

CATALOGUE OF  
SALMON SPAWNING STREAMS  
AND ESCAPEMENT POPULATIONS  
CHILLIWACK SUB-DISTRICT



SH349 Walker,  
A5 Catalogue of salmon spawning  
72-02 streams and escapement populati  
c1 ns Chilliwack sub-district.

CHILLIWACK  
SUB-DISTRICT

DEPARTMENT OF ENVIRONMENT  
FISHERIES SERVICE  
PACIFIC REGION  
VANCOUVER

1972

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SALMON SPAWNING STREAMS  
AND ESCAPEMENT POPULATIONS  
CHILLIWACK SUB-DISTRICT

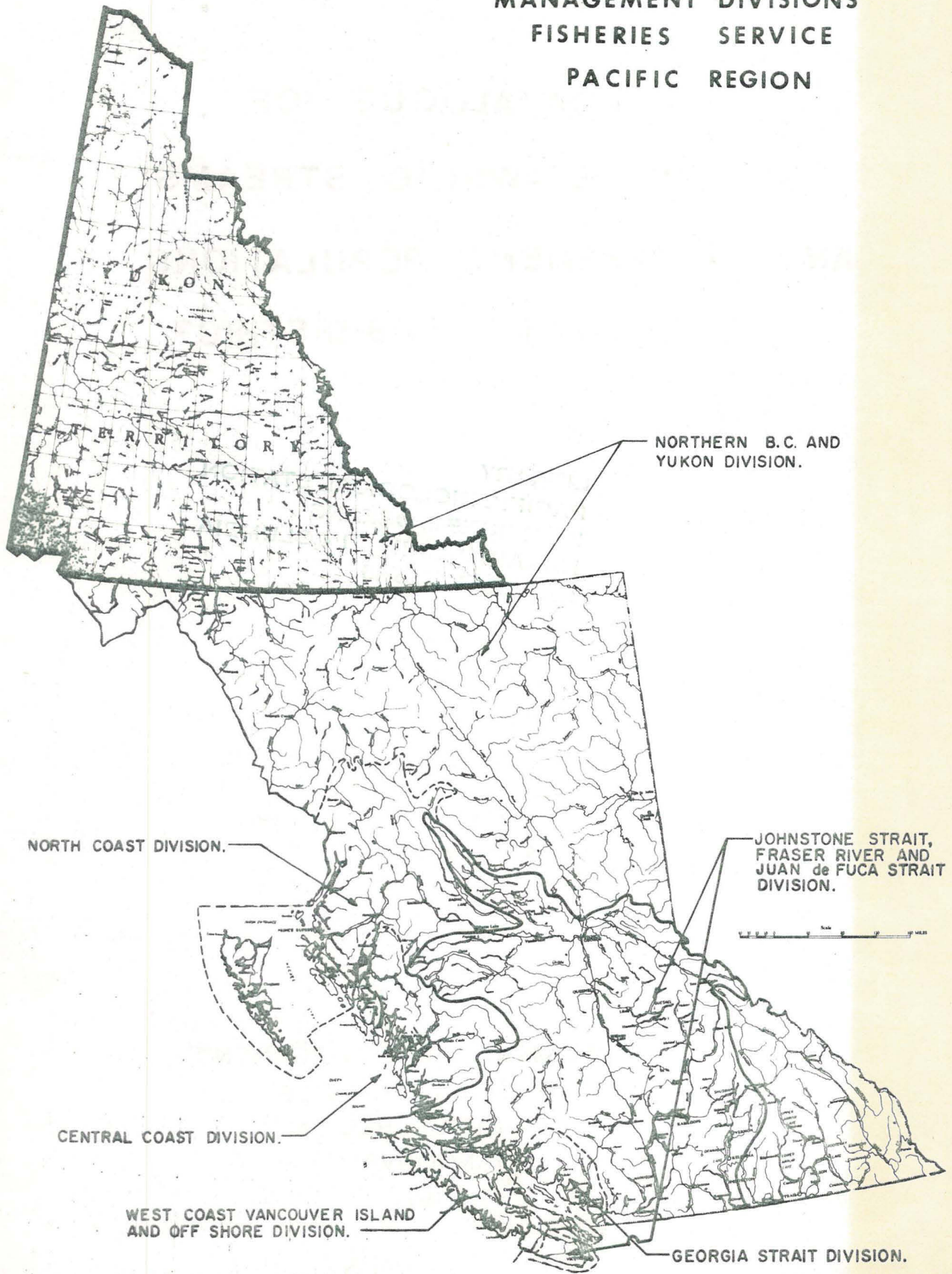
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AND B. SMITH

DEPARTMENT OF ENVIRONMENT  
FISHERIES SERVICE  
PACIFIC REGION  
VANCOUVER

1972

**MANAGEMENT DIVISIONS  
FISHERIES SERVICE  
PACIFIC REGION**



NORTHERN B.C. AND  
YUKON DIVISION.

NORTH COAST DIVISION.

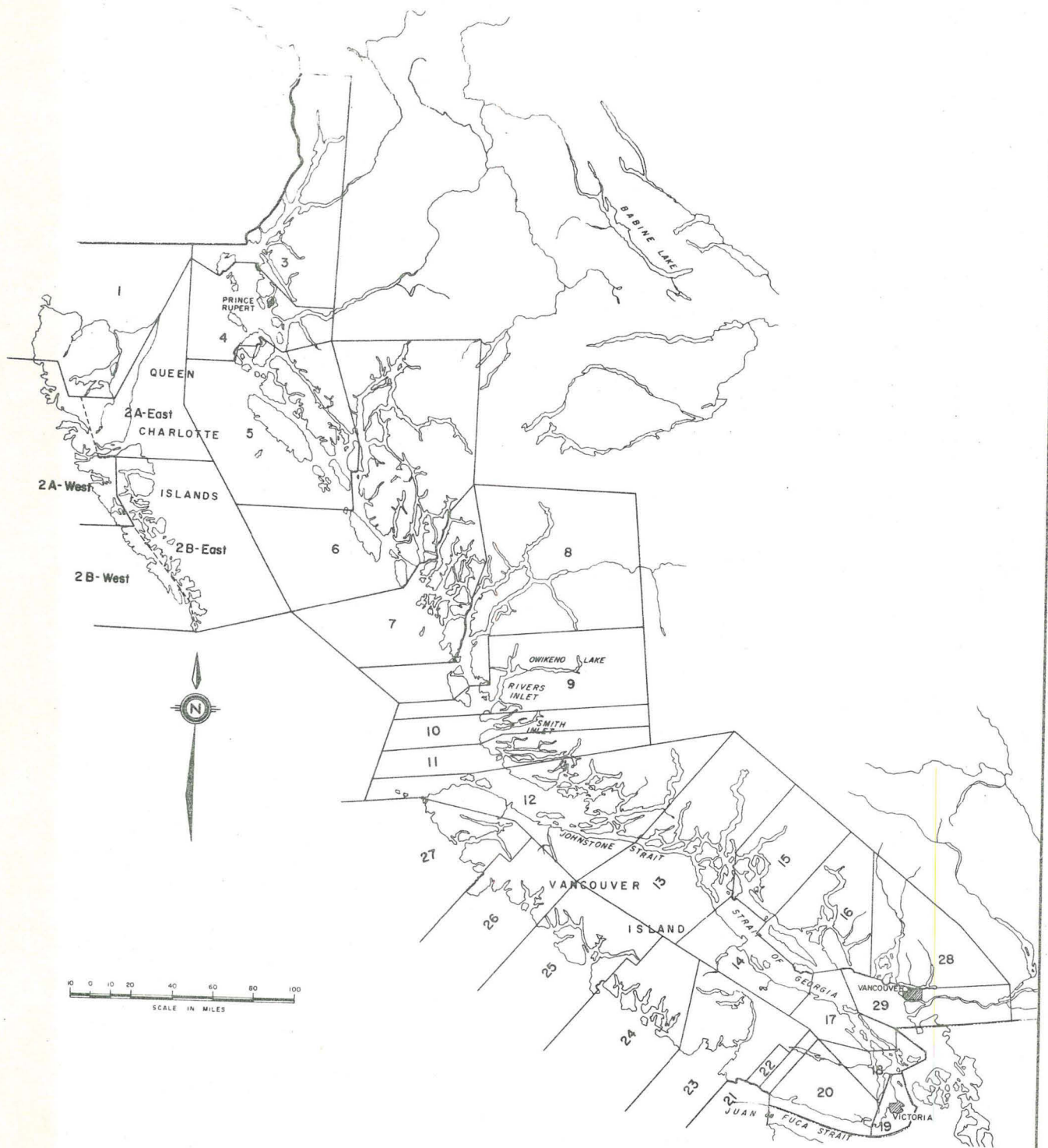
JOHNSTONE STRAIT,  
FRASER RIVER AND  
JUAN de FUCA STRAIT  
DIVISION.

