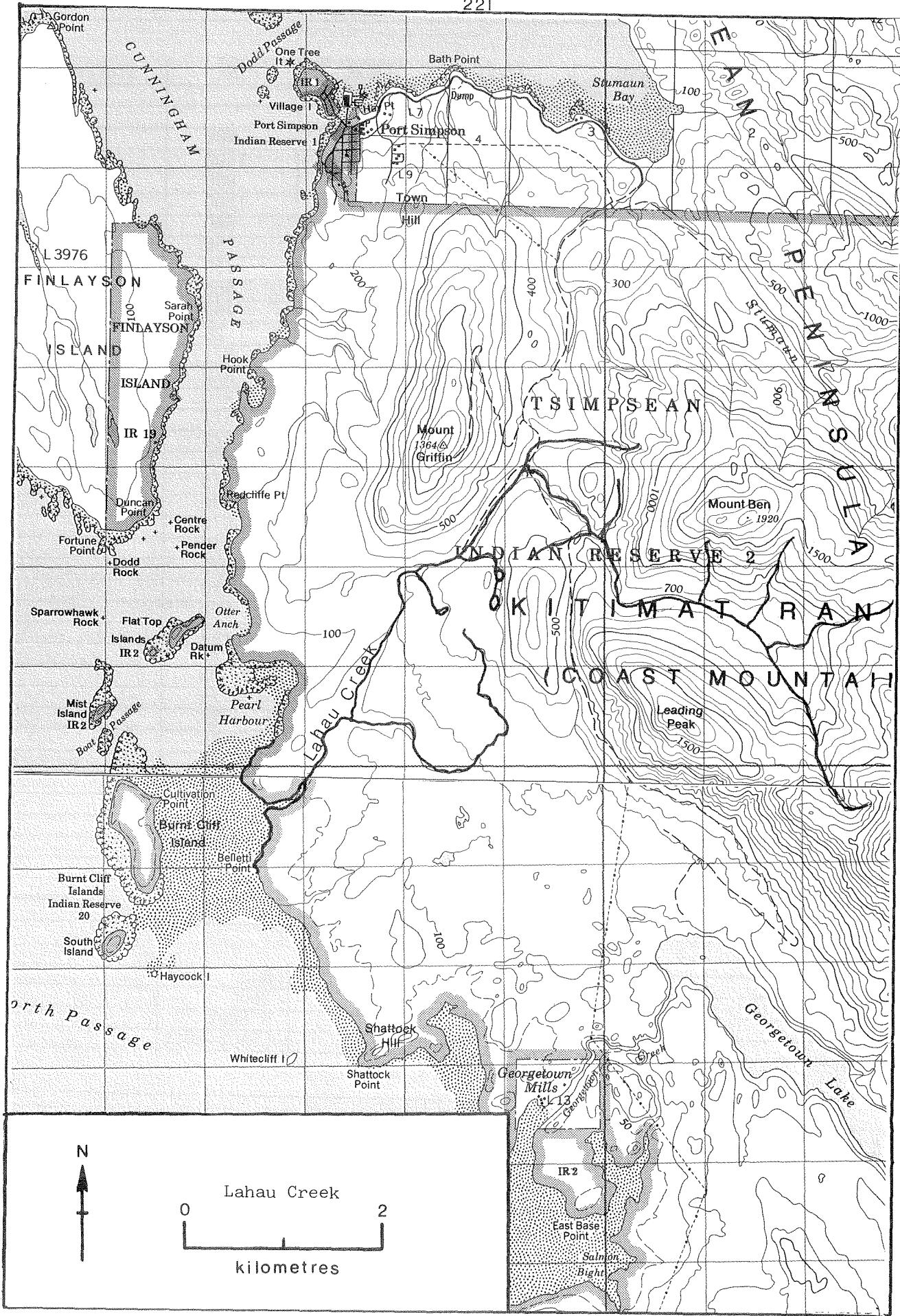


YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48					600	
49					1000	
50					800	
51					1200	
52					500	
53					750	
54					750	
55					400	
56					400	
57					25	
58					N/I	
59					N/0	
60					N/0	
61					N/0	
62					N/0	
63					N/0	
64					N/0	
65					N/0	
66					N/0	
67					N/0	
68					N/0	
69					N/0	
70					N/0	
71			75		500	
72			25		750	
73			25		75	
74			25		25	
75			25		75	
76			75		25	
77			25		75	
78			75		25	
79			N/I		N/I	
80			N/I		N/I	
81						
82						
83						
84						
85						

TIMING

ARRIVE		Oct	Aug
START		M Oct	Sept
PEAK		E-M Oct	M Sept
END		Nov - Dec	L Sept-E Oct

REMARKS N/I - Not inspected



NAME OF STREAM _____ (Lahou Creek, Pearl Harbour Creek)
 CONSERVATION DISTRICT _____ 8 STATISTICAL AREA _____ 4
 LOCATION OF MOUTH Flows into Pearl Harbour, W. Coast of Tsimpsean Peninsular
 S.E. of Finlayson Rge., Coast Dist. POSITION 54 130 NE
 LENGTH _____ km WIDTH _____ m DRAINAGE _____ km²
 COMPOSITION: BEDROCK _____ BOULDER _____ COARSE _____ FINE _____
 SILT & SAND _____ UNCLASSIFIED _____

PERCENT GRADIENT

0.00 - 0.25

0.25 - 0.50

0.50 - 0.75

0.75 - 1.00

> 1.00

WETTED AREA _____ m²SPAWNING AREA _____ m²DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- lower 3.2 - 4.8km
CHUM	
PINK (ODD YEAR)	- lower 3.2 - 4.8km
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

 _____GENERAL REMARKS 1952 - Pink redds sampled during winter. Eggs -- 4 live, 5 dead
 Alevins -- 141 live.

1953 - Log debris 0.8km from mouth.

1961,63 Early run died unspawned due to low water. Later run spawned successfully.

1965 - Severe draught.

1967 - Logging upper reaches has affected water levels.

1971-75 Slight scouring observed also 78,80.

1971-80 Passable log jams variously located within first 8.0km may cause
 delays in upstream migration depending on water levels. Advised
 monitoring and removal as required.

continued.....

GENERAL REMARKS (Lahou Creek, Pearl Harbour Creek)

- 1972 - 2 log jams removed opening up an extra 0.8km of gravel.
1973,74 Poor pink returns--common throughout district--coho spawning
but difficult to estimate numbers.
1976 Greater return than expected.
1978 Heavy rains caused streambed damage.
1980 Fish arrived earlier than usual.

Water discoloured and brakish for 0.4km, marshy, fully protected
during upstream migration.
Good gravel beds in stream, upper portion logged.
Seasonal fluctuations in water levels.
Predators: mergansers, eagles, wolves and bears.

Sketch of LaHou Creek, 1971.



0 50
kilometres

- - Coho Spawning Grounds
- - Pink Spawning Grounds
- X - Passable Log Jam
- ✗ - Impassable Log Jam

LaHou Creek

Pearl Harbour

Good Spawning
Gravel

Lake

ESCAPEMENT RECORD FOR

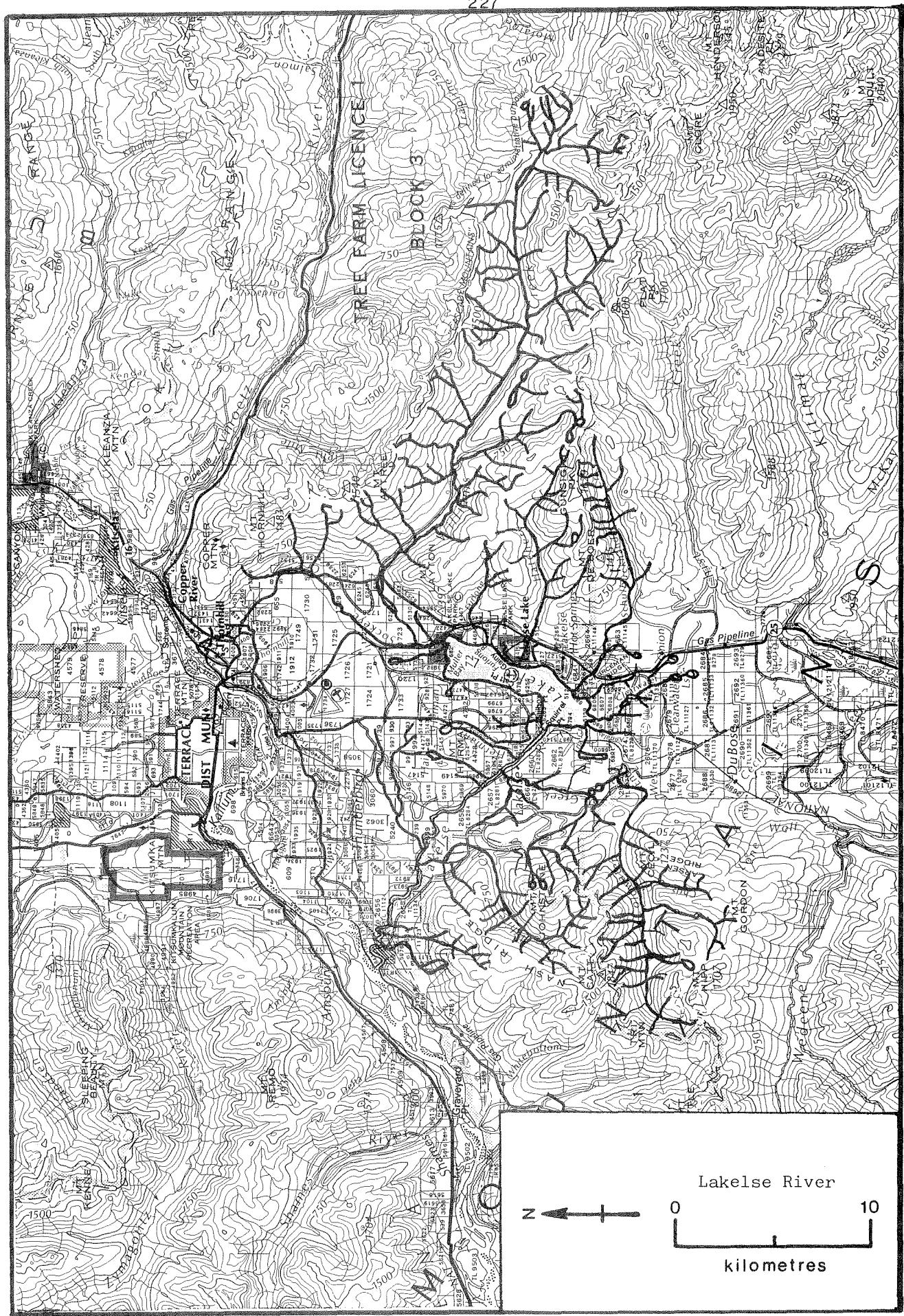
(Lahou Creek, Pearl Harbour Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48					15000	
49					100000	
50					50000	
51					6000	
52					50000	
53	observed		10		1500	
54					8000	
55					7500	25
56					10000	
57					200	75
58					2000	OBS
59					3500	
60					1500	
61					7500	
62					7500	
63					3500	
64					7500	
65					7500	
66			3500		20000	
67			25		3500	
68			N/O		15000	
69			750		3500	
70			N/O		3500	
71			N/O		9000	
72			UNK		8500	
73			UNK		3200	
74			UNK		3000	
75			UNK		6000	
76					15000	
77			N/O		7000	
78			UNK		7000	
79						
80			UNK		18000	
81					3500	
82						
83						
84						
85						

TIMING

ARRIVE					M Aug
START			M Sept - E Oct		E Sept
PEAK			E-L Oct		M Sept
END			E Nov		Oct April

REMARKS



NAME OF STREAM LAKELSE RIVER
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Flows N.W. into Skeena River, Rge.5, Coast Dist.
 POSITION 54 128 SW.
 LENGTH 19.3 km WIDTH m DRAINAGE km²
 COMPOSITION: BEDROCK BOULDER COARSE FINE
 SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25
0.25 - 0.50
0.50 - 0.75
0.75 - 1.00
> 1.00

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	See sketch map
CHINOOK	" "
COHO	" "
CHUM	" "
PINK (ODD YEAR)	" "
PINK (EVEN YEAR)	" "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1948,51 Some loss of pink spawn due to overcrowding and coho spawning in same gravel. 49,50,57,64.

- 1952 - Redd sampling showed some dead pink eggs and eyed coho eggs.
- Slight silting near counting fence 56,57,58.
- Spring and fall run of steelhead.
- 1954 - Better than average steelhead run,63.
- 1957 - Recommend counting fence be dismantled as it is decreasing the current and causing silting.
- 1959 - Counting fence removed.

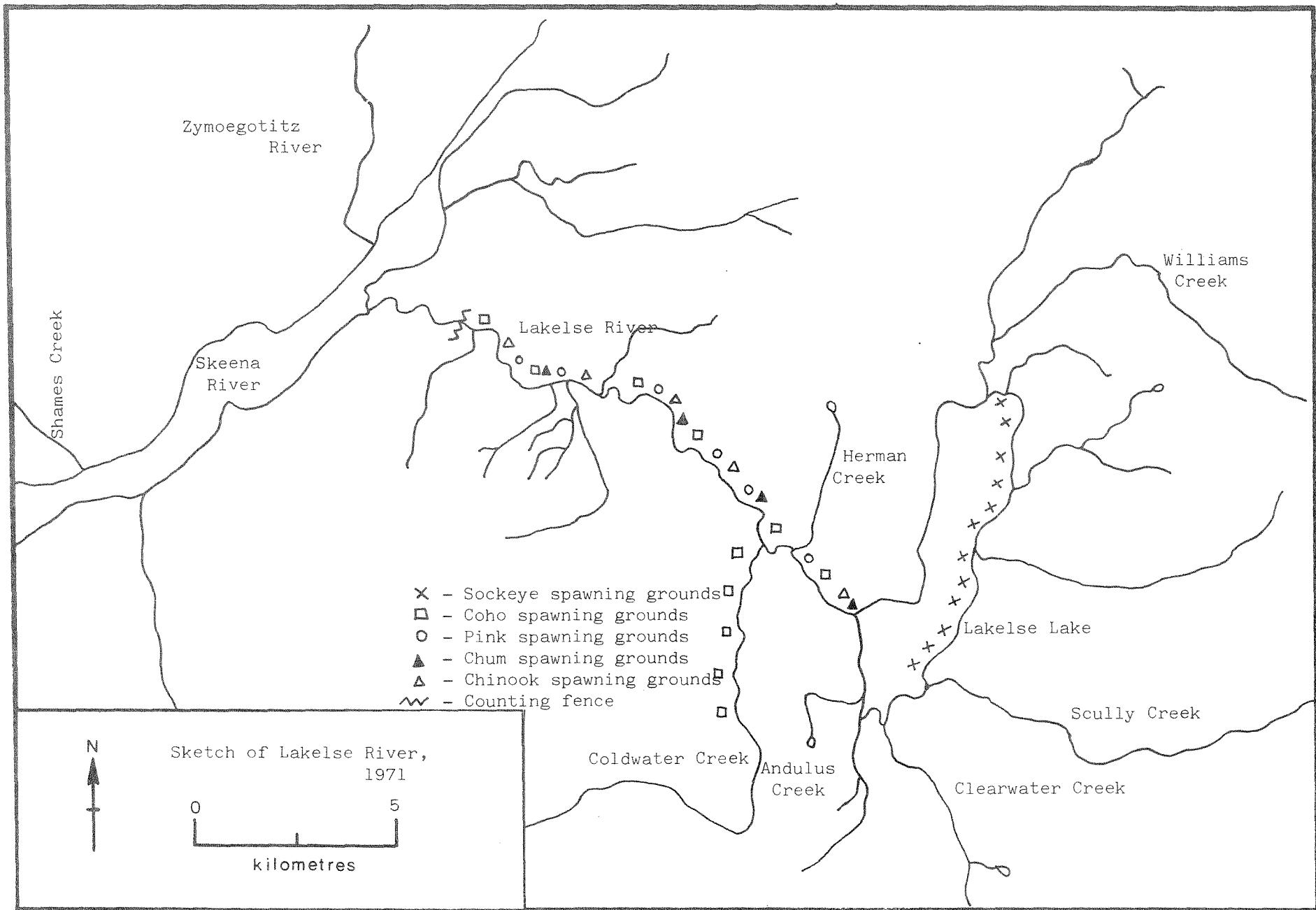
continued.....

GENERAL REMARKS LAKELSE RIVER

- 1960 - Numerous log jams noted in the years between 1960 and 1980. Monitored and cleared as required.
- 1960 - Heavy sports fishery during Kitsumkalum River closure.
- 1961 - Large pink spawners seen. Heavy sports fishery for coho during pink run. Many pinks damaged by poor fishing techniques.
- 1962 - Silting observed 64,65,66,74. Logging roads improved access for sports fishermen. Heavily fished on weekends in September-October. Approx. 800 coho taken by rods.
- 1964 - Logging activity increased along stream in 1965,66.
- 1965 - Logging operations require monitoring to ensure that stream is not damaged.
- 1981 - Evidence of pink eggs being dug up by coho.

Seasonal fluctuations in water levels.

Predators :eagles, bears, seals and gulls.



ESCAPEMENT RECORD FOR

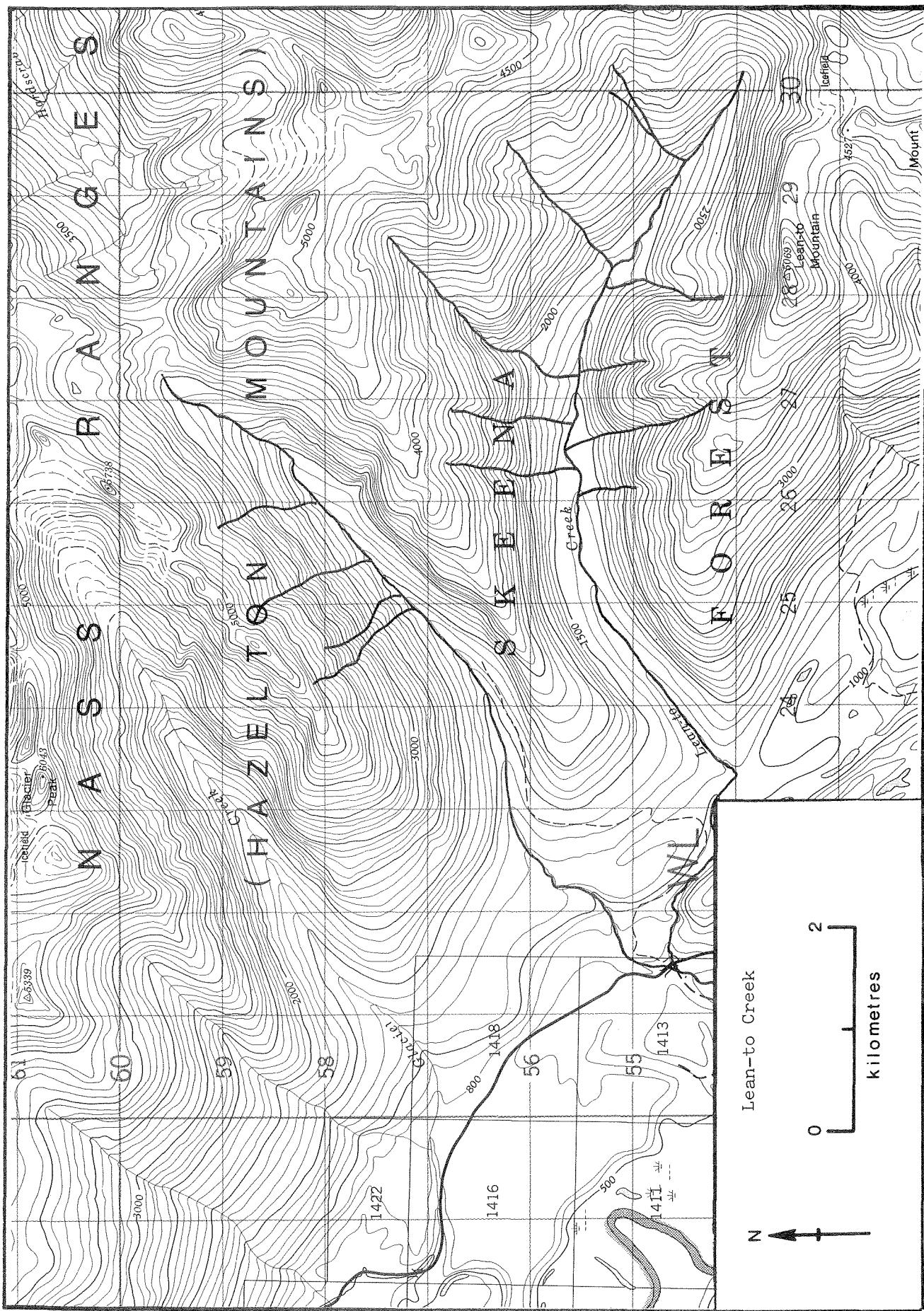
LAKELSE RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947			3500	400	15000	
48		25	3500	750	75000	N/0
49		16	20000		100000	
50			10000	300	200000	
51		30	20000	5000	200000	
52			15000	N/0	200000	OBS
53		25	12000	25	150000	
54		25	15000	N/0	100000	OBS
55		75	15000	N/0	100000	
56		200	50000+	N/0	75000	OBS
57		200	15000	N/0	200000	OBS
58		200	35000		150000	
59					185000	
60	6000	200	35000	N/0	111000	OBS
61	5500	75	25000	200	311000	UNK
62	5500	25	3500	25	630000	
63		200	35000	400	500000	
64	20758	200	35000	400	1225000	
65	N/0	200	75000	400	837000	OBS
66		200	35000	75	397000	
67		N/R	15000	N/R	235000	
68		200	35000		1112000	
69		400	15000	200	368000	
70		400	25000	400	500000	
71		200	15000	400	250000	
72		200	7500	750	850000	
73		400	3500	750	500000	
74		400	5000	750	250000	
75		400	1500	400	750000	
76		200	750	400	250000	
77		400	3500	400	300000	
78		75	7500		175000	
79		50	5000		300000	
80						
81		250	1500		700000	
82						
83						
84						
85						

TIMING

ARRIVE	L June	E Aug	Sept	E Aug	Aug	
START	July	M Aug	M Oct	L Aug	L Aug	Sept - Nov
PEAK	E Aug	L Aug	M Nov	M Sept	M Sept	Oct - Nov
END	M Aug	Sept	Dec	Oct	Oct	Jan - May

REMARKS



NAME OF STREAM LEAN-TO CREEK

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows SW into Kitsumkalum River, S. of Kitsumkalum Lake.

Range 5, Coast Dist. POSITION 54 128 NW

LENGTH km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT Falls 3 km from mouth of stream.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- In pool at bridge
COHO	- Throughout for 3 km from mouth
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	- At Kalum Lake Road and up 1.6km.
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1962 - Swift and bouldery in sections.

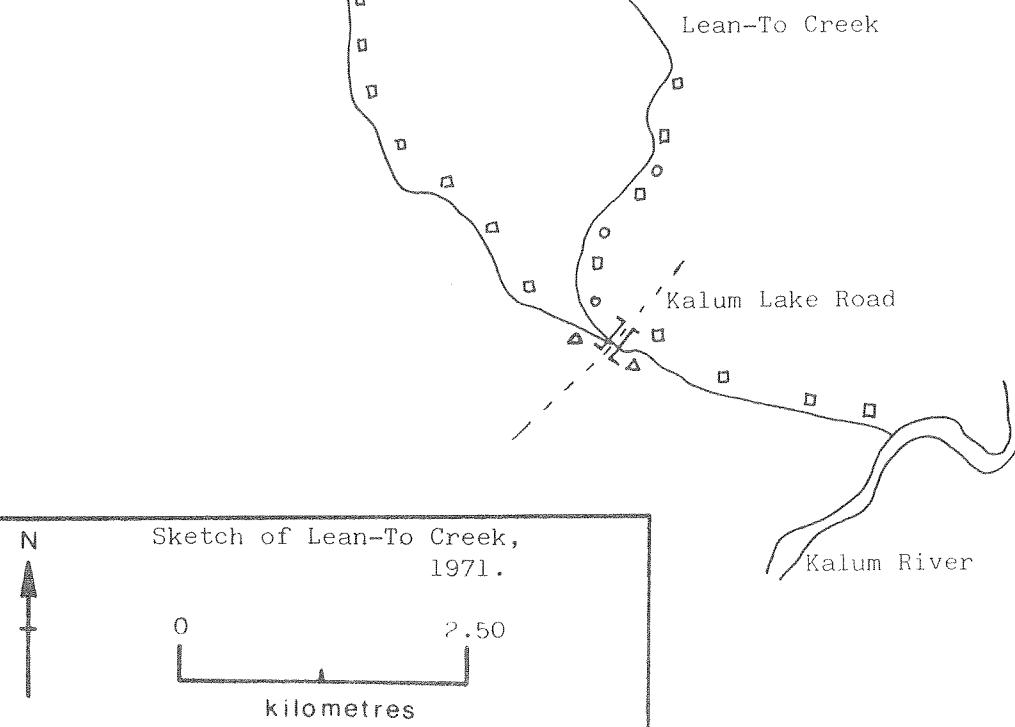
1964 - Good gravel, usually clear water. Could support pinks and chums.

1965 - Log bridge trestles washed out in Oct-Nov flood. Water level must have risen 2-3m.

Water levels 1962-68 Low/Normal. Seasonal high in Oct. and Nov.

1974 Heavy erosion and silting, scouring early October.

- - Coho spawning grounds
- △ - Chinook spawning grounds
- - Pink spawning grounds



ESCAPEMENT RECORD FOR

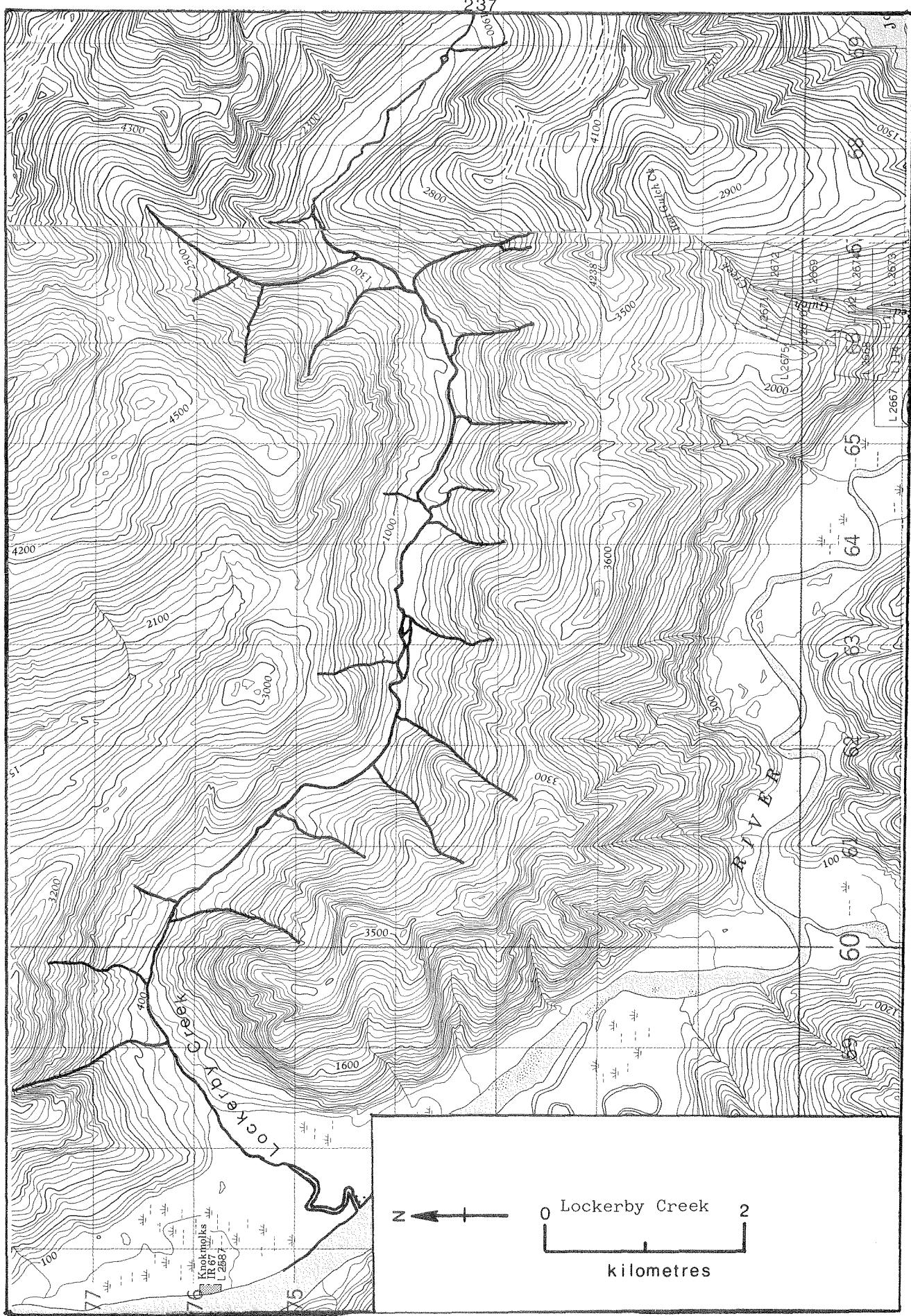
LEAN-TO CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947		25			25	
48						
49						
50						
51						
52			75			
53						
54						
55		N/I				
56		N/I				
57		N/I				
58		N/I				
59		-				
60		-				
61		N/O				
62			200			
63		N/O				
64		25	200	-	200	
65			400			
66			400			
67			25			
68			400			
69			75			
70						
71			400			
72			400			
73			75			
74			75			
75			75			
76			200			
77			75			
78			25			
79			-			
80			14			
81			25			
82						
83						
84						
85						

TIMING

ARRIVE		Oct		
START	Sept	E Oct		Aug
PEAK	Sept	M Oct - M Nov		Aug
END	Sept	L Nov - E Dec		Aug

REMARKS N/I - Not inspected



NAME OF STREAM _____ (Lockerby Creek)

CONSERVATION DISTRICT _____ 8 STATISTICAL AREA _____ 4

LOCATION OF MOUTH Flows into Ecstall River

POSITION _____

LENGTH 4.8 km WIDTH _____ m DRAINAGE _____ km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA _____ m² SPAWNING AREA _____ m²DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT Impassable rock falls approx. 4.8km from mouth

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- for 1.2 - 3.2km above limit of tidal influence
CHUM	- " " "
PINK (ODD YEAR)	- " " "
PINK (EVEN YEAR)	- " " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM good spawning gravel above falls.

GENERAL REMARKS 1953 - Right hand creek logged for distance of 2.4km from mouth. Logs dumped at stream mouth following spawning but, no noticeable damage to streambed.

1955 - 5000 coho ascended this stream in early November - according to a report by local logger. Also reported good spawning gravel above falls.

1956 - Stream changed course exposing very coarse gravel.

1957 - No logging this year.

1958 - Recommend that stream be changed back to old course if possible since that is where the best gravel is situated.

1961 - Stream appears to be returning to usual following logging.

1962 - Stream bed shifting course with freshets.

continued....

continuation.

GENERAL REMARKS (Lockerby Creek)

1974 - Slight scouring 75,76,77

- Recommend that Lockerby Creek be included in Ecstall River escapement.

1981 - Full scale survey recommended.

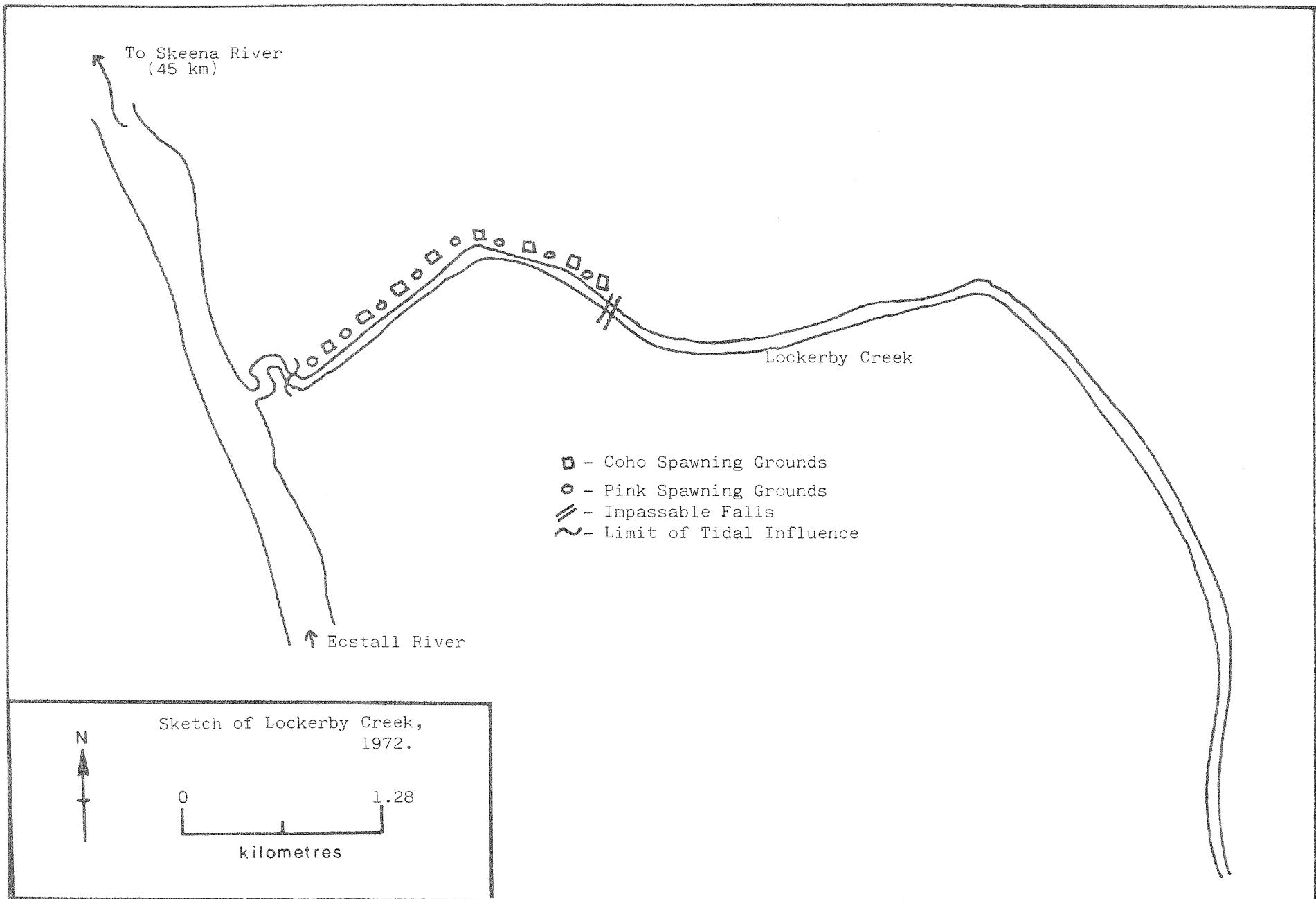
Very bouldery below falls for 0.8km

Good gravel and clear water reported in 50,69 and 81.

2.4km of good spawning area--potential to support larger runs.

Seasonal fluctuations in water levels.

Predators: bears,wolves,seals and eagles.

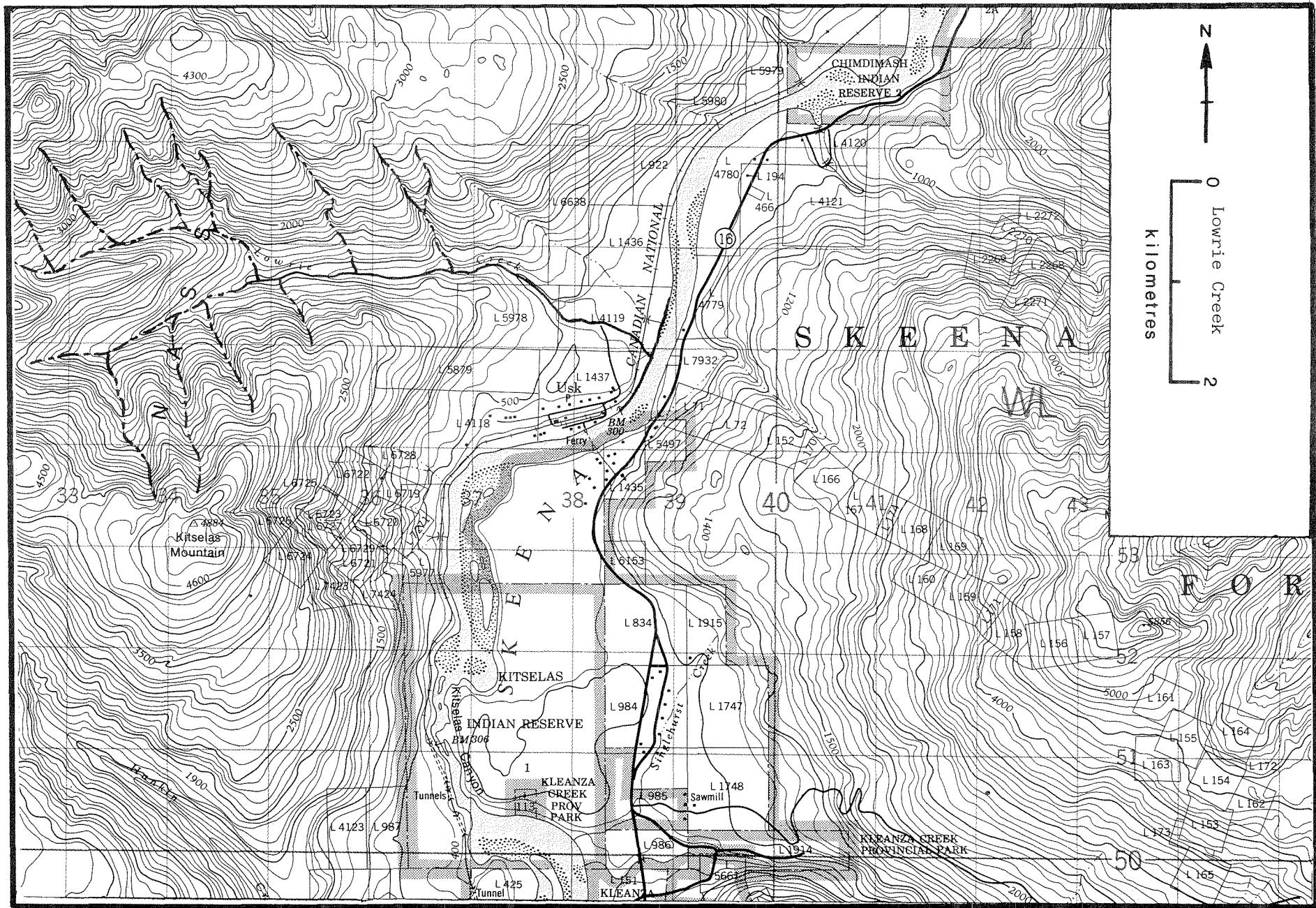


YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947					7500	
48					1500	
49					5000	
50			2		3000	
51					7000	
52			4		6000	
53			200		1500	
54					1000	
55					7500	
56			2		5	
57			200		750	
58				20	N/0	
59			N/I	N/0	750	
60			N/I	N/0	N/0	
61					7500	
62					75	
63				25	7500	
64						
65					3500	
66			1500		750	
67			1500	N/0	200	
68			N/0	75	N/0	
69			75	75	200	
70			N/0	N/0	75	
71			UNK	N/0	1500	
72			UNK	N/0	300	
73			UNK		750	
74			UNK		N/0	
75			UNK		400	
76			UNK		N/0	
77			UNK		N/0	
78			UNK		N/0	
79			UNK		N/0	
80			UNK		100	
81			UNK		UNK	
82						
83						
84						
85						

TIMING

ARRIVE				M Aug
START		E Sept	M Sept	L Aug
PEAK		M Sept	M Oct	E Sept
END		L Sept	L Oct	L Sept

REMARKS N/I - Not inspected



NAME OF STREAM LOWRIE CREEK (Lowry Creek)CONSERVATION DISTRICT 8 STATISTICAL AREA 4LOCATION OF MOUTH Flows E. into Skeena River, NE of Usk.Rge. 5 Coast Dist.POSITION 54 128 NELENGTH 3.2 km WIDTH m DRAINAGE km²COMPOSITION: BEDROCK BOULDER COARSE FINE SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s) TEMPERATURE (°C) BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

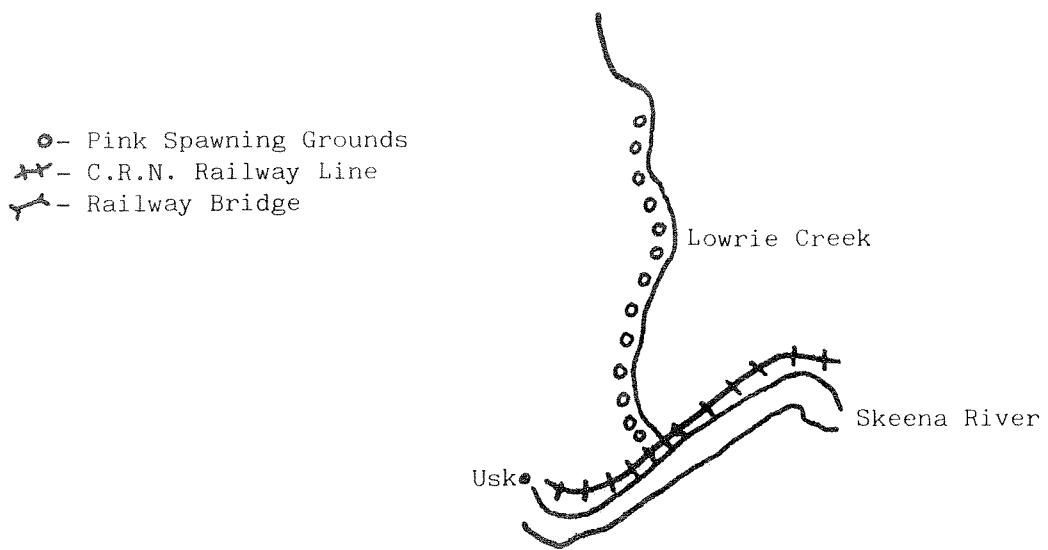
SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	
PINK (ODD YEAR)	- lower 0.8 - 3.2km
PINK (EVEN YEAR)	- " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

1948,52 - No official inspections, locals report good pink run and medium coho run.1954 - Medium pink run reported by local residents.1955,56,57 Fair runs of pinks reported by local residents.1961,62 Sandy in lower reaches.1964 - Steep gradient -- scouring observed following freshets 1965-70 and 72-741966 - Skeena Forest Products Co. cleared stream of windfalls.

Seasonal fluctuations in water levels.



Sketch of Lowrie Creek,
1971.