CENTRAL COAST DIVISION.

WEST COAST VANCOUVER ISLAND  
AND OFF SHORE DIVISION.

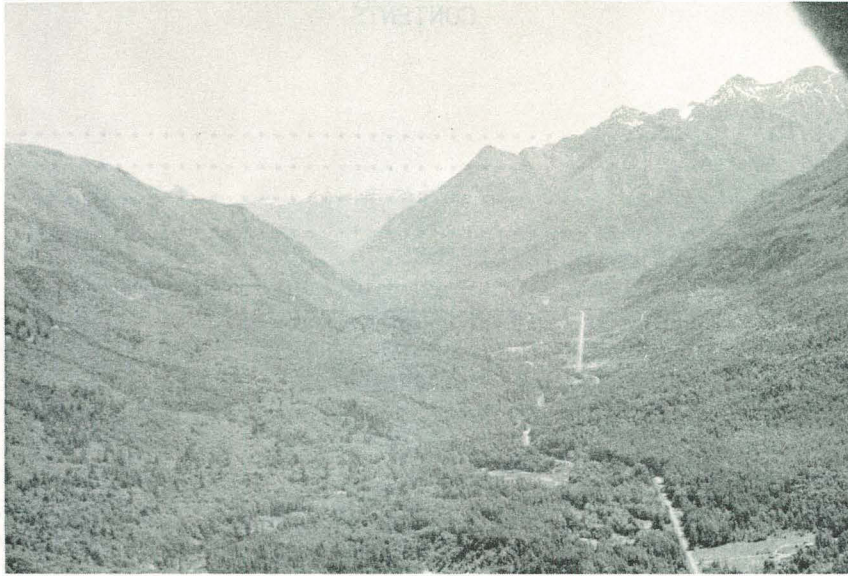
GEORGIA STRAIT DIVISION.

# STATISTICAL AREAS PACIFIC REGION

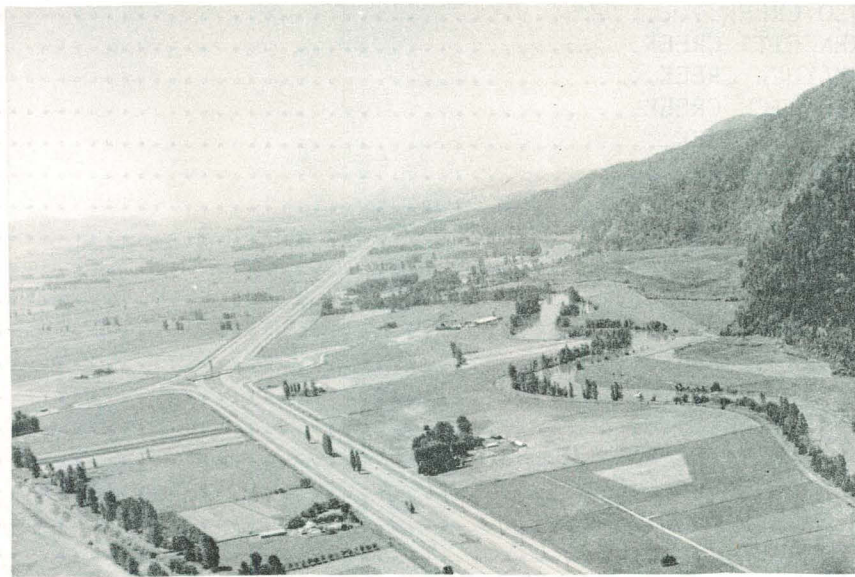


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"U" Valley of Chilliwack River



Fraser River Plain

INTRODUCTION

This catalogue contains information on salmon bearing areas and spawning populations located on the south side of the Fraser River from 40 to 100 miles upstream of the estuary and on both sides of the canyon area. The study area principally represents the southern portion of the Lower Mainland.

The Lower Mainland comprises the Coast Mountains area and the Fraser Valley. The Coast Mountains rise abruptly to as much as 7,000 feet ASL and bound the Fraser River along the north side. The south side is bounded by mountains in the eastern portion only.

The Fraser Valley consists of extensive wide and low lying flat land with uplands rising 50 to 1,000 feet ASL along the sides and occasionally from the central valley floor. The flatlands are alluvial soils. The south side uplands are largely composed of glacial deposits whereas some of those on the north side are a combination of glacial deposits and bedrock outcroppings.

The Fraser Valley has characteristically dry and warm summers and humid mild winters; snowfall is light. The average annual precipitation ranges from 37 inches at Steveston to 63 inches at Agassiz. More extreme climatic conditions are found in the mountain valleys where some salmon reproduction areas exist.

The Fraser Valley since first being settled in the 1820's has shown rapid development based on farming, logging, fishing, hydro power development, and heavy industry and mining to a lesser extent. Approximately one million people or 55 percent of the population of British Columbia reside here. Consequently, severe stresses have been imposed on the salmon stocks through activities connected with flood control, water diversion, dredging, agriculture, gravel removal, logging, mining and disposal of sewage and industrial wastes. These factors have resulted principally in deterioration of spawning areas. Other effects are limitations on fish access and lower water quality. Direct harassment of migrating and spawning stocks is an additional stress factor.

Sources of information:

Province of British Columbia Lands Service, 1959. The lower coast bulletin area. Bull. B. C. Department of Lands and Forests, Victoria, B. C. 3:74 pp.

Armstrong, J. E. 1957. Surficial geology of New Westminster map area, British Columbia. Paper. Geological Survey of Canada Department of Mines and Technical Surveys. 57-5:25 pp and maps.

Holland, Stuart S. 1964. Landforms of British Columbia. A physiographic outline. Bull. B. C. Department of Mines and Petroleum Resources. 48:128 pp.

SALMON SPAWNING STOCKS

All chum salmon entering the Fraser River utilize Lower Mainland areas for reproduction. The Fraser River chum stocks in the period 1960 - 1969 accounted for approximately 37 percent of the chum salmon found from Queen Charlotte Strait at the north to southern Vancouver Island, and represented the most important segment of the total run in this area (Fraser, 1970).<sup>1</sup> Total Lower Mainland spawning populations from 1960 to 1969 inclusive ranged from 164,000 to 822,000 with a geometric mean in the order of 290,000. Major populations utilize four watersheds of which the Chilliwack-Vedder is located on the south side of the Fraser River and therefore described in this report. Based on time of spawning, specific location of spawning, and choice of habitat the racial structure of the Fraser chums appears to be complex, with several identifiable units existing side by side in the same watershed e.g. Chilliwack-Vedder.

Prior to encroachment by man, the chum salmon were probably more widely distributed than now. The placement of dams in mainstem sloughs and the use of flood gates to control high water inflows have prevented the fish from reaching what may have been significant spawning areas. A result of the first activity is the destruction of alleged former chum spawning areas through siltation and plant growth. In other cases machines have physically eliminated spawning habitat. As a consequence, important mainstem races/segments of the Fraser River stock may have been destroyed. Certainly some small tributary populations are depleted.

Pink salmon appear in the Fraser River system in the odd numbered years only. Large segments of the Fraser stock migrate through the Lower Mainland to spawn in upper tributary waters. Spawning populations in the Lower Mainland range from .2 million fish in 1947 to 1.0 million fish in 1963. Three areas are recognized as major pink salmon producers; the Chilliwack-Vedder system is the most important on the south side of the Fraser River. The management for pink salmon has been the direct responsibility of the International Pacific Salmon Fisheries Commission since 1957.

Chinook salmon occur in small scattered populations on the south side of the Fraser River. The largest population is estimated at approximately 300-500 and is found in the Chilliwack River.

The sockeye salmon have been the direct responsibility of the International Pacific Salmon Fisheries Commission since 1937. Spawning populations within the Lower Mainland in the period 1947-1970 ranged from 119.0 to 21.8 thousand with populations in the order of 60-70 thousand appearing most frequently. The most important population on the south side utilizes Cultus Lake.

Coho salmon spawners in the Lower Mainland have numbered from 66.7 to 10.7 thousand in the period 1947-1970. The species is more widely distributed than any other species occupying the larger streams as well as ditch-like creeks. The largest population is found in the Chilliwack-Vedder system.

<sup>1</sup> Fraser, F.J. 1970. The 1970 report on chum salmon stocks of the Johnstone Strait - Fraser River study area, and prospects for 1970. Technical Report. Canada Department of Fisheries and Forestry, Fisheries Service, Pacific Region. 1970-6; 19 pp.

FISHERIES DEVELOPMENT POSSIBILITIES

The discussion of development possibilities is restricted to flow control, spawning channel, fishway and stream improvement techniques. However, this does not preclude the use of other techniques as they are researched and developed.

A major factor affecting chum and to some degree pink salmon production in the Lower Mainland is the loss/deterioration of spawning area. Therefore, any action that can prevent further loss or that will rehabilitate areas ensures, in part, continued production of two species in the Lower Mainland area.

The provision of adequate flow and in some cases the removal of plant growth and surface silt/sand/mud deposits on the sloughs and side channels in the main Fraser and tributary streams may provide suitable spawning conditions for salmon over large areas of existing gravel beds. Such actions would allow stocks to repopulate former alleged spawning areas which under controlled conditions would presumably be highly productive. On the south side of the Fraser River the provision for regulated flows in Wahleach Reach and side channels of the Vedder River may provide excellent opportunities to at least maintain chum and pink stocks. Opportunities for the implementation of spawning channels appear to exist in the Chilliwack-Vedder system. Sites for spawning channels have been selected by the International Pacific Salmon Fisheries Commission for pink salmon and by the Fisheries Service for chum salmon.

The alleviation of obstructions in Coquihalla River and Silverhope Creek may be beneficial, principally to coho salmon. The theoretical production potentials in current inaccessible areas are 11,200 and 8,400 adult coho, respectively.

## COMPOSITION OF THE SALMON STOCKS IN THE LOWER MAINLAND AREA

Av. Spawning Populations	Sockeye	Chinook	Coho	Chum	Pink - Odd
> 500,000					1
200,000-500,000					2
100,000-200,000					
50,000-100,000				2	
20,000- 50,000	4			3	
10,000- 20,000		1	1	3	
5,000- 10,000			1		
2,000- 5,000			1	1	2
1,000- 2,000	1				

Rank	Sockeye	Chinook	Coho	Chum	Pink - Odd
1	U. Pitt R.	Harrison R.	Chilliwack*	Main Fraser**	Main Fraser**
2	Cultus Lk.*		Chehalis	Harrison	Harrison
3	Harrison R.		U. Pitt	Chilliwack*	Chilliwack*
4	Weaver Cr.			Chehalis	Sweltzer*
5	Big Silver			Stave	Chehalis
6				Vedder*	Stave
7				Squakum	Nesakwatch*
8				Weaver	
9				Sweltzer*	
10					
11					
12					
13					
14					
15					

\* described in this catalogue

\*\* will be described in future reports

ESCAPEMENT RECORD FOR CHILLIWACK SUBDISTRICT

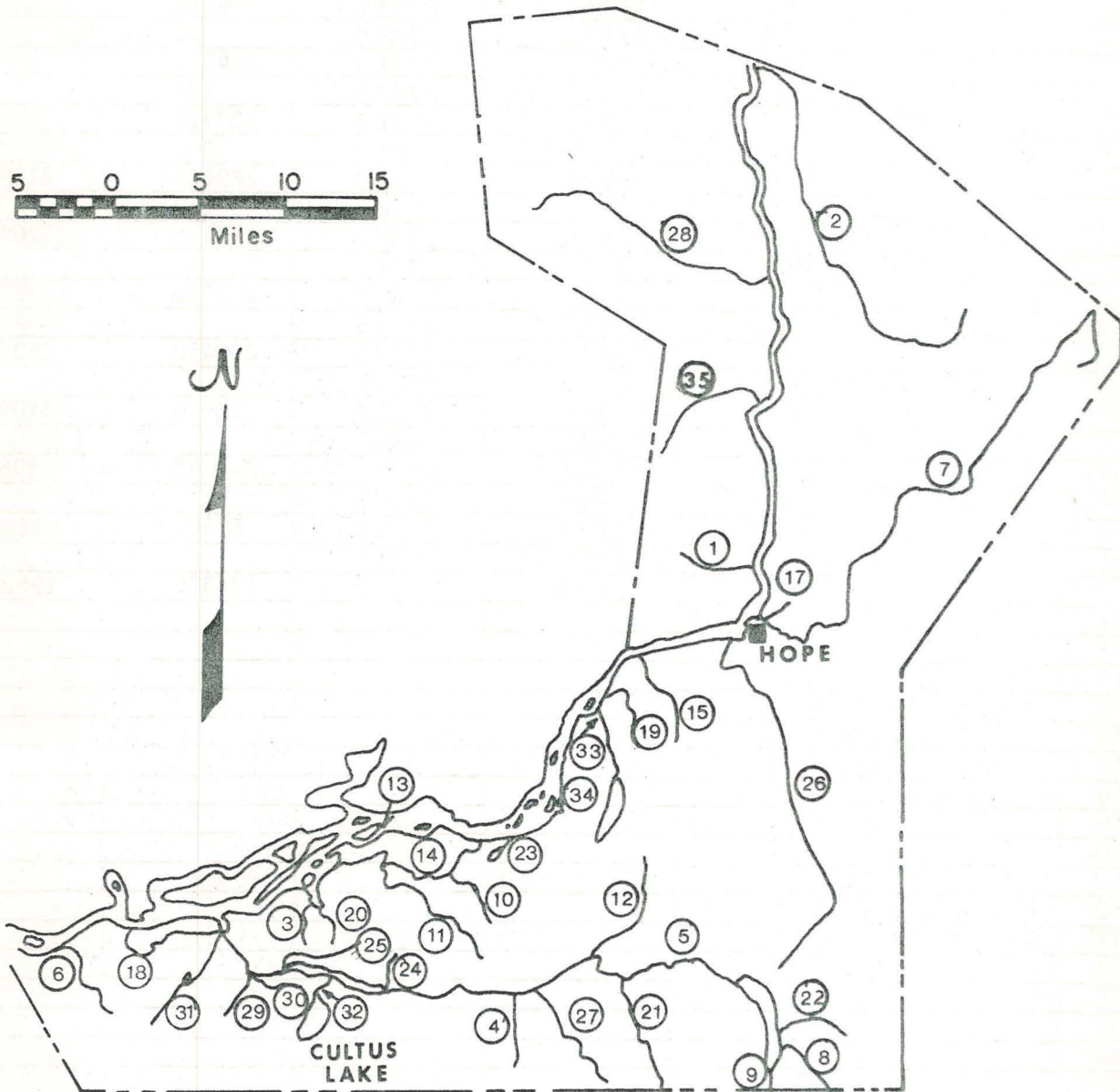
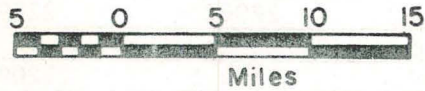
YEAR	SOCKEYE <sup>1</sup>	CHINOOK	COHO	CHUM	PINK <sup>2</sup>	PINK <sup>3</sup>
1947	9098	300	5730	26025	114400	
48	13211	325	9500	117600		
49	9551	350	6585	36025	143750	
50	31120	400	10450	66575	800	
51	13318	1000	19200	61750	196650	
52	19460	750	21675	63000	50	
53	13150	400	18025	22100	126775	
54	23856	725	11625	27425	25	
55	26225	700	18996	20908	123775	
56	14283	525	16250	11600	3000	
57	20847	425	19525	19100	220625	227923
58	14947	875	26800	11150	150	
59	48836	725	18675	17975	150675	120986
60	17889	425	9925	73100		
61	15653	475	17425	47650	260725	209370
62	27295	425	52750	43825		
63	21046	425	61825	57525	252450	353620
64	11343	400	37950	96650		
65	2682	225	12276	32525	227950	210492
66	17614	100	20525	58425		
67	33717	50	7113	88115	281968	280874
68	25948	50	9568	171525		
69	6889	300	12109	55135	80500	116766
70	15699	300	12725	66700		
71		50	11850	50200	184300	196297
72						
73						
74						
75						
76						
77						
78						
79						
80						
81						
82						
83						
84						
85						
Time						
Start						
Peak						
End						

REMARKS - Mainstem Fraser River spawning areas and escapements are not included in this catalogue.