ESCAPEMENT RECORD FOR

LOWRIE CREEK

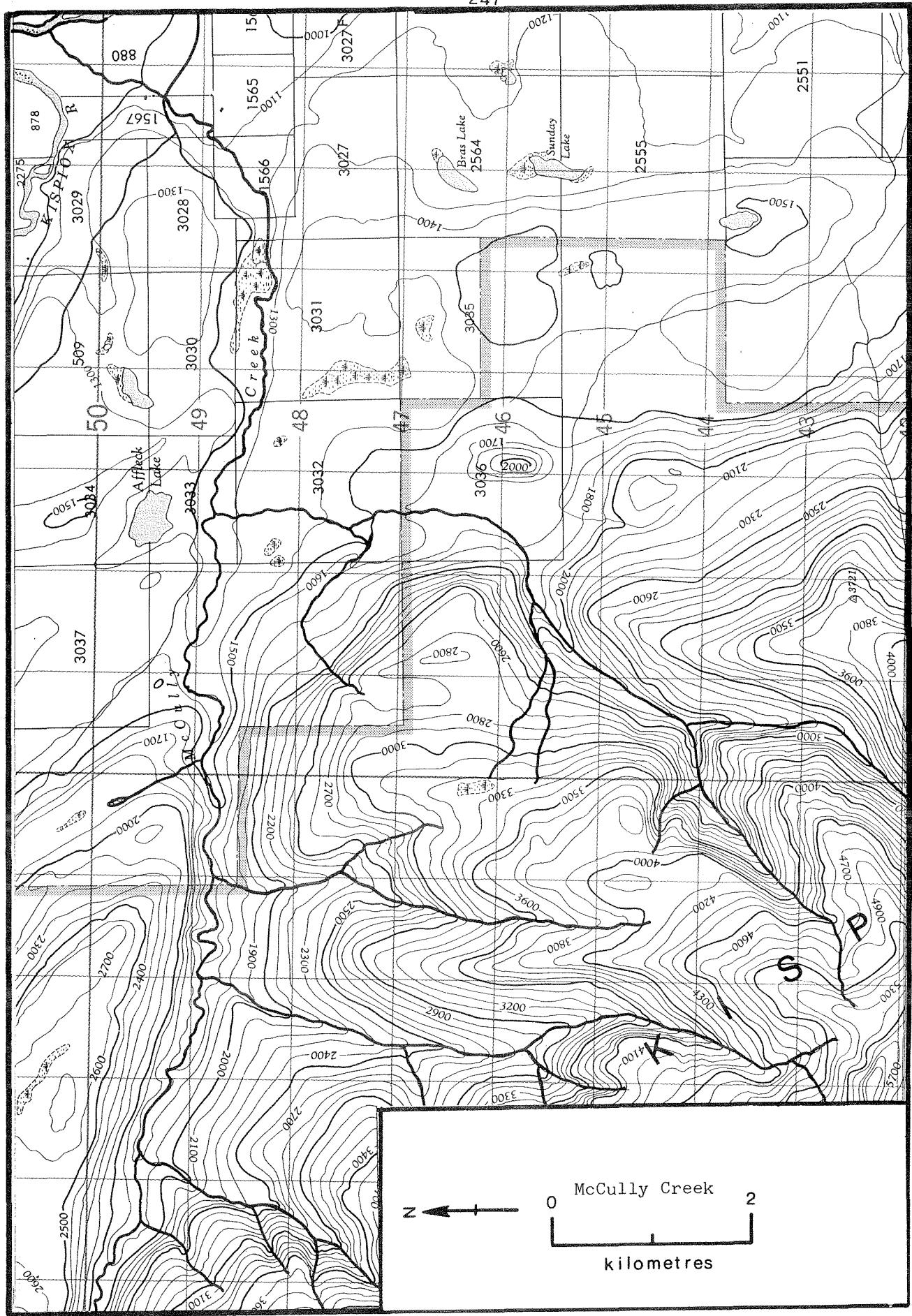
(Lowery Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947			400		750	
48			OBS		OBS	
49						
50						
51						
52			OBS		OBS	
53			N/I		N/I	
54			N/I		OBS	
55					OBS	
56					OBS	
57					OBS	
58					OBS	
59					OBS	
60					N/O	
61					N/O	
62					N/O	
63					N/O	
64					N/O	
66					400	
67					25	
68					400	
69					N/O	
70					N/O	
71					N/O	
72					750	
73					200	
74					25	
75					25	
76					N/O	
77					N/O	
78						
79						
80						
81						
82						
83						
84						
85						

TIMING

ARRIVE		Sept		Aug	
START				E Sept	
PEAK				M Sept	
END				L Sept	

REMARKS N/I - Not inspected



NAME OF STREAM MCCULLY CREEK

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows E. into Kispiox River, Cassiar District.

POSITION 55 127 SW.

LENGTH 9.6 km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- from mouth approx 9.6km upstream
COHO	- " " "
CHUM	- near mouth
PINK (ODD YEAR)	- " "
PINK (EVEN YEAR)	- " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1949 Cottonwood log jam near mouth.

1960 - Sandy near outlet to Kispiox River. Log windfall near mouth prevents scouring noted 61,62.

1961 - Chums observed off stream mouth, but none entered stream.

1965 - Good potential as a Kispiox feeder stream.

Windfall debris cleared. Rechannelled to natural channel.

1967 - Slight silting noted 74,79.

Beaver dams noted.

1968 - Log jams at various distances from mouth in most years between 68-79.

1979 - Stream re-routed around large log jams.

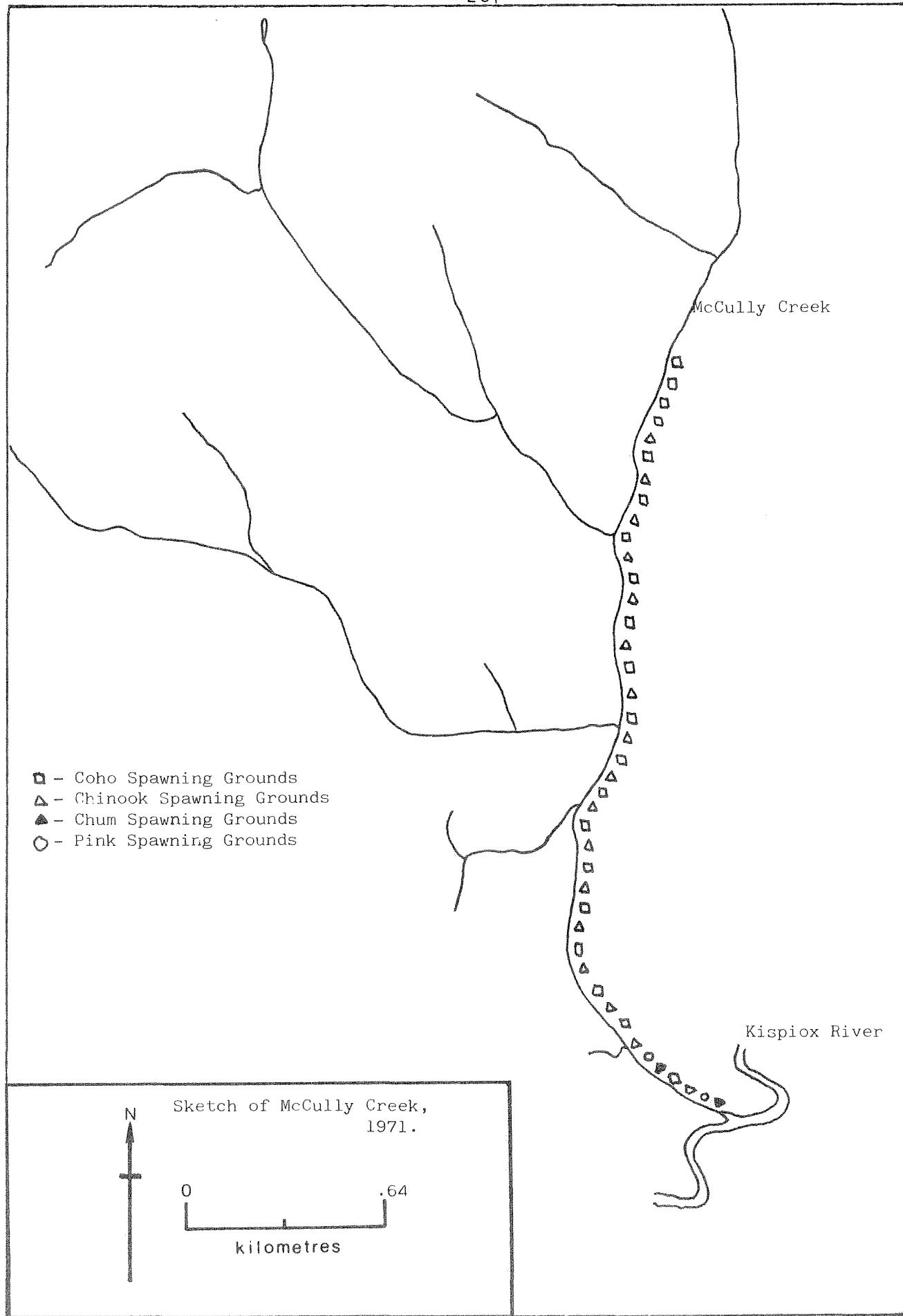
continued....

continuation.

249

GENERAL REMARKS McCULLY CREEK

Small minor tributary of Kispiox River used by a few fish in good years.
Stream clearance as required.
Seasonal fluctuations in water levels.



ESCAPEMENT RECORD FOR

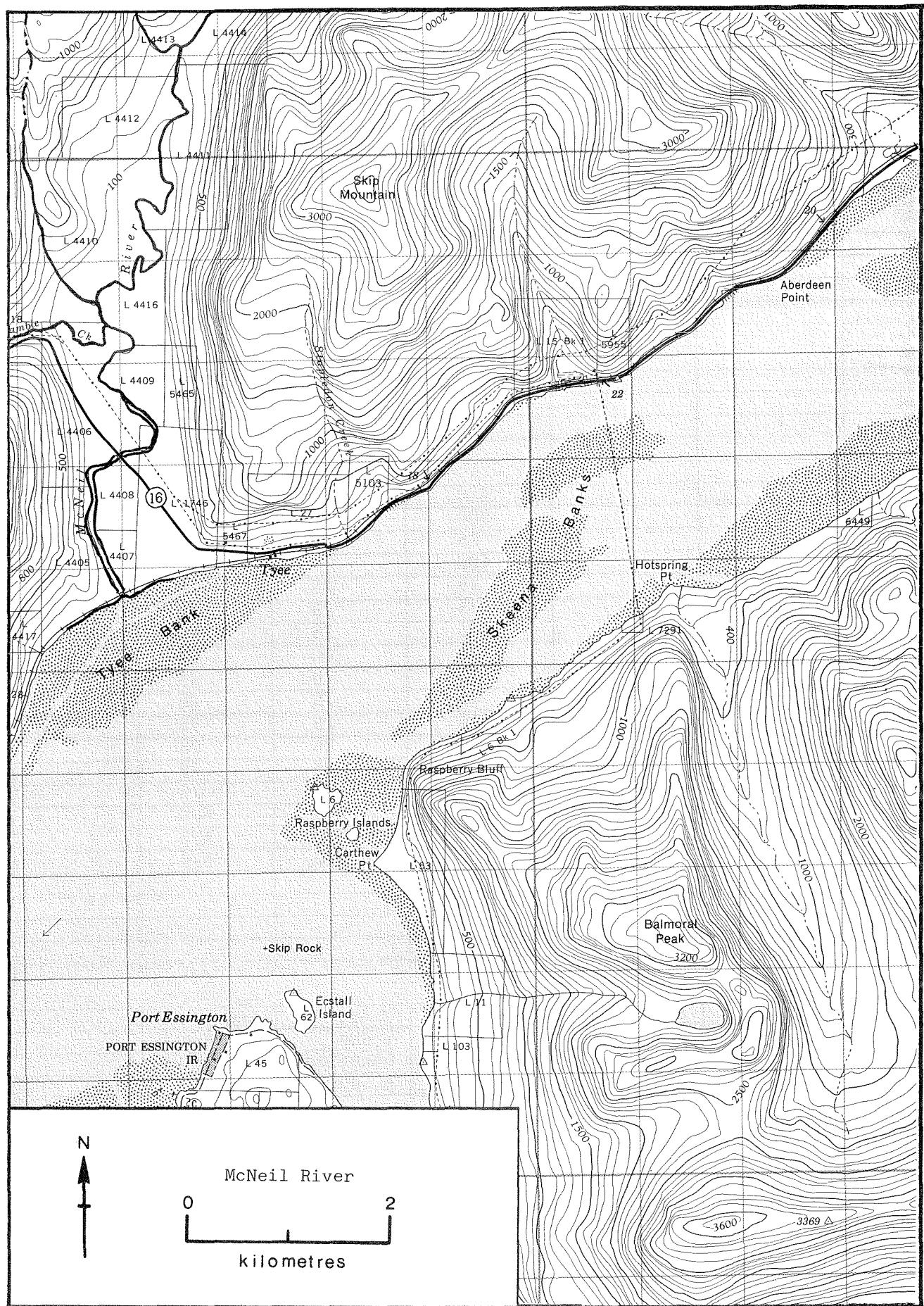
McCULLY CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48					25	
49					75	
50					200	
51					N/I	
52					N/I	
53					N/I	
54					200	
55					25	
56					OBS	
57					75	
58					200	
59					25	
60					N/0	
61					25	
62				200	25	
63					N/0	
64					N/0	
65			400	3	4	
66		25	200	75	18	
67			25			
68			400			
69			75	25	75	
70			75	25	75	
71			75	25	75	
72			75	200	25	
73		75	75	75	75	
74		75	75	75	25	
75		25	75	25	75	
76		25	75	25	25	
77		25	25	25	75	
78		N/0		25	75	
79		N/0	N/0	N/0	N/0	
80		N/0	N/0	N/0	N/0	
81		N/0	N/0	N/0	N/0	
82						
83						
84						
85						

TIMING

ARRIVE		Aug	Oct	M Aug	Aug
START		E Aug	M Oct	L Aug	M-L Aug
PEAK		L Aug	L Oct - M Nov	LAug-E Sept	LAug-E Sept
END		Sept	Nov - Dec	M Sept	Sept

REMARKS N/I - Not inspected



NAME OF STREAM McNEIL RIVER (Green River)CONSERVATION DISTRICT 8 STATISTICAL AREA 4LOCATION OF MOUTH Flows into Skeena River E. of Haysport, Rge. 5, Coast Dist.POSITION 54 129SW.LENGTH approx 5 km WIDTH m DRAINAGE km²COMPOSITION: BEDROCK BOULDER COARSE FINE SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

<u>0.00 - 0.25</u>
<u>0.25 - 0.50</u>
<u>0.50 - 0.75</u>
<u>0.75 - 1.00</u>
<u>> 1.00</u>

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s) TEMPERATURE (°C) BARRIERS OR POINTS OF DIFFICULT ASCENT impassable rapids approx 5km above lake

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- in upper section below lake
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	- lower 1.6km above main tidal influence
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM GENERAL REMARKS 1980 - Some silting in lower sections due to tidal influences.
Water levels normal-high.1981 - Logging activity increased in 1981, but has not encroached
on the river yet and no adverse affects have occurred to date.

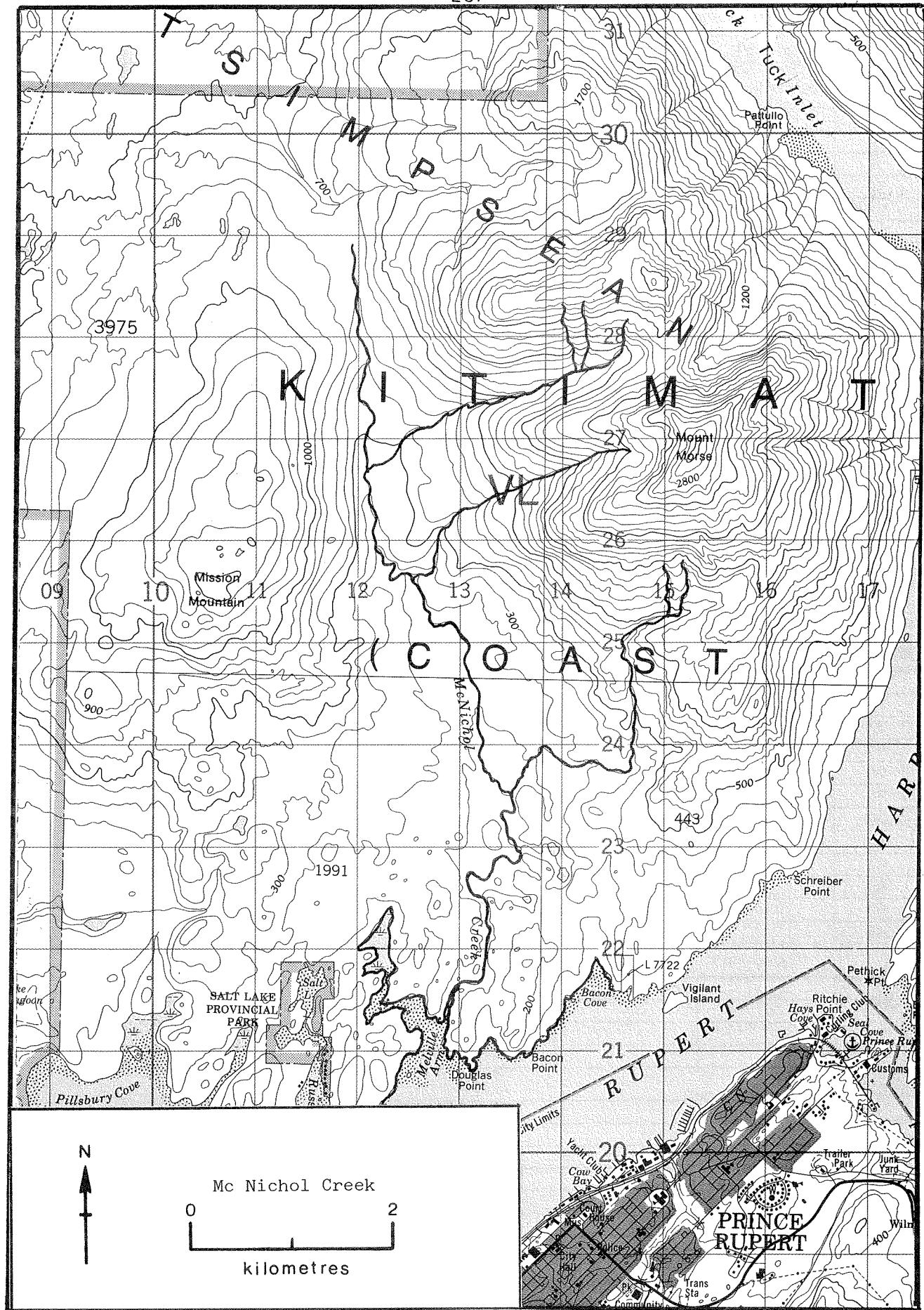
YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57						
58						
59						
60						
61						
62						
63						
64						
65						
66						
67						
68						
69						
70						
71						
72						
73						
74						
75						
76						
77						
78						
79						
80			UNK		200	
81			UNK		UNK	
82						
83						
84						
85						

TIMING

ARRIVE			October		August	
START			November		Sept.	
PEAK			"		M Sept.	
END			"		Oct.	

REMARKS UNK - Unknown

257



NAME OF STREAM McNICHOL CREEK

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows S. into Melville Arm, Prince Rupert Harbour, Rge.5,
Coast District. POSITION 54 130 SE.

LENGTH _____ km WIDTH _____ m DRAINAGE _____ km²

COMPOSITION: BEDROCK _____ BOULDER _____ COARSE _____ FINE _____
SILT & SAND _____ UNCLASSIFIED _____

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA _____ m² SPAWNING AREA _____ m²DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

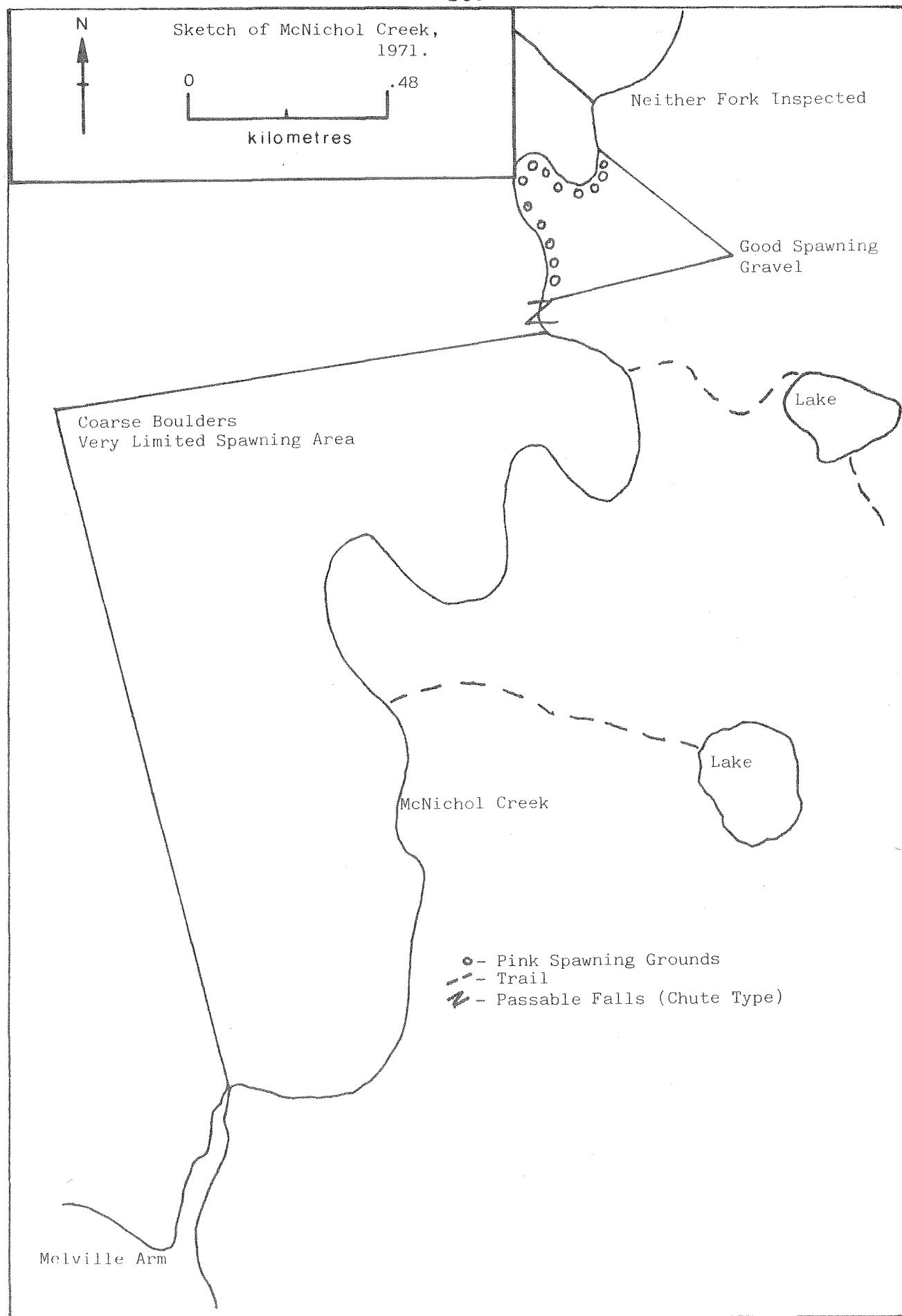
BARRIERS OR POINTS OF DIFFICULT ASCENT
small rock falls 3.2km from mouth

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	
PINK (ODD YEAR)	- primarily above chute falls 3.2km from mouth
PINK (EVEN YEAR)	- " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS 1953,57,73 Boulder turbulence 1.6km from mouth. Water very discoloured.
1964 - Not officially inspected; however, sports fishermen reported 500 fish.
1968 - Spawning fish in this stream are molested by local children. Recommend closure during spawning season.
1971 - Silting noted most years between 71 and 80.
1978 - November floods possibly damaged stream bed.
Good gravel bars above falls -- fair spawning stream--low marshy surrounding country.
Seasonal fluctuations in water levels.
Predators: hair seals, eagles, bears.



ESCAPEMENT RECORD FOR

McNICHOL CREEK

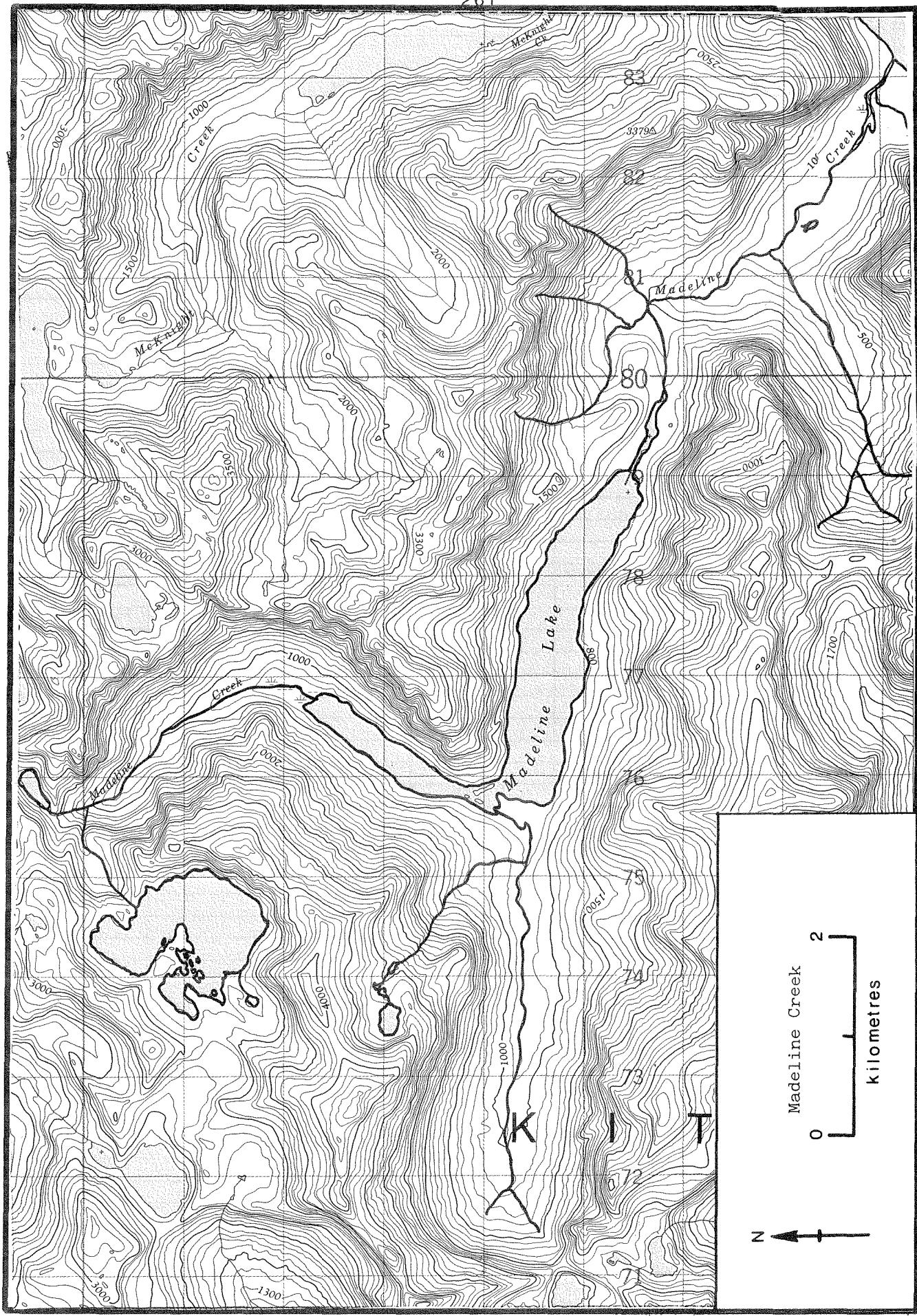
YEAR	Sockeye	Chinook	Coho	Chum	Pink	Steelhead
1947					750	
48					7500	
49					4000	
50					5000	
51					500	
52					3000	
53					75	
54					5000	
55					75	
56					40	
57					25	
58					500	
59					N/I	
60					1500	
61					1500	
62					200	
63					750	
64					400	
65					N/0	
66			1500		3500	
67			N/0		200	
68					7500	
69			200		750	
70			200		750	
71			N/0		800	
72			N/0		750	
73			UNK		200	
74			UNK		175	
75			UNK		150	
76			UNK		N/0	
77			UNK		200	
78			UNK		600	
79			UNK		75	
80			UNK		400	
81					400	
82						
83						
84						
85						

TIMING

ARRIVE		M-L Aug
START	E Oct	LAug-E Sept
PEAK	M Oct	E-L Sept
END	L Oct	L Sept-Oct

REMARKS N/I - Not inspected

261



NAME OF STREAM MADELINE CREEK (Gibraltar Creek)CONSERVATION DISTRICT 8 STATISTICAL AREA 4LOCATION OF MOUTH Flows into Ecstall River

POSITION _____

LENGTH 3.2 km WIDTH _____ m DRAINAGE _____ km²

COMPOSITION: BEDROCK _____ BOULDER _____ COARSE _____ FINE _____

SILT & SAND _____ UNCLASSIFIED _____

PERCENT GRADIENT _____

0.00 - 0.25	_____
0.25 - 0.50	_____
0.50 - 0.75	_____
0.75 - 1.00	_____
> 1.00	_____

WETTED AREA _____ m² SPAWNING AREA _____ m²DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT Impassable rock falls 3.2km from mouth

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	_____
CHINOOK	_____
COHO	_____
CHUM	_____
PINK (ODD YEAR)	evenly distributed in lower reaches above tidal influence.
PINK (EVEN YEAR)	" " " "
STEELHEAD	_____

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS approx. 3.2km of good spawning gravel.1966 - Coho reported by loggers.1968 - Silted in region of tidal influence also noted 69,70.1973 - This stream has limited areas suitable for salmon spawning. The lower 0.4km is turbid with mud stream bed and influenced by tides in Ecstall River.Approx 0.4km of questionable spawning ground is situated before the stream gradient. Above this area the stream is a continuous series of cascading rock falls.1974 Recommend that escapement figures be included in Ecstall River spawning report in future.

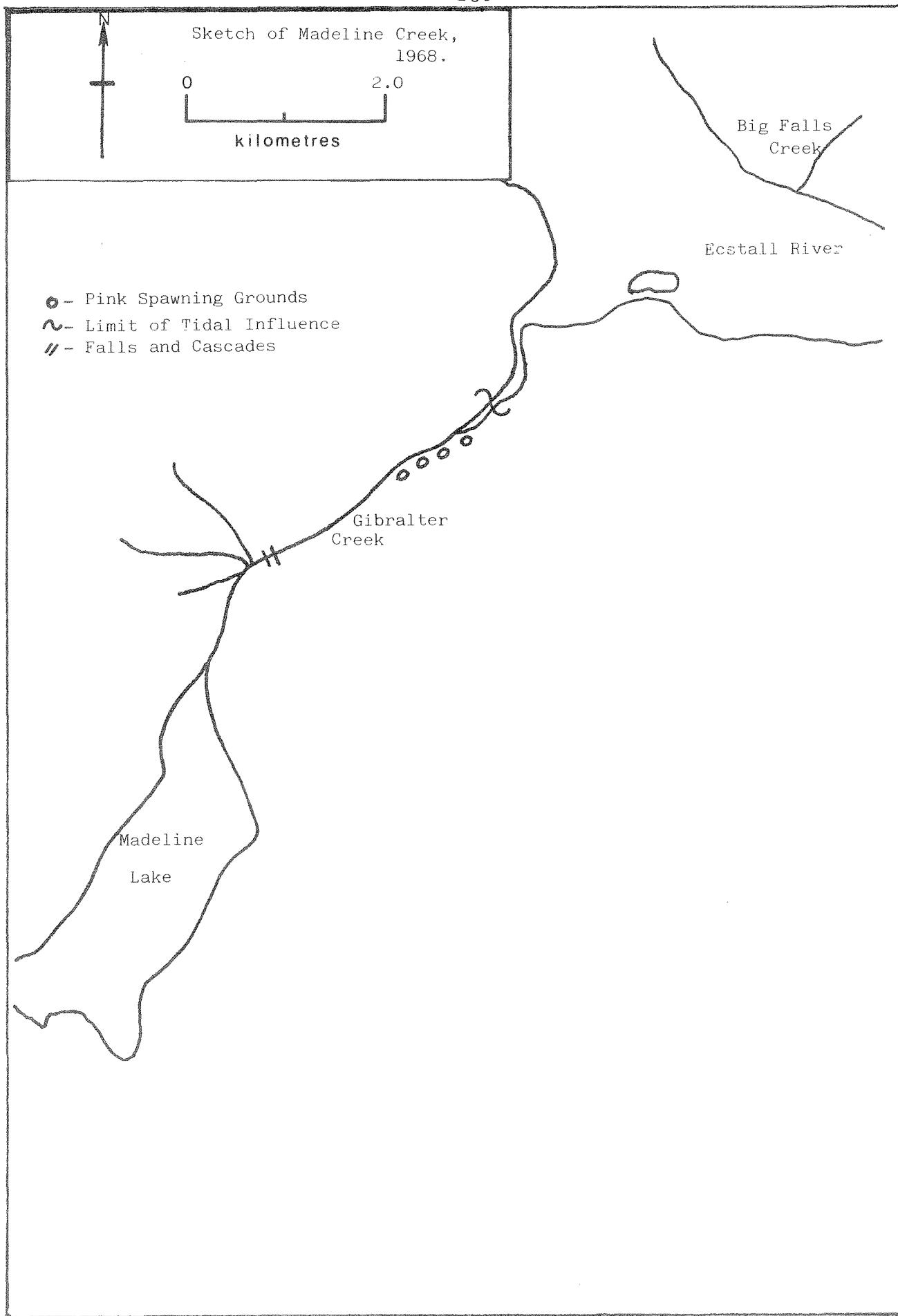
continued.....

continuation.....

263

GENERAL REMARKS MADELINE CREEK (Gibraltar Creek)

1976,77,79,80 Restricted spawning area. Slight erosion problems.
1978 Heavy rains in November caused considerable stream bed damage.
1980 Generally clear water.
 Stream inclined to flood and change course. Coarse gravel is not
 easily disturbed. Good gravel sections.
 Predators, bears and eagles.



ESCAPEMENT RECORD FOR

MADELINE CREEK

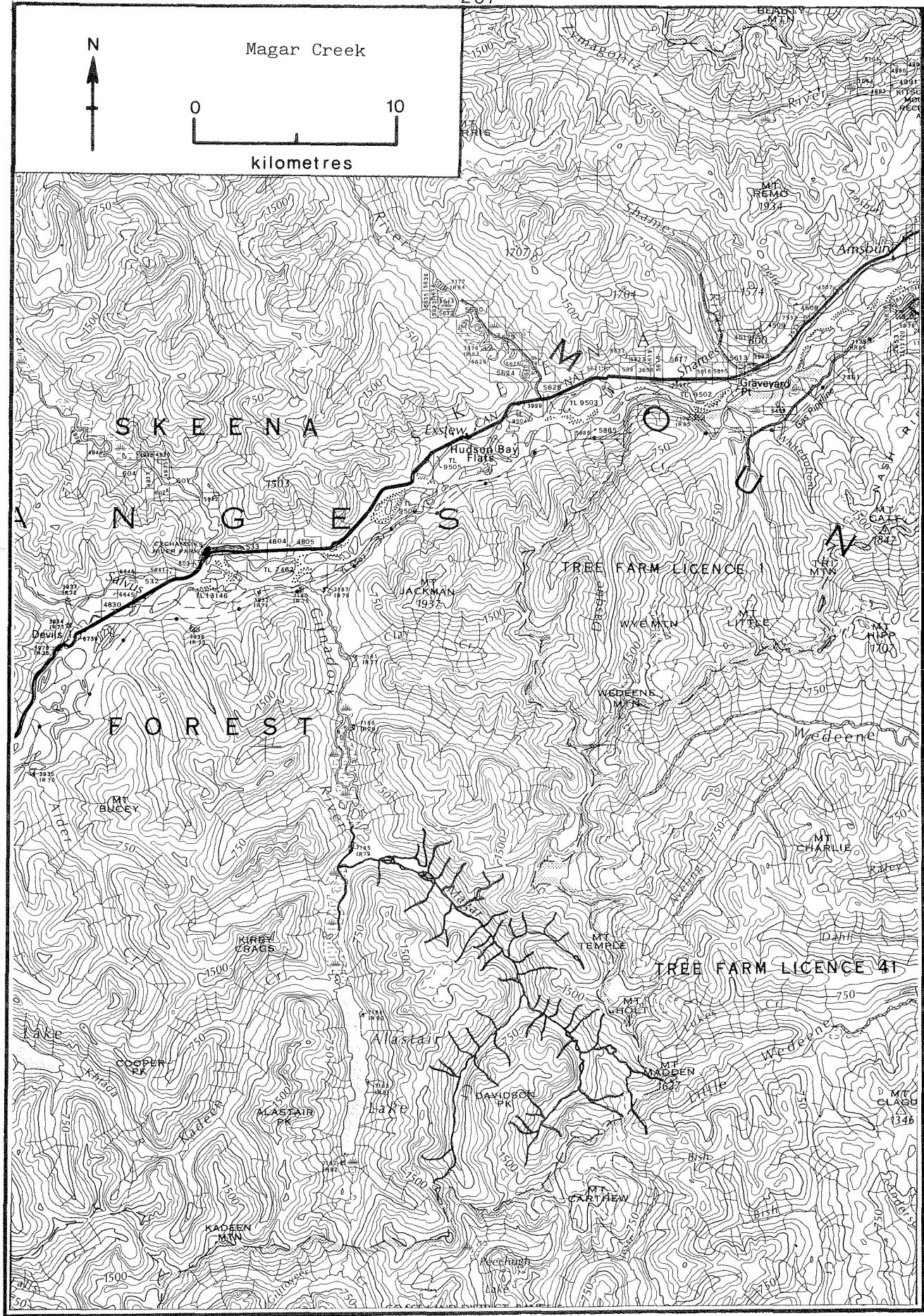
(Gibralter Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57				3500		
58				N/0		
59				N/0		
60				N/0	25	
61					7500	
62					N/0	
63					7500	
64					N/0	
65					7500	
66				OBS	200	
67					200	
68					N/0	
69					400	
70					N/0	
71					400	
72					N/0	
73					N/0	
74					N/0	
75					N/0	
76					N/0	
77					N/0	
78					N/0	
79					N/0	
80					N/0	
81					N/I	
82						
83						
84						
85						

TIMING

ARRIVE					Aug - Sept	
START				Aug	LAug-M Sept	
PEAK				Sept	L Sept	
END				Sept	Sept - Oct	

REMARKS



NAME OF STREAM MAGAR CREEK (Dog Tag Creek)

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows N.W. into Gitnadoix River, Rge. 5, Coast Dist.

POSITION $54^{\circ}12'$ $129^{\circ}12'$

LENGTH 6.4 km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25
0.25 - 0.50
0.50 - 0.75
0.75 - 1.00
> 1.00

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s)

TEMPERATURE (°C)

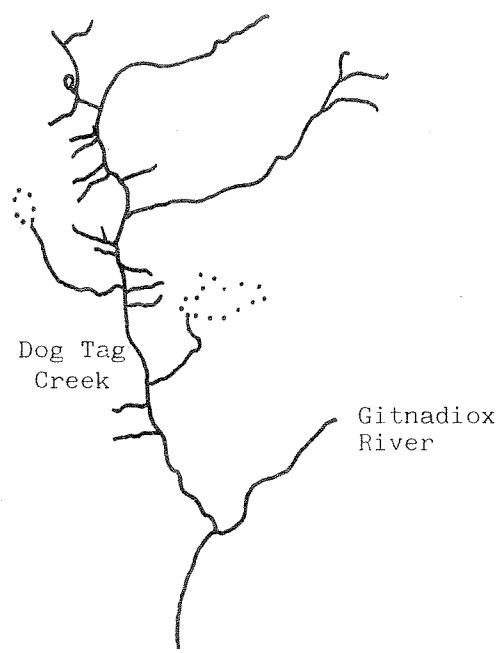
BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- spawning for 1.6 - 6.4km upstream from Gitnadoix River.
COHO	" "
CHUM	" "
PINK (ODD YEAR)	" "
PINK (EVEN YEAR)	" "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1948,49,55 Lower end of stream covered by fine silt.
 1949-64 High water prevented estimate of spawners and species in a number of years.
 1957 -Inspection too late to get estimates of spawners.
 1964,65,66 Air inspection only.
 1971 -Unable to inspect this stream from ground due to large log jam on Gitnadoix River.
 1974 -Some erosion,silting and scouring in lower end in mid.October.
 1978 - " " caused by November flood.
 Flood conditions in Gitnadoix System limit times that creek can be inspected.
 Seasonal fluctuations in water levels. Predators: bears.



Sketch of Magar Creek,
1971.

N



ESCAPEMENT RECORD FOR

MAGAR CREEK

270

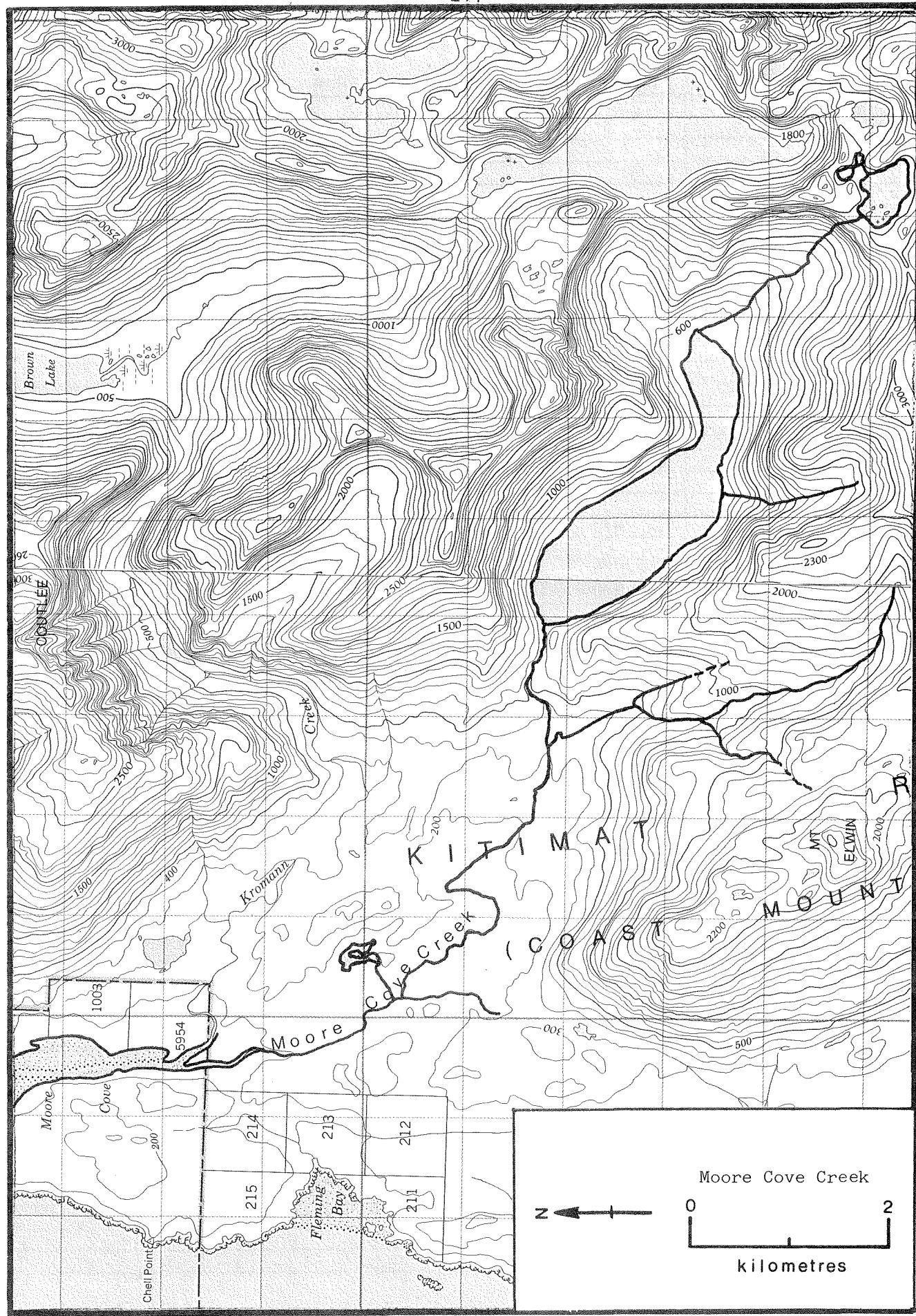
(Dog Tag Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48				750		
49				OBS		
50				600		
51				550		
52				200		
53				OBS	OBS	
54			OBS	OBS	OBS	
55			OBS	OBS	OBS	
56			N/O	N/O	N/O	
57				OBS	OBS	
58				OBS	OBS	
59			NOT	INSPECTED		
60			NOT	INSPECTED		
61			OBS	OBS	OBS	
62			200		25	
63			NOT	INSPECTED		
64			N/O	N/O	N/O	
65			NOT	INSPECTED		
66		N/O	400	25	N/O	
67		25	400	25	25	
68		25	400	25	25	
69		N/O	400	N/O	400	
70		25	400	25	400	
71		N/O	N/O	N/O	N/O	
72		25	400	25	400	
73		25	200	25	400	
74		25	750	75	400	
75		25	400	25	400	
76		25	750	25	25	
77		25	400	25	200	
78		25	400	750	25	
79		25	75	2000	25	
80						
81		10	100	200	100	
82						
83						
84						
85						

TIMING

ARRIVE		July	Sept - Oct	E Aug	E Aug
START		Aug	Oct - Nov	E Aug	E Aug
PEAK		M Aug	M Nov	M-L Aug	E-M Sept
END		Sept	Dec	L Aug - Sept	L Sept

REMARKS



NAME OF STREAM MOORE COVE CREEK
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Flows into Moore Cove, E. shore of Telegraph Passage, Rge.5,
Coast Dist. POSITION 54N 1130W.
 LENGTH 6.4 km WIDTH m DRAINAGE km²
 COMPOSITION: BEDROCK BOULDER COARSE FINE
SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

<u>0.00 - 0.25</u>	
<u>0.25 - 0.50</u>	
<u>0.50 - 0.75</u>	
<u>0.75 - 1.00</u>	
<u>> 1.00</u>	

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s) TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Small rock falls at 2.4km up right fork. Passable at high water levels.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- upper reaches and headwaters
CHUM	- lower reaches
PINK (ODD YEAR)	- scattered throughout
PINK (EVEN YEAR)	- " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

- GENERAL REMARKS 1949 - Suggested remedial work on falls to make them passable regardless of flow levels.
1950 - Chums distributed over tidal and non-tidal stream for approx. 73m
1953 - Low water periods during the run could block ascent to gravel. Guardian provided bypass by drill and hammer work along side during normal water levels.
1956 - Obstructions on both forks largely eliminated.
1961 - Some loss of early run fish due to low water levels.
1962 - Suggest proper survey be made of spawning area above falls.
1963 - Low water delayed upstream migration until early September. Some fish died before spawning.

continued.....

Continuation.

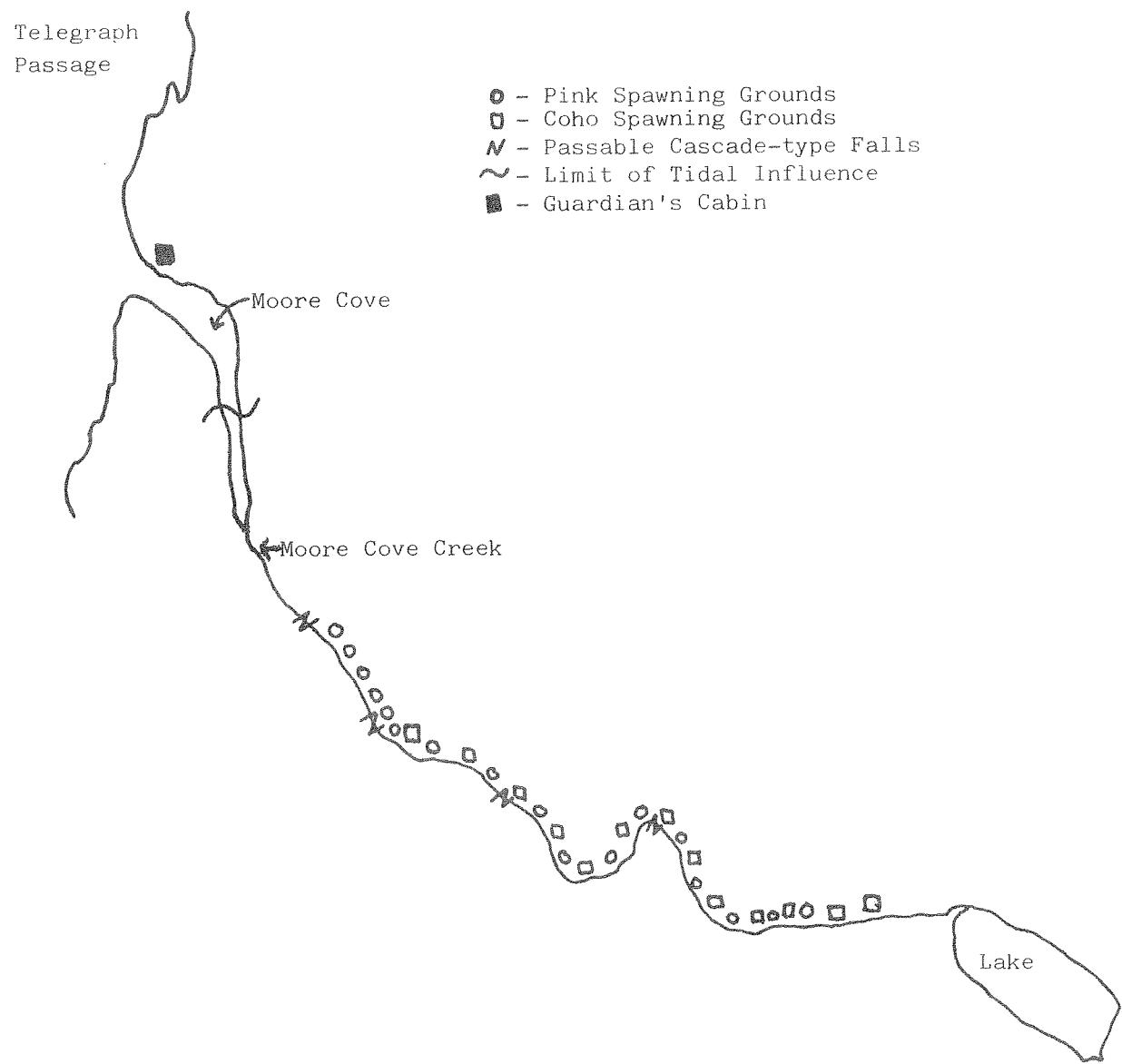
GENERAL REMARKS
MOORE COVE CREEK

- 1964 - Suggest access over falls be improved.
- 1965 - Guardian transported 3600 fish over obstruction during draught period.
- 1967 - Logging within 0.4km of stream. Recommend close monitoring of situation.
- 1968 - Falls blasted out to relieve upstream migration at low flows.
- 1973 - Decline in pinks--reason unknown. Suggest remedial blasting of cascades in lower 3.2km of the river.
- 1975 - Cascades successfully blasted.
- 1976 - High flows and water discoloration impaired inspection.
- 1978 - High flows may have caused some stream bed damage.
- 1981 - Summer inspection revealed an abundance of coho fry.

Seasonal fluctuations in water levels.

Predators: hair seals, wolves, bears and birds.

Good gravel beds below falls.



Sketch of Moore Cove Creek.



0

1.6

kilometres

ESCAPEMENT RECORD FOR

MOORE COVE CREEK

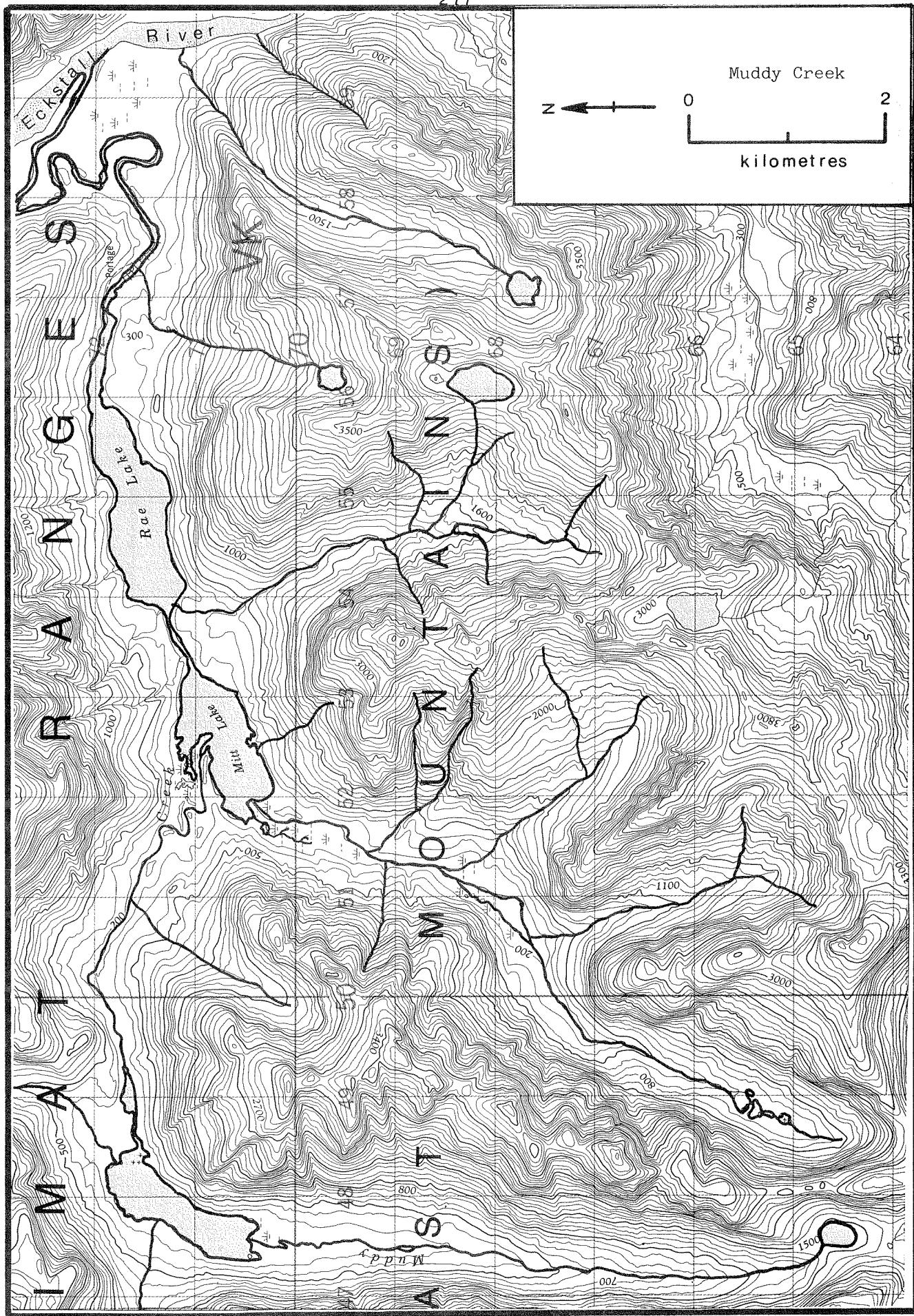
YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947			1500		7500	
48			750		35000	
49			100		50000	
50			400	500	10000	
51			1000		40000	
52			N/0		50000	
53					15000	
54			N/0		15000	
55			250		15000	
56					15000	
57					75000	
58					75000	
59					60000	
60		OBS			35000	
61			3500		35000	
62		OBS			100000+	
63		OBS			75000	
64		OBS			35000	
65					7500	
66		7500			35000	
67		400			10000	
68		3500			130000	
69		3500			15000	
70		750			35000	
71		900			65000	
72		500			50000	
73		700			3700	UNK
74		600			40000	
75		UNK			30000	
76		UNK			20000	
77						
78		UNK			10000	
79		2000			6000	
80		UNK			8500	
81		UNK				
82						
83						
84						
85						

TIMING

ARRIVE	MSept - EOct	LAug - MSept
START	MSept - EOct	ESept - LSept
PEAK	LSept - MOct	MSept - M - LOct
END	LOct - Nov	LSept - M - LOct

REMARKS

*OBS - observed



NAME OF STREAM MUDDY CREEK

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows E. into Ecstall River, Rge 4, Coast Dist.

POSITION 53 129 NW.

LENGTH km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT Impassable cascading rock falls approx.
3.2km from mouth.

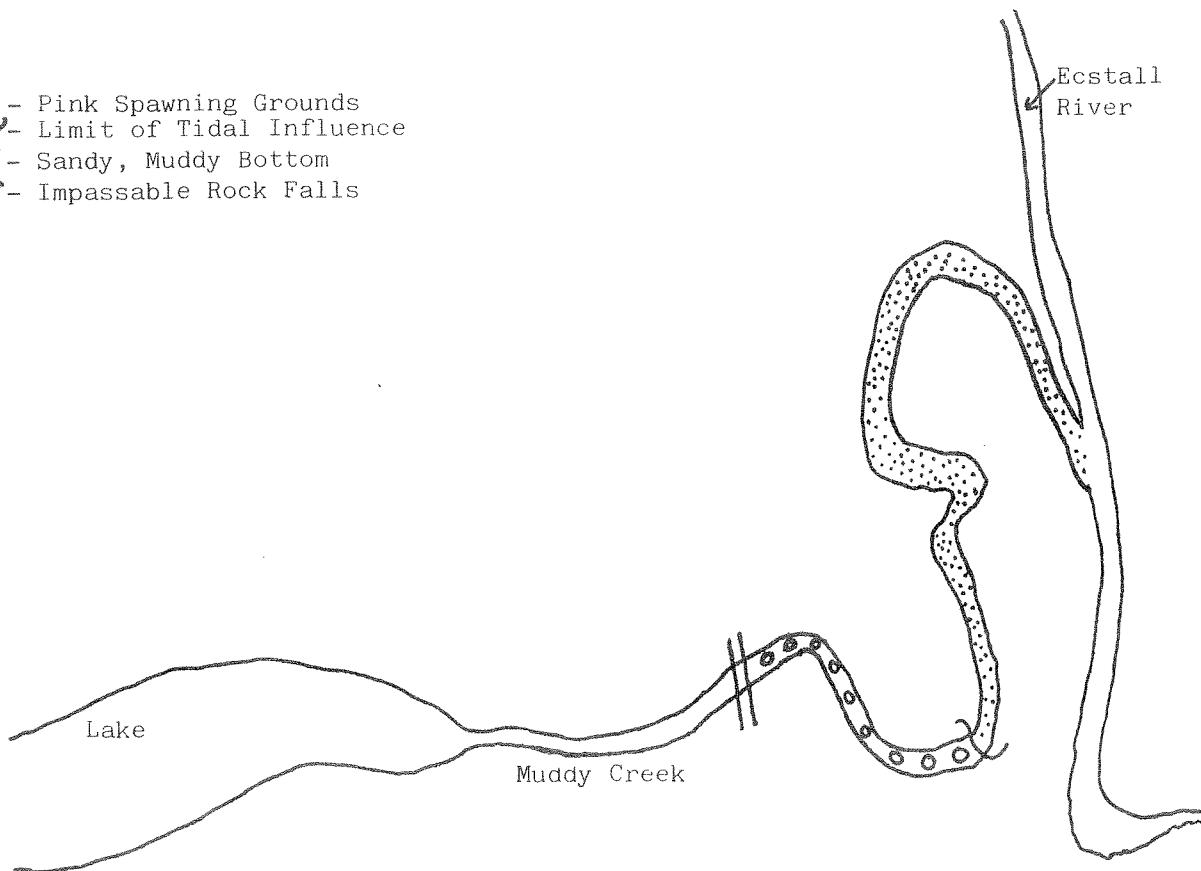
SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	
PINK (ODD YEAR)	- below falls on small gravel bar.
PINK (EVEN YEAR)	- below falls on small gravel bar.
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1947 First time pinks were observed.
 1949 - Only limited spawning in this stream.
 1953 - Large rainbow and cutthroat taken from lake--popular sportsfishing ground.
 1968 - Suggest that stream be included in Ecstall River escapement figures.
 1971 - Suggest that stream be discontinued because spawning area is limited
and no fish seen.
 - Tidally influenced within 90m of falls.
 - Between falls and Ecstall River stream is slow running and muddy.
 - Mountainous surrounding country.
 - Seasonal fluctuations in water levels.
 - Predators: bears, wolves and wildfowl.

- - Pink Spawning Grounds
- ~ - Limit of Tidal Influence
- - Sandy, Muddy Bottom
- // - Impassable Rock Falls



Sketch of Muddy Creek,



0

1.33

kilometres

ESCAPEMENT RECORD FOR

MUDDY CREEK

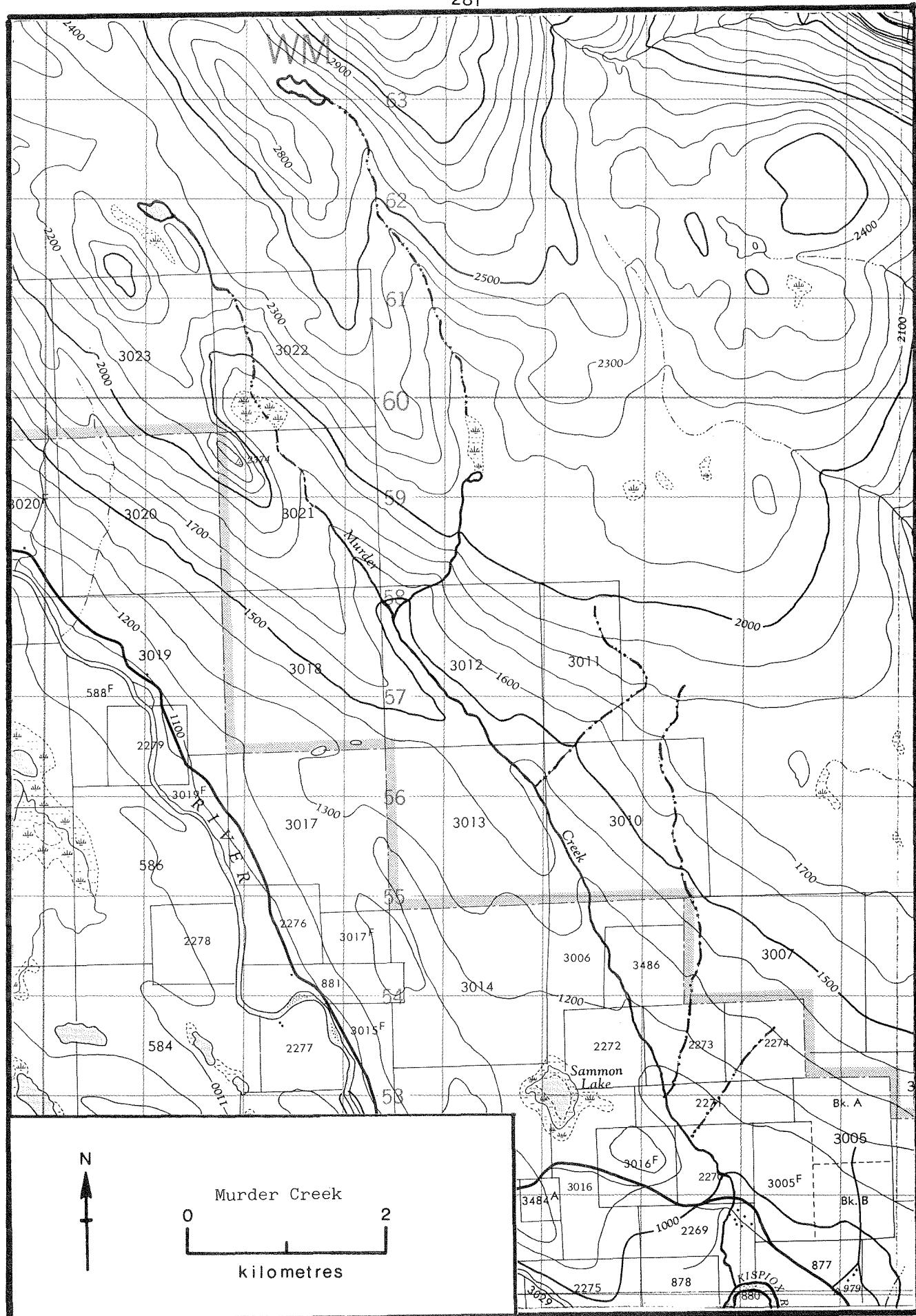
280

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947					1500	
48						
49						
50					3500	
51					N/0	
52						
53					400	
54						
55						
56						
57						
58						
59					N/0	
60					N/0	
61					N/0	
62					N/0	
63					400	
64					N/0	
65					N/I	
66					N/0	
67					N/0	
68					N/0	
69					200	
70					N/0	
71					N/0	
72					N/0	
73					N/0	
74					N/0	
75					N/0	
76					N/0	
77					N/0	
78					N/0	
79					N/0	
80					N/0	
81					N/I	
82						
83						
84						
85						

TIMING

ARRIVE					
START					MAug-ESept
PEAK					M Sept
END					M-LSept-Oct

REMARKS N/I - Not inspected



NAME OF STREAM MURDER CREEK (Beirness Creek, Beirnes Creek)
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Flows S. into Kispiox River, North of McCully Creek, Cassiar Dist.
 POSITION 55 127 NW.
 LENGTH 3.2 km WIDTH m DRAINAGE km²
 COMPOSITION: BEDROCK BOULDER COARSE FINE
 SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s) TEMPERATURE (°C) BARRIERS OR POINTS OF DIFFICULT ASCENT Forestry culvert under Kispiox Road impassable at low flows. Remedial work done in 1965.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- from 0.8km to 3.2km upstream from mouth.
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

 GENERAL REMARKS 1952 - Stream not inspected through locals report moderate pink run and light coho run.
1953 - Locals reported light coho and pink runs.
1954 - Locals reported moderate pink run and good coho run.
1955 - " " good pink and moderate coho runs.
1956 - " " very light pink and medium coho runs.
1962 - Minor pink producer on heavy years if adequate water supply.
1965 - Lowered forestry culvert 1.2m to permit easy access to coho but velocities were too great during floods to allow salmon passage. Recommended that culvert be replaced by a bridge. Good coho rearing area in deciduous brush growth.

continued....

GENERAL REMARKS MURDER CREEK (Beirness Creek, Beirnes Creek)

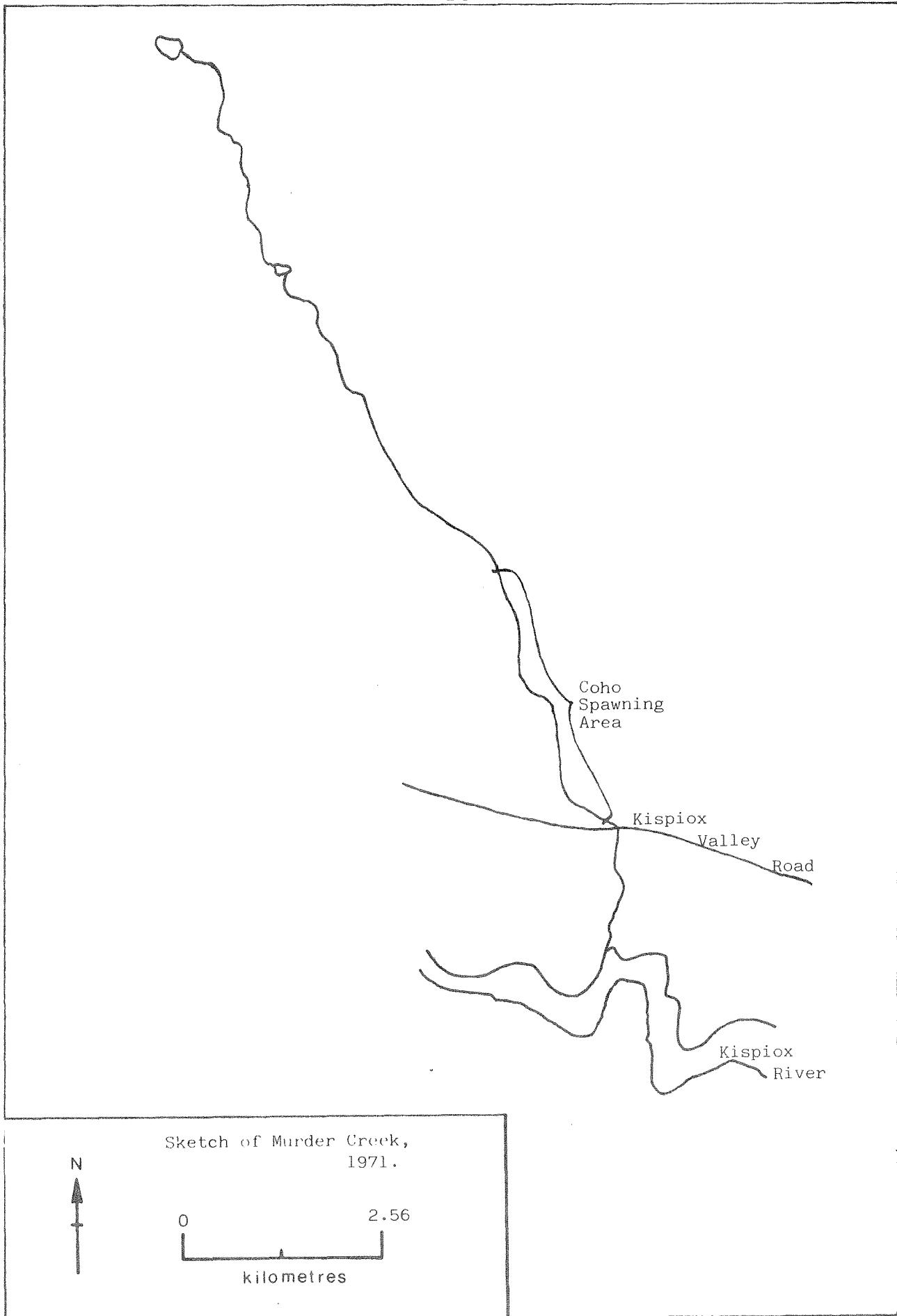
1965 - Beaver dams removed as required.

1966 - Forestry culvert modified to enable fish to pass by during flood. Also 67.

1969-78 Erosion, silting, scouring and channeling in lower 0.8km.

Seasonal fluctuations in water levels.

Creek runs mostly throughout flat country and is very shallow most of the year.



ESCAPEMENT RECORD FOR

MURDER CREEK

(Beirnes, Beirness Creek)

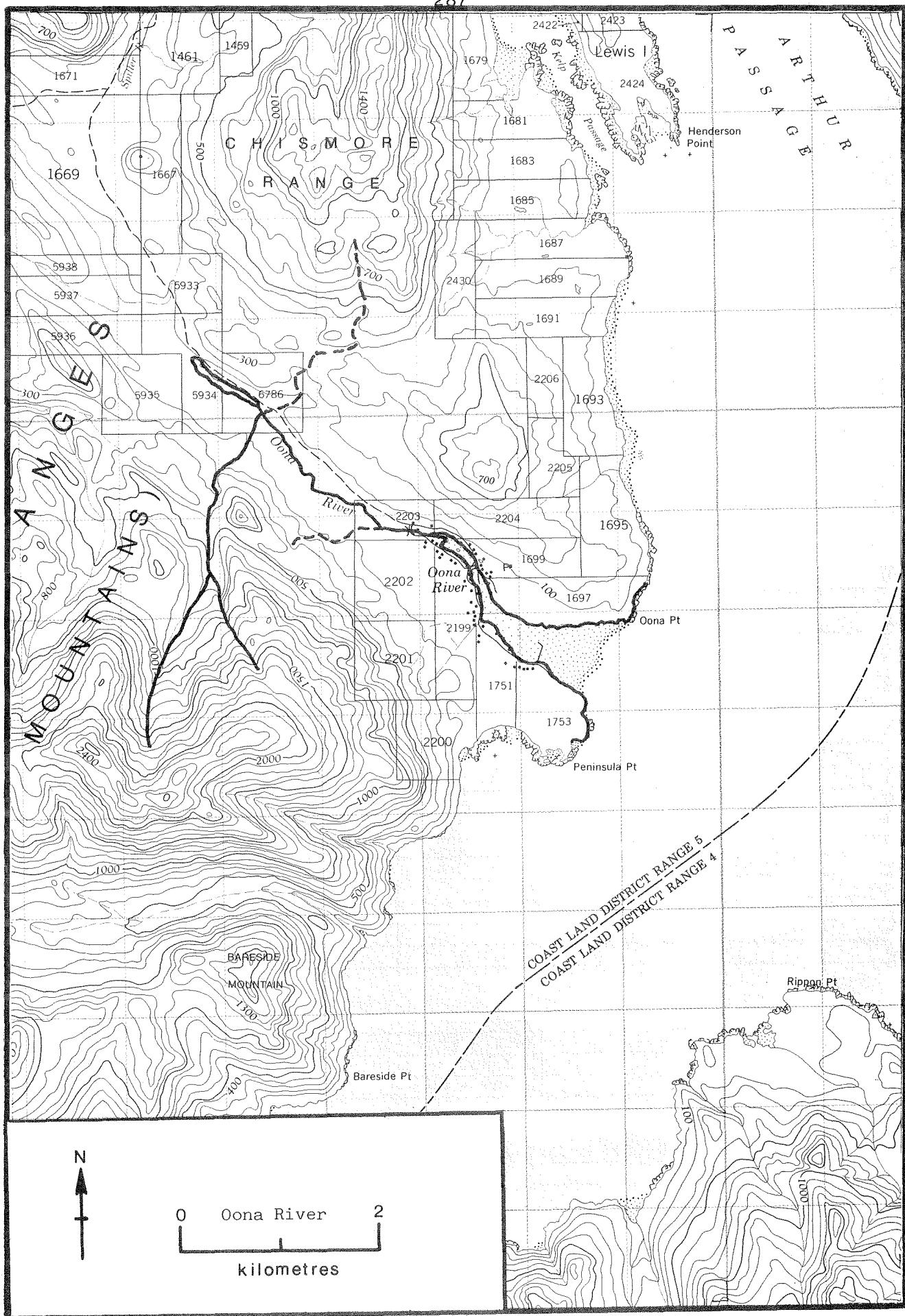
YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947			200		75	
48			200		75	
49			400		200	
50			*	N/O	N/O	*
51						
52			NOT	INSPECTED		
53			"	"		
54			"	"		
55			"	"		
56			"	"		
57			"		N/O	
58			*	N/O	*	N/O
59			NOT	INSPECTED		
60			N/O		*	N/O
61			25		25	
62			few		N/O	
63			NOT	INSPECTED		
64			500			
65			200			
66			200			
67			200			
68			400			
69			25			
70			25			
71			25			
72			25			
73			25			
74			25			
75			25			
76			25			
77			25			
78			200			
79			N/O			
80			200			
81			75			
82						
83						
84						
85						

TIMING

ARRIVE		Sept		
START		M Oct - E Nov		
PEAK		E-M Nov		
END		L Nov - Dec		

REMARKS

* Low water prevented fish from entering creek during inspection period



NAME OF STREAM OONA RIVER

CONSERVATION DISTRICT 8

STATISTICAL AREA 4

LOCATION OF MOUTH Flows S.E. into Ogden Channel, Rge.5, Coast Dist.

POSITION 53 130 NE.

LENGTH 8 km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED	
SOCKEYE		
CHINOOK		
COHO	-	Throughout system above tidal influence
CHUM		
PINK (ODD YEAR)	"	"
PINK (EVEN YEAR)	"	"
STEELHEAD		

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1953 - Brakish water near mouth.

1958 - Light steelhead run noted.

1961 - Early run fish dies unspawned.

1964 - Coho seen but not counted.

1964 - Severe draught, water too low for salmon to migrate upstream very far.

1971 - Stream clearance suggested.

1972 - Evidence of overspawning at peak of run.

1972-80 Series of passable log jams and beaver dams kept open by minor hand work.

1978 - Some pink spawn may have been damaged by heavy September rains.

continued.....

continuation.

289

GENERAL REMARKS OONA RIVER

- 1978 - Possible stream bed damage caused by November floods.
- 1980 - 21000 pinks from upper bridge to swamp.
1000 " above swamp
2000 " in Oscar Creek
some dead pinks found unscarred and unspawned at upper limit of tidal area. Cause of death unknown.
- 1981 - Oona River is scheduled for a S.E.P. Community Involvement Project to enhance coho. The group monitored stream flows and water temperatures during winter 81/82 and hope to work on the incubation box for coho in the fall of 82.
Good spawning stream -- seasonal fluctuations in water levels.
Predators: eagles, seals, bears and wolves.

PORCHER ISLAND

- - Coho Spawning Grounds
- - Pink Spawning Grounds
- Trail
- Foot Bridge
- ~ Limit of Tidal Influence

Sketch of Oona River,
1968.

N

0

.40

kilometres

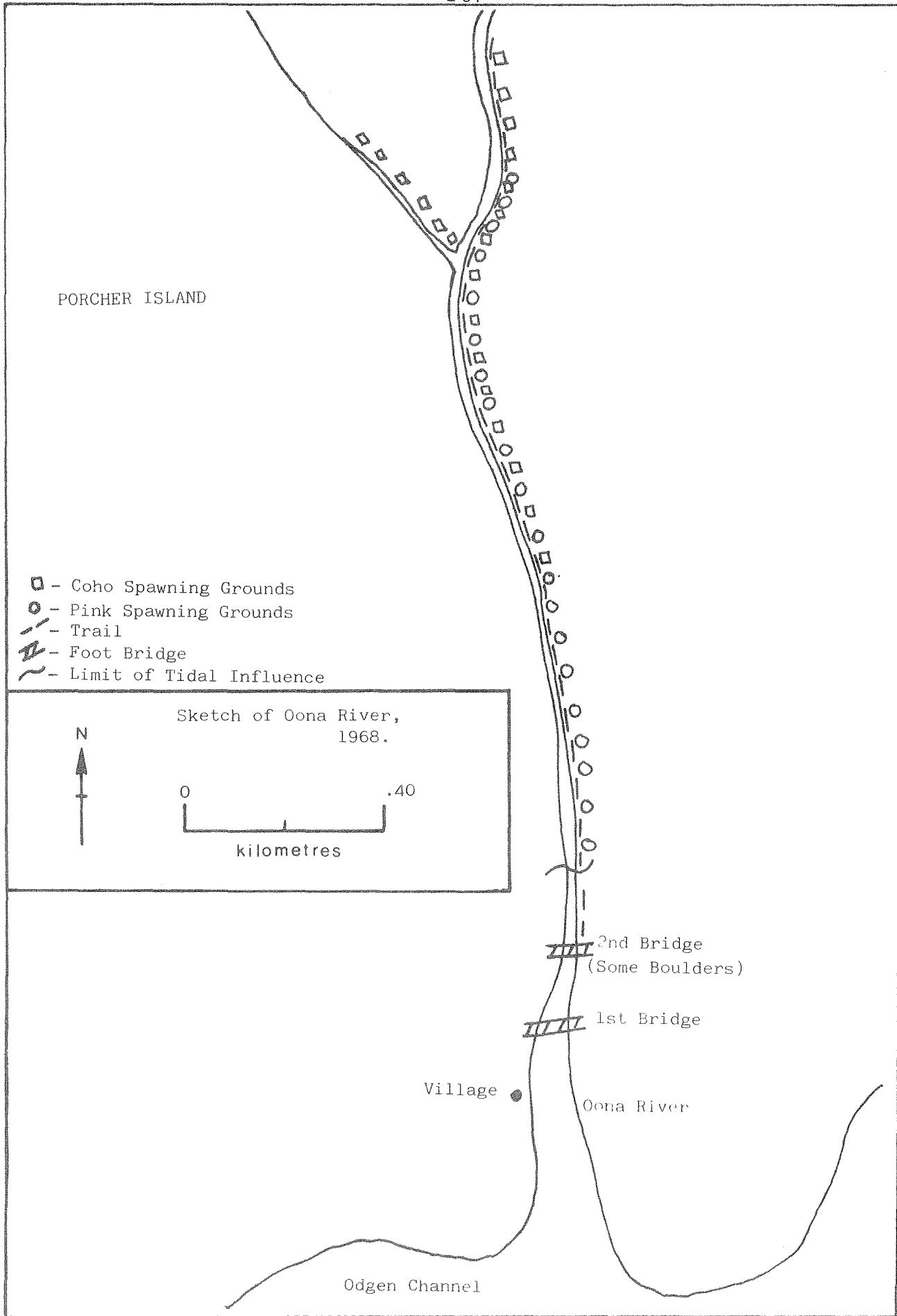
Village

Oona River

2nd Bridge
(Some Boulders)

1st Bridge

Odgen Channel



ESCAPEMENT RECORD FOR

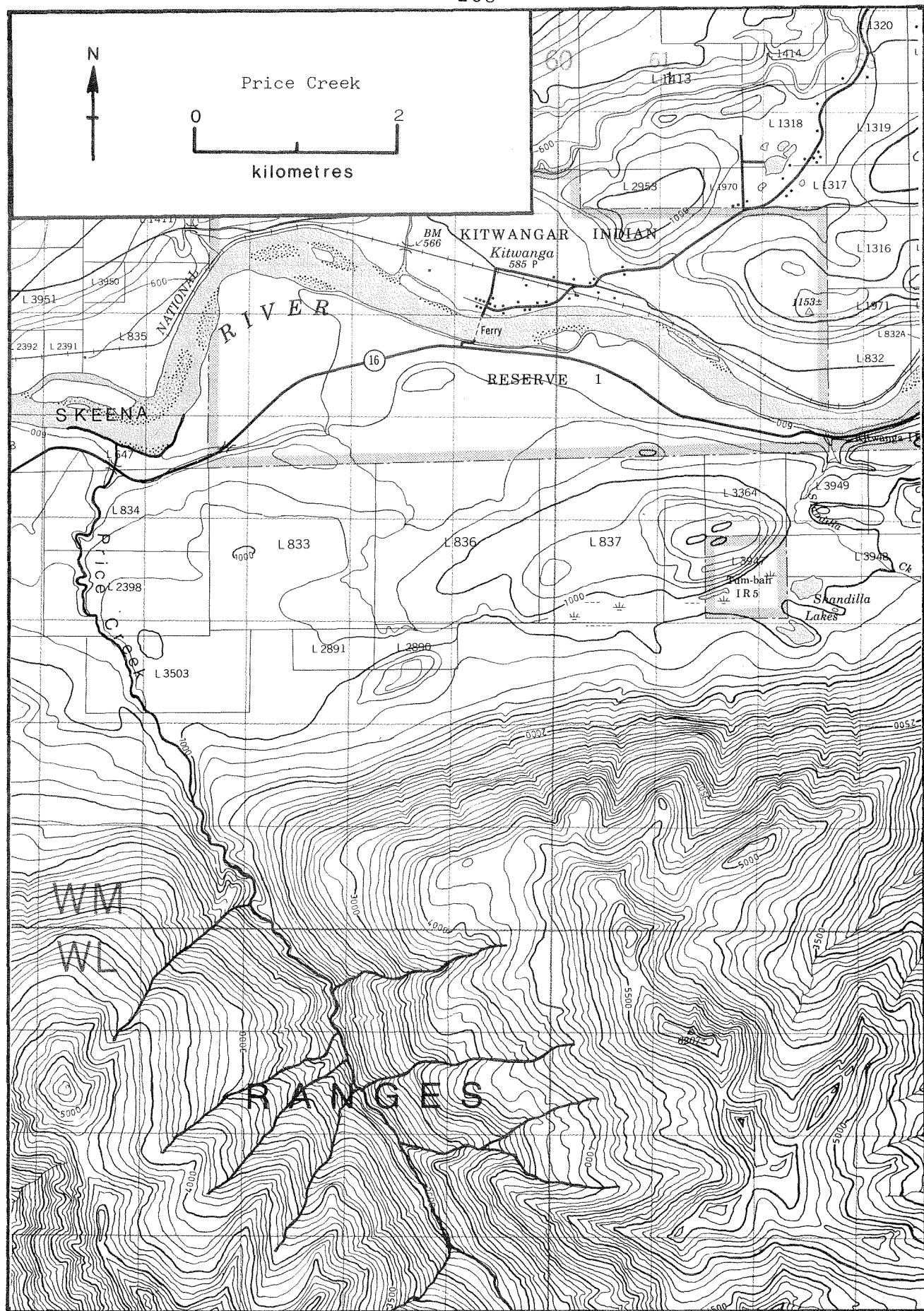
OONA RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947					7500	
48			750		35000	
49			N/0		15000	
50			N/0		15000	
51					1000	
52					30000	
53					500	
54					15000	
55			400		7500	
56					27000	
57			1500		750	
58			500		2000	
59			OBS		3500	
60			N/I		200	
61			1500		3500	
62			OBS		7500	
63					3500	
64			OBS		750	
65					750	
66			3500		15000	
67			400		750	
68			750		7500	
69			750		3500	
70			N/0		3500	
71			2500		15000	
72			600		13000	
73			250		2200	
74			300		7000	
75			300		4000	
76			300		50000	
77			300		3000	
78			300		10000	
79			250		5000	
80			350		24000	
81			300		4000	
82						
83						
84						
85						

TIMING

ARRIVE		E Sept	M Aug - E Sept
START		L Sept - E Oct	L Aug - E Sept
PEAK		Sept - L Oct	M-L Sept
END		Oct - E Nov	L Sept - M Oct

REMARKS N/I - not inspected



NAME OF STREAM _____ (Price Creek)

CONSERVATION DISTRICT _____ 8 STATISTICAL AREA _____ 4

LOCATION OF MOUTH Flows N. into Skeena River approx 1 .6km W.of Kitwanga

POSITION 55 128SE.

LENGTH 32 km WIDTH _____ m DRAINAGE _____ km²

COMPOSITION: BEDROCK _____ BOULDER _____ COARSE _____ FINE _____

SILT & SAND _____ UNCLASSIFIED _____

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA _____ m² SPAWNING AREA _____ m²DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- upper reaches
CHUM	- below highway 16 bridge
PINK (ODD YEAR)	- in lower 3.2km
PINK (EVEN YEAR)	- " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS 1947 - No fish seen this year. Reason for absence unknown.
 1949 - Slight scouring in lower reaches during most years between 1970-79.
 1952 - Public works channelization caused dewatering of the channel and the loss of spawn deposited in that area. Damage rectified because stream reverted to old course.
 1955 - Stream changed course for approx 90m near mout h.
 1958 - Low water and high temperatures may account for the complete lack of spawners.
 1961 - Scouring near culvert. High velocities. Culvert may require baffles to ensure adequate passage of fish 62.

continued....

continuation.

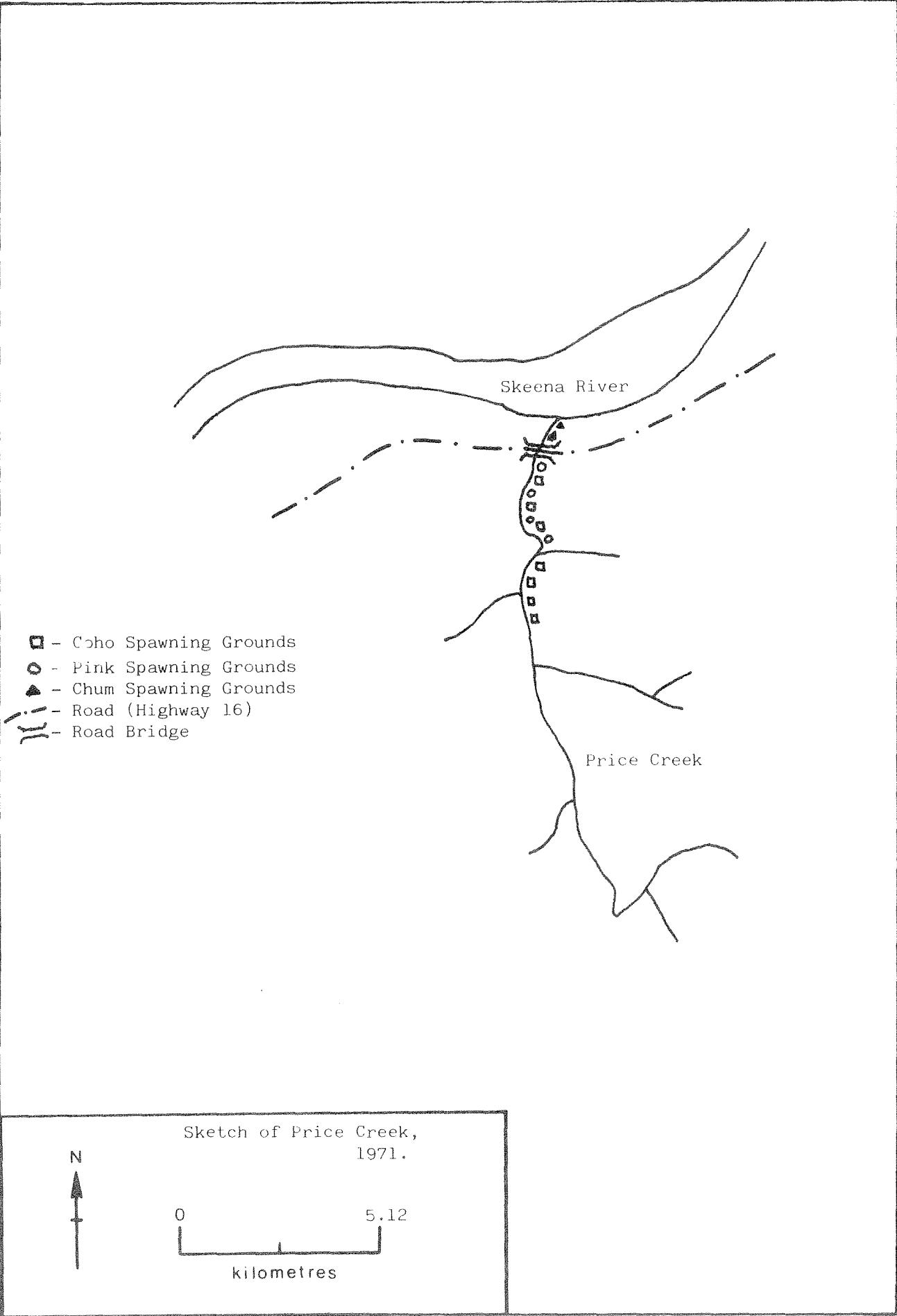
295

(Price Creek)

- 1962 - Scouring at culvert site.
- 1965 - Highways road bridge construction must have altered conditions as 1950 show good pink run and poor "A" runs since .
- 1966 - Channelling for culvert has made this stream unstable at the mouth and subject to flash floods 67,68,69.
- 1967 - Considerable scouring and erosion. 68,69,74,78.
- 1970 - Heavy scouring during high water 71,72,73,75.
- 1979 - Difficult to impassable because steep-sloped gravel deposit accumulated following floods in Oct. 1978. Suggest that crews reduce slope at outlet and confine water to one channel. 80.

Road culvert construction in 1960. Stream bed was disturbed by Public Works program channellization to stabilize flow. Steep, bouldery gradient. Seasonal low flow in Pink run period. Evidence of erosion at culvert, footings cement eroded.

Seasonal fluctuations in water levels.