- Emory Creek: No Fisheries Service records kept on this stream. Pink salmon escapements recorded by I.P.S.F.C. are as follows: 1959 - 728; 1961 - 22; 1963 - 36; 1965 - 5. These are included in the subdistrict total.

1 I.P.S.F.C. escapements.  
2 FISHERIES SERVICE escapements.  
3 I.P.S.F.C. escapements.

SALMON SPAWNING STREAMS  
CHILLIWACK SUB-DISTRICT



- |                        |                     |                             |
|------------------------|---------------------|-----------------------------|
| 1 AMERICAN CREEK       | 13 GREYELL SLOUGH   | 24 RYDER CREEK              |
| 2 ANDERSON RIVER       | 14 HOPE SLOUGH      | 25 SALWEIN CREEK            |
| 3 ATCHELITZ CREEK      | 15 HUNTER CREEK     | 26 SILVERHOPE CREEK         |
| 4 BORDEN CREEK         | 16 NOT USED         | 27 SLESSE CREEK             |
| 5 CHILLIWACK-VEDDER R. | 17 KAWKAWA CREEK    | 28 SPUZZUM CREEK            |
| 6 CLAYBURN CREEK       | 18 LONZO CREEK      | 29 STEWART SLOUGH           |
| 7 COQUIHALLA RIVER     | 19 LORENZETTA CREEK | 30 STREET CREEK             |
| 8 DEPOT CREEK          | 20 LUCKAKUCK CREEK  | 31 SUMAS RIVER              |
| 9 DOLLY VARDEN CREEK   | 21 NESAKWATCH CREEK | 32 SWELTZER R. & CULTUS LK. |
| 10 DUNVILLE CREEK      | 22 PALEFACE CREEK   | 33 WAHLEACH CREEK (JONES)   |
| 11 ELK CREEK           | 23 POPKUM CREEK     | 34 WAHLEACH SLOUGH          |
| 12 FOLEY CREEK         |                     | 35 YALE CREEK               |



Map of the Pacific Northwest region of British Columbia, Canada, and Washington, United States of America. The map shows the coastline, major cities like Vancouver, West Vancouver, North Vancouver, and Mission, and various mountain ranges including the Coast Range, Garibaldi Provincial Park, and the Cascade Range. It also depicts numerous rivers, lakes, and smaller towns. A compass rose is located in the lower-left corner, and the international boundary between Canada and the United States is clearly marked at the bottom.

**BASE MAP OF LOWER  
FRASER RIVER WATERSHED**



**SCALE - 10 miles to 1 inch**

This map is a partial reproduction of the South Western British Columbia Base Map by Geographic Division, Surveys & Mapping Branch, Department of Lands, Forests, & Water Resources, Victoria, B.C. 1963.

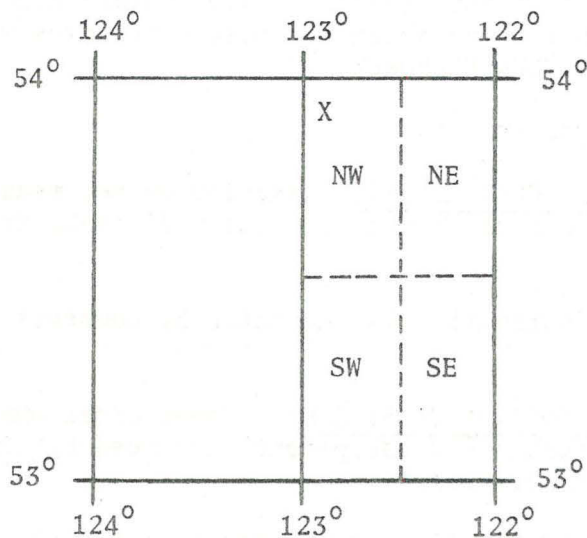
STANDARDS USED ON DESCRIPTION PAGE

NAME OF STREAM: Name given in Gazetteer of Canada - British Columbia; other names are added in lower case type.

CONSERVATION DISTRICT: As defined by the Conservation and Protection Service (APR 1965).

STATISTICAL AREA: As defined by the Department of Fisheries statistical map (JUN 1957).

LOCATION OF MOUTH AND POSITION: Position is 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 figures of reference (Gazetteer of Canada - British Columbia).



EXAMPLE "X"  
53° 122° NW

LENGTH: Measured in miles and tenths of a mile from the mouth to a point beyond which 1% of the spawning population of any species fails to spawn profitably. Does not include tributary streams.

WIDTH: Average width, estimated to nearest foot, for the described length.

DRAINAGE: Area in square miles of the entire drainage basin feeding the stream.

COMPOSITION: Percentage occurrence of the listed categories for the wetted stream bed at average water levels within the described length.

Bedrock	bedrock
Boulder	>256 mm (>10")
Coarse	50.9 - 256 mm (2 - 10")
Fine	3.37 - 50.8 mm (1/8 - 2")
Sand & Silt	sand and silt
Unclassified	where bottom cannot be observed, e.g., log jams, pools, water colour, etc.

GRADIENT: Average vertical drop per thousand linear feet.

WETTED AREA: Number of square yards of stream bed under water at average flows within the described length.

SPAWNING AREA: Estimated number of square yards of stream bed suitable for salmon spawning within the described length. See following page.

DISCHARGE: Mean annual discharge near the mouth of the stream. Maximum and minimum values are either daily means or instantaneous discharges. The latter are identified by "inst" (Surface Water Data, Inland Waters Branch, DEMR). On streams lacking water records, discharges were estimated (see WATER QUANTITIES AND FLOW MEASUREMENTS).

WATER TEMPERATURE: Measured in °F.

BARRIERS AND POINTS OF DIFFICULT ASCENT: Description and measurements of complete and partial barriers to salmon, and their distance from the stream mouth.

SPAWNING DISTRIBUTION: Distribution is indicated by comments on stream data page.

POTENTIAL OF INACCESSIBLE PORTION OF STREAM: Theoretical number of adult fish in the total return (catch and escapement) produced by the inaccessible area based on the following criteria:

Sockeye	10,000 fish per square mile of lake surface
Coho	700 fish per linear mile of lakes and streams
Chum	1½ fish per square yard of spawning area
Pink	3 fish per square yard of spawning area
Chinook	No estimates

GENERAL REMARKS: Emphasizes features of streams and of spawning populations. Also includes industrial activity, routes of accessibility, etc.

**ESCAPEMENT RECORD:** The escapement estimate represents the mid point of the coded range of the escapement for each species. For example, 5,000 - 10,000 would be entered as 7,500. Where absolute numbers are provided by Department of Fisheries personnel, these numbers are entered. Where no estimates are recorded, the escapement, if any, is unknown.

The timing is in reference to spawning.

- E - early (first 10 days of month)
- M - middle of month
- L - late (last 10 days of month)

**NOTE RE SPAWNING AREA:** The spawning area presented in this report cannot in some instances, be used to calculate the optimum spawning population for a given species for two reasons (1) species utilize specific areas of a stream for reproduction such as chinooks upstream, chums and pinks in lower reaches, and this has not been taken into account and (2) water levels affect the amount of wetted gravel very significantly, for example, Qualicum River, 1960: 33 cfs = 45,000 sq. yds., 110 cfs = 85,000 sq. yds. and 230 cfs = 115,000 sq. yds.