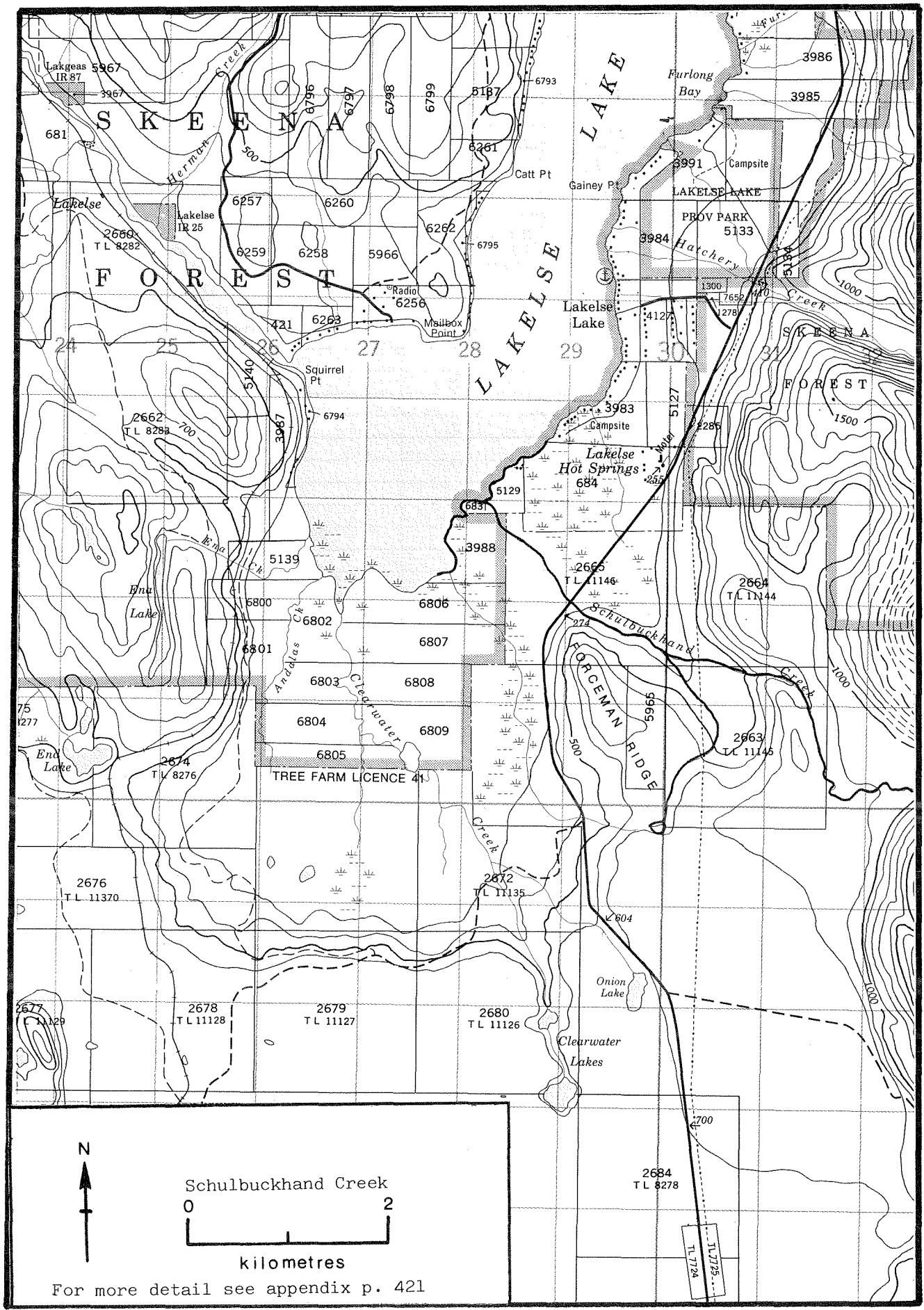


YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947					N/0	
48					1500	
49					600	
50					3000	
51					2000	
52					6000	
53					2000	
54					3500	
55					1500	
56					750	
57					1500	
58					N/0	
59			OBS		N/0	
60					N/0	
61			6		300	
62					25	
63					N/0	
64					75	
65					55	
66			25	25	25	
67					25	
68			75	N/0	75	
69			25		N/0	
70			25		N/0	
71			25			
72			25		200	
73			25		25	
74			25		25	
75			25		75	
76			25		25	
77			25		25	
78			25		25	
79			N/0		N/0	
80			N/0		N/0	
81			N/0		N/0	
82						
83						
84						
85						

TIMING

ARRIVE		L Sept - Oct		Aug
START		M Oct	E Sept	EAug-E Sept
PEAK		L Oct - M Nov	M Sept	L Aug
END		Nov - Dec	L Sept	Sept - MOct

REMARKS



NAME OF STREAM SCHULBUCKHAND CREEK
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Flows N.W. into S. end of Lakelse Lake, Rge.5, Coast Dist.
 POSITION 54 128 SW.
 LENGTH km WIDTH m DRAINAGE km²
 COMPOSITION: BEDROCK BOULDER COARSE FINE
 SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25
0.25 - 0.50
0.50 - 0.75
0.75 - 1.00
> 1.00

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED			
SOCKEYE	- scattered to 3.2km upstream of lake			
CHINOOK				
COHO	-	"	"	"
CHUM				
PINK (ODD YEAR)				
PINK (EVEN YEAR)				
STEELHEAD				

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1951 - Some scouring during flash fall floods. Stream overflows its banks in first few km from mouth lowering water levels and restricting spawning. Cribbing was erected to assist passage of sockeye.

1952 - A few coho migrated upstream, but most were prevented from entering and eggs from 40 fish were transplanted to other streams.

1953 - Breakthrough repaired.

1956 - Large beaver dam removed, also reported 57.

1960 - Considered as a possible site for installation of a hatchery.

1961 - Reports of algae clogging pumps during January incubation period.

continued.....

continuation.

GENERAL REMARKS- SCHULBUCKHAND CREEK

- 1962 - Most coho stripped for hatchery operation. Cleared considerable debris from stream.
- 1964 - Estimates based on hatchery fence count.
- Most of run allowed to spawn naturally.
- Logging operations on side hills in upper reaches.
- 1965 - Past hatchery requirements for sockeye and releases to natural full escapement accounts for comparison fluctuations.
- 1966 - Hill scarification and clearing for Kemano-Prince Rupert transmission line causing considerable siltation. Problem being attended to because stream is important water source for hatchery.
- 1967 - Stream re-channelled in September to conserve flow in upper areas.
- 1974 - Moderate silting, scouring and erosion resulted from October flooding.
- 1977 - Some channelling near mouth and passable beaver dams.
- 1980 - Beaver dams 2.4km from mouth rendered stream impassable.

Sketch of Schulbuckhand Creek, 1971.



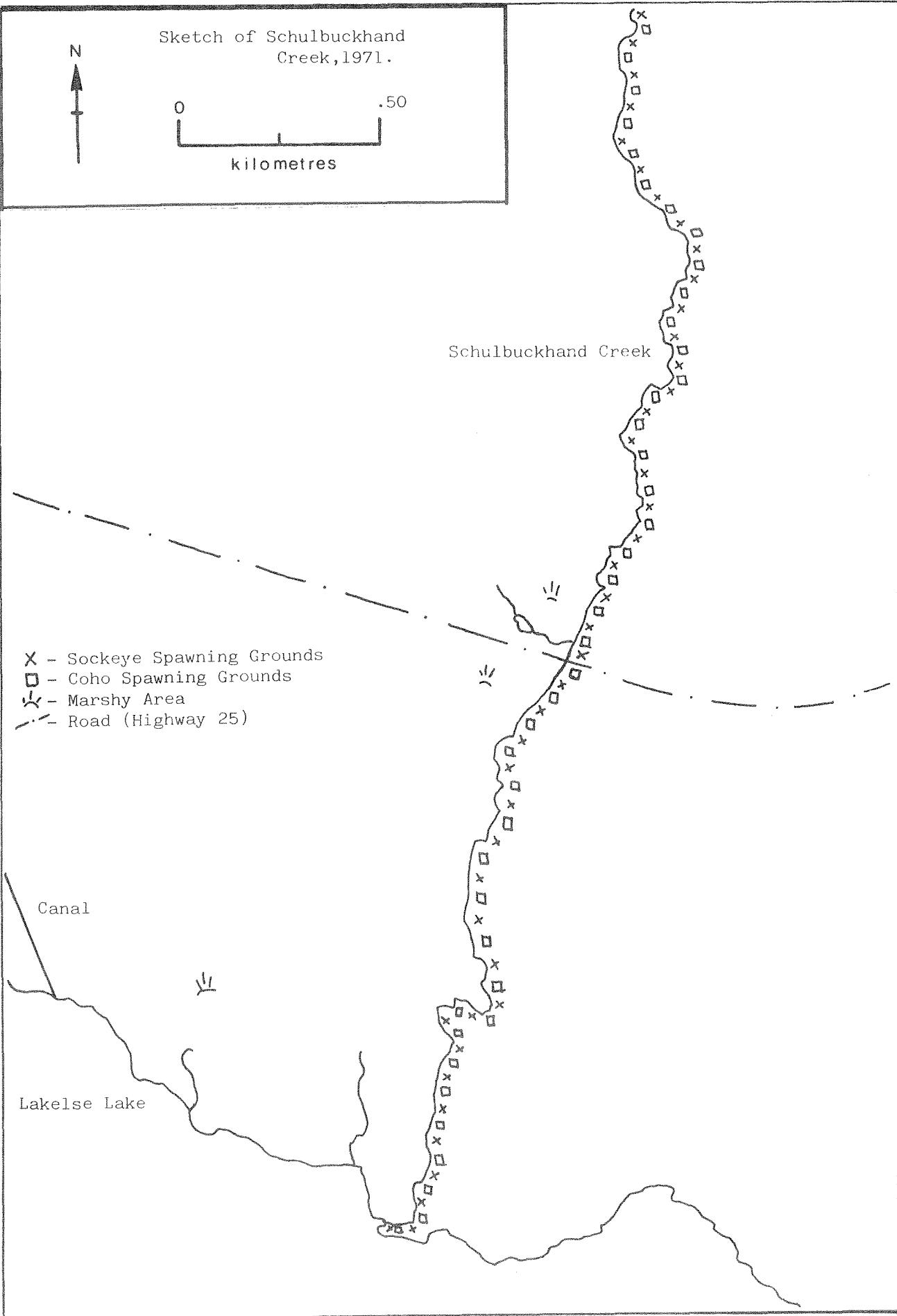
0 .50
kilometres

Schulbuckhand Creek

- X - Sockeye Spawning Grounds
- ◻ - Coho Spawning Grounds
- ✗ - Marshy Area
- - Road (Highway 25)

Canal

Lakelse Lake



ESCAPEMENT RECORD FOR

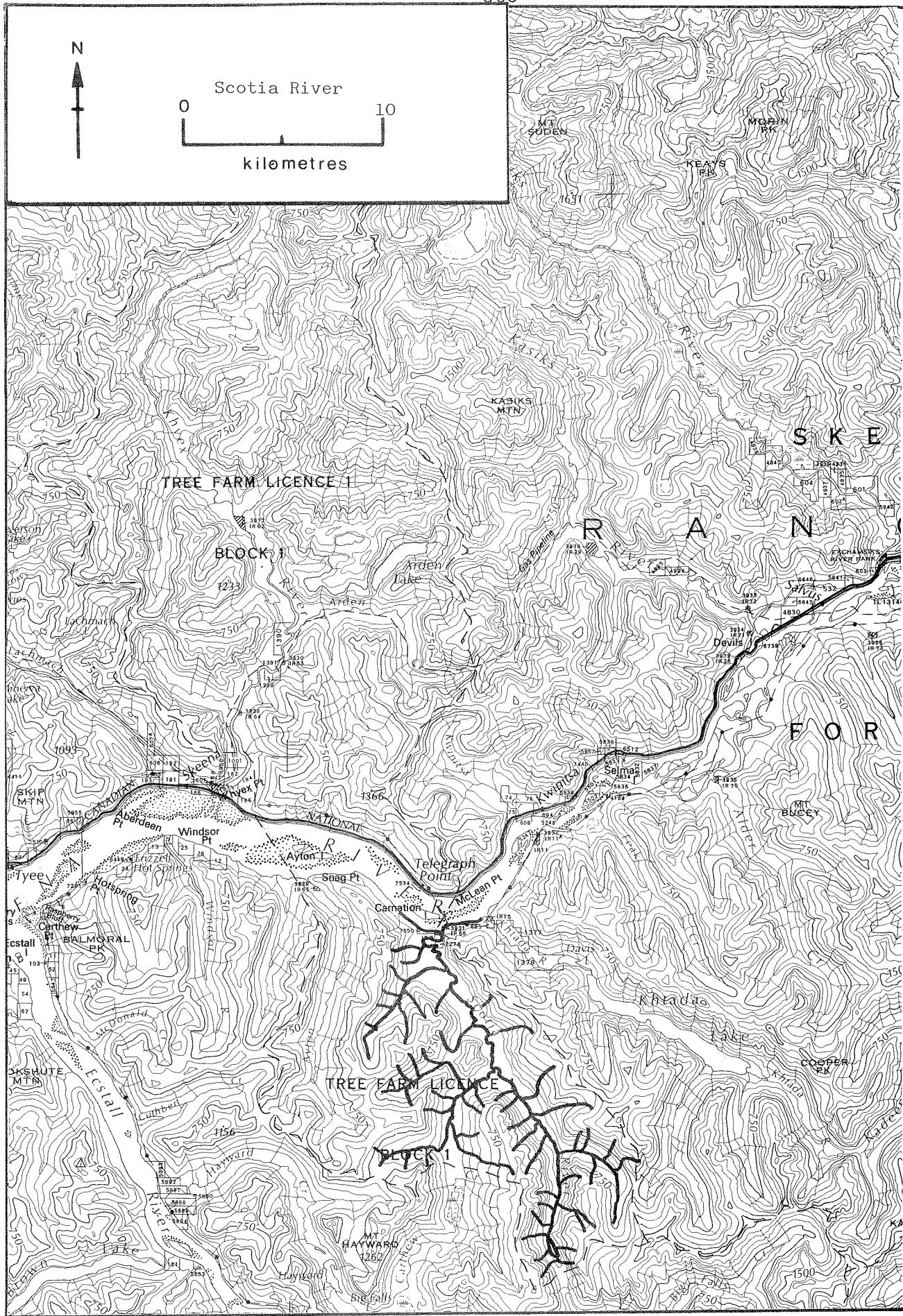
SCHULBUCKHAND CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947	400		75			
48	1500		75			
49	1300		200			
50	600		150			
51	1200		100			
52	1100					
53	750		100			
54	750		75			
55	200		75			
56	75		75			
57	200		75			
58	750		200			
59	750		N/I			
60	1000		25			
61	400		75			
62	400		450			
63	400		N/I		75	
64	3000		75		3	
65	3867		25			
66	3500		63			
67	6800					
68	3500		400			
69	1500		200			
70	200		200			
71	750		200			
72	750		200	200		
73	400		200	N/0		
74	700		200			
75	400		75			
76	750		200			
77	750		75			
78	3500		75			
79						
80	2060		250			
81	2800		100			
82						
83						
84						
85						

TIMING

ARRIVE	L July - Aug	Oct	Aug	UNK	
START	E-L Aug	M Oct	E Sept	UNK	
PEAK	E-M Sept	L Oct - M Nov	M Sept	UNK	
END	M Sept - Oct	Dec	Oct	UNK	

REMARKS N/I - not inspected



NAME OF STREAM SCOTIA RIVER
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Flows N.W. into Skeena River opposite Telegraph Point, Rge.5,
Coast Dist. POSITION 54 129 SW.
 LENGTH 24 km WIDTH m DRAINAGE km²
 COMPOSITION: BEDROCK BOULDER COARSE FINE
SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

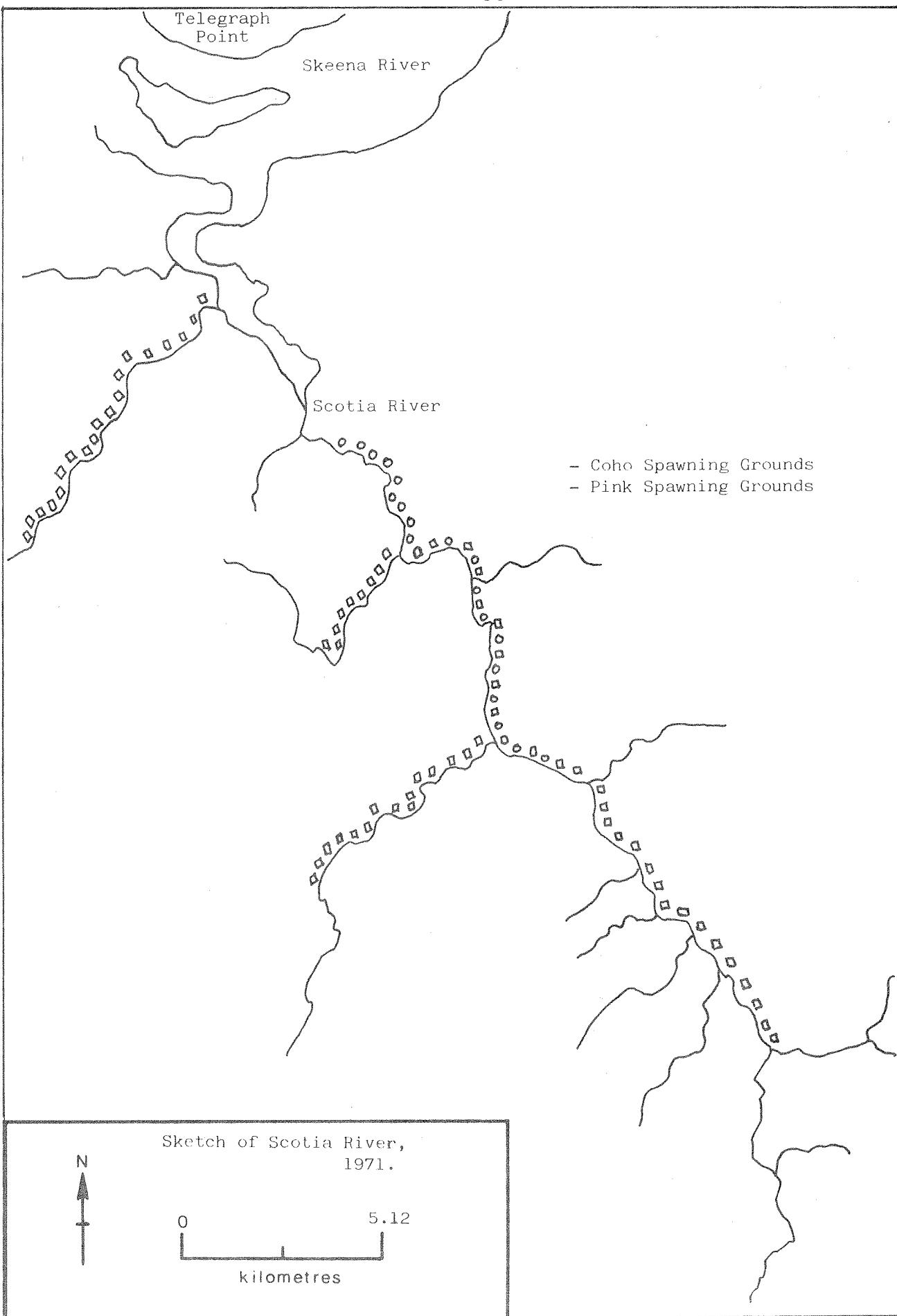
WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s) TEMPERATURE (°C) BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	
PINK (ODD YEAR)	- scattered up to 19km from mouth
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1949 - Good pink and coho runs observed by Columbia Cellulose workers, through no official inspection was made.
1954 - Locals reported fair pink run.
1960 - Stream in a timber sale area and logging expected in 1961.
1961 - Inspection cancelled because of floods, also in 1964.
1961 - Siltation noted near mouth 65,66,68,69.
1966 - Fluctuations in numbers of spawning population depends on extent and timing of inspections.
1970 - Turbid water impaired inspection.



ESCAPEMENT RECORD FOR

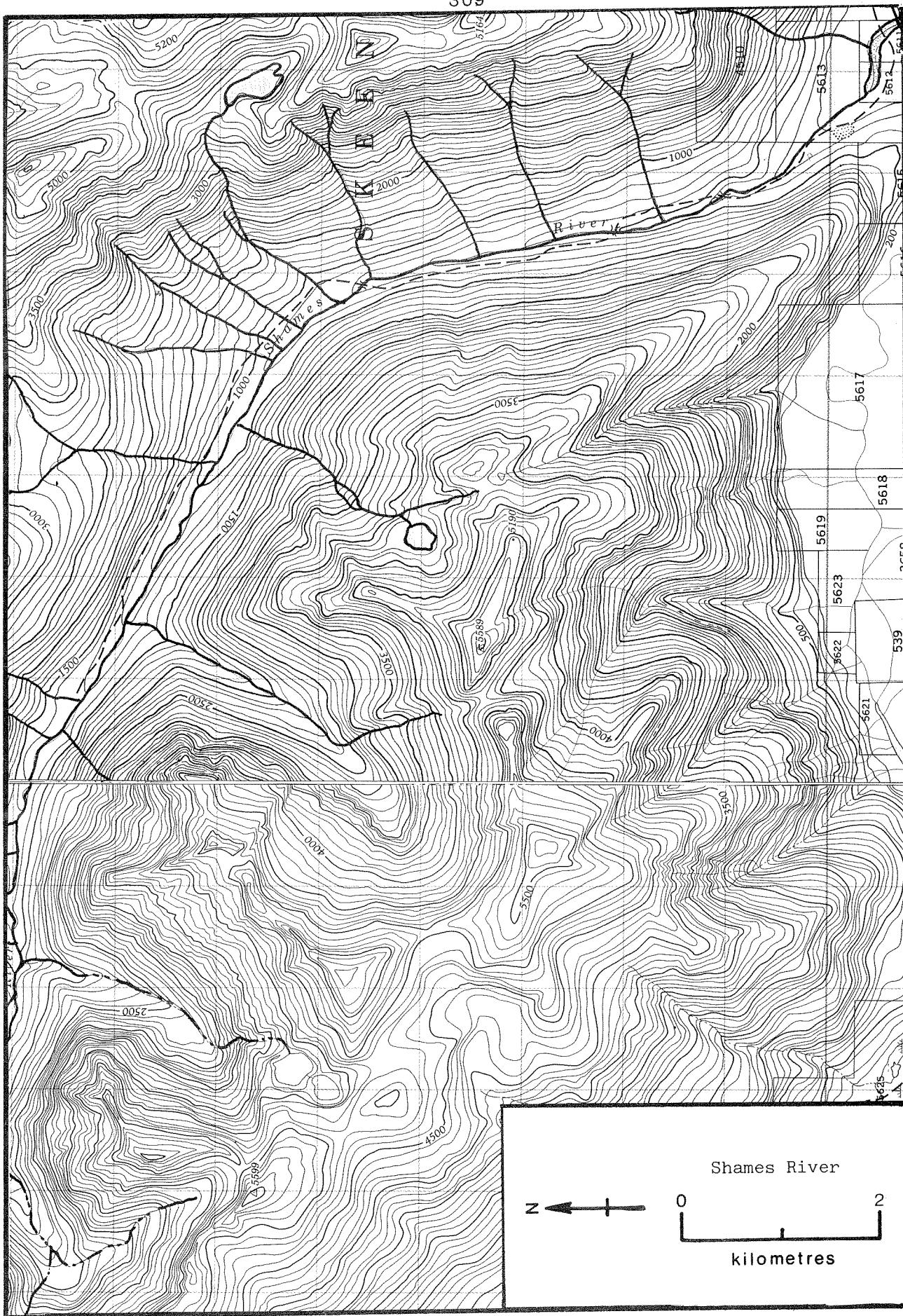
SCOTIA RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49					10000	
50					OBS	
51						
52						
53						
54					N/I	
55			N/I		7500	
56					OBS	
57					3500	
58					OBS	
59					3500	
60					N/I	
61					N/I	
62					25	
63					N/O	
64					N/O	
65					100000	
66					3500	
67					15000	
68					3500	
69					7500	
70					3500	
71			400		3500	
72			400		3500	
73					3500	
74					750	
75					3500	
76					200	
77					1500	
78					550	
79						
80					500	
81					5000	
82						
83						
84						
85						

TIMING

ARRIVE		Oct		Aug	
START		M Oct		E Aug - E Sept	
PEAK		M Nov		L Aug - M Sept	
END		Dec		M-L Sept	

REMARKS N/I - not inspected



NAME OF STREAM SHAMES RIVER
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Flows S.E. into Skeena River, E. of Shames, Rge.5, Coast Dist.
 POSITION 55 128 SW
 LENGTH _____ km WIDTH _____ m DRAINAGE _____ km²
 COMPOSITION: BEDROCK _____ BOULDER _____ COARSE _____ FINE _____
 SILT & SAND _____ UNCLASSIFIED _____

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA _____ m² SPAWNING AREA _____ m²DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

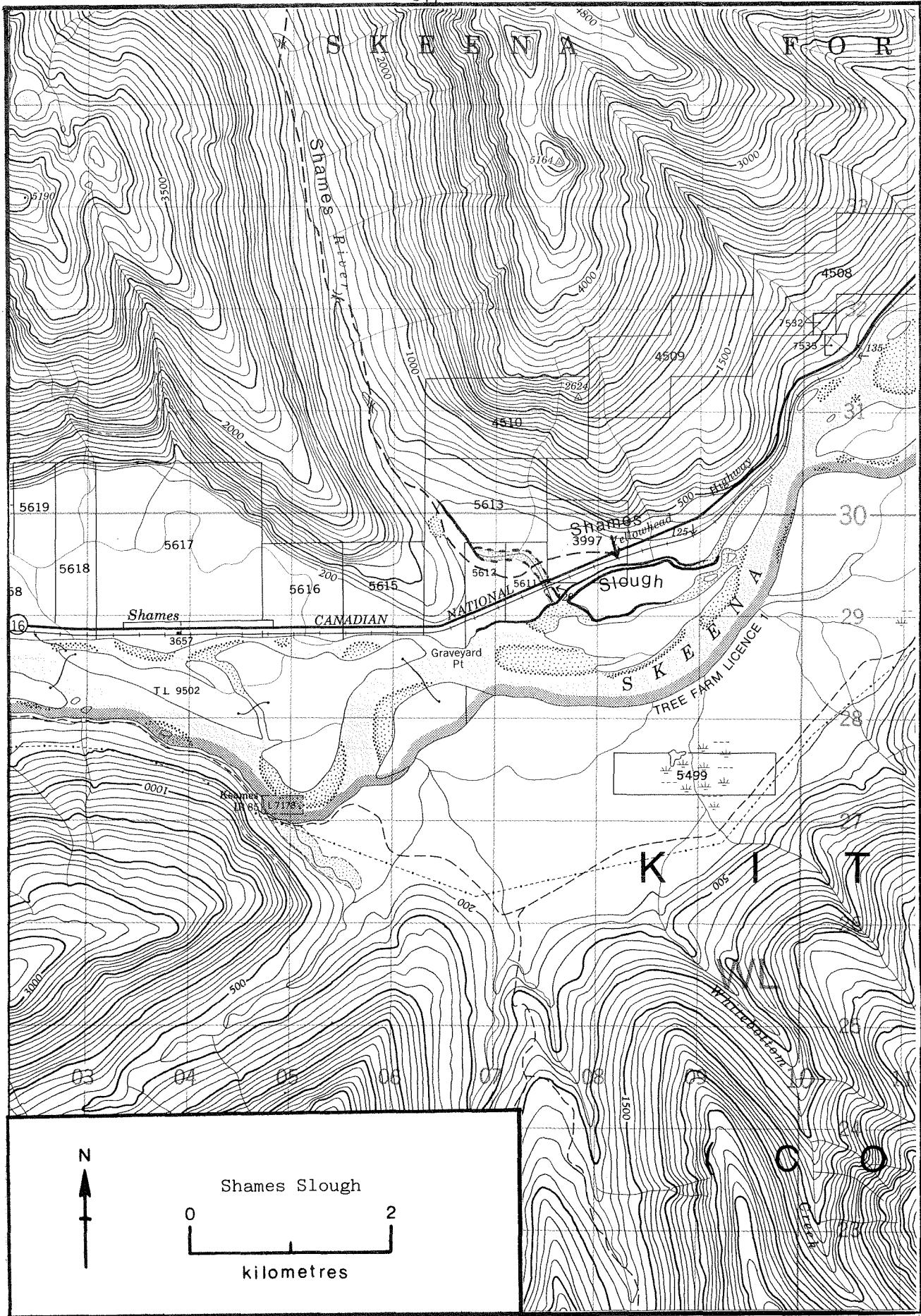
BARRIERS OR POINTS OF DIFFICULT ASCENT _____

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	- from mouth of stream upstream for 0.8km
PINK (ODD YEAR)	- " "
PINK (EVEN YEAR)	- " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS 1964 - Swift stream subject to scouring between road and confluence with Skeena River
 - Too unstable for spawning.
 - Few chum carcasses noted off stream mouth in Skeena River.
 - Flash flood common. Road and railway bridge sections rip-rapped to prevent washouts.
 Seasonal fluctuations in water levels.



continuation

GENERAL REMARKS SHAMES SLOUGH

1966 - Spawning area dependent upon annual Skeena River flow.

1974 - Heavy scouring destroyed most of spawn in slough.

Alevin survival ranges between 2% and 4%.

Predators: bears and eagles.

ESCAPEMENT RECORD FOR

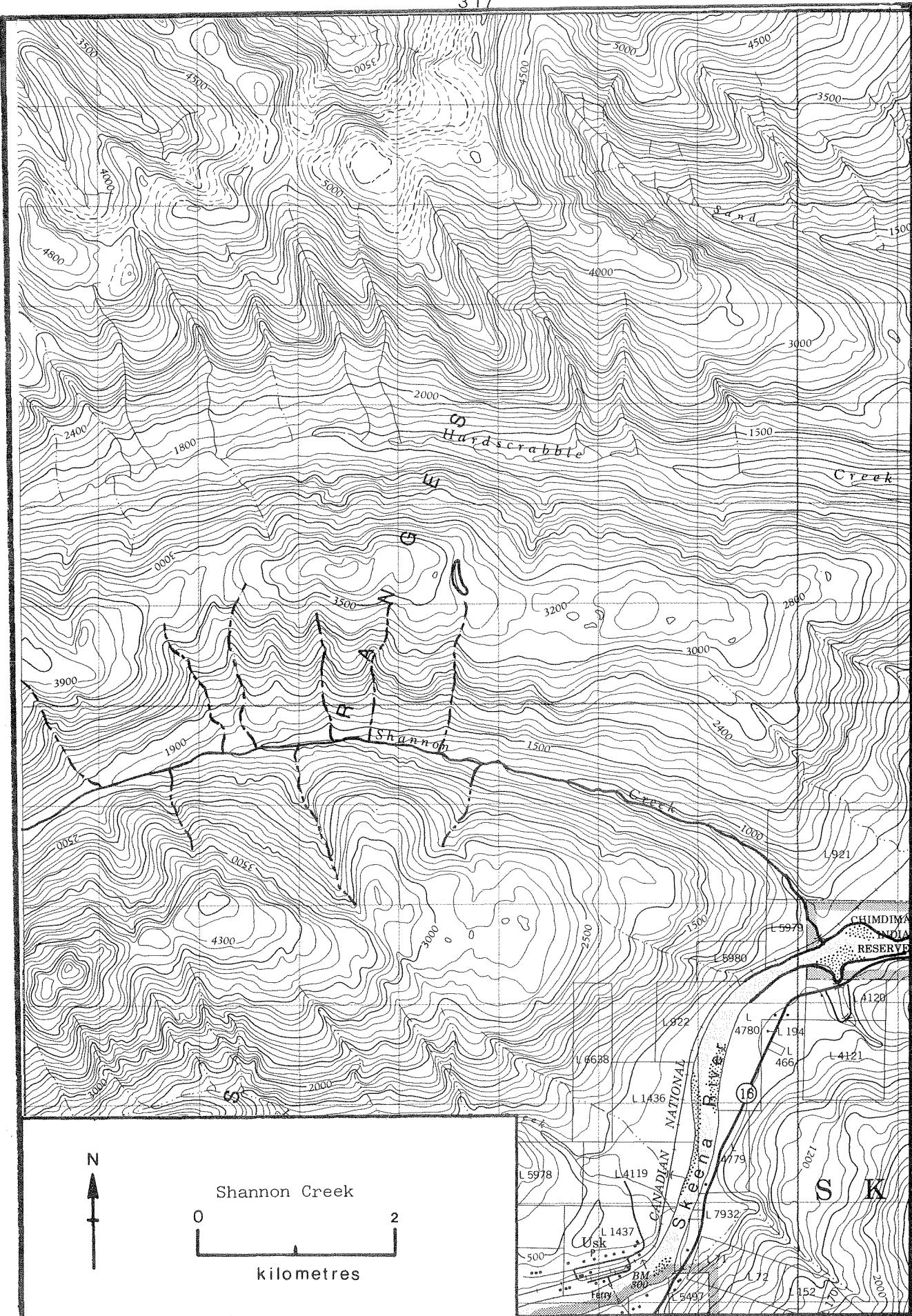
(Shames Slough)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57						
58						
59						
60						
61	NEW	FILE			87500	
62						
63				75	5500	
64				200	8000	
65				N/0	N/0	
66				OBS	716	
67				75	1500	
68				25	1500	
69				25	750	
70				200	1500	
71				200	1500	
72				400	3500	
73				400	400	
74				400	25	
75				25	400	
76				25	25	
77				75	200	
78				50	25	
79						
80				100	6	
81				100	350	
82						
83						
84						
85						

TIMING

ARRIVE			Aug	Aug	
START			MAug-ESept	MAug-ESept	
PEAK			M Sept	M Sept	
END			Oct	Oct	

REMARKS



NAME OF STREAM SHANNON CREEK (Nicholson Creek)

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows S.E. into Skeena River, N.E. of Usk, Rge. 5. Coast Dist.

POSITION 54 128 NE

LENGTH km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25

0.25 - 0.50

0.50 - 0.75

0.75 - 1.00

> 1.00

WETTED AREA m²SPAWNING AREA m²DISCHARGE (m³/s) TEMPERATURE (°C) BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES

SECTION OF STREAM USED

SOCKEYE

CHINOOK

COHO

CHUM

PINK (ODD YEAR)

PINK (EVEN YEAR)

STEELHEAD

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

 GENERAL REMARKS 1948 - Although not formally inspected, locals report good seedings of pink and coho salmon.1957 - Inspection too late to enumerate pink spawners.1960 - Very minor stream1964 - Considerable gravel scour observed.1968 - Subject to scouring during flash floods 69,70.1969 - No salmon observed since 1967 . File closed.Annual gravel removal required at C.N.R.Bridge.Bouldery at mouth--steep gradient.Subject to drying during seasonal drought periods.

ESCAPEMENT RECORD FOR

SHANNON CREEK

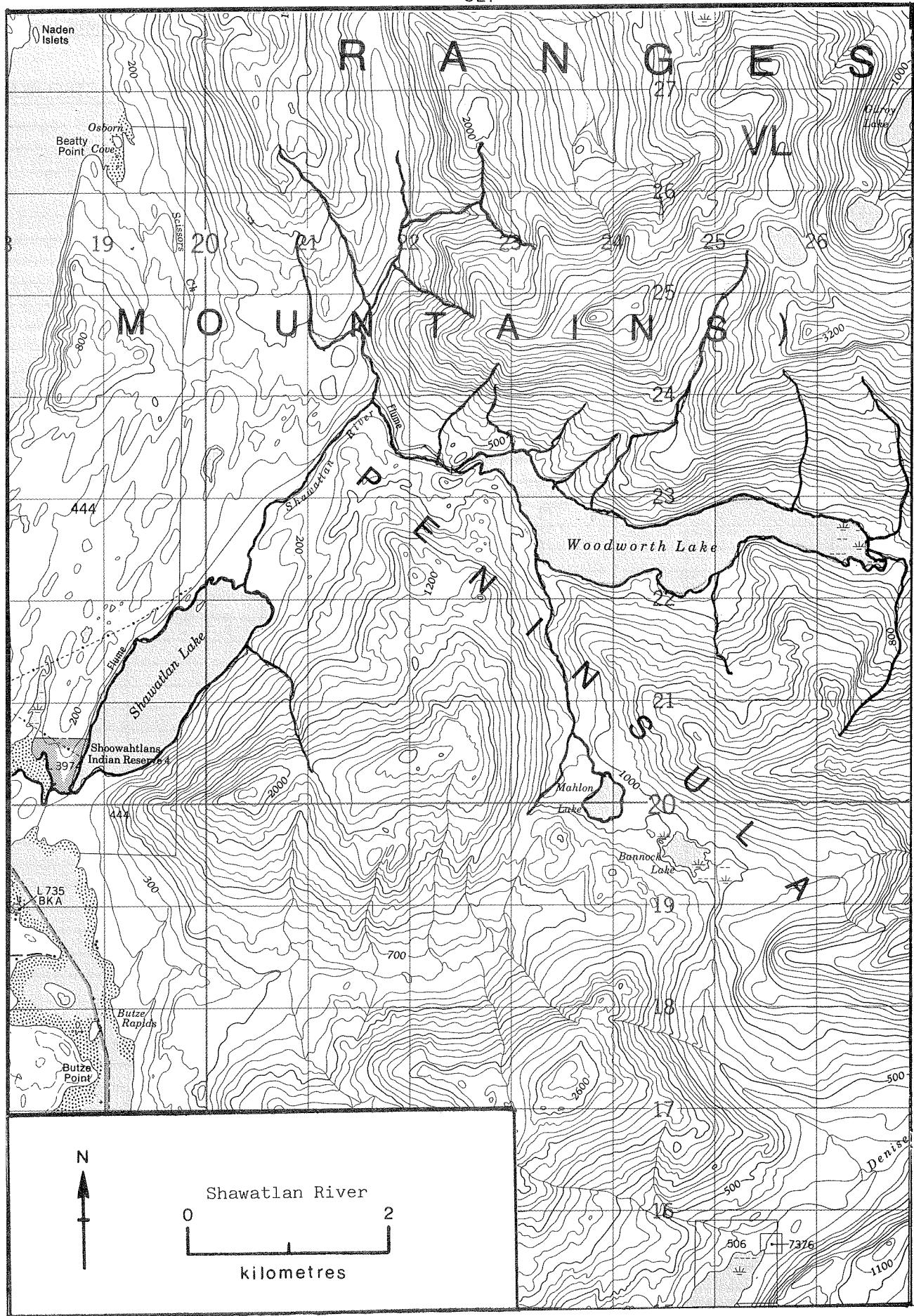
(Nicholson Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947			75		200	
48			N/I		N/I	
49						
50						
51						
52						
53						
54						
55			N/I		N/I	
56			N/I		N/I	
57					OBS	
58			N/I		N/I	
59			N/I		N/I	
60			N/O		N/O	
61			N/O		N/O	
62			N/O		N/O	
63			N/I		N/I	
64			N/O		N/O	
65			N/O		N/O	
66			N/O		N/O	
67			N/R		N/R	
68			N/O		N/O	
69			N/O		N/O	
70			F I L E C L O S E D			
71						
72						
73						
74						
75						
76						
77						
78						
79						
80						
81						
82						
83						
84						
85						

TIMING

ARRIVE			UNK		UNK
START			UNK		UNK
PEAK			UNK		UNK
END			UNK		UNK

REMARKS N/I - not inspected



NAME OF STREAM SHAWATLAN CREEKCONSERVATION DISTRICT 8 STATISTICAL AREA 4LOCATION OF MOUTH Flows SW into Shawatlan Lake, Rge 5, Coast Dist.POSITION 54 130 SELENGTH 4.8 km WIDTH m DRAINAGE km²COMPOSITION: BEDROCK BOULDER COARSE FINE SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s) TEMPERATURE (°C) BARRIERS OR POINTS OF DIFFICULT ASCENT Falls above power house approx 4.8km from stream mouth.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- from mouth to power house (see map for specific location)
CHINOOK	- " " "
COHO	- " " "
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM no spawning beds above falls.GENERAL REMARKS 1948 some bank erosion noted.- trout plentiful 1949,501950 - Some scouring near mouth.1952 - Scouring noted near power house.1953 - Discharge from power supply pipeline enters this stream. No habitat deterioration observed.Good gravel below power house in lower reaches.Subject to seasonal fluctuation in water levels.Predators: eagles, trout, seals and bears.

continued.....

continuation.

GENERAL REMARKS SHAWATLAN CREEK

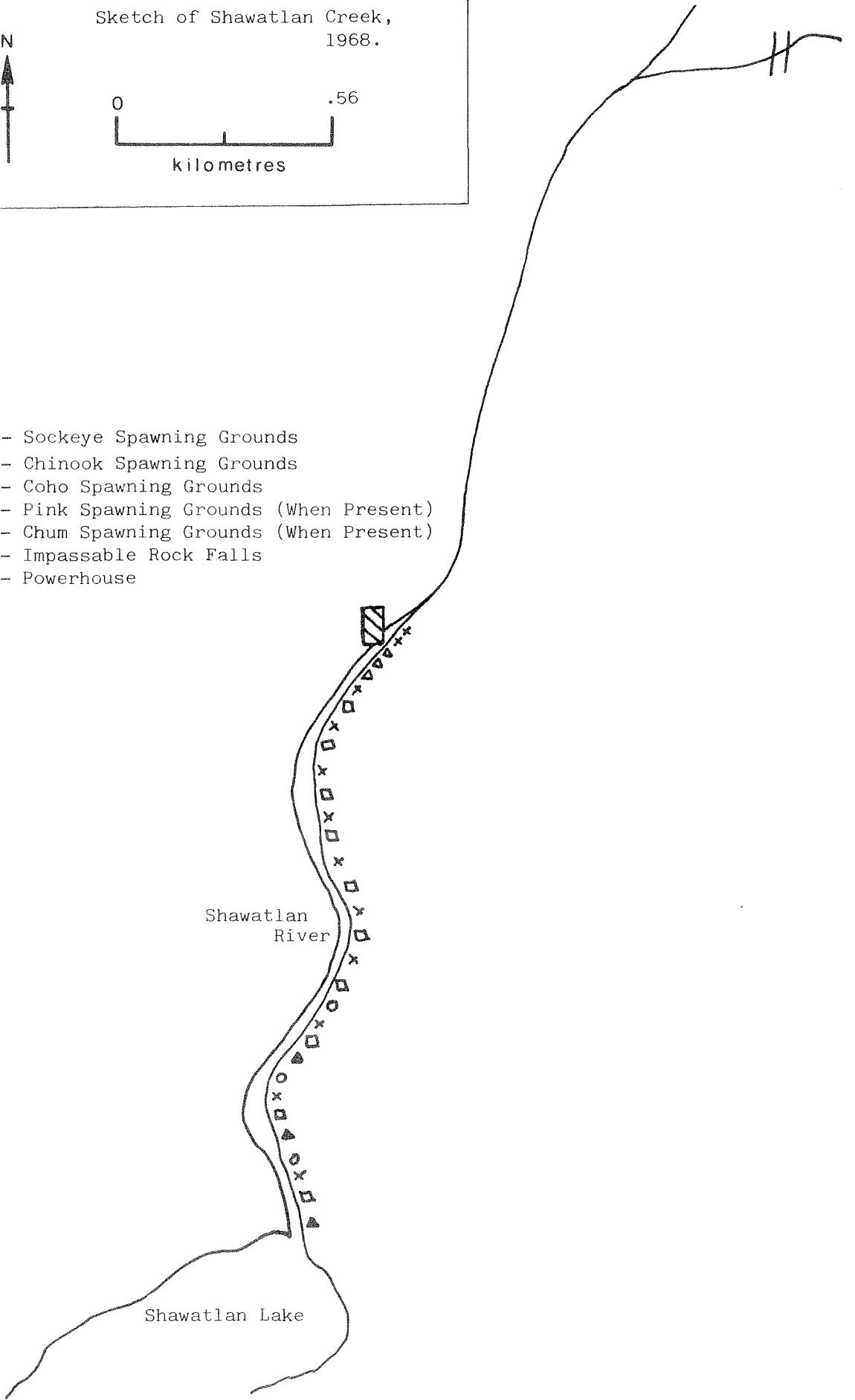
- 1962 - Coho run late and water too high to estimate numbers, 63,64.
- 1967 - Abnormal powerhouse shutdown caused low flows and Sept. 23 floods caused erosion, scouring and silting below power house. B.C.Hydro has assured adequate flows to correct problem.
- 1968 - 5% silting from mouth to powerhouse.
 - Stream stabilized by City of Prince Rupert.
- 1971-77,80 Slight siltation observed.
- 1981 - The city of Prince Rupert and B.C.Hydro plan to replace dam on Woodworth Lake in 1982. Old dam was deemed unsafe in early 1981. The water was released over a period of 2 days to relieve pressure. Abnormally high flows resulted. Some spawn was disturbed and lost.

Sketch of Shawatlan Creek,
1968. N0 .56
kilometres

- Sockeye Spawning Grounds
- Chinook Spawning Grounds
- Coho Spawning Grounds
- Pink Spawning Grounds (When Present)
- Chum Spawning Grounds (When Present)
- Impassable Rock Falls
- Powerhouse

Shawatlan
River

Shawatlan Lake



ESCAPEMENT RECORD FOR

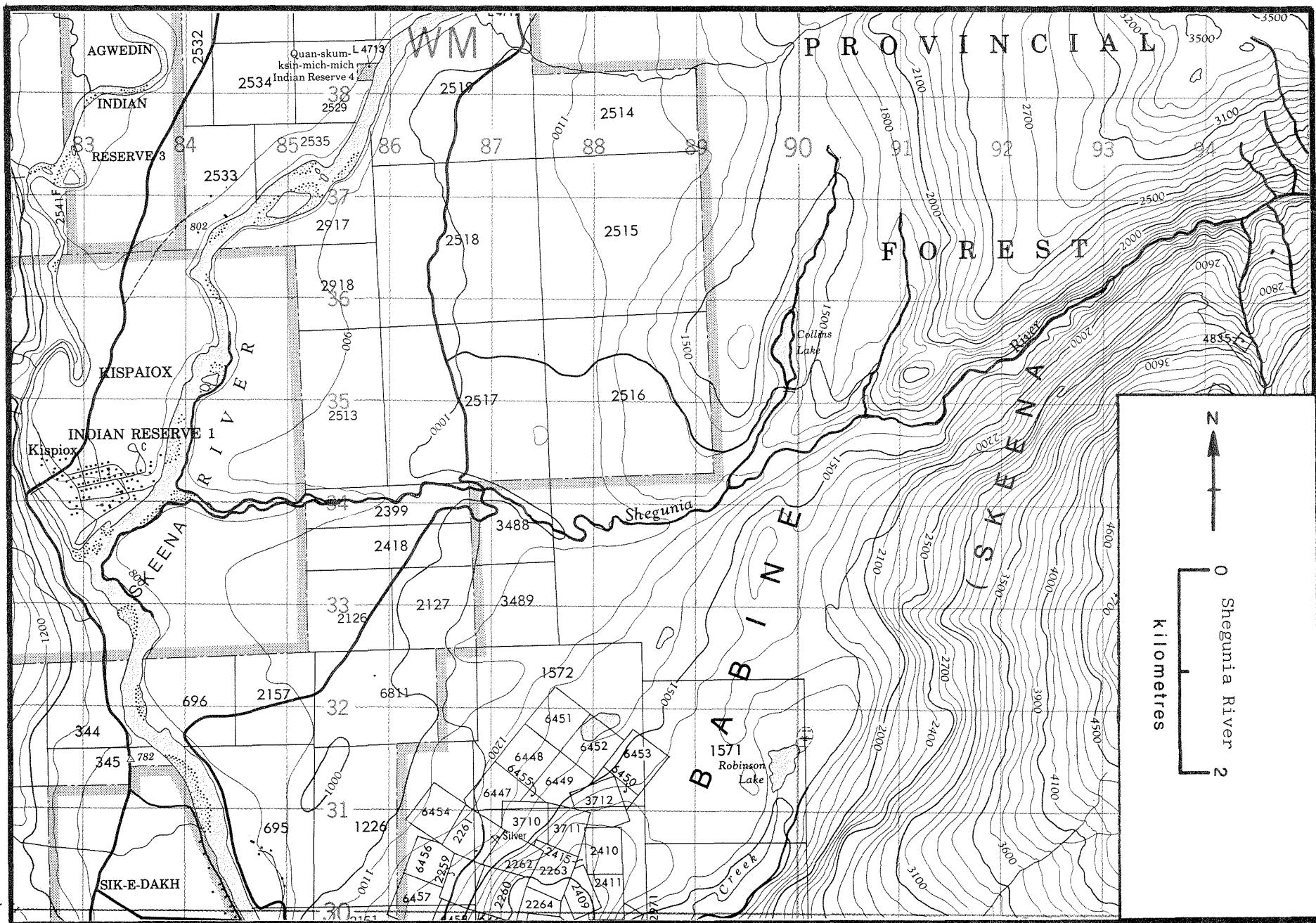
SHAWATLAN RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947	7500					
48	7500				200	
49	3000				500	
50	4500					
51	5000				2000	
52	5000				500	
53	3500		75	200	400	
54	3500		N/O		200	
55	1500				N/O	
56	3500				N/O	
57	1500				400	
58	1200		25		N/O	
59	3500		N/I			
60	3500		OBS	N/O	N/O	
61	3500		OBS	OBS	OBS	
62	3500		OBS			
63	3500		OBS			
64	3500		OBS			
65	3500		750	N/O	N/O	
66	2000	8	3500			
67	3500	25	750			
68	1500	200	750		400	
69	1500	N/O	750		75	
70	1500	N/O	1500		N/O	
71	2000		250		N/O	
72	1000		500		N/O	
73	800		200			
74	600		300			
75	1000		200			
76	700		200			
77	200		300			
78	400		N/O			
79	250		150			
80	1400		UNK			
81	800		200			
82						
83						
84						
85						

TIMING

ARRIVE	E Sept		Sept - E Oct		
START	M Sept	LAug-E Sept	Oct	Aug	July-E Sept
PEAK	L Sept	M Sept	L Oct	Sept	LAug-M Sept
END	L Sept-Oct	LS Sept-E Oct	Nov	Oct	L Sept-Oct

REMARKS



NAME OF STREAM	SHEGUNIA CREEK		
CONSERVATION DISTRICT	8	STATISTICAL AREA	4
LOCATION OF MOUTH	Flows E. into Skeena River at junction of Skeena and Kispiox Rivers, Cassiar Dist.		
	POSITION 55 127 SW.		
LENGTH	km	WIDTH	m DRAINAGE km ²
COMPOSITION: BEDROCK	BOULDER	COARSE	FINE
SILT & SAND	UNCLASSIFIED		
PERCENT GRADIENT			
0.00 - 0.25			
0.25 - 0.50			
0.50 - 0.75			
0.75 - 1.00			
> 1.00			
WETTED AREA	m ²	SPAWNING AREA	m ²
DISCHARGE (m ³ /s)			
TEMPERATURE (°C)			
BARRIERS OR POINTS OF DIFFICULT ASCENT	Canyon cascades 3.2km from stream mouth. Passable at optimum water levels; difficult at high and low flows until 1972 when debris washed out.		
SPAWNING DISTRIBUTION			
SPECIES	SECTION OF STREAM USED		
SOCKEYE			
CHINOOK	- near cascades		
COHO	- near cascades and sometimes above.		
CHUM			
PINK (ODD YEAR)	- lower reaches		
PINK (EVEN YEAR)	- " "		
STEELHEAD			
POTENTIAL OF INACCESSIBLE PORTION OF STREAM	Good spawning grounds above cascades.		
GENERAL REMARKS			
1961 - Poor observation conditions.			
1965 - Suggested engineering survey of effect of falls on ascending salmon during high velocity flows through gorge.			
1966 - Good chinook, coho and steelhead fishing below canyon to mouth.			
- Flood caused erosion, fast flows, turbid water and poor observation condit.			
1968 - Some silting and scouring resulted from autumn floods, also 78,79,80.			
1972 - High water washed out debris in old channel which was causing the river to divert and creating falls. Blasting might keep river permanently in old channel and prevent drying during low flows.			

continued

continuation.

GENERAL REMARKS SHEGUNIA RIVER.

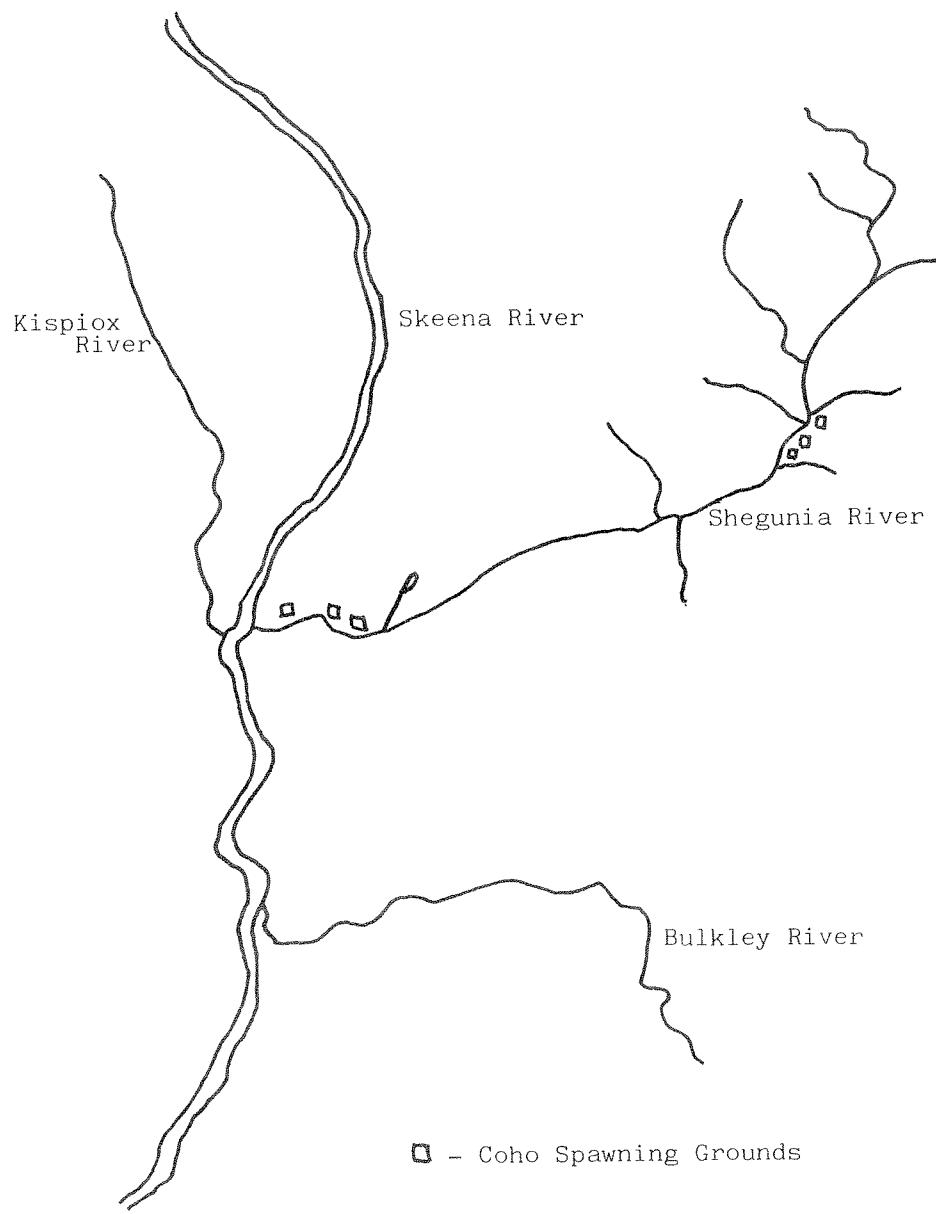
1973 - River was rechannelled around falls and rerouted to its original stream bed.
Fish may have passed through without notice.

1978 - Cascade should be inspected for possibility of installing a fish ladder to
enable salmon to use the spawning grounds above the cascades not presently used.

1981 - Irrigation ditch along side the river monitored regularly because may cause
problems for spawning fish.

Generally rough, rocky, streambed with moderately turbulent flows.
Seasonal fluctuations in water levels.

Predators: bear, birds and eagles.



Sketch of Shegunia Creek,
1975.



0

kilometres

8.0

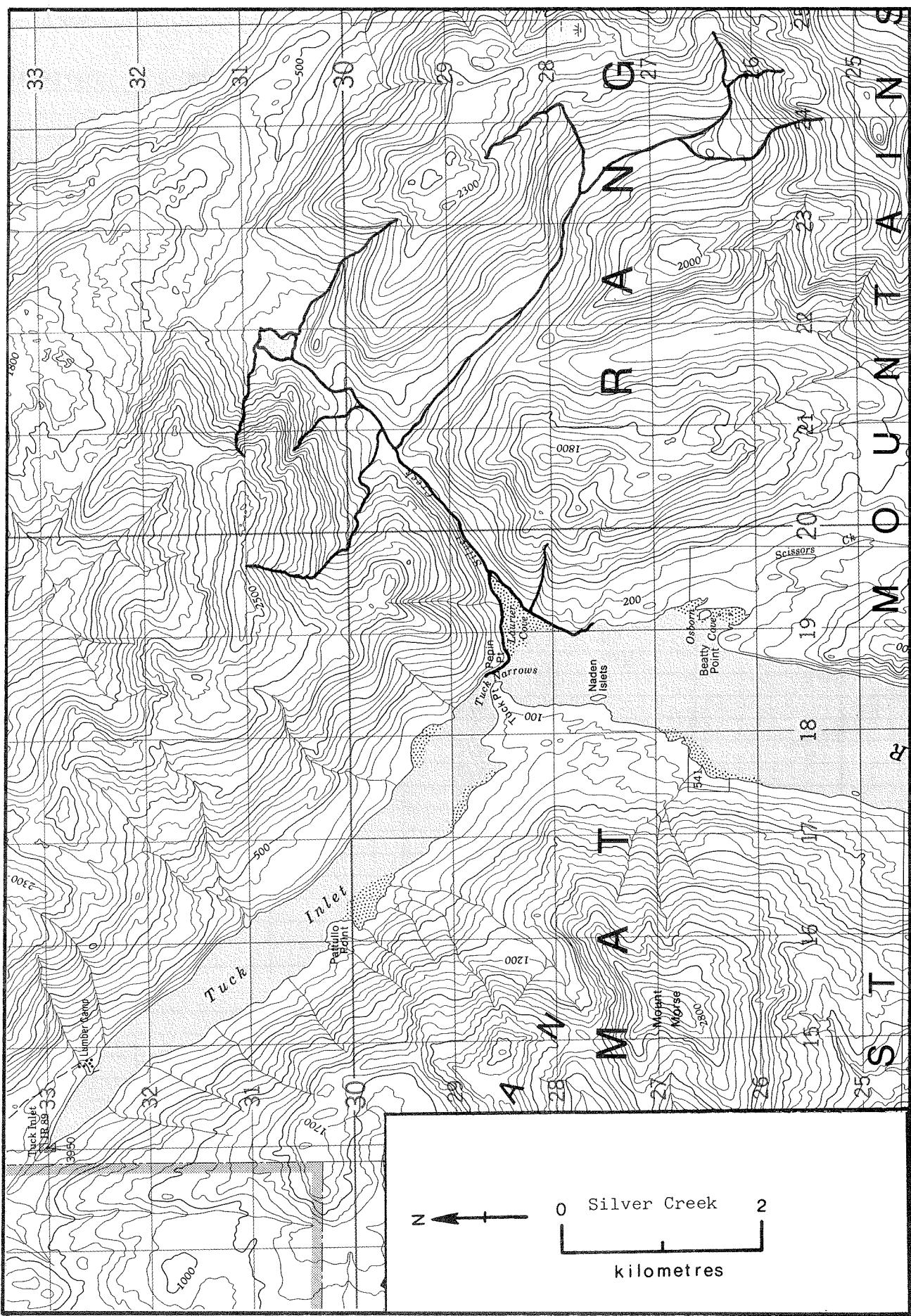
ESCAPEMENT RECORD FOR SHEGUNIA RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			400		200	
49		25	75		750	
50		75	200		400	
51						
52		N/I	N/I		N/I	
53		N/I	N/I		N/I	
54		OBS	N/O		OBS	
55		OBS				
56		OBS			OBS	
57		N/I	N/I		N/I	
58		N/I	N/I		N/I	
59		N/I	N/I		N/I	
60		N/O	N/O		N/O	
61		N/O	N/O		N/O	
62		N/O	N/O		N/O	
63		N/O	N/O		N/O	
64		N/O	N/O		N/O	
65		400				
66		25	400			
67		75				
68		25	400			
69			300			
70			300			
71		50	200			
72		N/R	N/R			
73			N/O			
74			N/O			
75						
76		N/O	N/O			
77		N/R	N/R			
78			OBS		75	
79			OBS		25	
80		25	150		350	
81		25	75		400	OBS
82						
83						
84						
85						

TIMING

ARRIVE		July-Aug	Sept	Aug
START		E Aug	L Sept-Oct	M Aug
PEAK		L Aug	E Oct-M Nov	LAug-E Sept
END		E Sept	E-L Nov	Sept

REMARKS N/I - not inspected



NAME OF STREAM SILVER CREEK

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows S.W. into Prince Rupert Harbour at Tuck Narrows, Rge.5,

Coast Dist. POSITION 54 130 SE.

LENGTH km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT Impassable rock falls 4.8km upstream from mouth.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- from 0.8 to 4.0km upstream from mouth
CHUM	- lower reaches
PINK (ODD YEAR)	- from 0.8 to 4.0km upstream from mouth
PINK (EVEN YEAR)	- " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

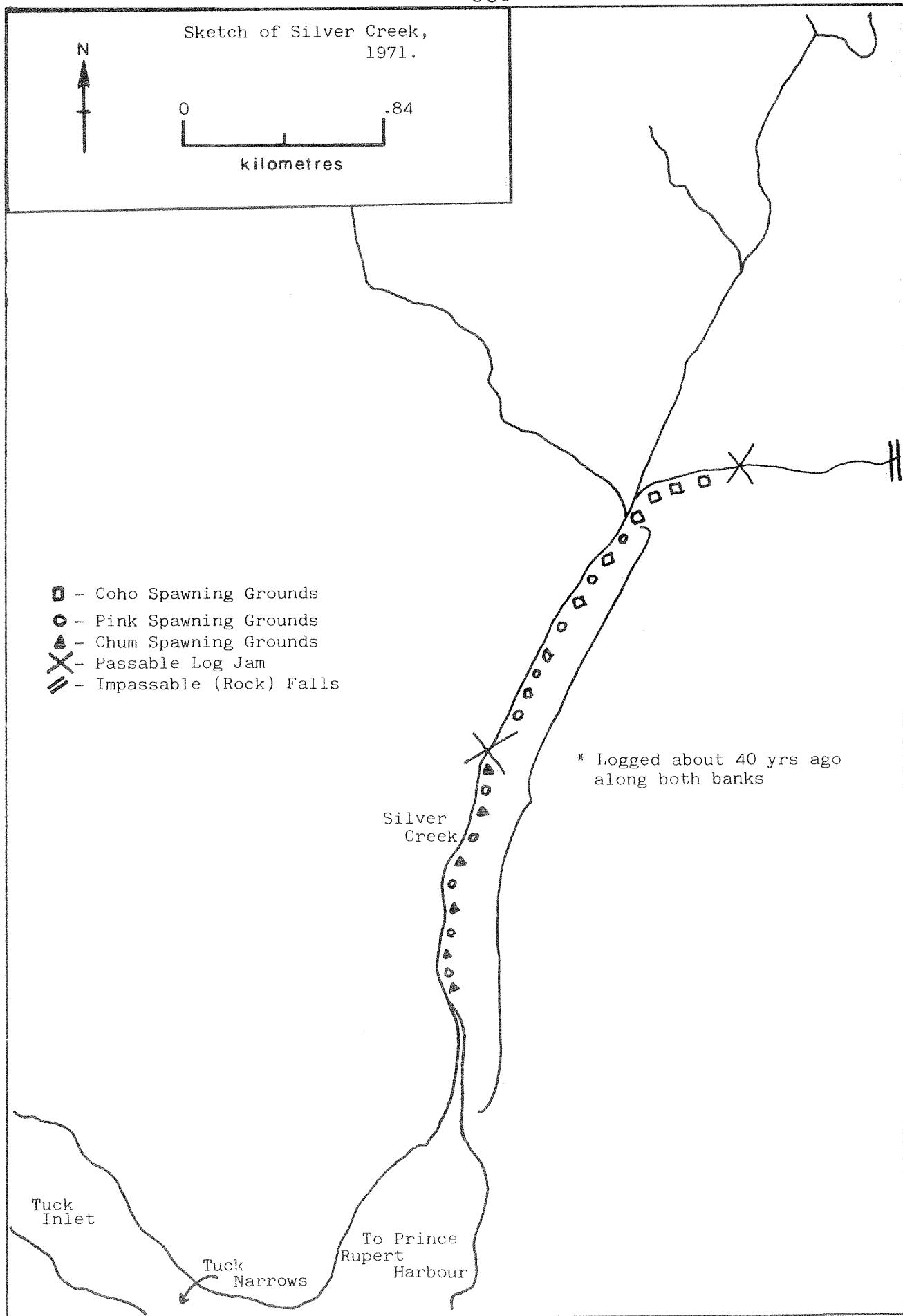
GENERAL REMARKS 1948 - Stream changed course for approx 274m near mouth.

Some erosion evident in upper portions of this stream following heavy rains.

Stream bed rocky beyond spawning limits. Sufficient gravel to accomodate run.

Seasonal fluctuations in flows.

Predators: bears, seals, wolves and eagles.



ESCAPEMENT RECORD FOR

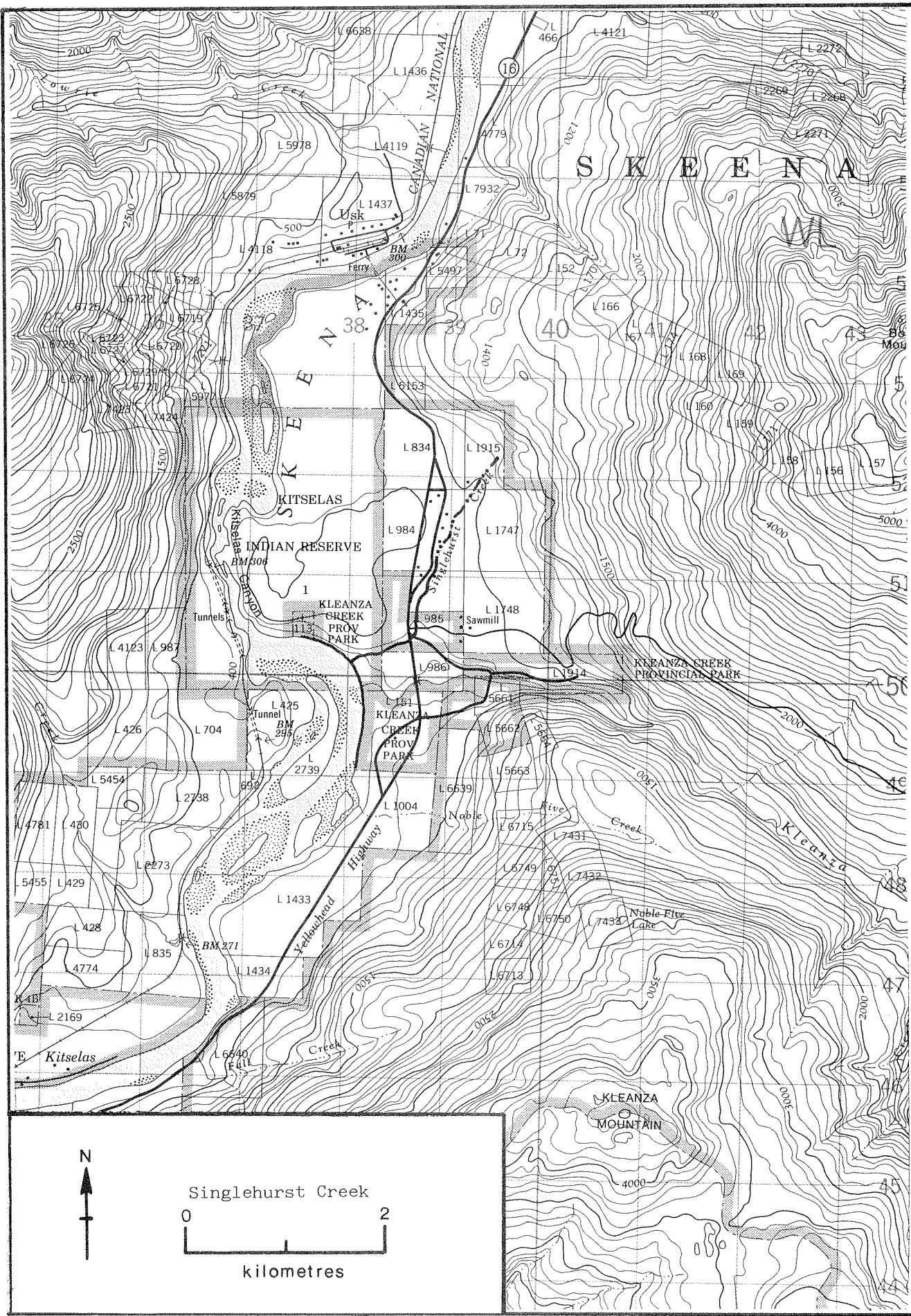
SILVER CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947				3500	3500	
48				3500	7500	
49				1500	7000	
50				6000	4000	
51				1000	3000	
52				300	1500	
53				1000	1000	
54				2000	5000	
55				25	25	
56		10		6	35	
57		200		N/0	400	
58				100	50	
59				25	25	
60				75	200	
61				400	1500	
62				25	200	
63				200	1500	
64				200	1500	
65				N O T I N S P E C T E D		
66		1500		75	3500	
67				25	200	
68			N/0	N/0	3500	
69			400	N/0	750	
70			N/0	N/0	400	
71			UNK	N/0	1200	
72			UNK	N/0	500	
73			UNK	N/0	200	
74			UNK		350	
75			UNK		300	
76			UNK		250	
77			UNK		350	
78			UNK	50	1000	
79			UNK		125	
80			UNK		800	
81					1000	
82						
83						
84						
85						

TIMING

ARRIVE		Oct	Aug	Aug
START		Oct	Sept	Sept
PEAK		Nov	Sept	M Sept - M Oct
END		Nov	Oct	L Sept - Oct

REMARKS



(Swede Creek)

NAME OF STREAM SINGLEHURST CREEK

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows S.W. into Skeena River, N. of Kleanza Creek, Rge.5,
Coast Dist.. POSITION 54 128 NE

LENGTH km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25
0.25 - 0.50
0.50 - 0.75
0.75 - 1.00
> 1.00

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s)TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- upper reaches
CHUM	- near mouth
PINK (ODD YEAR)	- lower 0.8km
PINK (EVEN YEAR)	- " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1951 - Low water prevented fish from entering stream.
1956 - Low water conditions in 58,62.
1961 - Silting and scouring.
- Numerous coho fry sighted also 65,66.
- Beaver activity noted 62,78,80,81 cleared as required.
1965 - Culvert installed to accomodate relocated section of Highway 16.
1966 - Suggest closing file because stream virtually unused.
1969 - File closed
1978,80 Successful fishway built to bypass culvert. Formerly an obstacle
when highway 16 rerouted.
Subject to seasonal flow rates. Predators: bears and eagles.

ESCAPEMENT RECORD FOR

SINGLEHURST CREEK

340

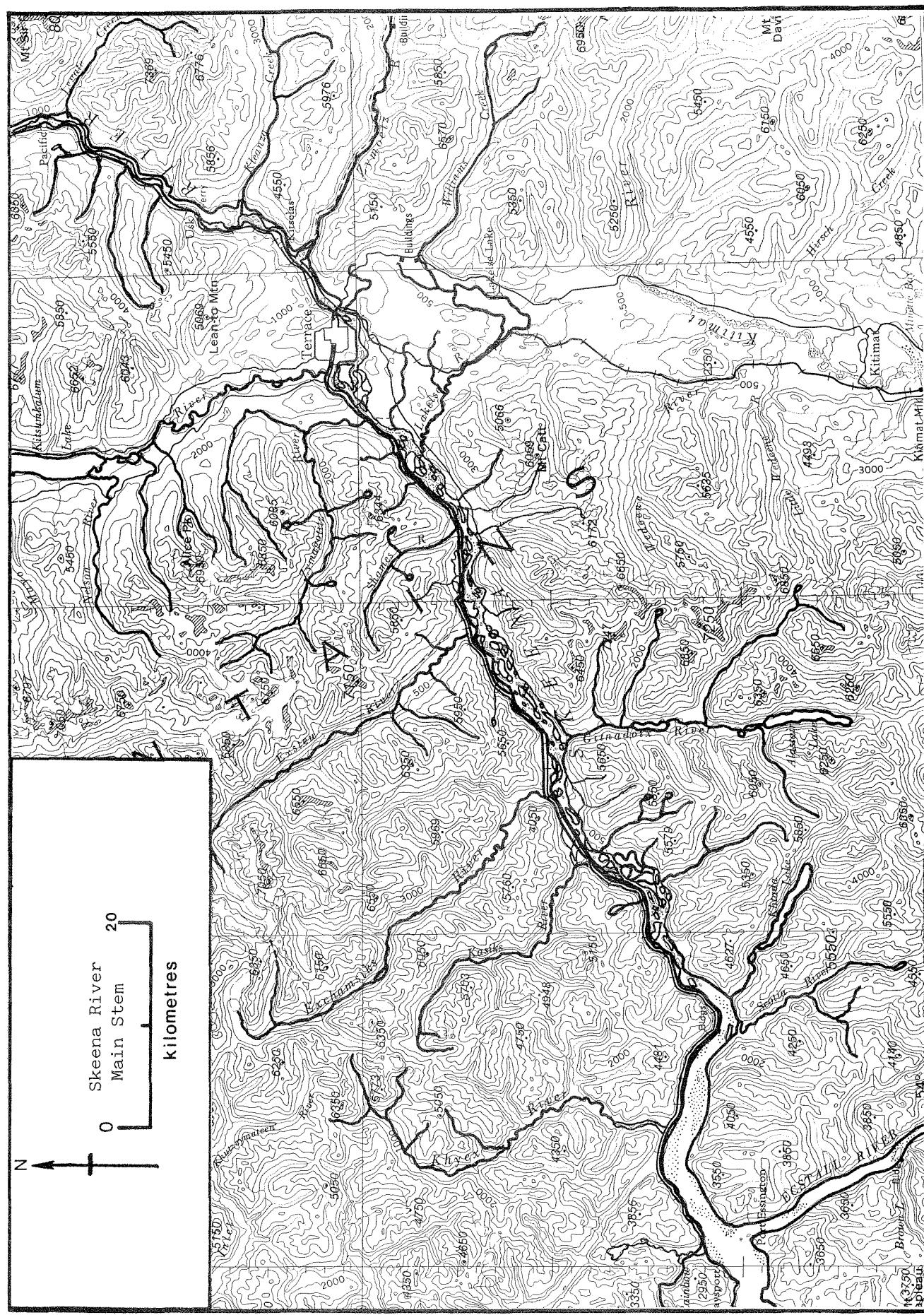
(Swede Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48				25	1500	
49				N/0	N/0	
50				50	600	
51				N/0	N/0	
52					500	
53						
54					200	
55					N/0	
56					N/0	
57					N/0	
58					N/0	
59					N/I	
60					N/0	
61					N/0	
62					N/0	
63					N/0	
64					N/0	
65					N/0	
66					N/0	
67					N/0	
68					N/0	
69					N/0	
70						
71						
72						
73						
74						
75						
76						
77						
78				75	400	
79						
80				55	4	
81				40	25	
82						
83						
84						
85						

TIMING

ARRIVE		Sept		Aug
START		L Sept	E Sept	M Aug
PEAK		M Oct	M Sept	L Aug
END		Nov	L Sept	Sept

REMARKS



NAME OF STREAM SKEENA RIVER (Mainstem)CONSERVATION DISTRICT 8 STATISTICAL AREA 4LOCATION OF MOUTH Flows S.W. into Chatham Sound, Rge. 5, Coast Dist.POSITION 54 130 SELENGTH km WIDTH m DRAINAGE km²COMPOSITION: BEDROCK BOULDER COARSE FINE SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- Selma Island, Terrace
COHO	
CHUM	- Remo Bar, Hells Gate Slough
PINK (ODD YEAR)	- Selma Island, Terrace, Extew River.
PINK (EVEN YEAR)	- " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS 1957 - Too late for inspection.1965 - Development of river for log towing investigated.Dredging proposed close to main stem spawning area.1966 - Normal siltation in estuary and side channels also in 68,69,77.1967 - Shifting gravel in Split Mountain area due to high velocities.1972 - Reports indicate 1,000,000 pinks in main stem, but 50% of spawn lost when river level dropped. Effective spawning recorded as 500,0001981 - Silting and erosion.Seasonal fluctuations in water levels.Predators: seals, eagles and bears.

ESCAPEMENT RECORD FOR

SKEENA RIVER

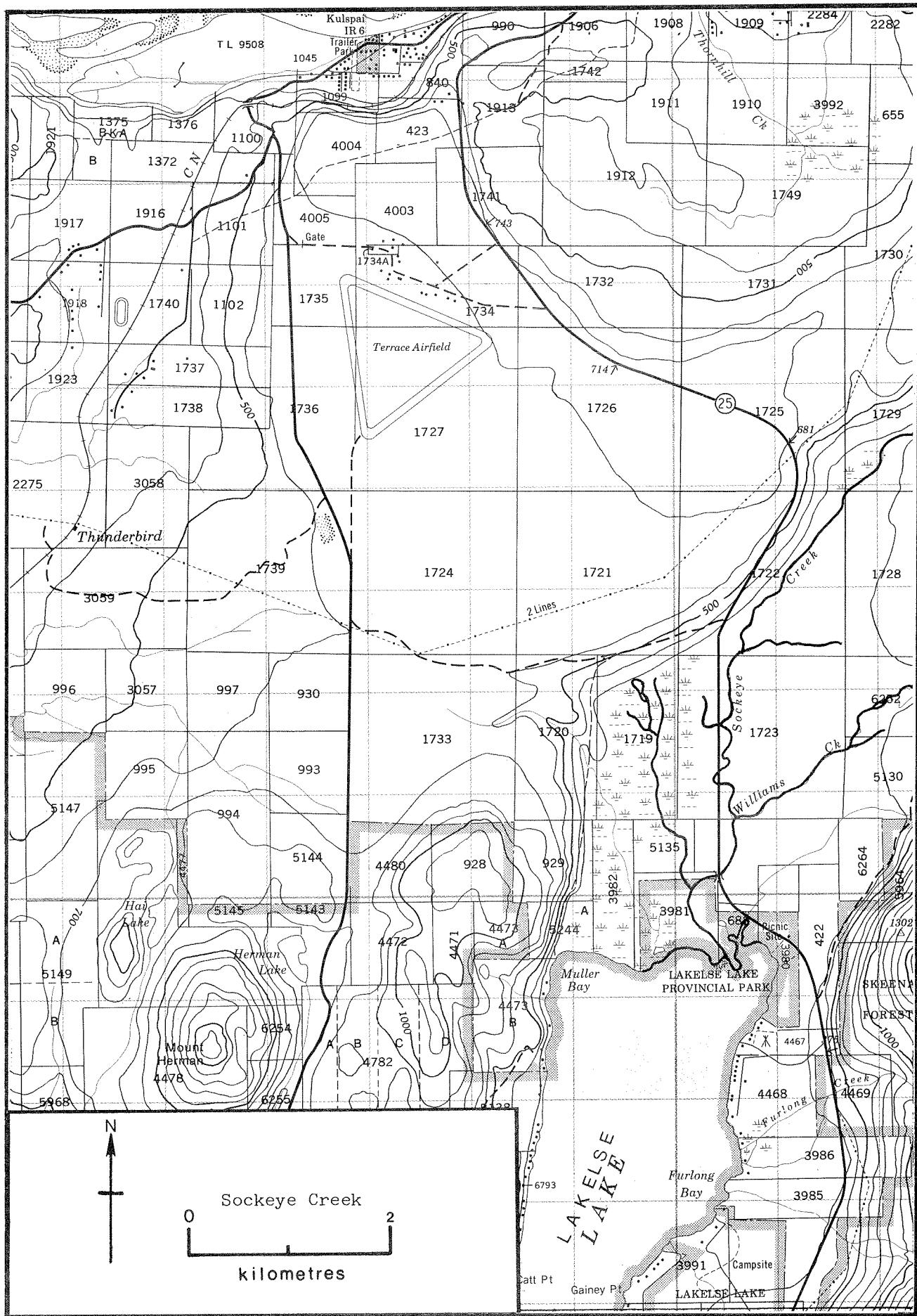
(Main Stem)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57						
58						
59						
60						
61						
62						
63						
64						
65				3500	125000	
66				2000	25000	
67					90000	
68					150000	
69					35000	
70					20000	
71					50000	
72				1500	500000	
73				1500	25000	
74				1500	10000	
75		1500		1500	200000	
76		1500		750	7500	
77		3500		750	35000	
78						
79		200		1000	20000	
80						
81		500		200	20000	
82						
83						
84						
85						

TIMING

ARRIVE	July		July - Aug	E Aug	
START	M Aug		E Aug	M Aug	
PEAK	L Aug		M-L Aug	L Aug	
END	Sept		E-M Sept	Sept	

REMARKS



NAME OF STREAM SOCKEYE CREEK
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Flows S. into Williams Creek, N. of Lakelse Lake, Rge.5,
Coast Dist. POSITION 54 128 SW.
 LENGTH 8 km WIDTH m DRAINAGE km²
 COMPOSITION: BEDROCK BOULDER COARSE FINE
 SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25
0.25 - 0.50
0.50 - 0.75
0.75 - 1.00
> 1.00

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s) TEMPERATURE (°C) BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- scattered for 8.0km upstream from junction with Williams Cr.
CHINOOK	
COHO	- scattered for approx.11.0km upstream from junction with Williams Creek.
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1959 - A minor tributary of Williams Creek used only intermittently.
Estimates usually included in Williams Creek files,63.
1961 - Williams Creek hatchery program geared to handle run as required.
1962 - Lower 0.8km of stream below Park road culvert has slow flow and
heavy mud deposits,66.
1965 - Logging by Pohle Co in upper watershed has denuded that section of
stream, Ranger ordered cleanup by end of May 66 otherwise prosecution pending.

continued.

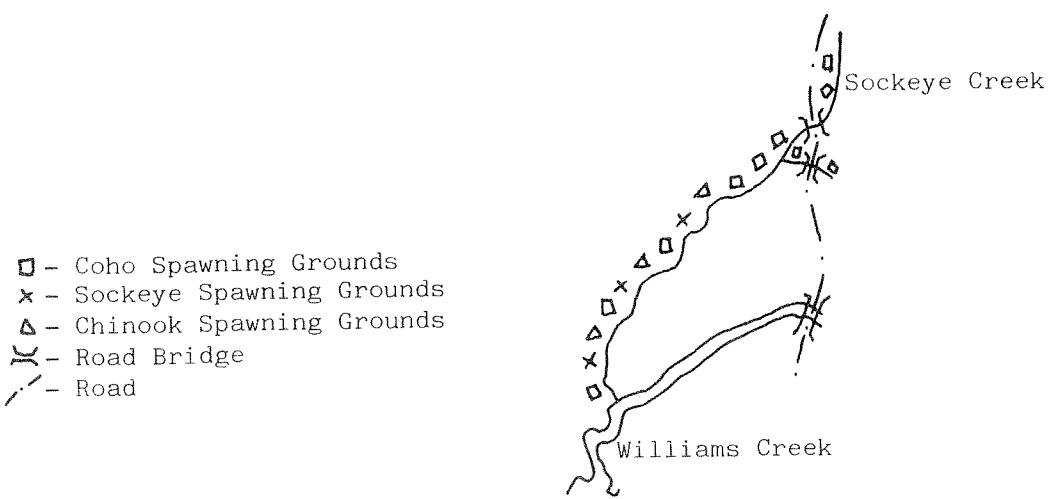
continuation

GENERAL REMARKS COHO CREEK

- 1966 - Adjacent low lands flooded in October.
- Channel improvement conducted in upper reaches to improve flow and make area more accessible to coho spawners.
- 1968 - Silting noted 69,74.
- 1974 - Scouring and erosion noted following fall floods

Log debris scattered throughout, and removed as required 1966-78
Seasonal fluctuations in water levels.

Predators: bears.



N

Sketch of Sockeye Creek,
1971.

0

5.12

kilometres

ESCAPEMENT RECORD FOR

SOCKEYE CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947	400		400			
48	750		75			
49	500		200			
50	200		200			
51	500		200			
52	N/I		N/I			
53						
54	N/I		N/I			
55	N/I		N/I			
56	N/I		N/I			
57	N/I		N/I			
58	N/I		N/I			
59	*		*			
60						
61	*		*			
62	25					
63	*		*			
64						
65	*		1500			
66	2000	25	400			
67	75					
68	400	25	400			
69	1500	25	400			
70	1500	25	400			
71	750	25	400			
72	400	N/O	400			
73	400	N/O	200			
74	200	N/O	200			
75	400		200			
76	750		200			
77	75	N/O	75			
78	400		200			
79						
80						
81	500		175			
82						
83						
84						
85						

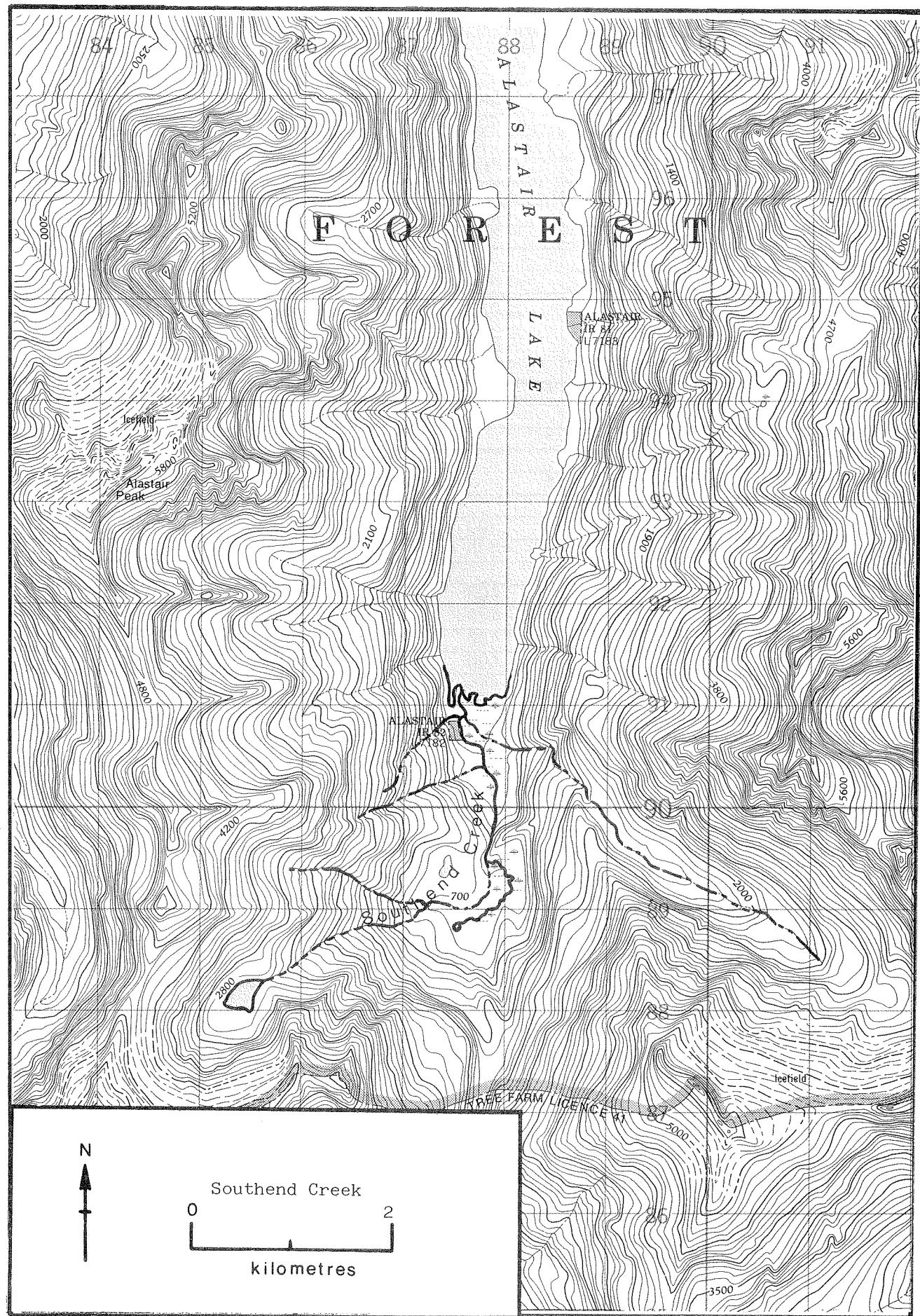
TIMING

ARRIVE	Aug	Aug	Oct		
START	MAug-ESept	Aug - E Sept	L Oct		
PEAK	E-M Sept	M Sept	M Nov		
END	L Sept-Oct	Sept - Oct	Dec		

REMARKS

* Estimates included with Williams Creek

N/I - not inspected



NAME OF STREAM SOUTHEND CREEK

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows into Allistair Creek.

POSITION 54 129 SE.

LENGTH 2.4 km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25

0.25 - 0.50

0.50 - 0.75

0.75 - 1.00

> 1.00

WETTED AREA m² SPAWNING AREA m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT Impassable falls approx. 30m high located about 2.4km upstream from bifurcation on both South and East forks.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- scattered to falls on both forks at distance of approx 1.6km
CHINOOK	
COHO	- to falls on both forks.
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1948 - Some evidence of late spawners digging up previously spawned eggs.

1954 - Coho seen off stream mouth, also in 56

1957 - Few coho jacks seen

- Beaver dams removed on East fork.

- Heavy losses expected due to mid season low flows.

1960 - Sockeye run consisted of 40% male, 50% female and 10% jacks.

1961 - "Green" sockeye observed in L. Sept, but water conditions prevented adequate follow up observation.