### MAP REFERENCE

<b>Roads:</b>		<b>Boundary, International</b> -----
hard surface, all weather	more than 2 lanes	" Province -----
hard surface, all weather	2 lanes <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">18</span> less than 2	" County or District -----
loose surface, all weather	2 lanes wide or more	" Township or Parish -----
" less than 2 lanes	all weather    dry weather	" City or Town -----
Private Road, Trail	Private Road    Trail	" Reservation, Indian, Military, etc -----
<b>Railways:</b>		<b>Power Transmission Line</b> - - - - -
normal gauge, multiple track	Station	<b>Telephone or Telegraph, trunk route</b> - - - - -
normal gauge, single track	Stop	<b>Horizontal Control Point</b> ----- Δ
abandoned, or under construction	Siding	<b>Boundary Marker</b> ----- ○
narrow gauge, single track		<b>Bench Mark</b> ----- ↑ 3025'
Bridge, underpass or overpass		<b>Spot Elevation, (in feet)</b> ----- .4582
Tunnel		<b>Mine or Pit</b> ----- X
<b>House, Building</b> -----	•	<b>Lighthouse</b> ----- *
<b>School</b> -----	• S	<b>Wharf or Pier</b> -----
<b>Church</b> -----	+	<b>Foreshore Flats</b> ----- Sand
" with conspicuous Tower or Spire	†	----- Mud
<b>Post Office</b> -----	P	<b>Swamp or Marsh</b> -----
<b>Tower, Radio Mast, Lookout, etc.</b>	○	<b>Lake or Pond, intermittent</b> -----
<b>Cemetery</b> -----	Cem	<b>Glacier or Snowfield</b> -----
<b>Quarry</b> -----		<b>Stream, intermittent</b> -----
<b>Sand or Gravel Pit</b> -----		<b>Irrigation Canals, Ditches</b> -----
<b>Cliff</b> -----		<b>Inundated Land, seasonal</b> -----
<b>Cutting</b> -----		<b>Contours, elevation</b> ----- 500 400
<b>Embankment</b> -----		" depression ----- 400
<b>Saw Mill</b> -----	• SM	" approximate ----- 500
		<b>Forest, unclassified</b> -----



NAME OF STREAM AMERICAN CREEK  
 CONSERVATION DISTRICT 2 STATISTICAL AREA Chilliwack  
 LOCATION OF MOUTH Flows E. into Fraser R., N. of Hope, Yale Dist.  
 POSITION 49 121 SE  
 LENGTH 1.5 MI. WIDTH 40 FT. DRAINAGE 12.5 SQ. MI.  
 COMPOSITION: BEDROCK 10 BOULDER 40 COARSE 20 FINE 20  
 SILT & SAND 10 UNCLASSIFIED

GRADIENT:  
 FALL IN FT/000

0.0 - 2.5	
2.5 - 5.0	
5.0 - 7.5	
7.5 - 10.0	
> 10.0	throughout

WETTED AREA 35200 SQ. YD. SPAWNING AREA 14100 SQ. YD.  
 DISCHARGE CFS MAX 1860.0 -/01/35 MIN 5.6 -/09/35  
 TEMPERATURE

BARRIERS OR POINTS OF DIFFICULT ASCENT Entry to the stream is complicated during low flow periods due to the spreading of water over a large bouldery delta.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	0.0 - 1.0 mi
CHUM	0.0 - .75 mi
PINK (ODD YR)	0.0 - .75 mi; Heaviest spawning area - mouth to highway 1
PINK (EVEN YR)	
STEELHEAD	0.0 - 1.5 mi

POTENTIAL OF INACCESSIBLE PORTION OF STREAM Steep gradient; large boulders and bedrock precludes greater use of this stream by salmon.

GENERAL REMARKS: Logging is in progress on upper reaches.  
- Est. discharge: 100 cfs -/04/71



American Creek at 0.25 mi.

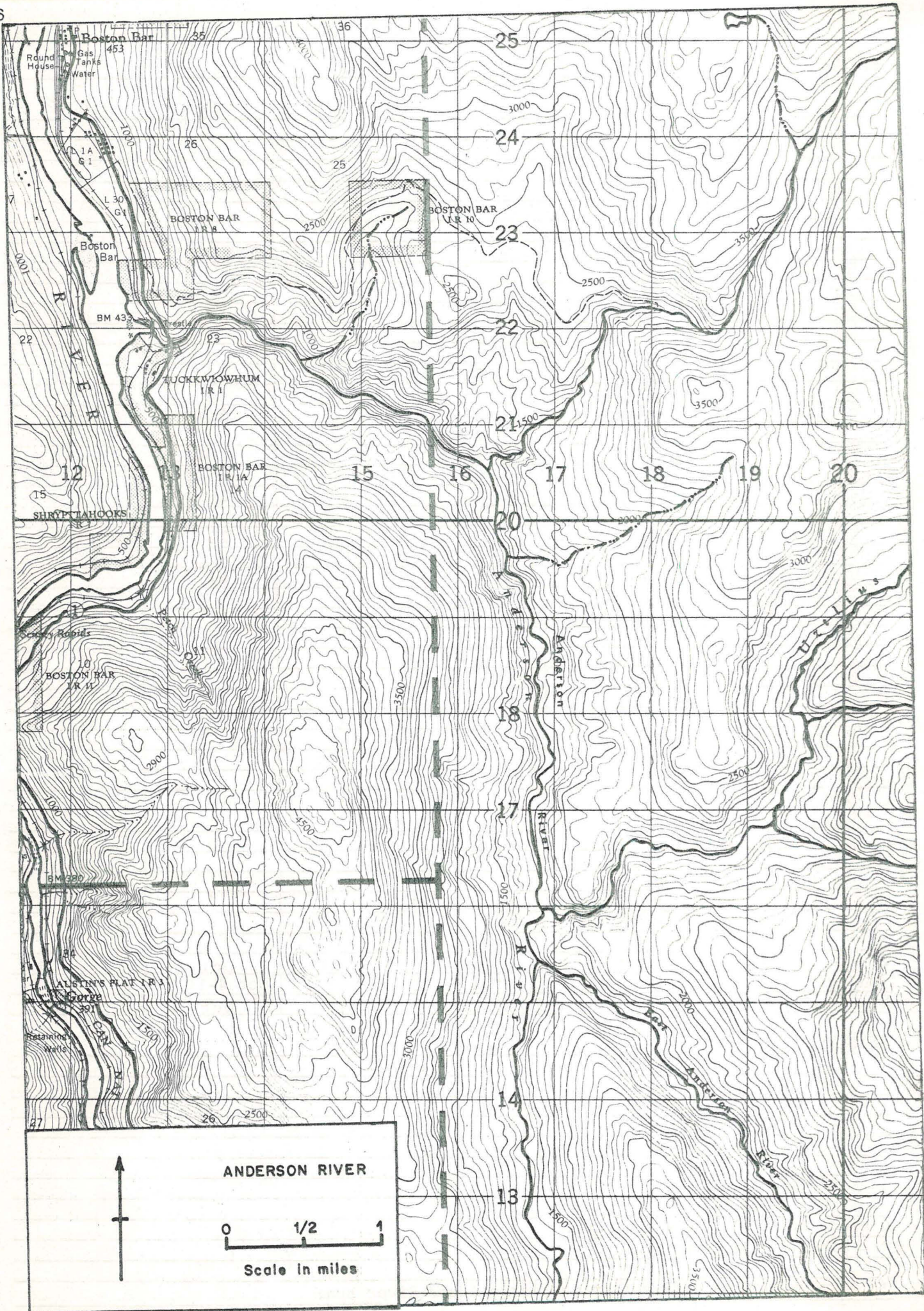
ESCAPEMENT RECORD FOR AMERICAN CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK <sup>1</sup>	PINK <sup>2</sup>
1947						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57						4
58	150 *		25			
59			50		300	790
60			25			
61			25		300	147
62			25			
63			25		200	307
64			25	50		
65			25	50	200	75
66			25			
67					200	192
68			25	25		
69					175	
70						
71					300	
72						
73						
74						
75						
76						
77						
78						
79						
80						
81						
82						
83						
84						
85						
Time						
Start			E Nov		E Oct	
Peak			M Nov		Oct 4-11	
End			M Dec		L Oct	

REMARKS \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

1 FISHERIES SERVICE escapements.  
 2 I.P.S.F.C. escapements.

\* Non-productive strays from the large Adams River run.