1962 - Sand deposits near mouth also in 65.

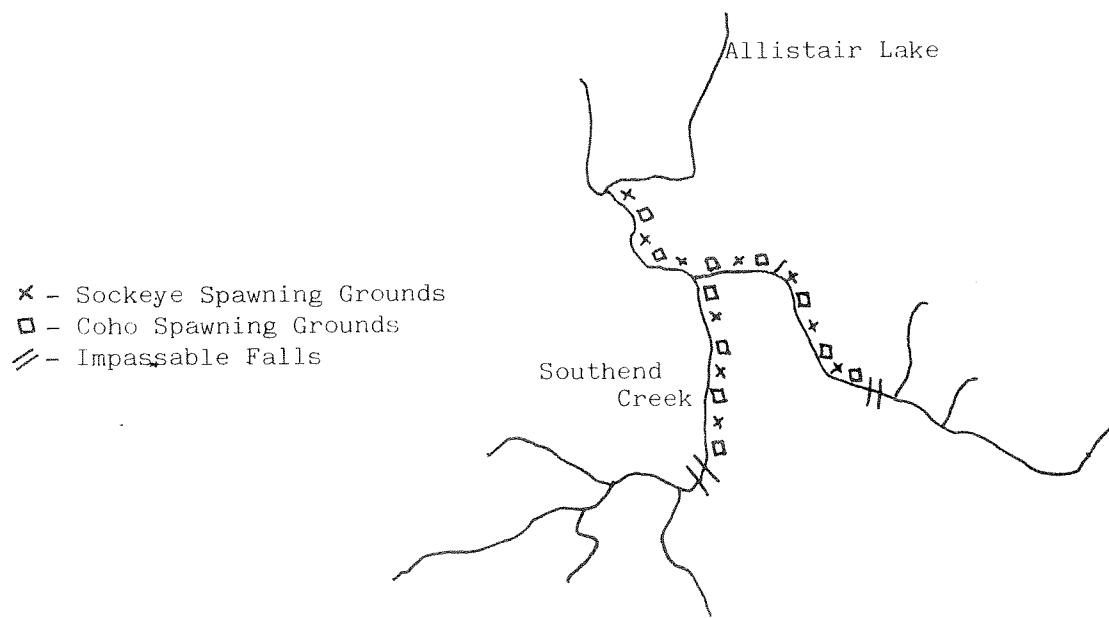
continued.....

continuation.

GENERAL REMARKS SOUTHEND CREEK.

- 1962 - Main producer of Allistair system sockeye runs.
- 1963 - Inspection made at mid-point of run. Expect final estimates of 9000 to 10000 spawners.
- 1964 - Predominantly females.
- 1965 - Numerous small green 4/2 female sockeye observed.
- 1966 - Measurements scale and atholith data taken by Fisheries Research Board.
- 1968 - Silting, scouring and erosion noted following periods of high water, 69,70,77.
- 1972 - Coho estimates based on reports from local sports fishing guides.

Seasonal fluctuations in water levels--clear run-off, mountainous surroundings.
Predators: bears, wolves, seals, eagles.



Sketch of Southend Creek,
1971.



ESCAPEMENT RECORD FOR

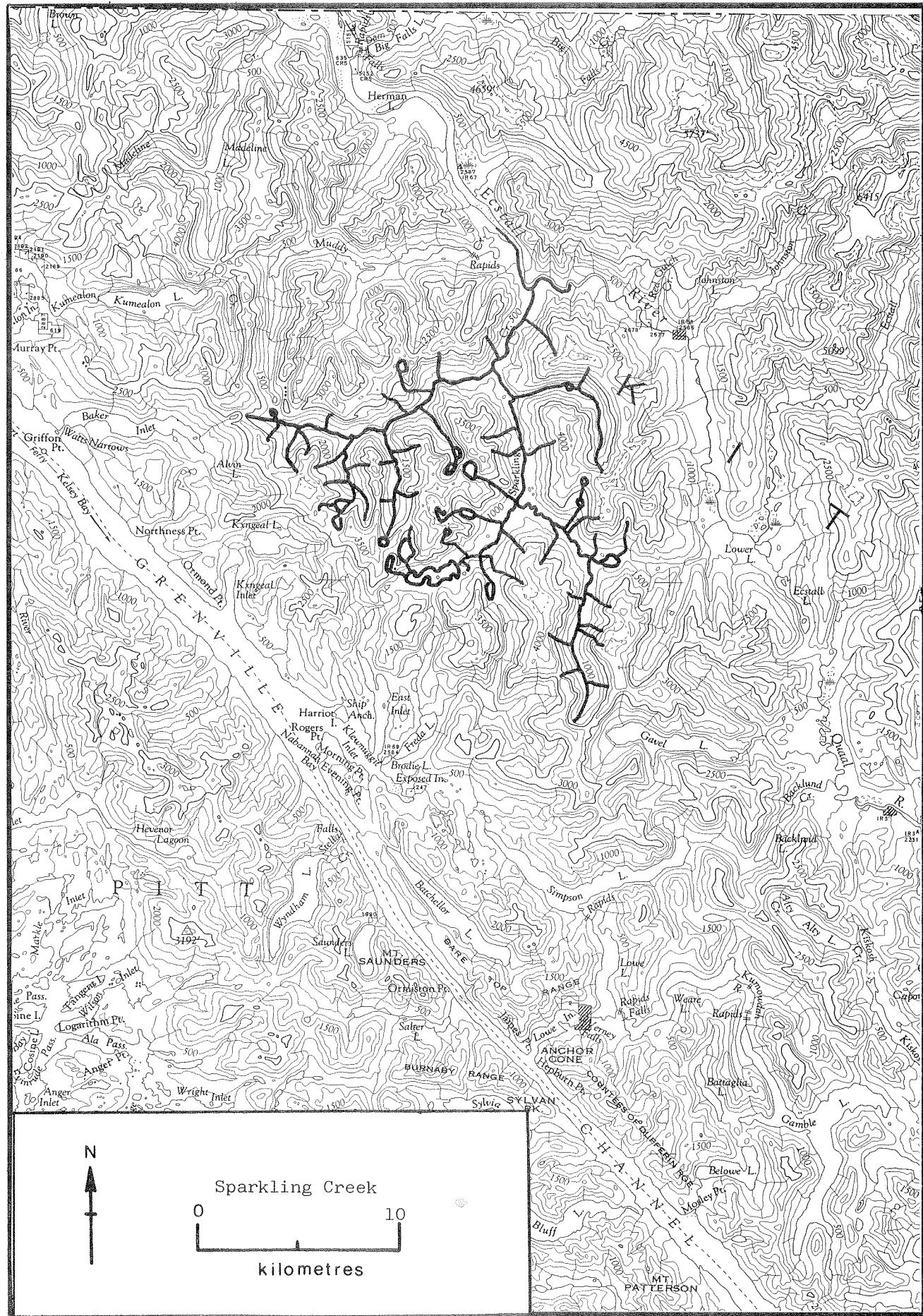
SOUTHEND CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48	15000					
49	10000					
50	8000					
51	10000					
52	12000					
53	12000					
54	15000					
55	15000					
56	15000					
57	35000					
58	35000					
59	15000					
60	3000					
61	12500					
62	8445					
63	7500					
64	1500					
65	7500					
66	8000		1500			
67	7500		3500			
68	7500		7500			
69	1500		750			
70	750		750			
71	750		750			
72	2500		750			
73	2500		400			
74	1000		400			
75	400		N/I			
76	1500		N/I			
77	3500		N/I			
78	8000		75			
79						
80	10500		N/I			
81	400		N/O			
82						
83						
84						
85						

TIMING

ARRIVE	Aug	Sept - Oct	
START	MAug - ESept	MSept - MOct	
PEAK	M Sept	E-M Oct	
END	M-L Oct	Dec	

REMARKS



NAME OF STREAM SPARKLING CREEK (Clear Water Creek)

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows N. into Ecstall River, W. of Johnston L., Rge. 4., Coast Dist.

POSITION 53 129 NW.

LENGTH km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SIIT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25
0.25 - 0.50
0.50 - 0.75
0.75 - 1.00
> 1.00

WETTED AREA m² SPAWNING AREA m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT Impassable rock fall 2.0km from stream mouth.

SPAWNING DISTRIBUTION

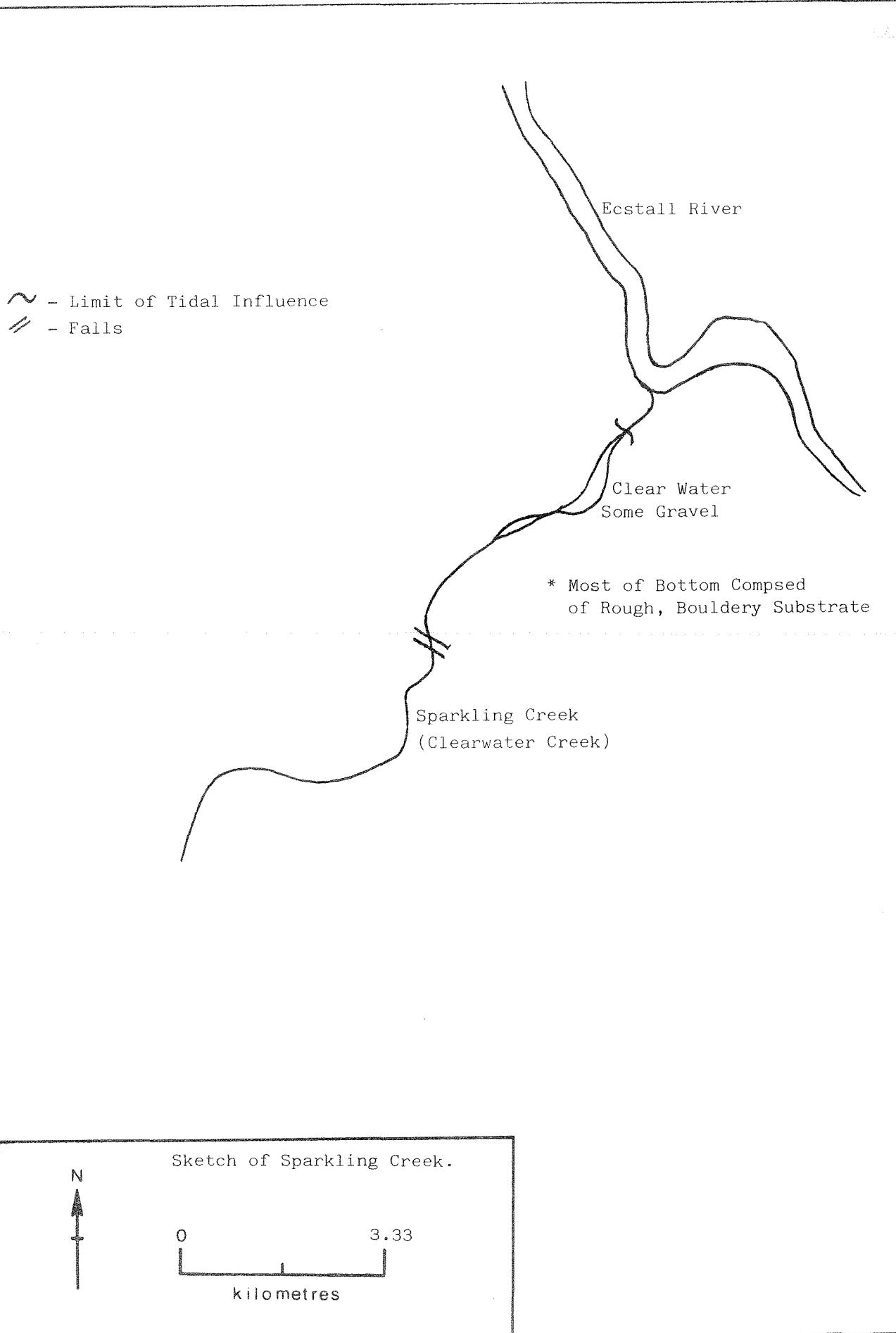
SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	- lower 1.2km of this stream and below falls for 182m.
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1974 - Recommend any spawning escapements be included in Ecstall R.
1977 - High turbidity hampered observation.

1978 - Heavy rains in November may have damaged stream bed.

Muddy bottom for 1.6km from Ecstall River junction. Mostly bouldery, rough gravel. Subject to seasonal fluctuations in water levels.
Poor spawning stream.



ESCAPEMENT RECORD FOR

SPARKLING CREEK

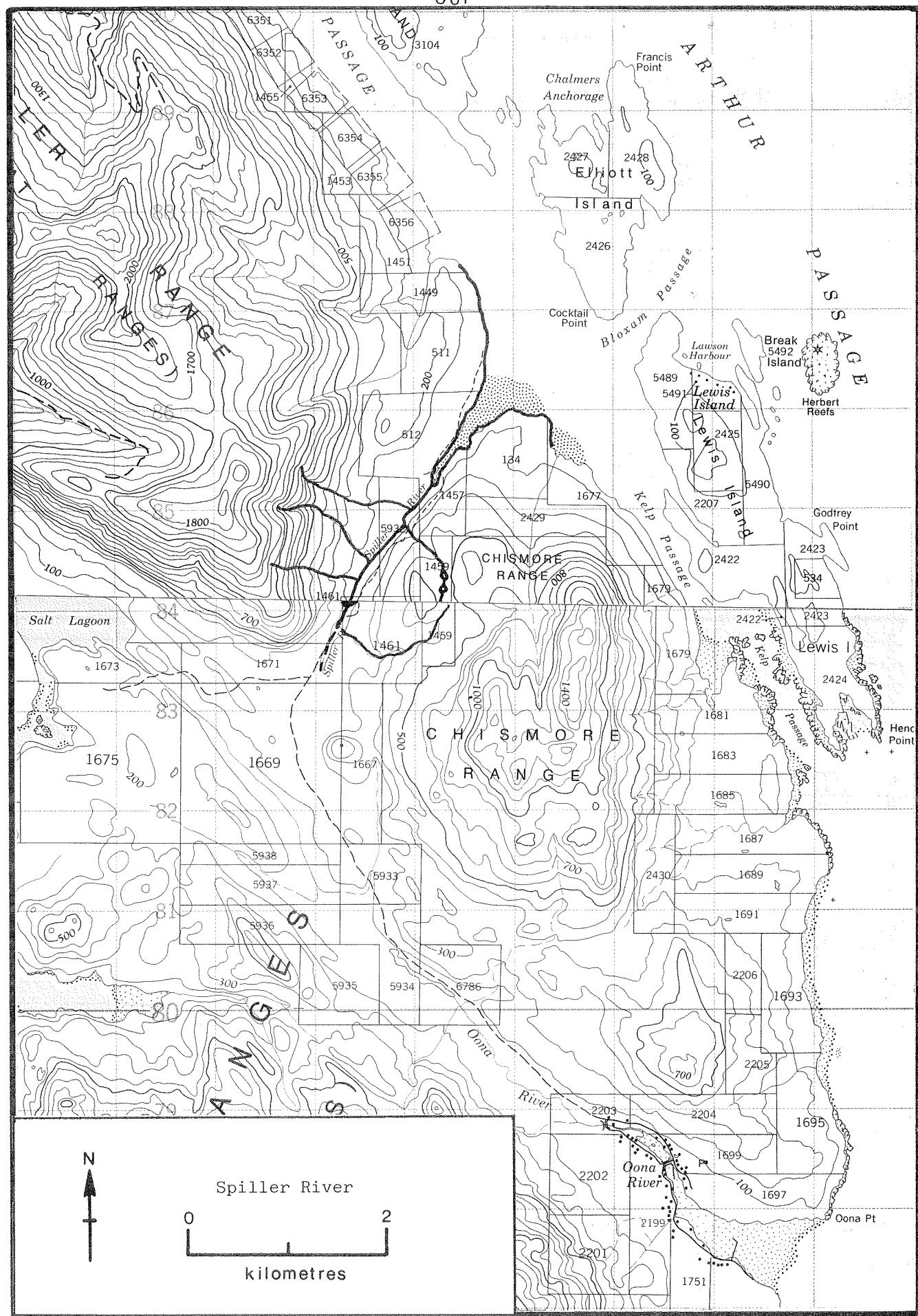
(Clear Water Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947				3500	3500	
48				75	25	
49				500	2000	
50					N/0	
51				300	600	
52				2500	5000	
53					200	
54				2	20	
55				25	1500	
56				N/0	N/0	
57					1500	
58				100	100	
59					750	
60				N/0	N/0	
61				N/0	N/0	
62					N/0	
63					750	
64				N/0	N/0	
65				N/I	N/I	
66			N/0	N/0	N/0	
67				N/0	200	
68				N/0	N/0	
69				N/0	N/0	
70				N/0	N/0	
71			UNK		300	
72				N/0	N/0	
73			N/0	N/0	N/0	
74			N/0	N/0	N/0	
75			UNK	N/0	N/0	
76			N/0	N/0	N/0	
77			N/0	N/0	N/0	
78			N/0	N/0	N/0	
79			UNK	N/0	N/0	
80			UNK	N/0	N/0	
81			UNK	N/0	N/0	
82						
83						
84						
85						

TIMING

ARRIVE				
START				Aug
PEAK				Sept
END				Oct

REMARKS



NAME OF STREAM	SPILLER RIVER		
CONSERVATION DISTRICT	8	STATISTICAL AREA	4
LOCATION OF MOUTH	Flows N.E. into Chismore Passage, Porcher Island, Rge. 5, Coast Dist.		
	POSITION 54 130 SE.		
LENGTH	3.2	KM	WIDTH _____ m DRAINAGE _____ km ²
COMPOSITION: BEDROCK	BOULDER	COARSE	FINE
SILT & SAND	UNCLASSIFIED		
PERCENT GRADIENT			
0.00 - 0.25			
0.25 - 0.50			
0.50 - 0.75			
0.75 - 1.00			
> 1.00			
WETTED AREA	m ²	SPAWNING AREA	m ²
DISCHARGE (m ³ /s)			
TEMPERATURE (°C)			
BARRIERS OR POINTS OF DIFFICULT ASCENT			
SPAWNING DISTRIBUTION			
SPECIES	SECTION OF STREAM USED		
SOCKEYE			
CHINOOK			
COHO	- well dispersed throughout available gravel area.		
CHUM			
PINK (ODD YEAR)	- well dispersed throughout available gravel area.		
PINK (EVEN YEAR)			
STEELHEAD			
POTENTIAL OF INACCESSIBLE PORTION OF STREAM			
GENERAL REMARKS 1950 - Good gravel bed. 1953 - Slough-like, marshy grasslands near mouth. - Water highly discoloured. - Tidal influence extends for 0.8km upstream from mouth. - Preponderance of female pinks observed. 1961 - Early spawners died without spawning due to severe low flows; however, flows were satisfactory for the bulk of the run to spawn successfully. 1965 - Low water delayed upstream migration. 1967 - Minor silting noted most years between 1967 and 1980.			

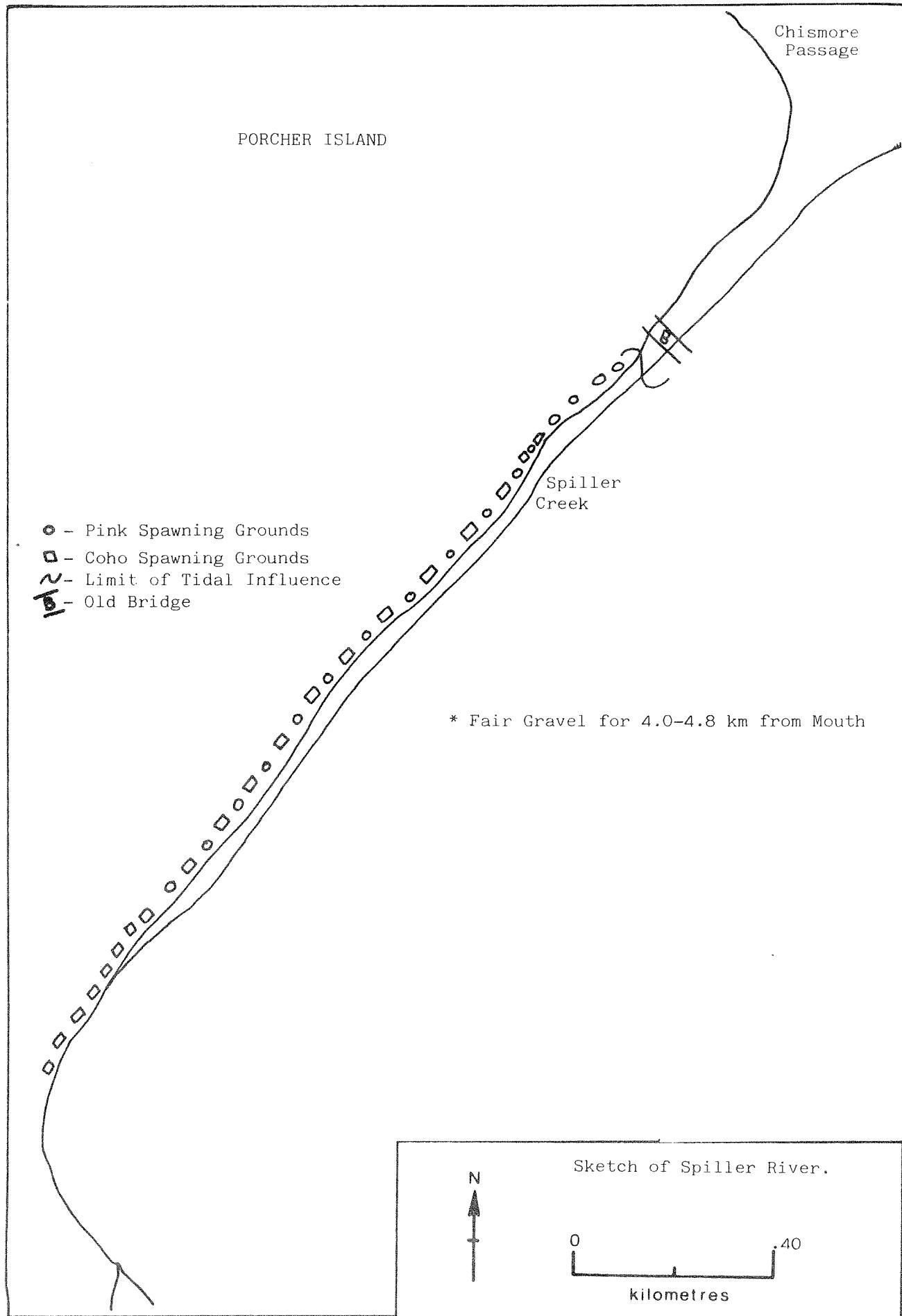
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continued

GENERAL REMARKS SPILLER RIVER.

- 1972 - Some evidence of over spawning.
 - Other streams on Porcher Island flowing into Chismore Pass also received good seeding of pink salmon.
- 1973 - Pink escapement figures include the 150 fish spawning near the mouths of the 3 creeks on Hunts Point.
- 1976 - Better run than expected.
- 1978 - Heavy November rains may have caused some stream bed damage resulting in egg loss.
- 1981 - Coho fry observed. Good rearing conditions in side channels and small tributaries.

Seasonal fluctuations in water levels. Headwaters swampy.
Predators: seals, trout, wolves, eagles and bears.



ESCAPEMENT RECORD FOR SPILLER RIVER

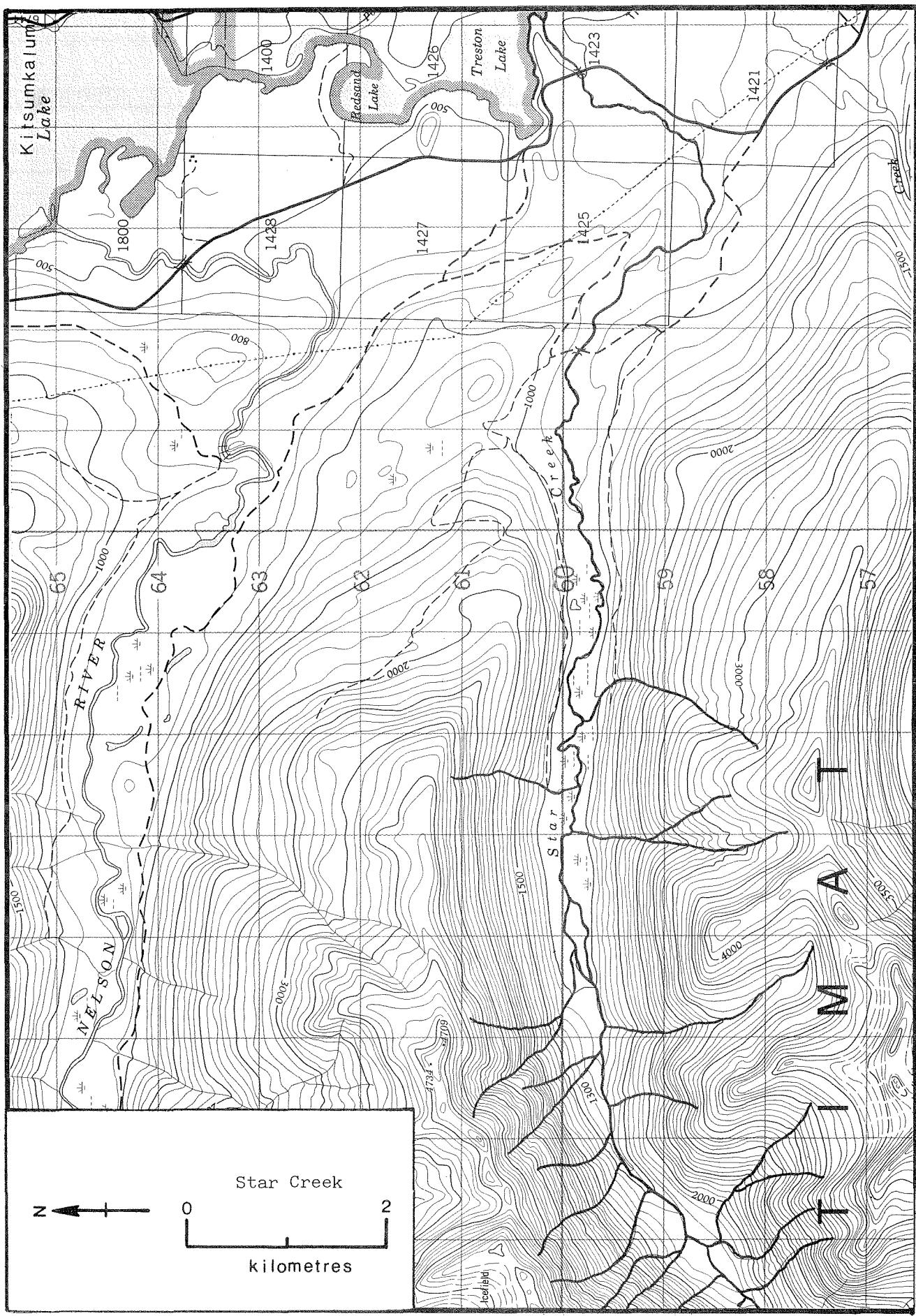
YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947					7500	
48					7500	
49					15000	
50					10000	
51					1500	
52					40000	
53					500	
54					1500	
55					15000	
56					4000	
57					6000	
58					1500	
59					3500	
60					1500	
61					3500	
62					3500	
63					1500	
64					3500	
65					1500	
66		1500			7500	
67		75			750	
68		75			7500	
69		200			1500	
70		N/O			3500	
71		UNK			7000	
72		UNK			11000	
73		UNK			350	
74		UNK			1000	
75					400	
76					5000	
77					200	
78					3000	
79					200	
80					*	4200
81		UNK				200
82						
83						
84						
85						

TIMING

ARRIVE			M Aug
START		M Sept-E Oct	MAug-M Sept
PEAK		L Sept-M Oct	M-L Sept
END		M-L Oct	M Sept-Oct

REMARKS

* Includes 1100 dead unspawned pinks in good condition.
 Reason for mortalities unexplained. Similar occurrences in
 Humpback Bay Creek and Oona River.



NAME OF STREAM STAR CREEK
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Flows E. into Kitsumkalum River, S. of Kitsumkalum Lake, Rge.5,
Coast Dist. POSITION 54 128 NW.
 LENGTH 6.4 km WIDTH m DRAINAGE km²
 COMPOSITION: BEDROCK BOULDER COARSE FINE
 SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

<u>0.00 - 0.25</u>
<u>0.25 - 0.50</u>
<u>0.50 - 0.75</u>
<u>0.75 - 1.00</u>
<u>> 1.00</u>

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s) TEMPERATURE (°C) BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- scattered for about 4.8km upstream from mouth.
CHUM	
PINK (ODD YEAR)	- lower river when present.
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS Generally only observed to Columbia Cellulose Company Bridge,
 approx. 0.8km from mouth.
 1953 - Cleared canyon blockage.
 1954 - High and turbid water prevents accurate observation and assessments in
 most years.
 1956 - Columbia Cellulose Co. cleared log jam at highway bridge.
 1961 - Flash flood resulted in considerable silting, scouring and erosion, 69-80.
 Columbia Cellulose restored channel to contain flow in bridge vicinity.
 1964 - erosion noted.
 1965 - In C.C.C. tree farm area Kalum -- block mountain valley -- silty runoff--
 minor tributary--sandy fine gravel--bouldery -- thick underbrush above bridge.
 Rocky stream, swift flow. Flash floods and extremely silty water conditions
 common

ESCAPEMENT RECORD FOR

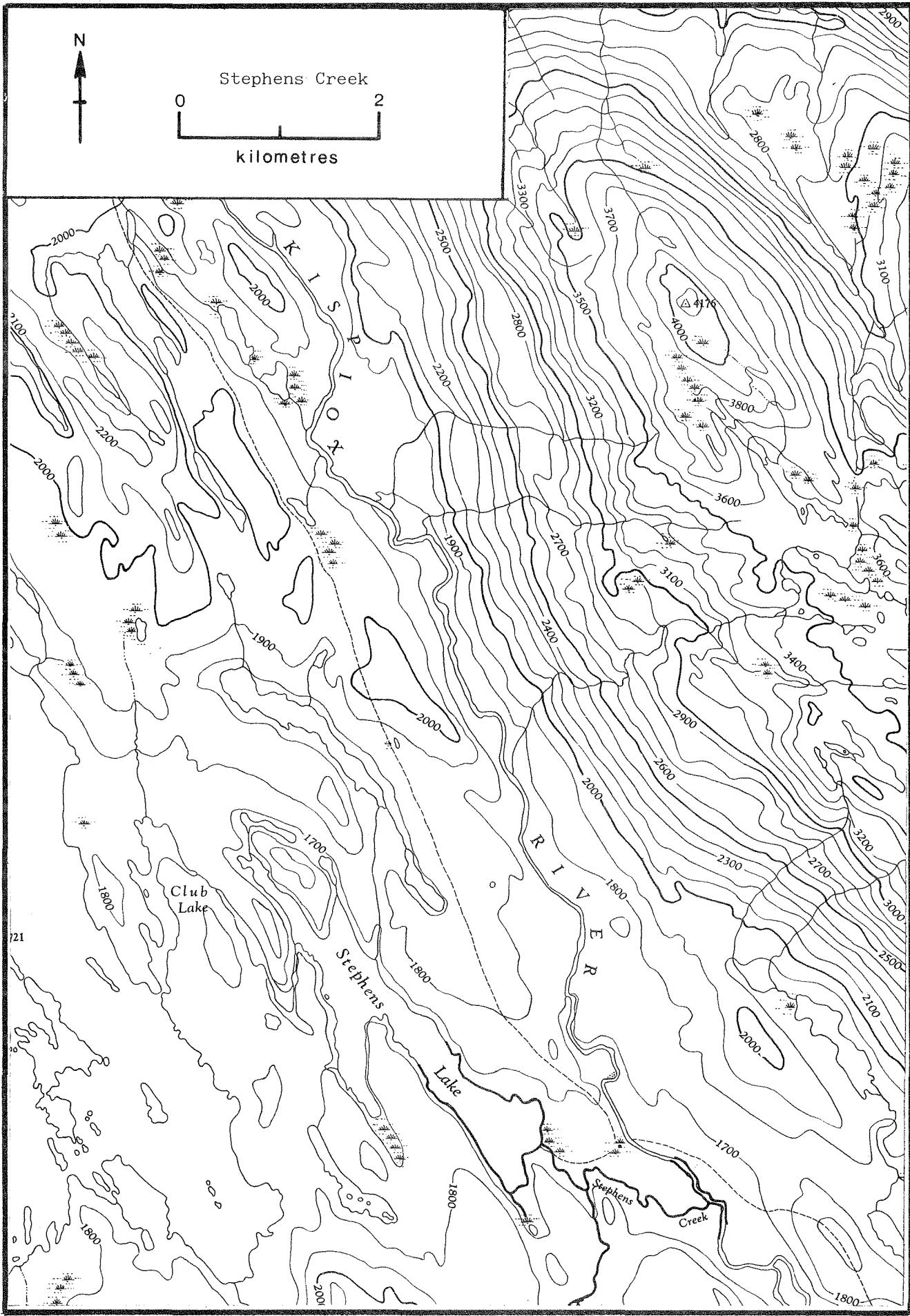
STAR CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53			200		OBS	
54			N/I			
55			N/O			
56			N/O			
57			OBS			
58			OBS			
59			N/I			
60			N/O			
61			400			
62			N/O			
63			N/O			
64			N/O			
65			N/O			
66		25	75			
67		N/O	N/O			
68			N/O			
69			N/O			
70			N/O			
71			N/O			
72			N/O			
73			N/O			
74						
75						
76			25			
77			25			
78			25			
79			N/I			
80						
81			50		200	
82						
83						
84						
85						

TIMING

ARRIVE		Oct		Aug
START	Aug	Nov		E Sept
PEAK	Aug	M Nov		M Sept
END	Sept	Dec		L Sept

REMARKS N/I - not inspected



NAME OF STREAM STEPHENS CREEK.

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows S.E. into Kispiox River, Cassiar District.

POSITION 55 128 NW.

LENGTH 2.4 km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- scattered spawning throughout stream.
CHINOOK	- " " "
COHO	- " " "
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1954 - Beaver dam removed 0.8km from Stevens Lake.

1960 - Silting, also in 65.

1961 - Competition for spawning space between chinook and sockeye.

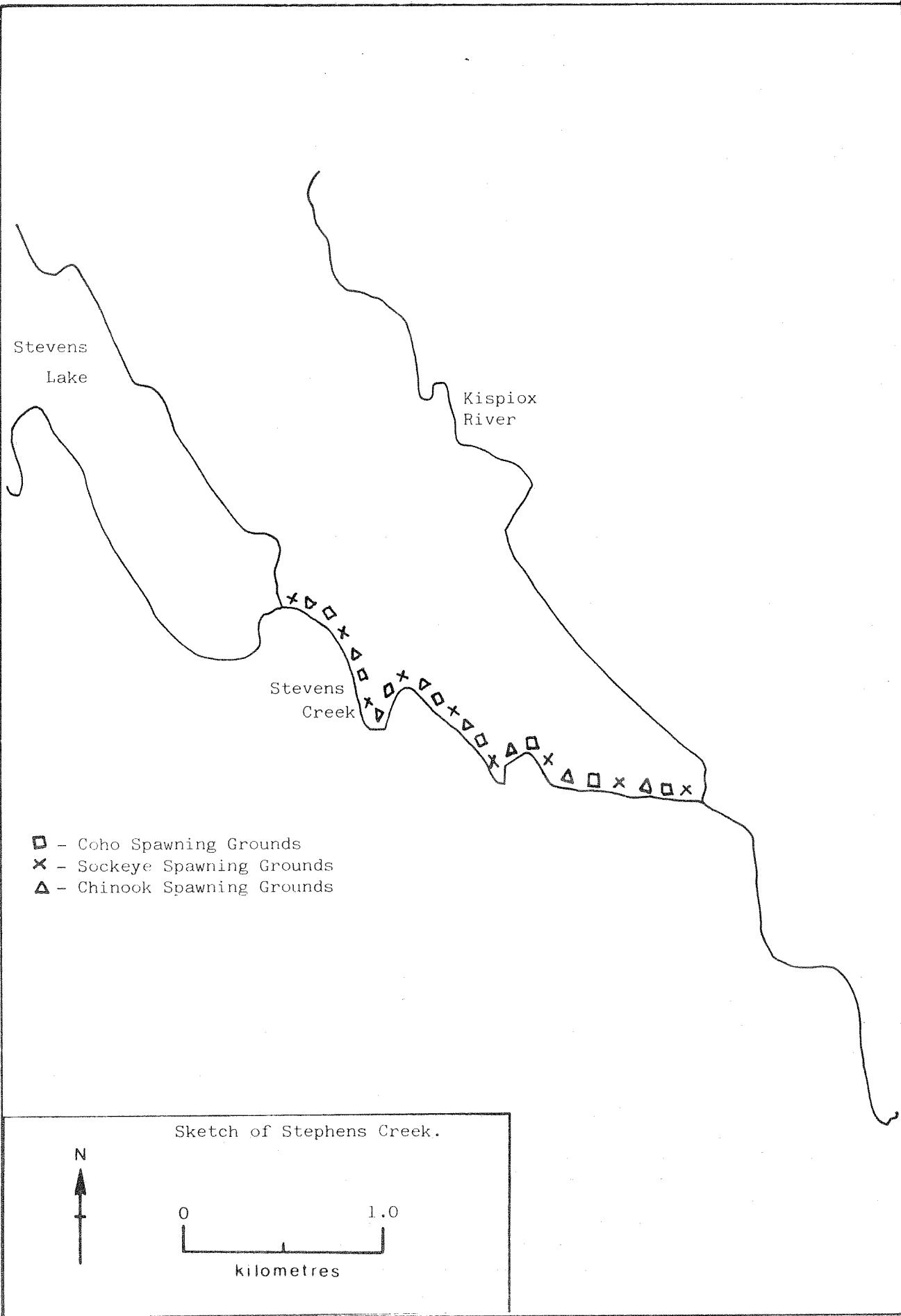
- Sockeye have difficulty ascending Gitwangak Canyon when flows are low.

1967 - 2500 sockeye and 500 coho through area in L. Sept.

Obstructions removed as required to ensure passage of fish.

Seasonal fluctuations in water levels.

Predators: bears.



ESCAPEMENT RECORD FOR

STEPHENS CREEK

374

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947	579	OBS	OBS			OBS
48	25	N/0	25			
49	10	200	150			
50		100	100			
51	200		400			
52	50	N/0	200			
53		200	50			
54	N/0	200	200			
55	N/0	200	200			
56	25	25	400			
57		75	200			
58		200	400			
59		400	75			
60		2	3500			
61	1500	750	1500			
62	17	N/0	N/0			
63	75		200			
64	75	25	750			
65	75	25	750			
66	400	200	1500			
67						
68		N/0				
69	750		750			
70	400		750			
71	400		750			
72	400		750			
73	400	25	200			
74	400	25	200			
75	200	25	200			
76	200		400			
77	400	400	200			
78						
79	N/0	N/0	N/0			
80	*	100	*	250	*	150
81	N/I		N/I		N/I	
82						
83						
84						
85						

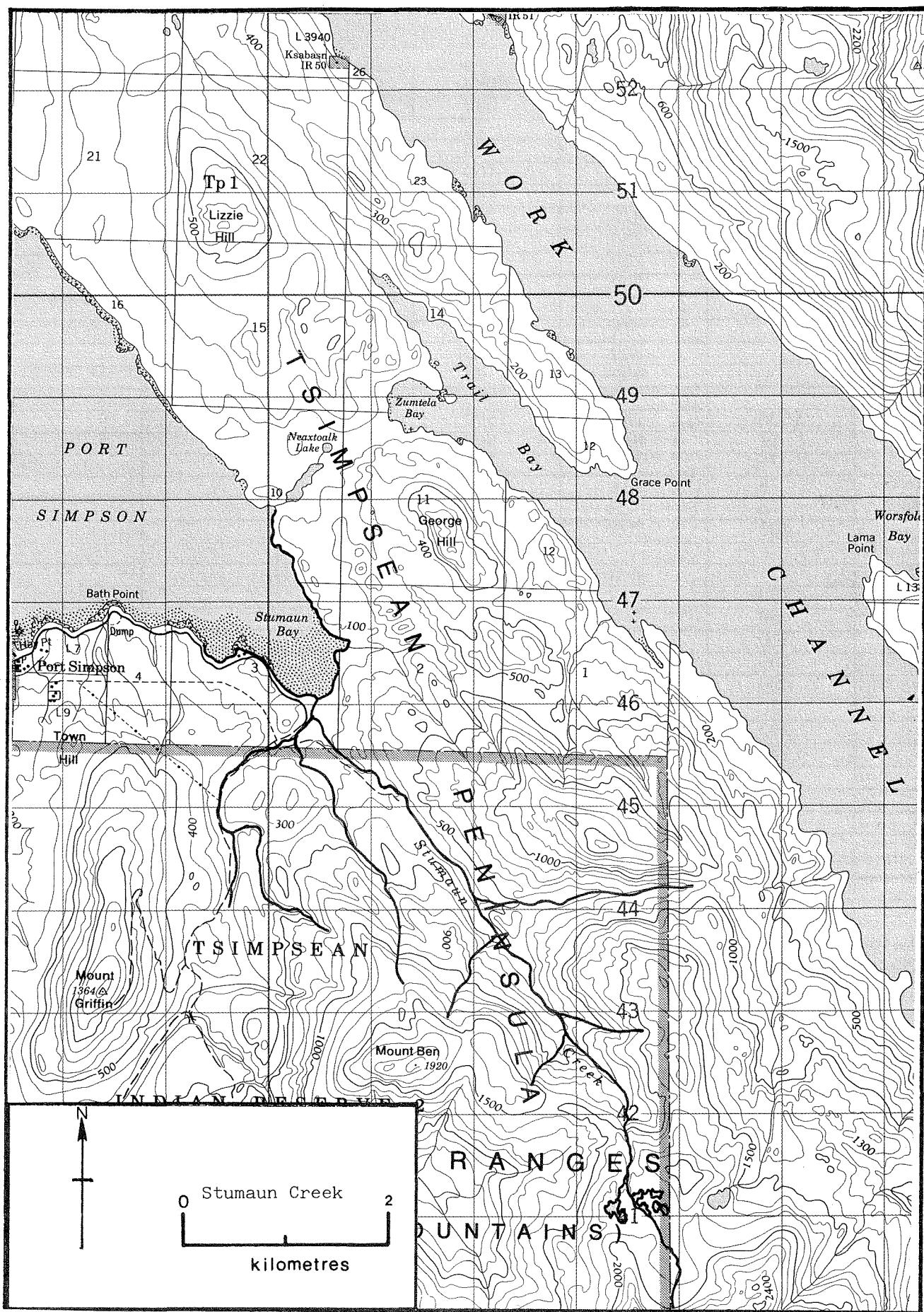
TIMING

ARRIVE	L Aug	Aug	Sept			
START	E Sept	M-L Aug	Sept - E Oct			
PEAK	M Sept	E-M Sept	M Sept - M Oct			
END	L Sept - M Oct	L Sept	L Sept - L Oct			

REMARKS

* Figures obtained from surveys conducted by B.C. Fish & Wildlife.

N/I - not inspected



NAME OF STREAM STUMAUM CREEK (Simpson Creek)

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows into Stumaun Bay, Head of Port Simpson.

POSITION 54 130SE.

LENGTH km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT Passable but logging debris scattered throughout.
Recommend removal.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	- even throughout entire system
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1978. Water levels extremely low during migration, normal during spawning. Some egg digging in lower end. Good amount of Coho fry seen in this stream. Project with village should be initiated next Spring to remove logging debris.

1979. If funds unavailable to hire people, patrolmen should clean as much logging devris as possible prior to the return of the 1980 pinks.

ESCAPEMENT RECORD FOR

STUMAUN CREEK

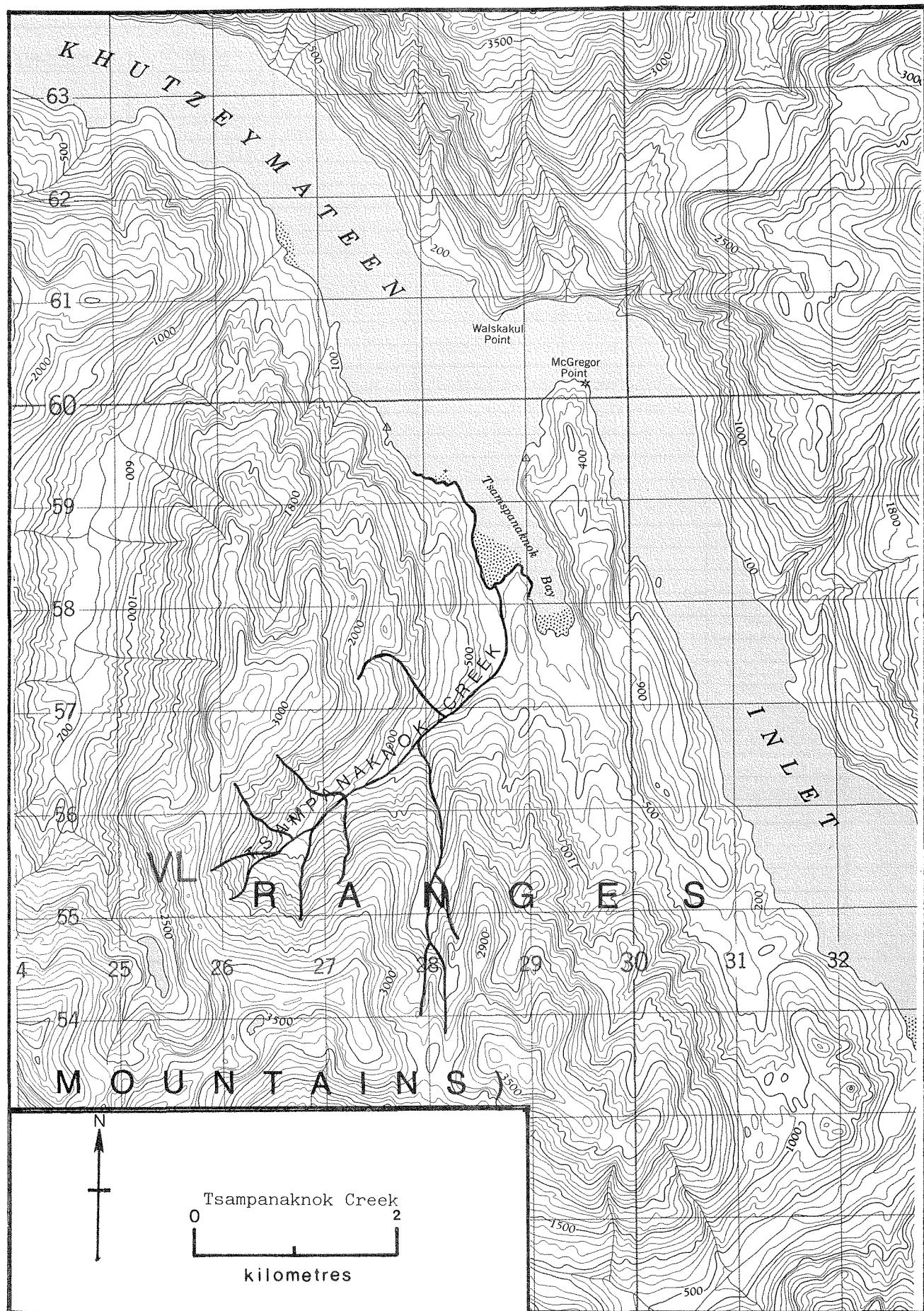
(Simpson Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57						
58						
59						
60						
61						
62						
63						
64						
65						
66						
67						
68						
69						
70						
71						
72						
73						
74						
75						
76						
77						
78					11000	
79					N/O	
80						
81						
82						
83						
84						
85						

TIMING

ARRIVE					Aug 10	
START					Aug 15	
PEAK					Sept 15	
END					Sept 30	

REMARKS N/O-not observed



NAME OF STREAM _____ (Tsamspanaknok Bay Creek)

CONSERVATION DISTRICT _____ 8 STATISTICAL AREA _____ 4 (Sam Bay)

LOCATION OF MOUTH Flowing into Khutzeymateen Inlet.

POSITION _____ 54 130NE

LENGTH _____ km WIDTH _____ m DRAINAGE _____ km²

COMPOSITION: BEDROCK _____ BOULDER _____ COARSE _____ FINE _____

SILT & SAND _____ UNCLASSIFIED _____

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA _____ m² SPAWNING AREA _____ m²DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	- in lower reaches only
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS 1978 - Water levels normal. Helicopter logging to take place in the area later this fall. 1 chain leave strip to be left for stream bank protection.

Checked stream to 2.5km from mouth -- no obstructions.

ESCAPEMENT RECORD FOR

382

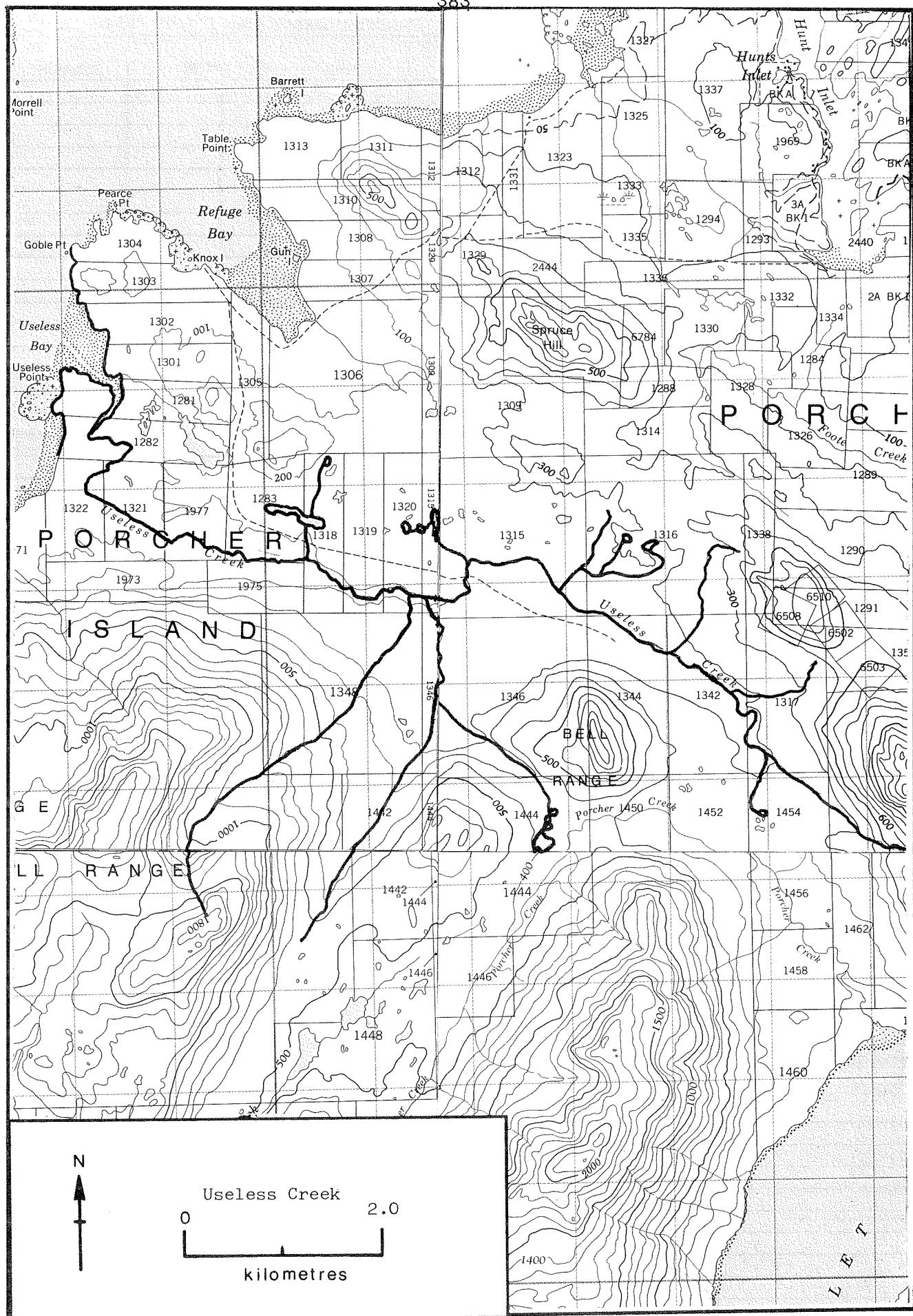
(Tsamspanaknok Bay Creek) (Sam Bay)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57						
58						
59						
60						
61						
62						
63						
64						
65						
66						
67						
68						
69						
70						
71						
72						
73						
74						
75						
76						
77						
78					800	
79						
80						
81						
82						
83						
84						
85						

TIMING

ARRIVE					Aug. 7	
START					Aug. 15	
PEAK					Aug. 30	
END					Sept. 15	

REMARKS



NAME OF STREAM USELESS CREEK (Big Useless Creek)

CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows N.W. into Useless Bay, Edye Passage, Rge. 5, Coast Dist.

POSITION 54 130 SW.

LENGTH 3.2 km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SIILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25
0.25 - 0.50
0.50 - 0.75
0.75 - 1.00
> 1.00

WETTED AREA m² SPAWNING AREA m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	
PINK (ODD YEAR)	= from mouth 3.2km
PINK (EVEN YEAR)	= from mouth 3.2km
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1953 - Dark, brackish water during inspection period. Small windfalls 0.8km upstream and above.

1955 - Brakish water noted.

1957 - Small brush jams 0.8km to 3.2km upstream, prevent scouring of spawning gravel and do not restrict fish.

1961 - About 2000 early pinks died unspawned due to insufficient flows. Rain in L. Aug brought the main run in and allowed successfull spawning.

1963 - Low flows hampered upstream migration and caused death of some fish prior to spawning.

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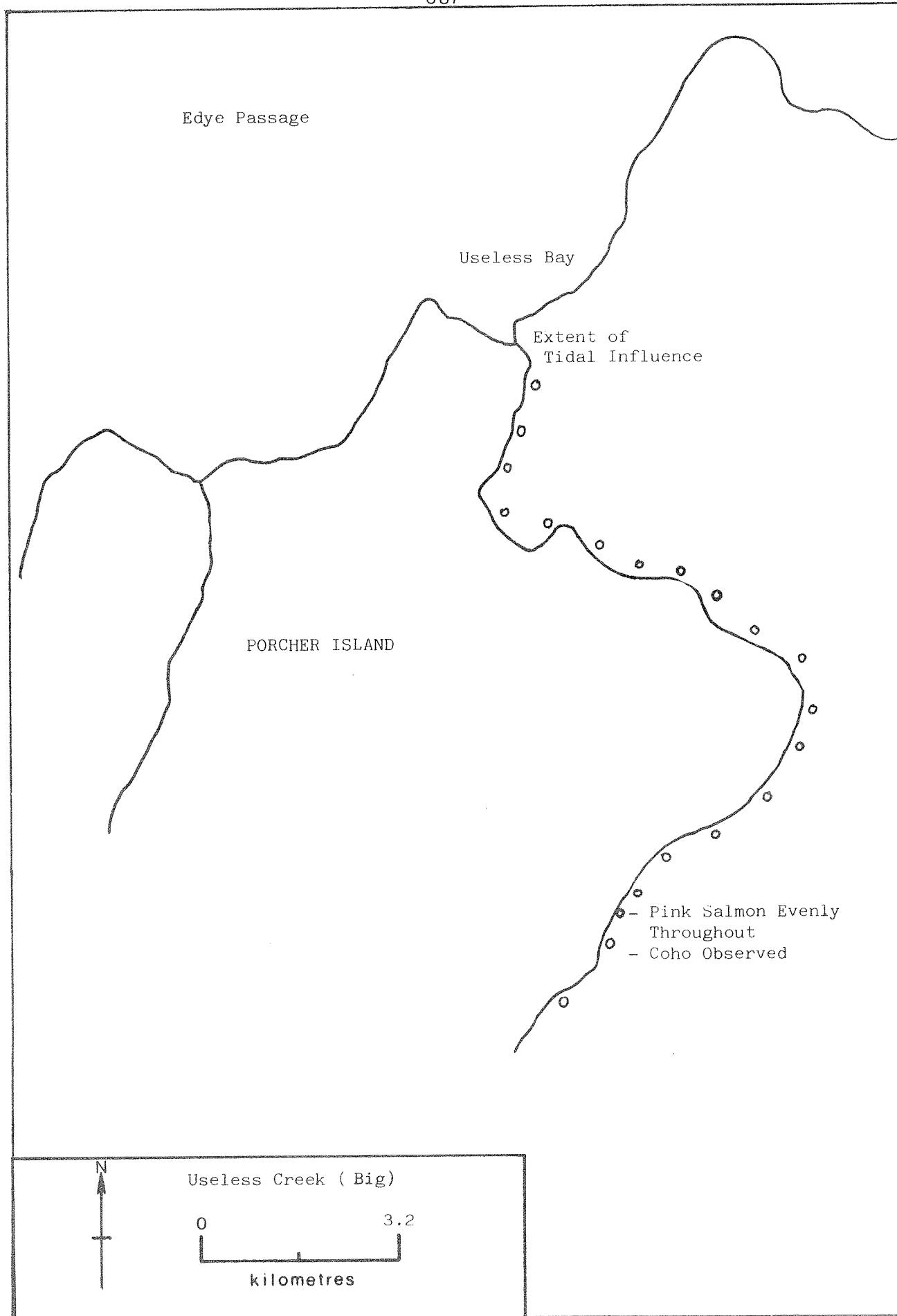
continued.

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GENERAL REMARKS (Big Useless Creek)

- 1964 - Spawning high on banks and prolonged dry, cold, weather could result in desiccation of these eggs.
- 1966 - Poor visibility during stream inspection.
- 1973, 1967 Frequent water discolouration and turbidity hamper accurate assessments of salmon stocks.
- 1976 - Better run than expected.
- 1977 - Heavy rains in late September.
- 1978 - Heavy rains in early November caused some stream bed damage.
- 1979 - Slight siltation noted.

Stream has good gravel sections. 3.2km of suitable gravel in all.
Seasonal fluctuations in water levels and flash floods during freshets.
Predators: hair seals, eagles, wolves.

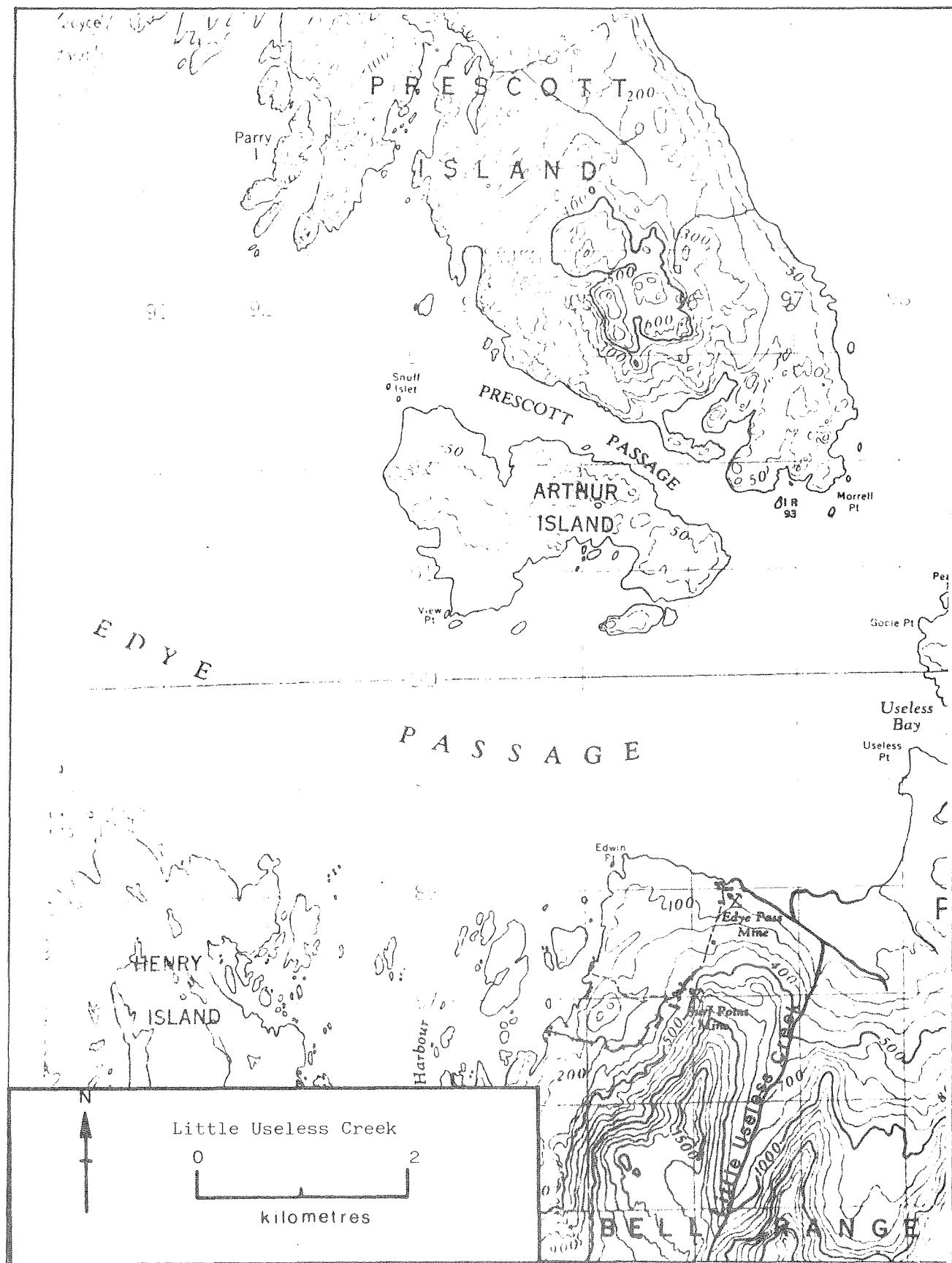


YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947					3500	
48					3500	
49					7000	
50					4000	
51					1500	
52					30000	
53					400	
54					5000	
55					1500	
56					11000	
57					6000	
58					3000	
59					3500	
60					3500	
61					7500	
62					35000	
63					7500	
64					7500	
65			N/O		200	
66			1500		3500	
67			75		2500	
68			N/O		3500	
69			750		1500	
70			N/O		200	
71			UNK		1800	
72			UNK		7000	
73			200		1425	
74			UNK		2500	
75			UNK		4000	
76			UNK		15000	
77			UNK		3000	
78			UNK		1500	
79			UNK		1500	
80					2000	
81			UNK		850	
82						
83						
84						
85						

TIMING

ARRIVE	M Aug
START	MAug-MSept
PEAK	M-L Sept
END	L Sept-MOct

REMARKS



(Little Useless Creek)

NAME OF STREAM USELESS CREEK
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Flows N.W. into Useless Bay, Edye Passage, Rge.5, Coast Dist.
 POSITION 54 130 SW.
 LENGTH km WIDTH m DRAINAGE km²
 COMPOSITION: BEDROCK BOULDER COARSE FINE
 SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25
0.25 - 0.50
0.50 - 0.75
0.75 - 1.00
> 1.00

WETTED AREA m² SPAWNING AREA m²DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT Impassable rock falls on right hand fork
0.8km upstream.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- evenly dispersed from 0.8km - 1.6km from stream mouth.
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1961 - Lack of water delayed upstream migration.

1965 - Lack of water may have affected run size.

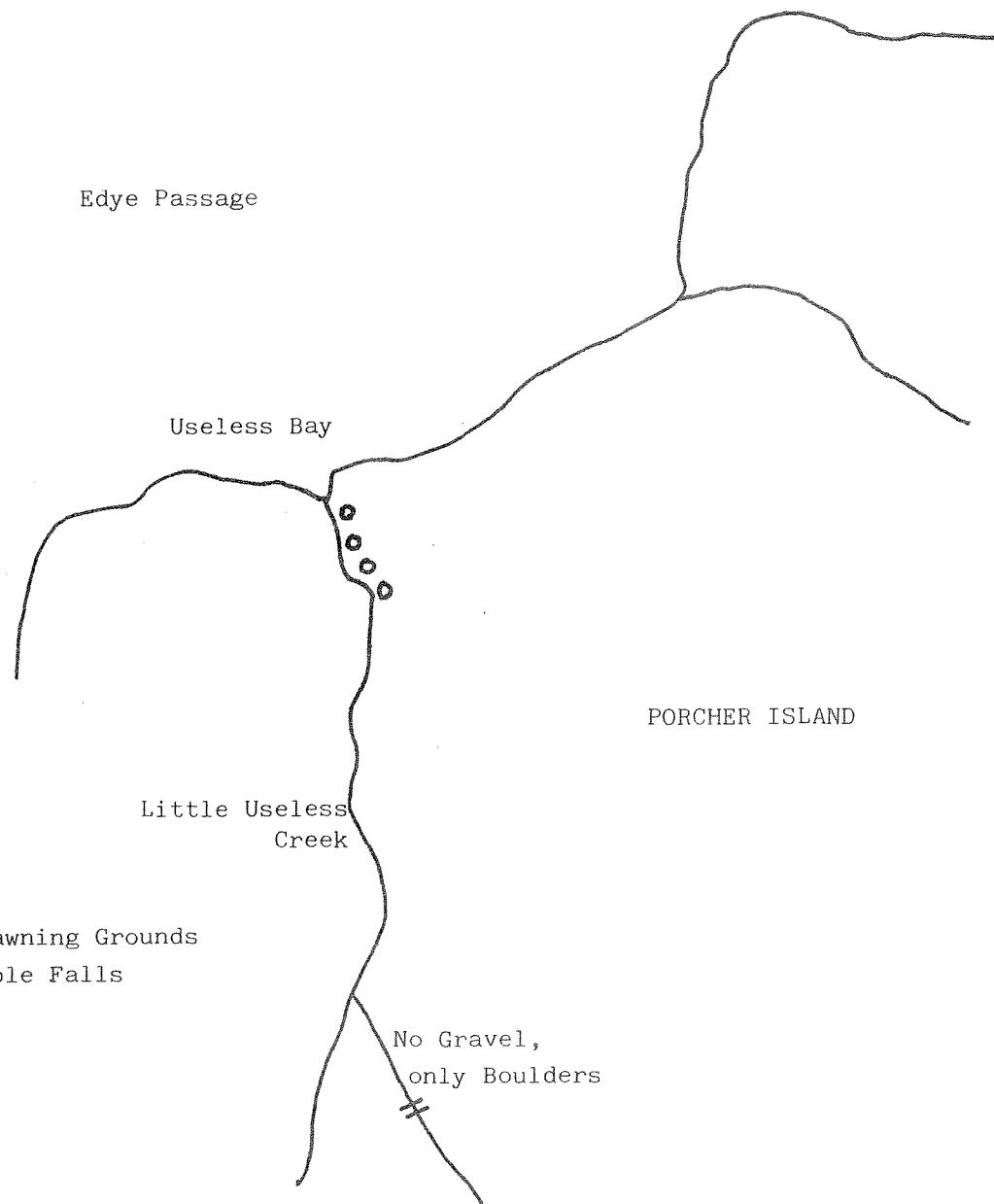
1967 - A few pinks use the stream depending upon water levels.

1981 - Low water conditions made creek impassable.

Flows through swampy area, discolored, brakish water.

Subject to seasonal fluctuations in water levels and flash floods.

Predators: eagles, seals and wolves.



Useless Creek (Li title)

N

0

2.0

kilometres

ESCAPEMENT RECORD FOR

USELESS CREEK

392

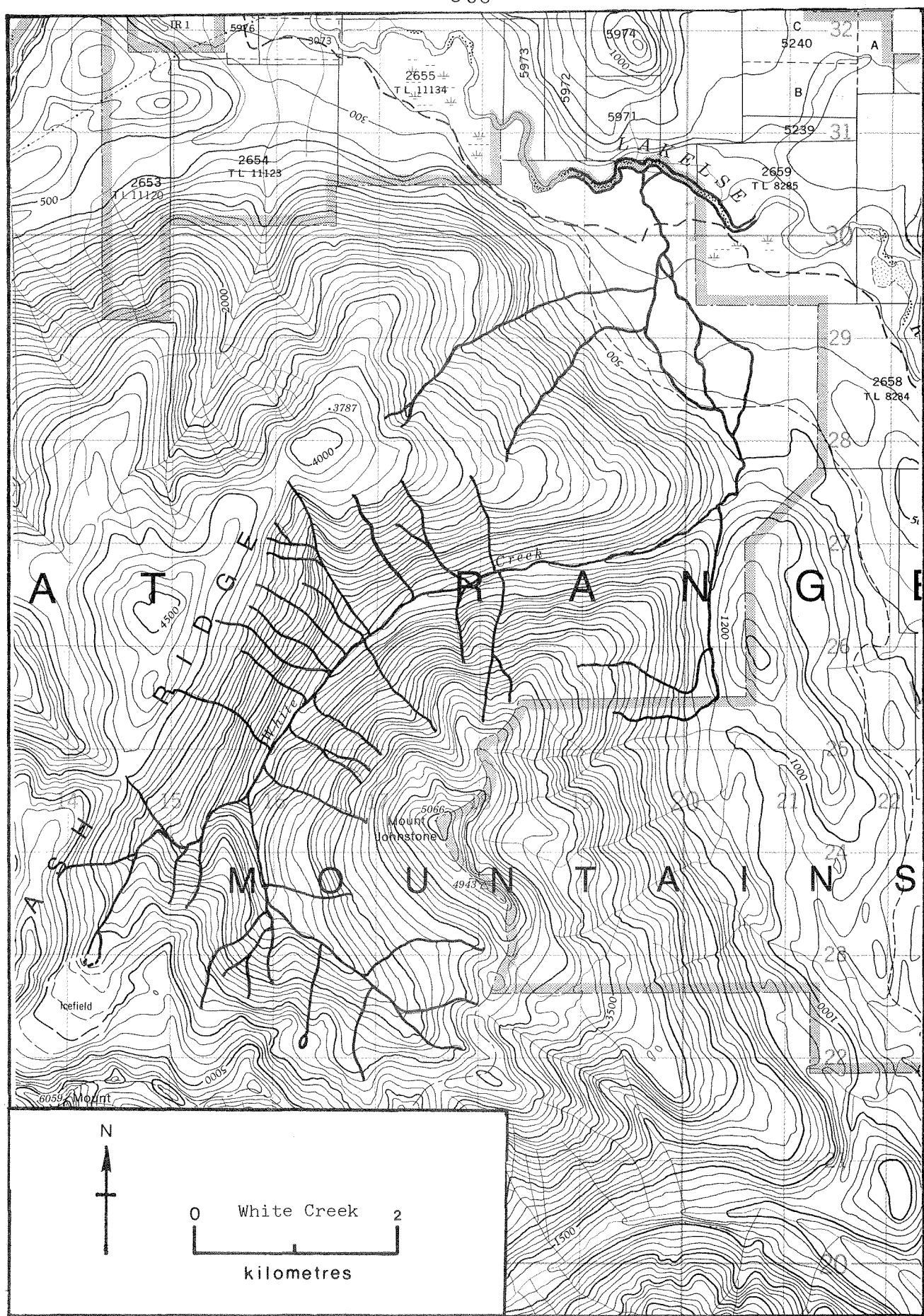
(Little Useless Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947					1500	
48					7500	
49					2000	
50					6000	
51					1000	
52					15000	
53					3500	
54					2500	
55					3500	
56					1500	
57			400		750	
58					1200	
59					750	
60					200	
61					1500	
62					1500	
63					400	
64					25	
65					25	
66					25	
67					N/0	
68					400	
69					750	
70					25	
71					UNK	
72					UNK	
73					N/0	
74					N/0	
75					N/0	
76					N/0	
77					UNK	
78					UNK	
79					N/0	
80					N/0	
81						
82						
83						
84						
85						

TIMING

ARRIVE			
START		Oct	LAug-ESept
PEAK		Oct	M Sept
END		Nov	LSept-EOct

REMARKS



NAME OF STREAM WHITE CREEK
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Flows N. into Lakelse River, Rge. 5, Coast Dist.
POSITION 54 128SW.
 LENGTH _____ km WIDTH _____ m DRAINAGE _____ km²
 COMPOSITION: BEDROCK _____ BOULDER _____ COARSE _____ FINE _____
 SILT & SAND _____ UNCLASSIFIED _____

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA _____ m² SPAWNING AREA _____ m²DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	
PINK (ODD YEAR)	- scattered throughout lower section
PINK (EVEN YEAR)	- " " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

 _____GENERAL REMARKS 1980/81 Some scouring and silting in lower end. Channel changing below logging road.

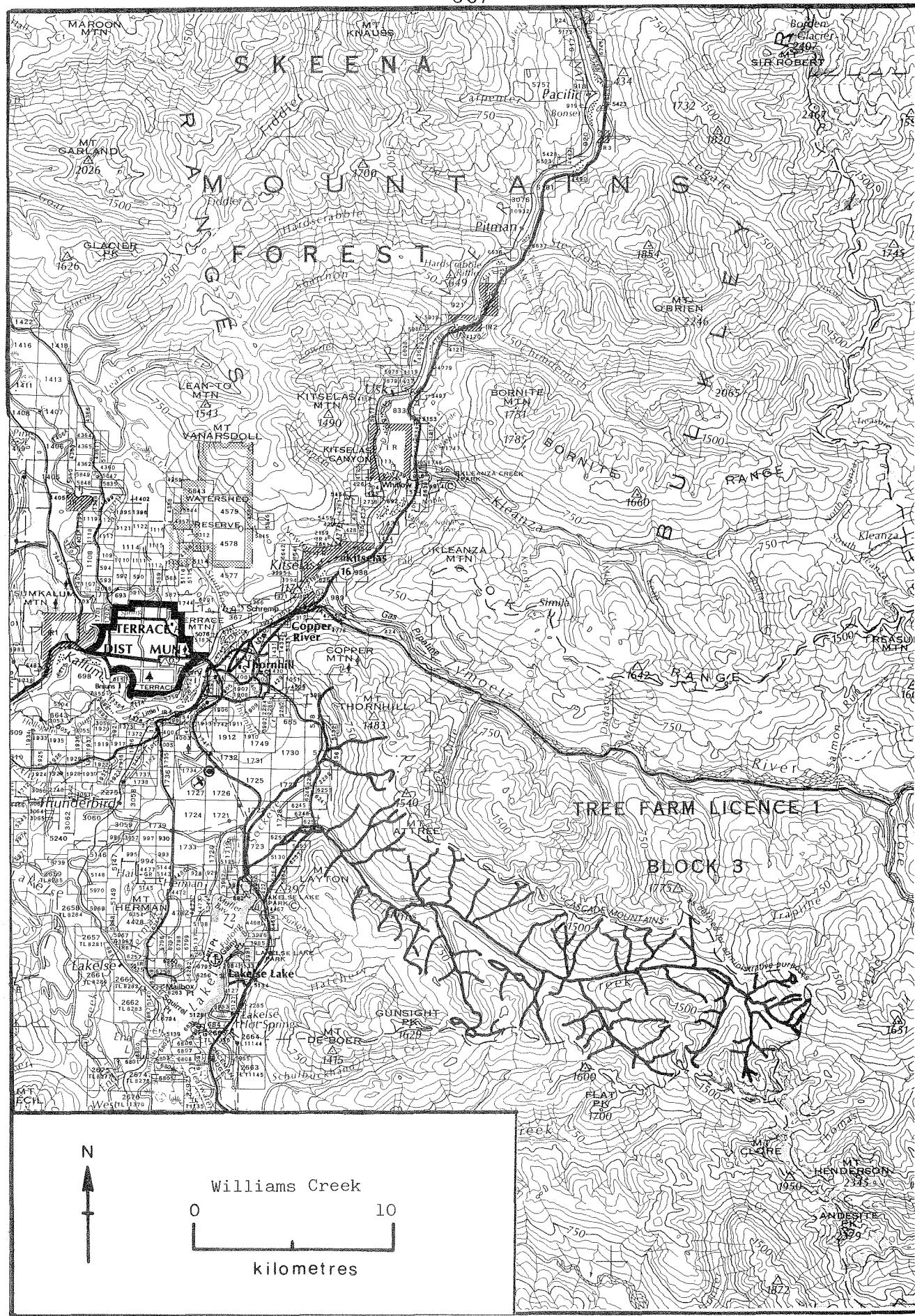
ESCAPEMENT RECORD FOR WHITE CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57						
58						
59						
60						
61						
62						
63						
64						
65						
66						
67						
68						
69						
70						
71						
72						
73						
74						
75						
76						
77						
78						
79						
80					30	
81					50	
82						
83						
84						
85						

TIMING

ARRIVE					Aug	
START					Aug 15	
PEAK					Aug 30	
END					Sept	

REMARKS



NAME OF STREAM WILLIAMS CREEK
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Flows S.W. into N. end of Lakelse Lake. Rge. 5, Coast Dist.
 POSITION 54 128 SW.
 LENGTH 12.8 km WIDTH m DRAINAGE km²
 COMPOSITION: BEDROCK BOULDER COARSE FINE
 SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25
0.25 - 0.50
0.50 - 0.75
0.75 - 1.00
> 1.00

WETTED AREA m²SPAWNING AREA m²DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- up to 6.4km from mouth
CHINOOK	- spawning grounds unknown
COHO	- up to 12.8km from mouth
CHUM	- near Highway #25 bridge.
PINK (ODD YEAR)	- spawning grounds unknown
PINK (EVEN YEAR)	" "
STEELHEAD	" "

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1949 - Scouring noted most years.

1951 - Stream bed damaged by flash floods. Advised that survey be made to assess feasibility of confining channel and controlling flow.

1952 - Stream bed deteriorated further.

1953 - Remedial stream work conducted to improve passage and flow conditions.

1954 - Numerous flash floods reported, 55.

1956 - Freshets caused stream bed damage 59,66,78

1958 - Freshet damage only partially surveyed.

continued....

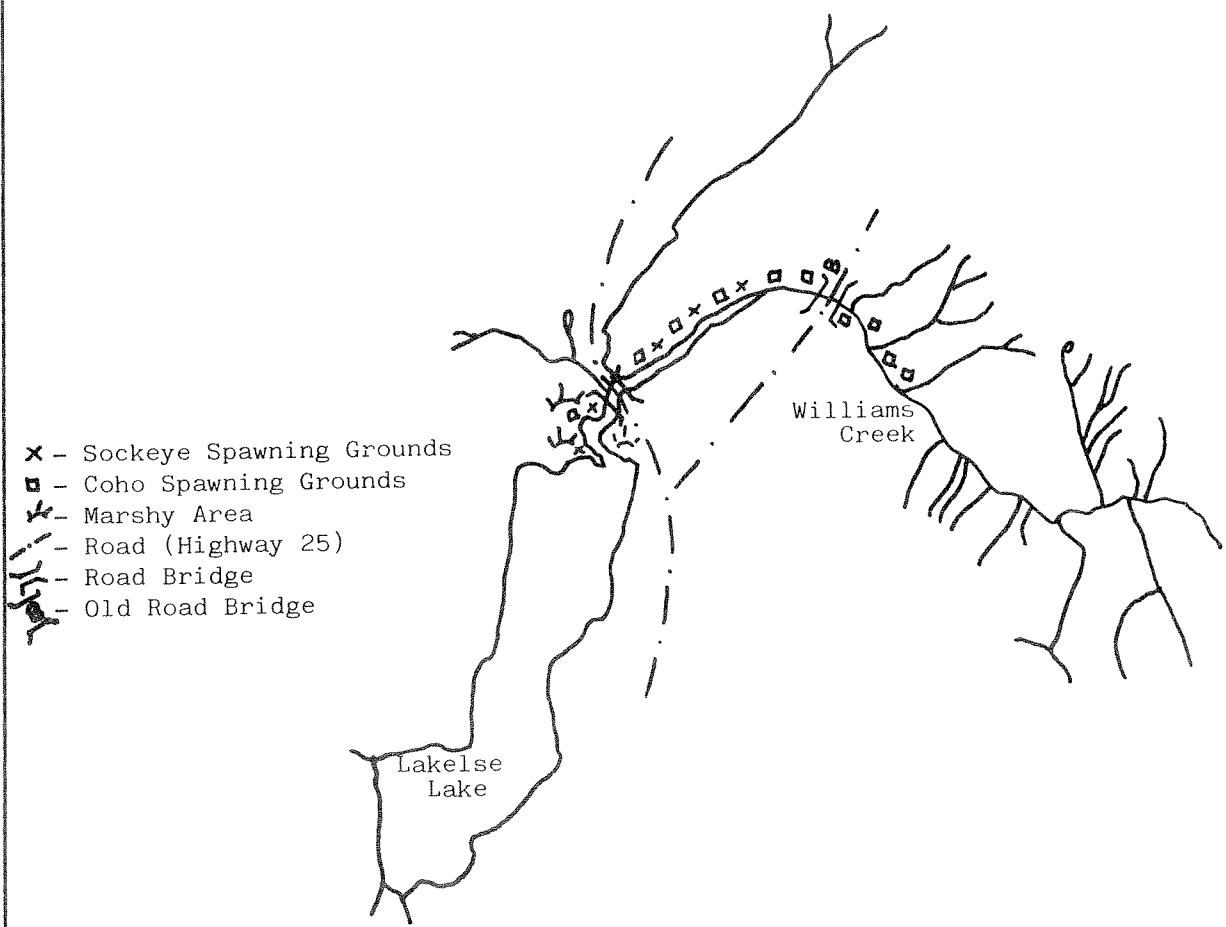
GENERAL REMARKS WILLIAMS CREEK

- 1961 - Some fish stripped for hatchery purposes.
- 1962 - Approx 10,000,000 eggs taken and about 4,100 fish allowed through the fence to spawn naturally.
- 1963 - Sockeye Creek escapements included in estimates this year.
- 1964 - Most sockeye released to spawn naturally.
- 1965 - B.C.Hydro clearing for power lines exposed trees alongside stream to wind effects and increased the possibility of their falling into stream.
- 1968 - Erosion noted 69-75
- 1974 - Considerable loss of sockeye spawn due to severe October floods.
- 1980 - Continued diversion of water into Blackwater Creek.

Log jams noted in lower reaches, but removed only when obstructing fish passage because they stabilize flow and reduce scouring.

Seasonal fluctuations in water levels--silty water.

Predators: bears and eagles.



Sketch of Williams Creek,
1971.



0

5.12

kilometres

ESCAPEMENT RECORD FOR

WILLIAMS CREEK

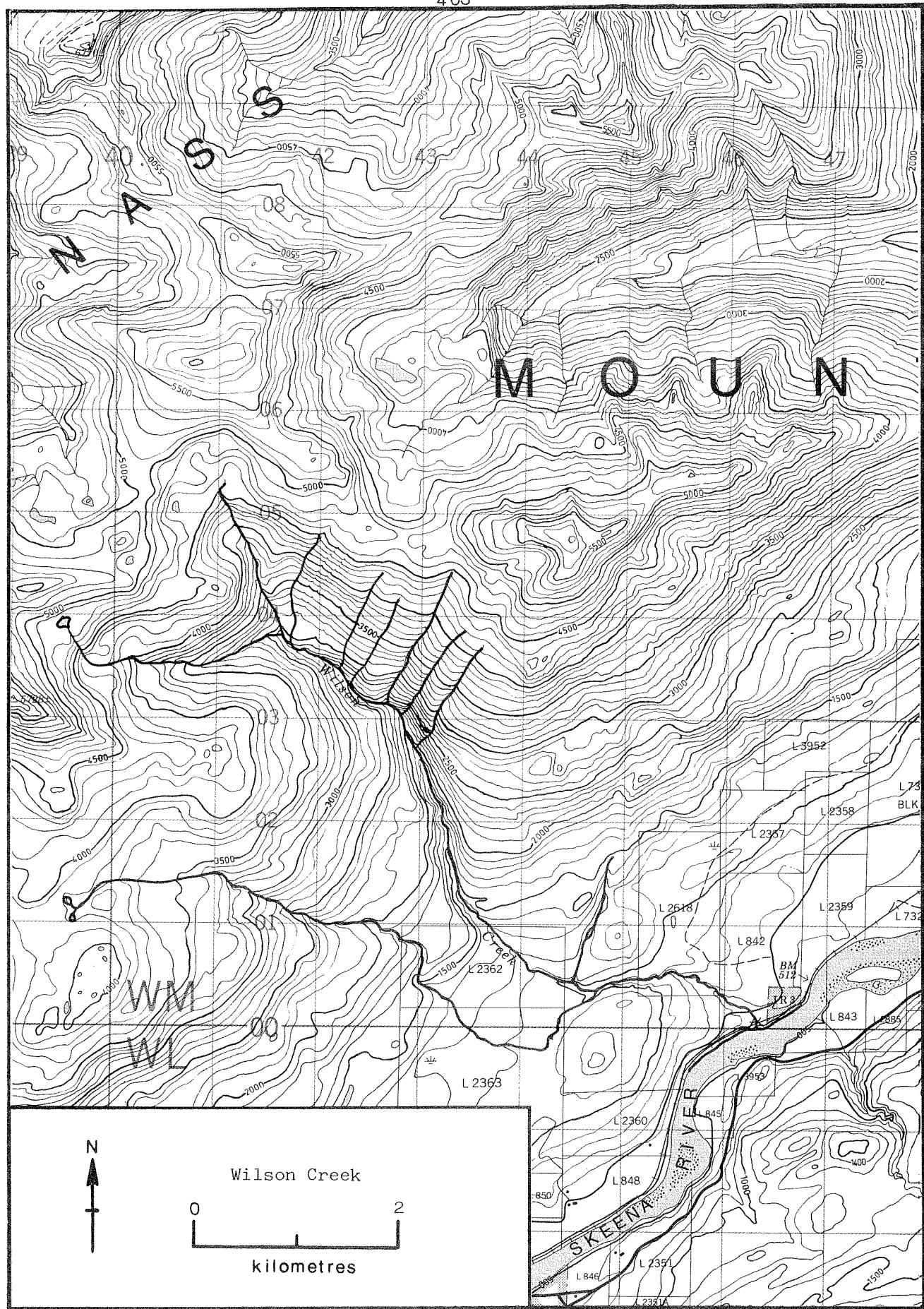
YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947	7500		400			
48	7500		75		1500	
49	5200		300		N/0	
50	1400		400		N/0	
51	4000		250			
52	12000		1000		1000	
53	8500		300			
54	7500		400		N/0	
55	3500		400			
56	3500		750		N/0	
57	7500		1500			
58	7500		1500			
59	7500		N/I			
60	3500		N/0			
61	5500		N/0			
62	3500		400			
63	7500		N/0			
64	18000		400		75	
65	28761	25	400			
66	12731		1500			200
67	6586					
68	7500		1500			
69	3500		400			
70	3500		400			
71	1500		400			
72	1500		400	200		
73	1000		200			
74	1500		200			
75	1800		200			
76	1500		200			
77	1500		25			
78	1500		400			
79	9600		350			
80						
81	4000		300			
82						
83						
84						
85						

TIMING

ARRIVE	L July		Oct	Aug		UNK
START	M Aug	Aug	Oct	E Sept	EAug-MSept	UNK
PEAK	LAug-MSept	Sept	M Oct - M Nov	M Sept	MAug-LSept	UNK
END	LSep-Oct	UNK	L Nov - Dec	Oct	LAug-MOct	UNK

REMARKS N/I - not inspected

403



NAME OF STREAM WILSON CREEK
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Flows E. into Skeena River, N.E. of Cedarvale, Cassiar Dist.
 POSITION 55 128 SE
 LENGTH km WIDTH m DRAINAGE km²
 COMPOSITION: BEDROCK BOULDER COARSE FINE
 SILT & SAND UNCLASSIFIED
 PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

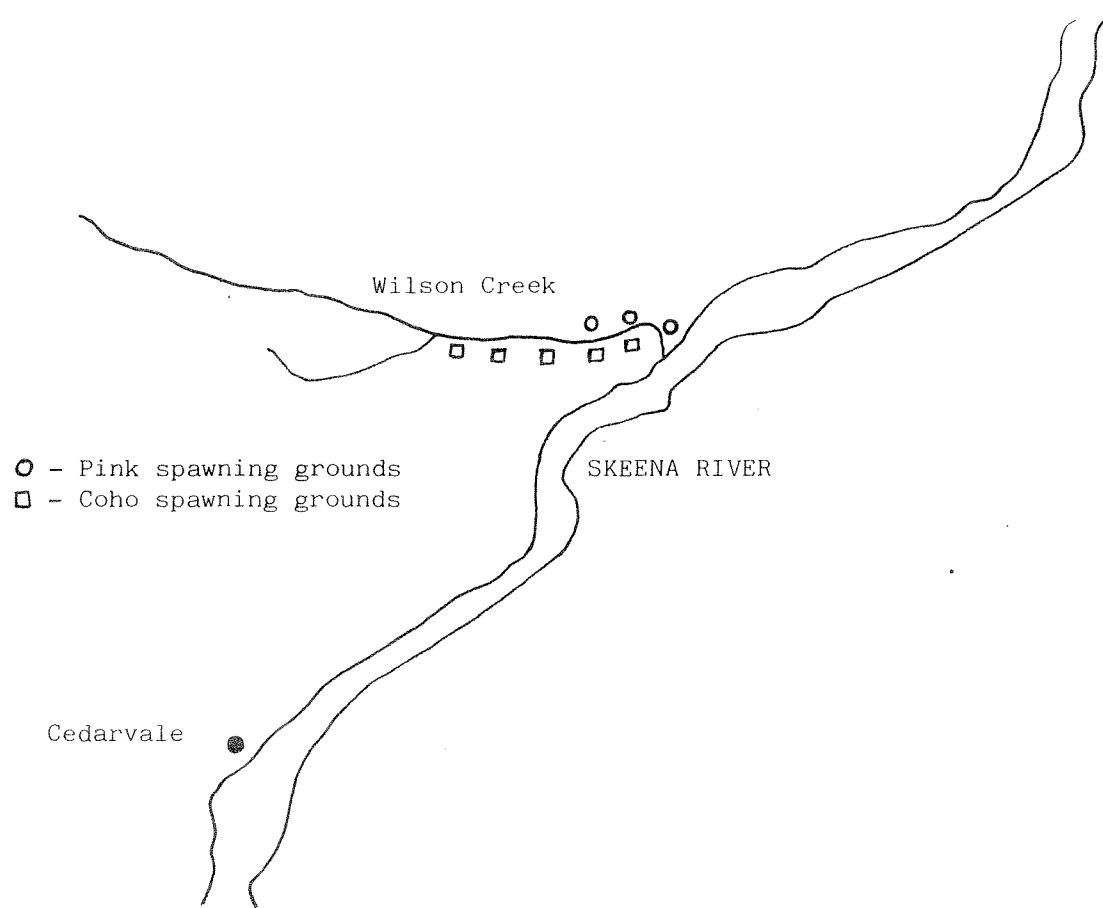
BARRIERS OR POINTS OF DIFFICULT ASCENT 1977 - Narrow channel -- heavy rocks.
 1978 - Log jams, narrow channel, heavy rocks at various locations.
 1979 - Gravel bar at mouth. Stream drops 2-3m. recommend removal.
 1980 - Impassable except in high water.
 1981 - Recommend removal of gravel at mouth.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	
PINK (ODD YEAR)	- from mouth to approx 1km upstream
PINK (EVEN YEAR)	- " " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS Physical conditions: Seasonal fluctuating water levels.
 1974 - Heavy erosion silting and scouring on lower end of stream. Water levels normal.
 1978 - 15-20% erosion and silting near mouth. Some scouring during Oct. flood.
 1979 - Heavy erosion in lower half of stream due to fall flood. Heavy scouring--large gravel deposit at mouth.
 Suggest C.N.R. dig a deeper channel at confluence when they clear gravel build up under bridge next summer.