**ANDERSON RIVER**

0 1/2 1

Scale in miles

NAME OF STREAM ANDERSON RIVER  
 CONSERVATION DISTRICT 2 STATISTICAL AREA Chilliwack  
 LOCATION OF MOUTH Flows N.W. into Fraser R., S. of Boston Bar  
P.O., Yale Dist. POSITION 49 121 NE  
 LENGTH 1.0 MI. WIDTH 60 FT. DRAINAGE 180.0 SQ. MI.  
 COMPOSITION: BEDROCK 5 BOULDER 45 COARSE 20 FINE 20  
 SILT & SAND 10 UNCLASSIFIED \_\_\_\_\_

GRADIENT:  
 FALL IN FT/000

0.0 - 2.5	
2.5 - 5.0	
5.0 - 7.5	
7.5 - 10.0	
> 10.0	throughout

WETTED AREA 35200 SQ. YD. SPAWNING AREA 14100 SQ. YD.  
 DISCHARGE \_\_\_\_\_ CFS MAX 3480.0 1-28/05/47 MIN 25.0 -/01/47

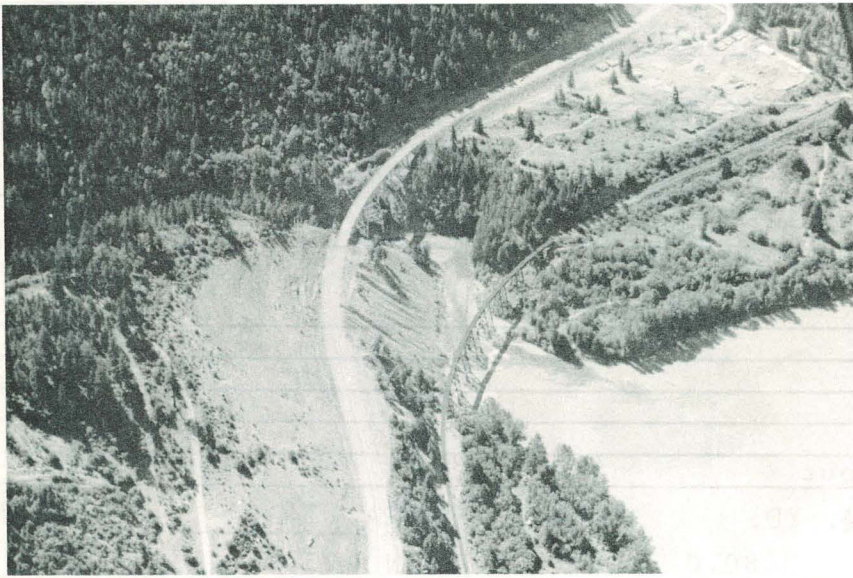
TEMPERATURE \_\_\_\_\_  
 BARRIERS OR POINTS OF DIFFICULT ASCENT In conjunction with a C.N.R. trestle, a concrete apron approximately 70 feet x 120 feet crosses the stream 1.0 mile from the mouth. The drop is about 5 feet onto large broken rock. Water crosses the apron in a thin sheet at high velocity.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	0.0 - 1.0 mi
CHUM	
PINK (ODD YR)	0.0 - 1.0 mi
PINK (EVEN YR)	
STEELHEAD	

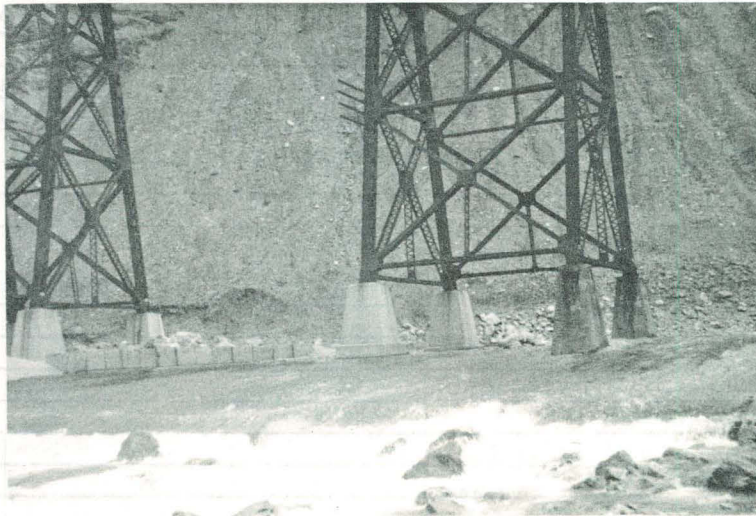
POTENTIAL OF INACCESSIBLE PORTION OF STREAM Due to inaccessibility, the stream has not been surveyed throughout. A canyon is located 1.1 mi from the mouth and numerous attempts to traverse the canyon have failed. Prior to construction of the cement apron (1964) pinks were observed up to the start of the canyon.

GENERAL REMARKS: Est. discharge: 300.0 c.f.s. -/04/71  
 - Extensive logging operations have been carried out on this stream and tributary valleys - A Hydro transmission line follows the valley for several miles and is accessible by road in the upper reaches.



Confluence of Fraser River and Anderson River during flood stage of the former. Normally Anderson R. flows 0.5 - 1.0 mi over a rocky steep slope to join the Fraser River.

Cement apron at CNR trestle



Anderson River falls approx. 3.0 mi



ESCAPEMENT RECORD FOR ANDERSON RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK <sup>1</sup>	PINK <sup>2</sup>
1947					400	
48						
49					50	
50						
51					300	
52						
53					50	
54						
55						
56						
57					750	824
58						
59					200	567
60						
61					100	166
62						
63			50		750	676
64			75			
65					100	31
66			50			
67					225	65
68						
69			50		300	200
70						
71					800	68
72						
73						
74						
75						
76						
77						
78						
79						
80						
81						
82						
83						
84						
85						
Time						
Start			E Oct		L Sep	
Peak			M Oct		Oct 4-9	
End			L Oct		L Oct	

REMARKS \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

1 FISHERIES SERVICE escapements.  
 2 I.P.S.F.C. escapements.

ATCHELITZ CREEK

For map, refer to  
LUCKAKUCK CREEK  
page 94

NAME OF STREAM ATCHELITZ CREEK  
 CONSERVATION DISTRICT 2 STATISTICAL AREA Chilliwack  
 LOCATION OF MOUTH Flows N. into Chilliwack Cr., W. of Chilliwack, New Westminster  
 Dist. POSITION 49 121 SW  
 LENGTH 3.0 MI. WIDTH 29 FT. DRAINAGE 1.5 SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE 3  
 SILT & SAND 97 UNCLASSIFIED \_\_\_\_\_

GRADIENT:  
 FALL IN FT/000

0.0 - 2.5	throughout
2.5 - 5.0	
5.0 - 7.5	
7.5 - 10.0	
> 10.0	

WETTED AREA 51000 SQ. YD. SPAWNING AREA 1500 SQ. YD.  
 DISCHARGE 30 cfs (est.) -/04/71

TEMPERATURE \_\_\_\_\_

BARRIERS OR POINTS OF DIFFICULT ASCENT A floodgate - pump house facility is located on Chilliwack Creek approx. 100 yards below the confluence of Atchelitz Creek and Chilliwack Creek. This facility may under certain conditions preclude entry of salmon to Atchelitz Creek. There is, however, no obstruction in Atchelitz Creek itself.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	in extreme upper reaches only
CHUM	
PINK (ODD YR)	
PINK (EVEN YR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM Nil.

GENERAL REMARKS:

- Farm activities affect water quality of creek, land erosion also causes problems.
- Heavy silting throughout.
- Up to 50 coho observed each year in extreme upper end of system late in season usually Jan. 15 - Feb. 15. Spawning area here approximates 160 sq. yds.



Downstream side of pump house on  
Chilliwack Creek.