Sketch of Wilson Creek,
1971.



0

.50

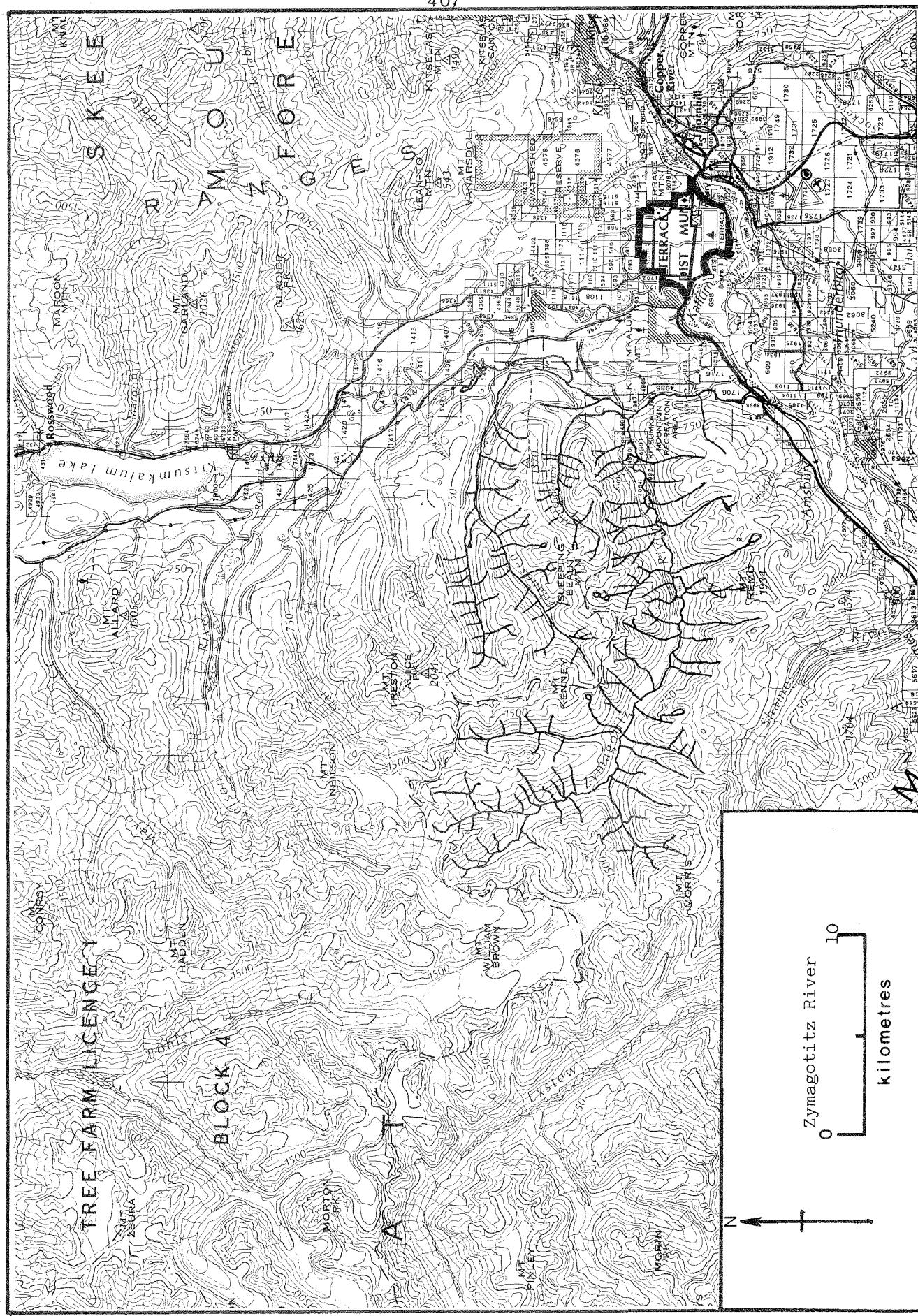
kilometres

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57						
58						
59						
60						
61						
62						
63						
64						
65						
66						
67						
68					200	
69				-	-	
70			75		400	
71			75		400	
72			75		400	
73			25		N/O	
74			-		N/O	
75			-		N/O	
76						
77						
78					200	
79					N/O	
80					N/O	
81					N/O	
82						
83						
84						
85						

TIMING

ARRIVE		Oct		Aug	
START		M Oct		L Aug	
PEAK		Nov		Sept	
END		Dec		M Sept	

REMARKS



NAME OF STREAM ZYMA GOTITZ RIVER
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4

LOCATION OF MOUTH Flows S. into Skeena River, Rge.5., Coast Dist.

POSITION 54 128 SW.

LENGTH 29 km WIDTH m DRAINAGE km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA m² SPAWNING AREA m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

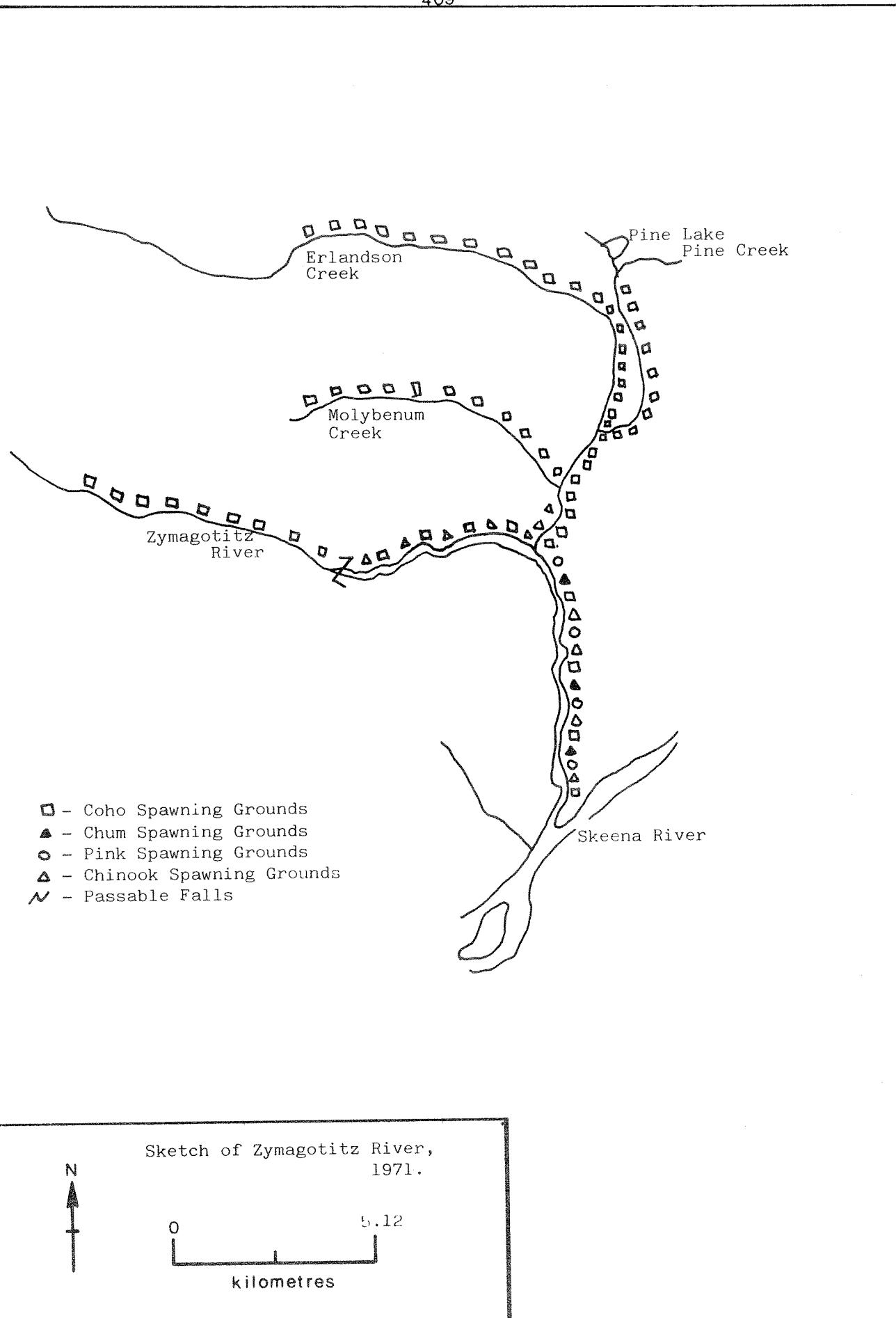
BARRIERS OR POINTS OF DIFFICULT ASCENT Difficult though passable falls at 8.0km

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- lower 16.0km
COHO	- upper section and tributaries.
CHUM	- lower 16.0km
PINK (ODD YEAR)	- " "
PINK (EVEN YEAR)	- " "
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1948 - Some erosion noted 68/70, 1970-78, 80,81
1960 - Silting in most years between 1960 and 81.
- Department of Northern Affairs installed an automatic flow recorder.
1961 - Logging in watershed 62,65.
1966 - Late coho and chums sighted
Steep rapids 19.3km from mouth. Swift and bouldery, difficult to inspect
beyond 8.0km point.
Windfall and other debris monitored and removed as required. Subject
to seasonal fluctuations in water levels.
Predators: bears.



ESCAPEMENT RECORD FOR

ZYMAGOTITZ RIVER

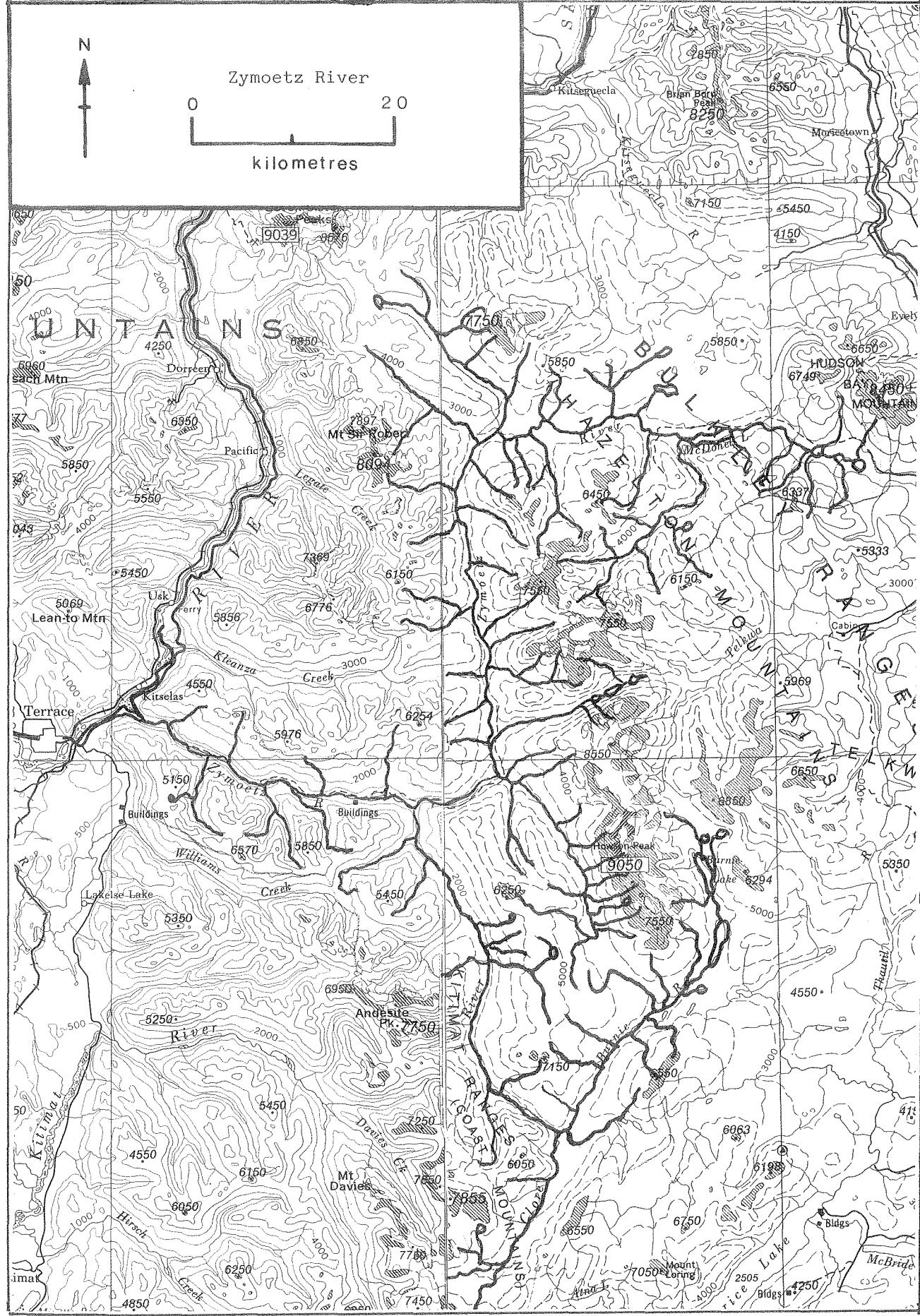
410

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947			750	750	750	
48			400	750	7500	
49			400	200	1500	
50			300	600	6000	
51			350	N/I	N/I	
52			300	100	7000	
53			N/I	200	3000	
54			N/I	200	3500	
55			N/I	75	3500	
56			750	75	750	
57			1500	200	7500	
58			1500	75	400	
59			N/I	N/I	N/I	
60			OBS		750	
61					3500	
62		25	25	25	400	
63			N/D	75	N/D	
64		25	50	200	N/0	
65			2500			
66			3500		200	
67			3500	75		
68		25	1500	N/0	750	
69		75	750	N/0	N/0	
70		75	400	N/0	N/0	
71		75	400		400	
72		75	400	400	1500	
73		200	400	400	750	
74		200	400	400	75	
75		200	400	200	75	
76		75	750	200	N/0	
77		75	400	200	25	
78		10	400	50	150	
79						
80		25	200	100	100	
81		20	400	N/0	50	
82						
83						
84						
85						

TIMING

ARRIVE	L July	Sept	Aug	Aug
START	M Aug	M Oct	M Aug	MAug-ESept
PEAK	L Aug	M Nov	L Aug	E-M Sept
END	Sept	Dec	Sept	LSep - Oct

REMARKS



NAME OF STREAM ZYMOETZ RIVER
 CONSERVATION DISTRICT 8 STATISTICAL AREA 4
 LOCATION OF MOUTH Flows N.W. into Skeena River, Rge. 5, Coast Dist.
 LENGTH _____ km WIDTH _____ m DRAINAGE _____ km²
 COMPOSITION: BEDROCK _____ BOULDER _____ COARSE _____ FINE _____
 SILT & SAND _____ UNCLASSIFIED _____

PERCENT GRADIENT

0.00 - 0.25
0.25 - 0.50
0.50 - 0.75
0.75 - 1.00
> 1.00

WETTED AREA _____ m² SPAWNING AREA _____ m²DISCHARGE (m³/s) _____

TEMPERATURE (°C) _____

BARRIERS OR POINTS OF DIFFICULT ASCENT Cascades at 6.4km and 9.6km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- in to McDonnell Lake and tributaries
CHINOOK	- throughout but concentrated in upper reaches.
COHO	- in small tributaries and secondary channels in upper section.
CHUM	- lower 8.0km
PINK (ODD YEAR)	- " "
PINK (EVEN YEAR)	- " "
STEELHEAD	- specific areas unknown

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS 1947 - Stream inspection incomplete.

1950 - Some fry were found emerging from gravel that had been covered by sand, but mortalities were high in areas of low water.

1951 - Flash floods considerably altered the lower 4.8km of the river.

1955 - Fish seen in riffle and jumping in lower river.

1957 - Columbia Cellulose Co. built access road alongside the river.

1958 - Crown Zellerbach logged in this area and agreements have been made to remove debris with the least impact and under Fisheries supervision.

continued.....

continued.

GENERAL REMARKS ZYMOETS RIVER

- 1960 - High water restricted coho sports fishing
- Forestry Road provides increased access to stream for inspection purposes.
- 1961 - Poor sports fishery.
- Some silting near mouth.
- Sockeye inspection cancelled due to forest fire.
- 1961 - New highway bridge resulted in stabilization of lower river channel.
- Columbia Cellulose road completed for 29km.
- 1964 - Good steelhead fishery 66,65.
- Columbia Cellulose road opened to 48.2km and to date stream has been kept clear of debris.
- 1965 - Logging road in use for industrial and recreational purposes.
- 1966 - Severe flooding in October caused changes in stream pattern and flow.
Road wash outs in Limonite Creek Region being repaired by Columbia Cellulose.
- 1967 - Rockslide 9.6km upstream prevented most coho and sockeye migrating upstream.
Those surmounting slide were badly battered.
- 1968 - Channel blasted through rock slide 9.6km from mouth by Resource Development Branch in August.

silting and scouring common during high water 68-78
stream is very silty during most of the salmon runs and accurate estimates of escapements are impossible.
seasonal fluctuations in water levels.
predators: bears and eagles.

ESCAPEMENT RECORD FOR

ZYMOETZ RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947	1500		heavy	average		
48		moderate	light	heavy	moderate	moderate
49						
50		average	poor	good	good	average
51			fair	OBS	very good	
52		light	good	Tight	very heavy	above ave.
53			light	average	good	heavy
54		average	average	N/O	good	above ave.
55		heavy	average		very good	average
56		average	average	light	light	average
57		average	above ave.	light	above ave.	Tight
58		average	above ave.	light	light	fair
59	average	average	average	average	average	
60			OBS			OBS
61	OBS		OBS			poor
62	350	25	75	25	N/O	light
63			average			average
64	250	25	1500	75	N/O	good
65	3000		400			good
66	350		1000			average
67	200		200			
68	3500	75	1500	N/O		good
69	1500	200	3500	N/O		good
70	1500	200	3500	N/O		average
71	1500	400	3500			average
72	1500	200	3500	400	35000	
73	2500	400	1500	400	1500	
74	2000	400	1500	400	400	
75	400	200	750	200	400	
76	400	200	1500	200	200	
77	1500	400	1500	200	200	
78	3500	200	3500	500	100	
79						
80	400	100	1000	25	1000	
81	100	600	700	N/O	50	
82						
83						
84						
85						

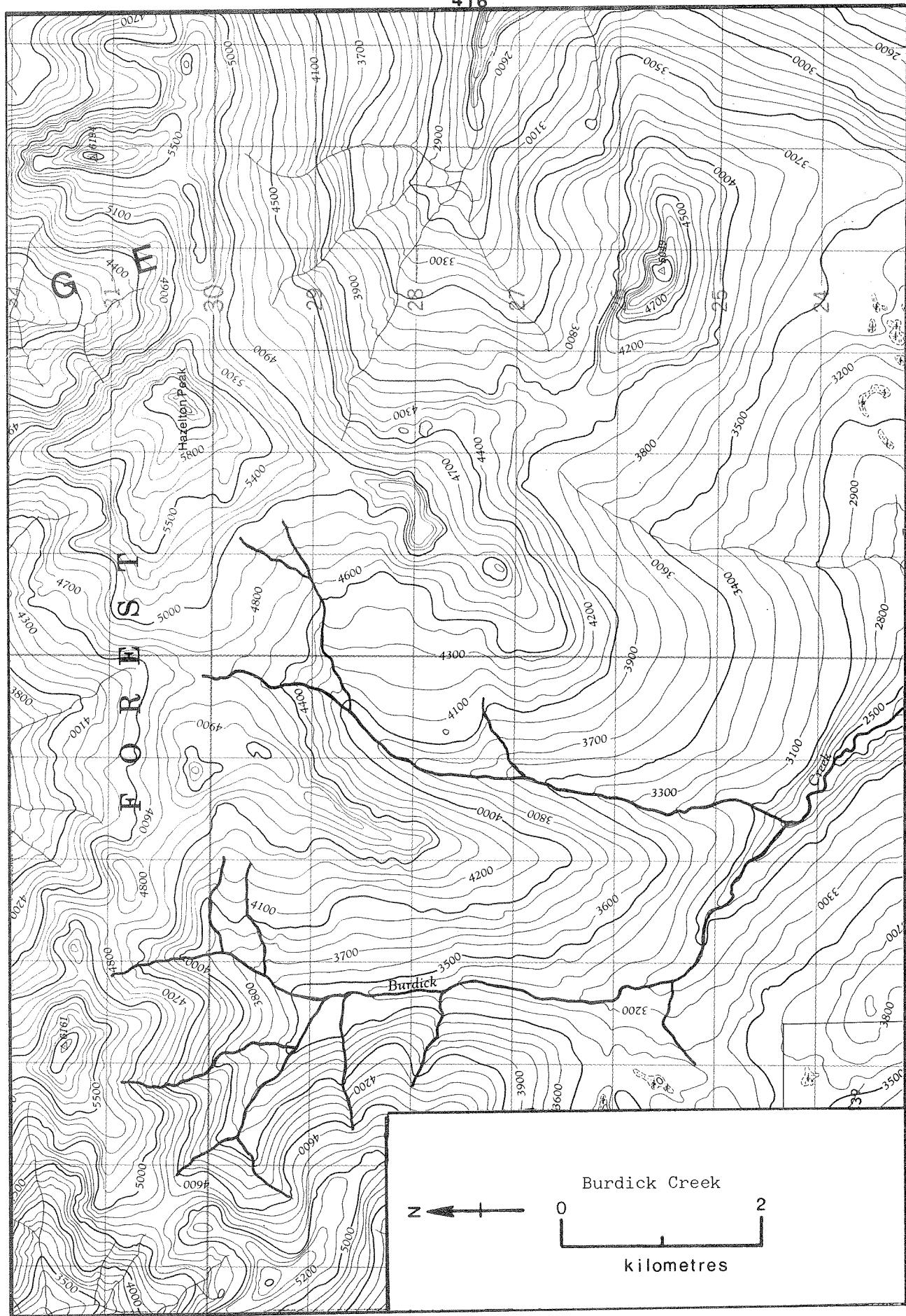
TIMING

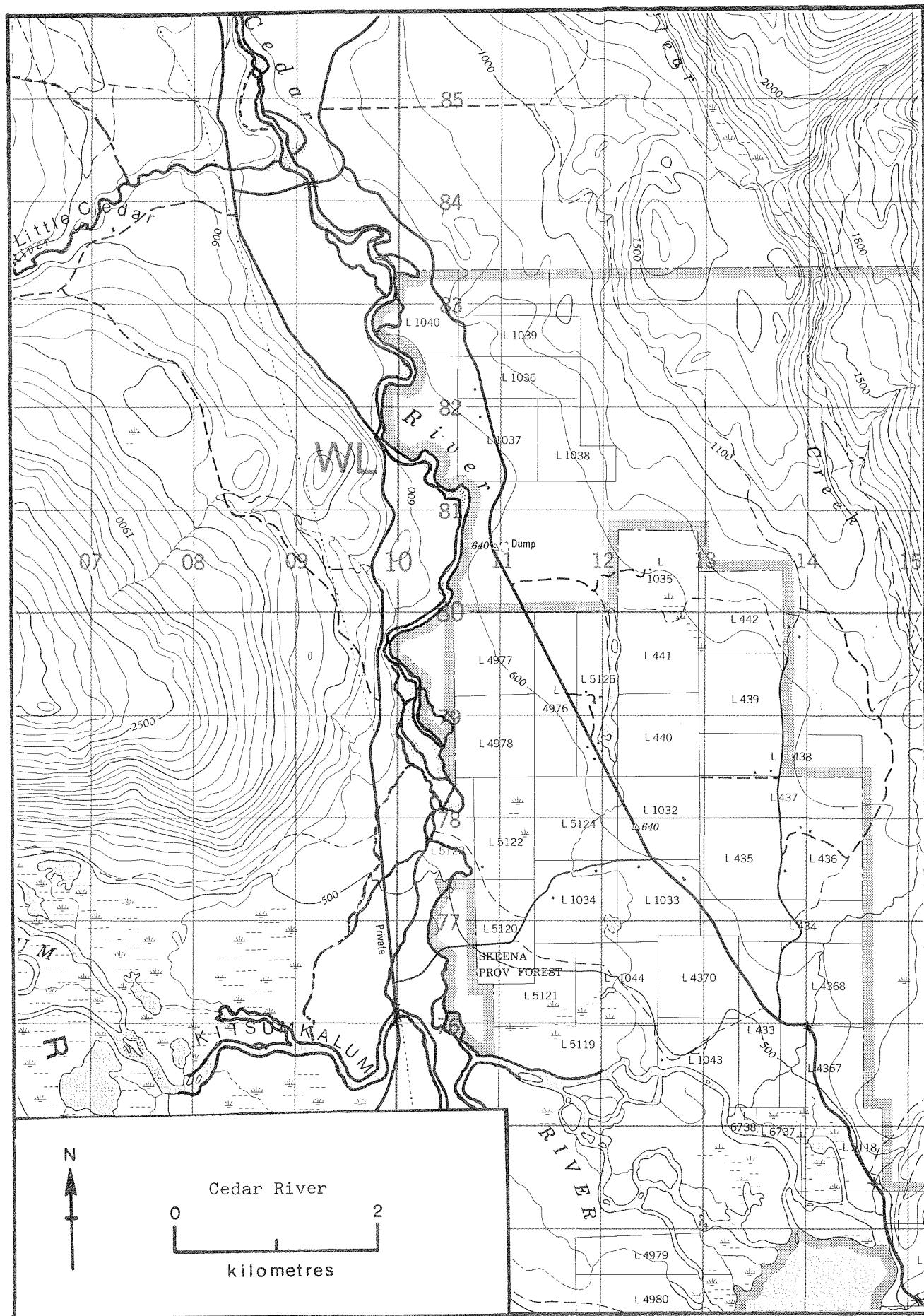
ARRIVE	July	Aug	L Aug	Aug	Aug	
START	M Aug	M Aug	Sept - E Oct	E Sept	E Sept	
PEAK	LAug - ESept	L Aug	L Oct - M Nov	M Sept	M Sept	Nov - Jan
END	Sept	Sept	Nov - Dec	L Sept-Oct	L Sept-Oct	

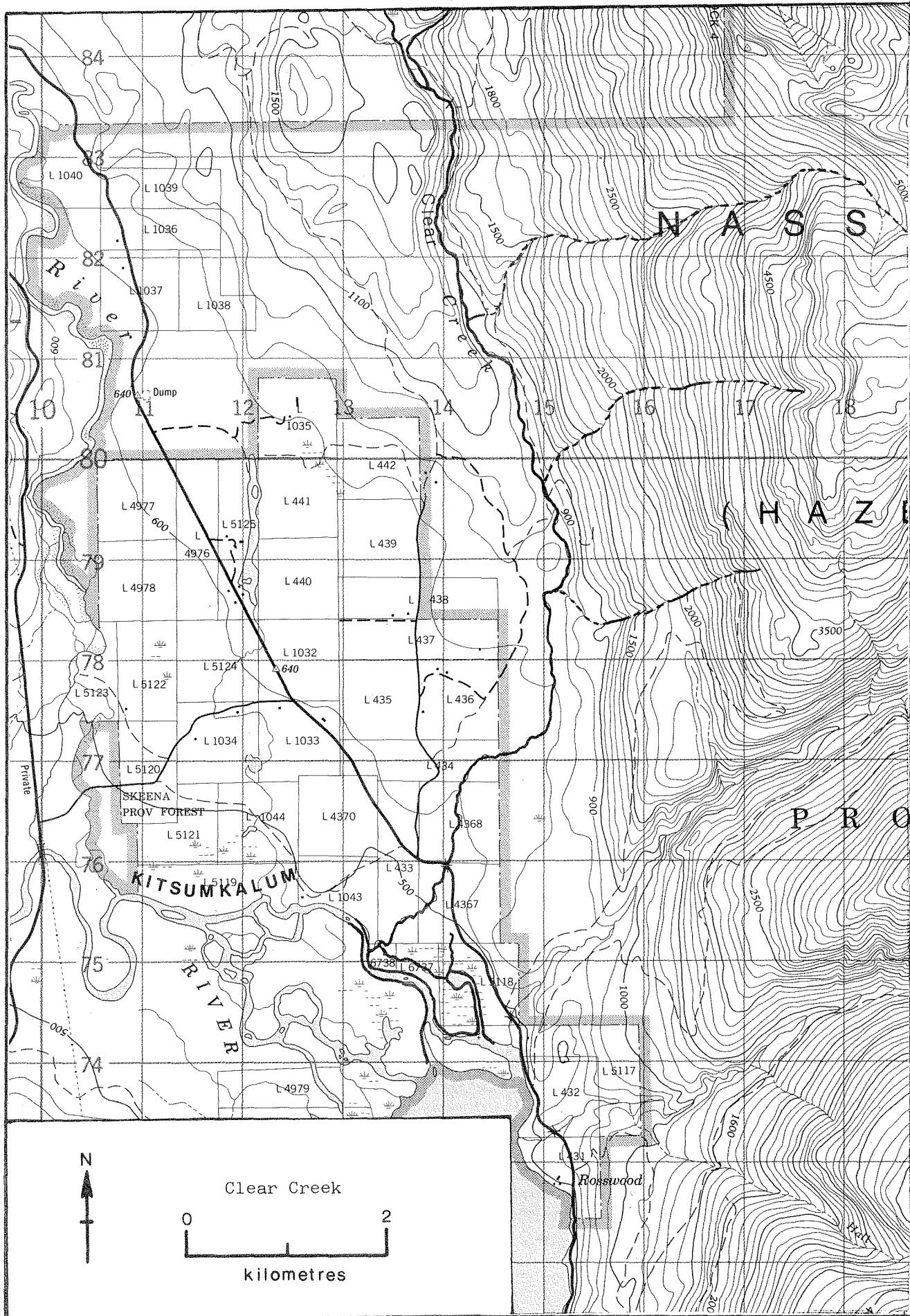
REMARKS

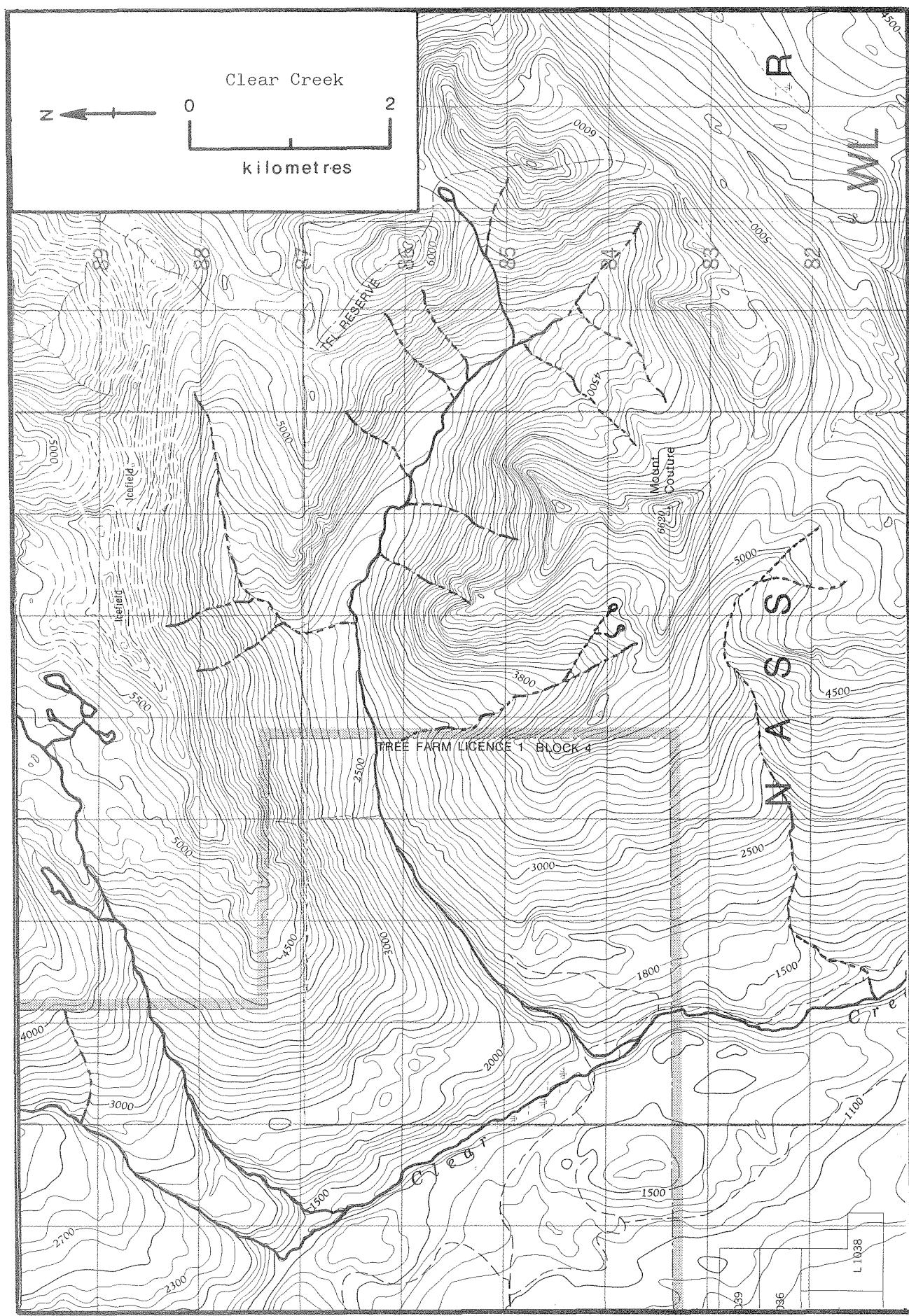
APPENDIX 1

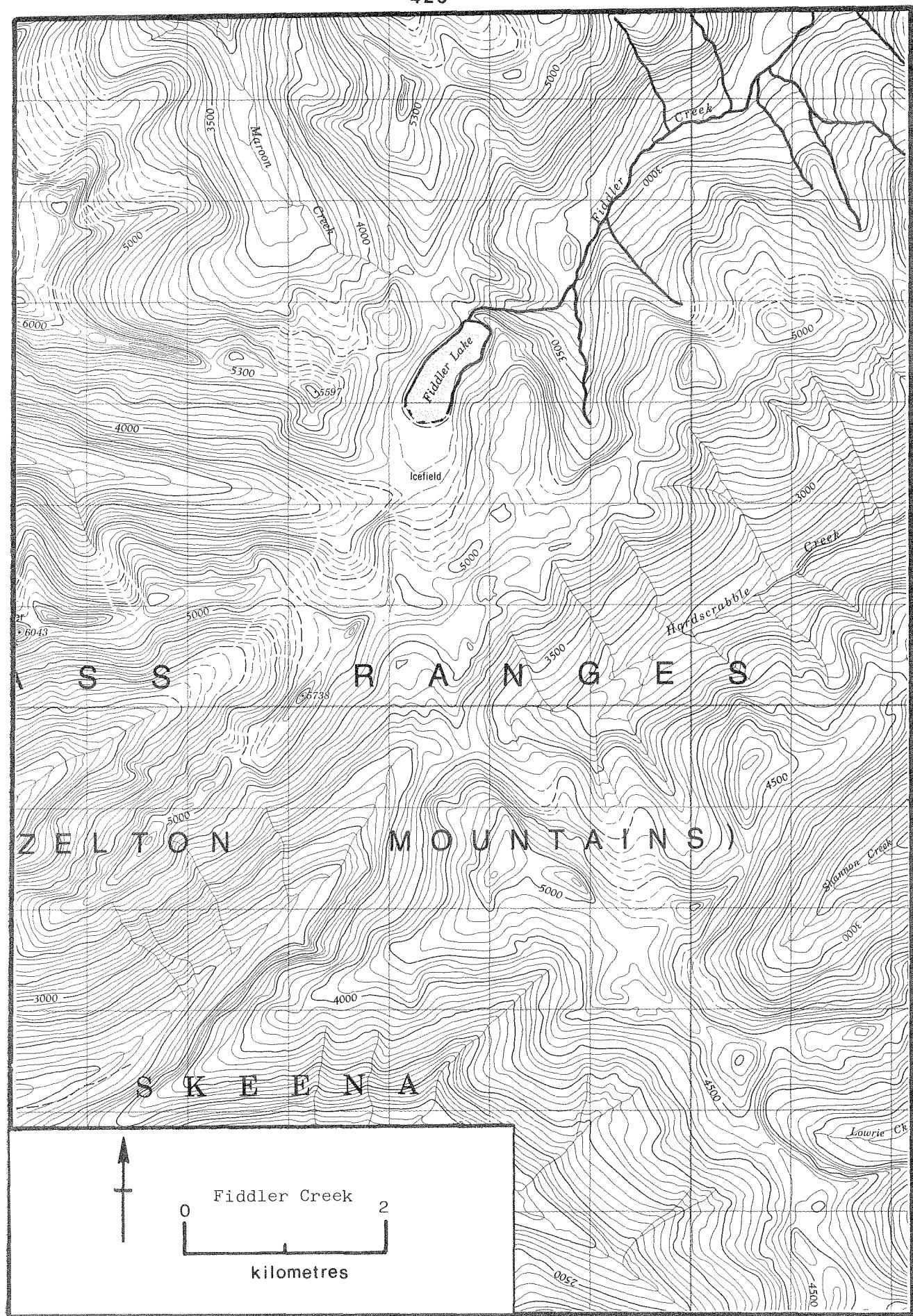
416

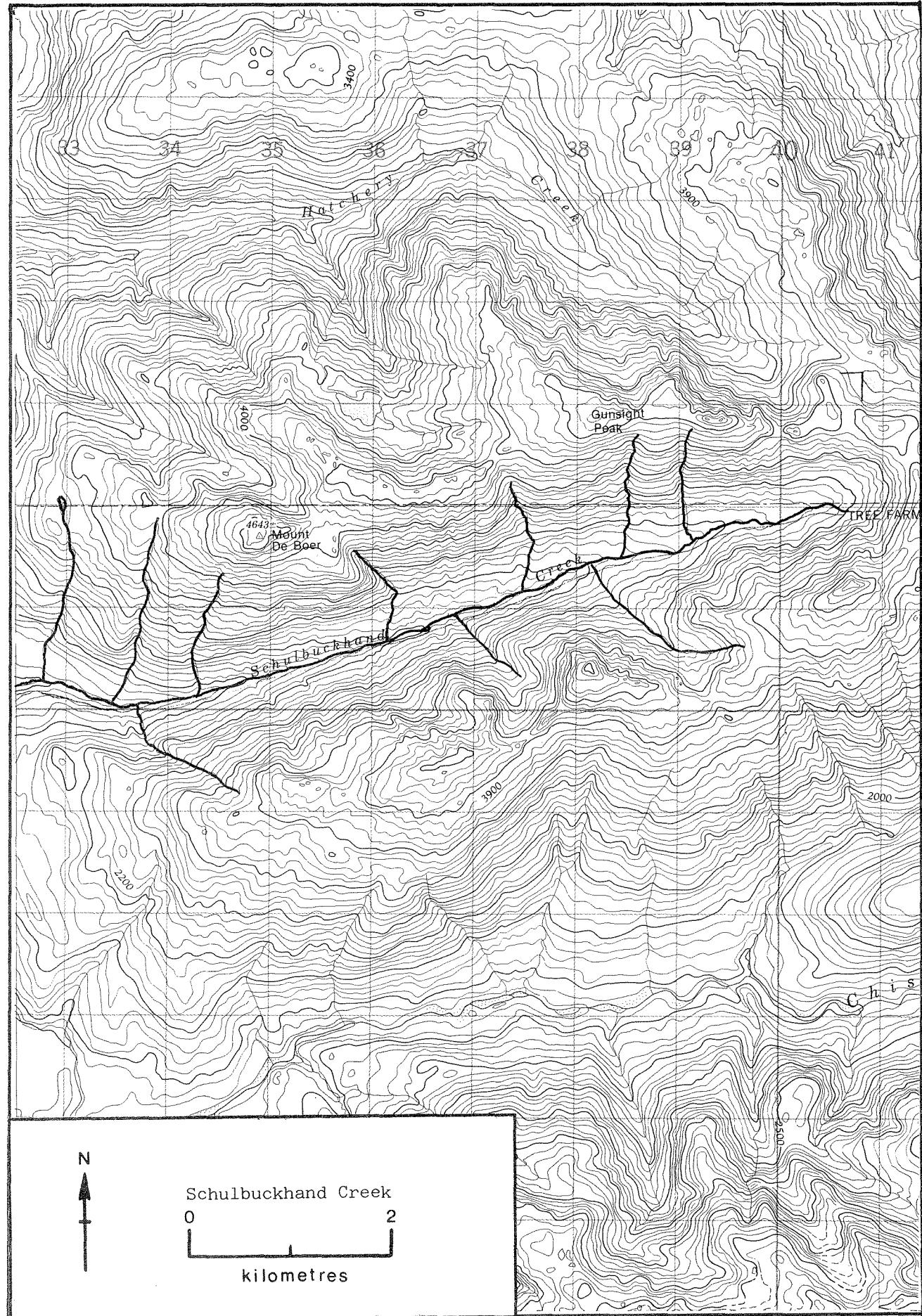












METRIC EQUIVALENTSLength

centimeter (cm)	= 0.394 in
meter (m)	= 3.280 ft
meter (m)	= 1.094 yd
kilometer (km)	= 0.621 mi
inch (in)	= 2.540 cm
foot (ft)	= 0.305 m
yard (yd)	= 0.914 m
mile (mi)	= 1.609 km

Area

square centimeter (in ²)	= 0.155 in ²
square meter (m ²)	= 10.760 ft ²
square meter (m ²)	= 1.196 yd ²
square kilometer (km ²)	= 0.386 mi ²
hectare (ha)	= 2.470 a
square inch (in ²)	= 6.451 cm ²
square foot (ft ²)	= 0.093 m ²
square yard (yd ²)	= 0.836 m ²
square mile (mi ²)	= 2.590 km ²
acre (a)	= 0.405 ha

Volume

cubic centimeter (cm ³)	= 0.061 in ³
liter (L)	= 61.023 in ³
liter (L)	= 0.035 ft ³
liter (L)	= 0.264 U.S. gal
	= 0.220 Imp. gal
cubic meter (m ³)	= 35.315 ft ³
cubic meter (m ³)	= 1.308 yd ³
cubic inch (in ³)	= 16.387 cm ³
cubic inch (in ³)	= 0.016 L
cubic foot (ft ³)	= 0.028 m ³
cubic foot (ft ³)	= 28.320 L
cubic yard (yd ³)	= 0.765 m ³
U.S. gallon (gal)	= 3.785 L
Imp. gallon (gal)	= 4.546 L

Weight

gram (gm)	= 0.035 oz
kilogram (kg)	= 2.205 lb
kilogram (kg)	= 0.001 ton (short)
tonne (t)	= 1.103 ton (short)
ounce (oz)	= 31.103 gm
pound (lb)	= 0.373 kg
ton (short)	= 907.180 kg
ton (short)	= 0.907 t

Velocity

meter per second (m/s)	= 3.280 ft/s
feet per second (ft/s)	= 0.305 m/s

Discharge

cubic meter per second (m ³ /s)	= 35.315 ft ³ /s
cubic foot per second (ft ³ /s)	= 0.028 m ³ /s
cubic meter per second (m ³ /s)	= 15350.879 U.S. gal/min
	= 13198.628 Imp. gal/min

Temperature

$$\text{Degrees Centigrade } ({}^{\circ}\text{C}) = \frac{5}{9} (\text{Degrees Fahrenheit} - 32)$$

$$\text{Degrees Fahrenheit } ({}^{\circ}\text{F}) = \frac{9}{5} (\text{Degrees Centigrade}) + 32$$