Upstream side of pump house  
facility on Chilliwack Creek.



BORDEN CREEK

For map, refer to  
SLESSE CREEK  
page 124



Borden Creek at road crossing  
approx. 500 ft. from mouth

NAME OF STREAM BORDEN CREEK Silvery Creek  
 CONSERVATION DISTRICT 2 STATISTICAL AREA Chilliwack  
 LOCATION OF MOUTH Flows N. into Chilliwack R., Yale Dist.

POSITION 49 121 SW  
 LENGTH 0.5 MI. WIDTH 20 FT. DRAINAGE 8.0 SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER 5 COARSE 45 FINE 50  
 SILT & SAND \_\_\_\_\_ UNCLASSIFIED \_\_\_\_\_ shale

GRADIENT:  
 FALL IN FT/000

0.0 - 2.5	
2.5 - 5.0	
5.0 - 7.5	
7.5 - 10.0	
> 10.0	throughout

WETTED AREA 5900 SQ. YD. SPAWNING AREA 5600 SQ. YD.  
 DISCHARGE 40.0 cfs (est.) -/04/71

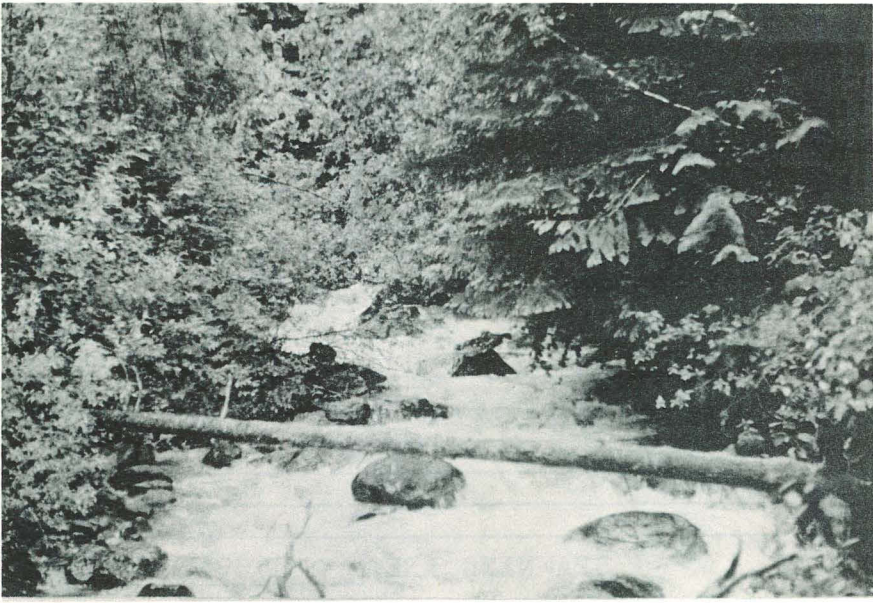
TEMPERATURE \_\_\_\_\_  
 BARRIERS OR POINTS OF DIFFICULT ASCENT Rocks and falls from foot of hill approx. 0.5 mi from mouth

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	0.0 - 0.5 mi
CHUM	
PINK (ODD YR)	
PINK (EVEN YR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM nil

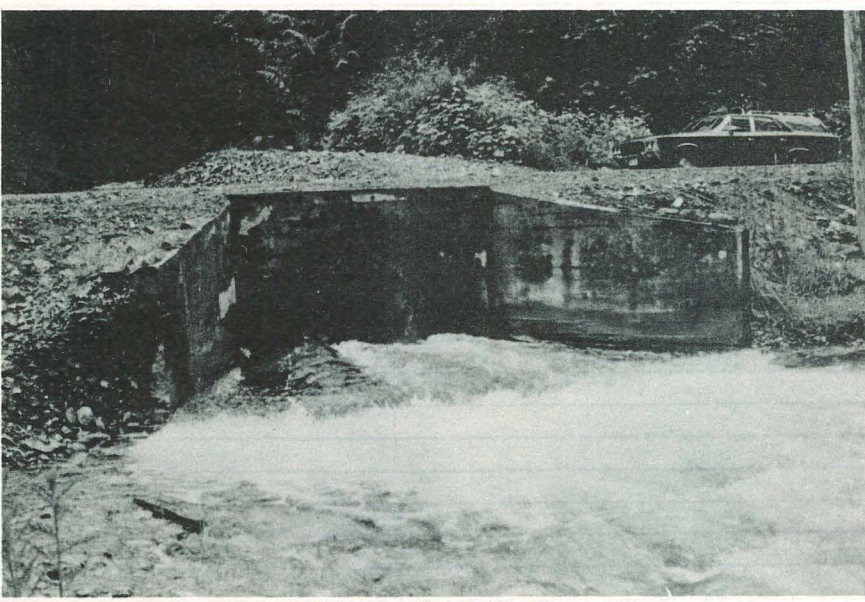
GENERAL REMARKS:  
 - Subject to considerable scouring however this stream is becoming more stable as forest cover returns  
 - Gradient is quite steep and bottom is shale which tends to shift easily



Borden Creek -  
upstream 0.5 miles



Borden Creek Falls  
(0.5 mi)



Borden Creek -  
culvert under highway  
(approx. 500 ft. above  
mouth)

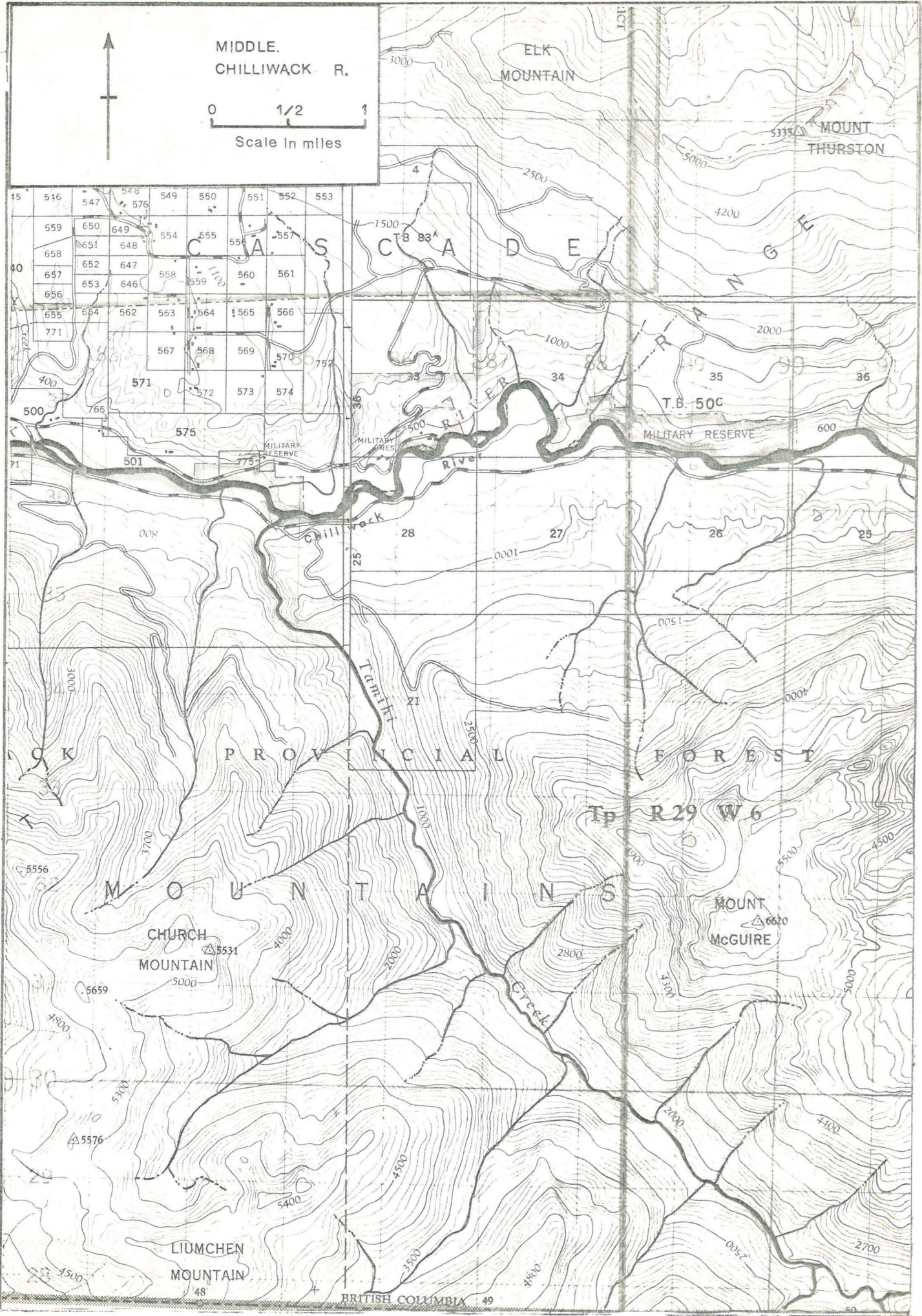


# CHILLIWACK-VEDDER RIVER (VEDDER R. AREA)

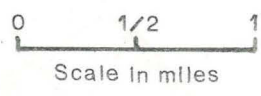


0 1/2 1  
Scale in miles



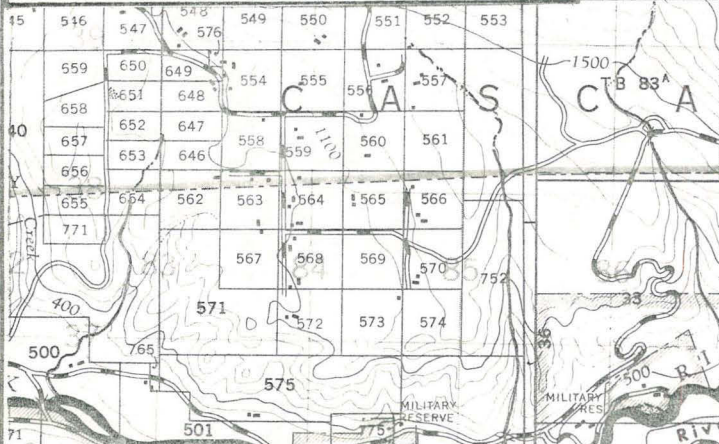


MIDDLE CHILLIWACK R.



ELK MOUNTAIN

MOUNT THURSTON



C.A.D.E.

T.B. 50C MILITARY RESERVE

Chilliwack River

Tamith River

PROVINCIAL FOREST

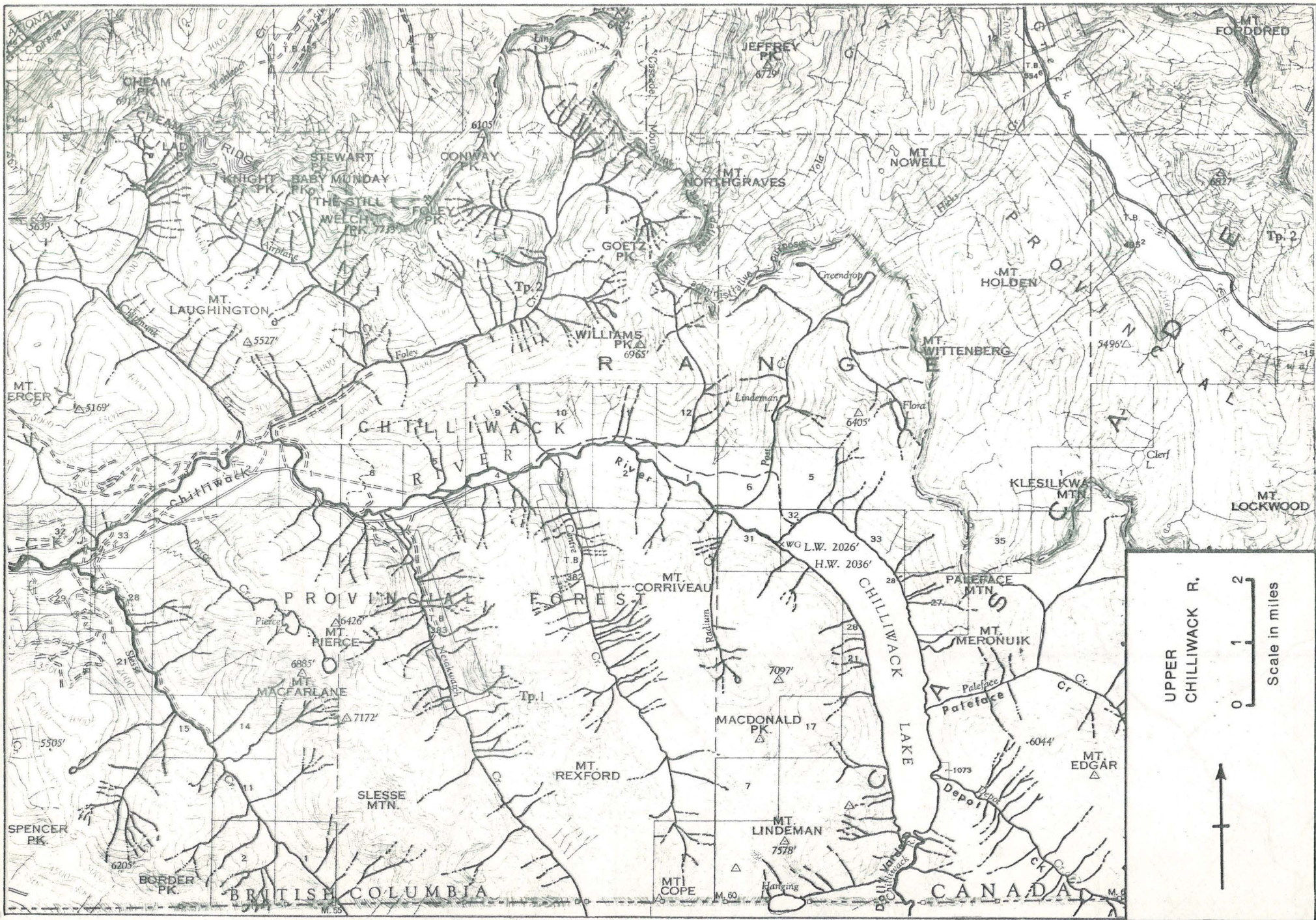
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MOUNTAINS

CHURCH MOUNTAIN

MOUNT MCGUIRE

LUMCHEN MOUNTAIN



UPPER  
CHILLIWACK R.

0 1 2  
Scale in miles



NAME OF STREAM CHILLIWACK - VEDDER RIVER  
 CONSERVATION DISTRICT 2 STATISTICAL AREA Chilliwack  
 LOCATION OF MOUTH Flows W. and N. into Fraser R., New Westminster Dist.  
 POSITION 49 121 SW.  
 LENGTH 38.0 MI. WIDTH 100 FT. DRAINAGE 468.0 SQ. MI.  
 COMPOSITION: BEDROCK 1 BOULDER 50 COARSE 20 FINE 23  
 SILT & SAND 6 UNCLASSIFIED \_\_\_\_\_

GRADIENT:  
 FALL IN FT/000

0.0 - 2.5	0.0-5.0 mi
2.5 - 5.0	5.0-9.0 mi
5.0 - 7.5	9.0-38.0 mi
7.5 - 10.0	
> 10.0	

WETTED AREA 2170000 SQ. YD. SPAWNING AREA 933000 SQ. YD.  
 DISCHARGE 2360 CFS MAX 27000 29/12/17 MIN 280 30/11/52  
 TEMPERATURE \_\_\_\_\_

BARRIERS OR POINTS OF DIFFICULT ASCENT Passable log jams at 28.0 and 31.0 mi.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	Head of Chilliwack Lake
CHINOOK	24.5-38.0 mi
COHO	6.2-38.0 mi
CHUM	6.2-34.0 mi
PINK (ODD YR)	6.2-38.0 mi, most from Foley Cr. to Chilliwack L. (26.0-38.0 mi.)
PINK (EVEN YR)	
STEELHEAD	6.2-38.0 mi

POTENTIAL OF INACCESSIBLE PORTION OF STREAM \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

GENERAL REMARKS:

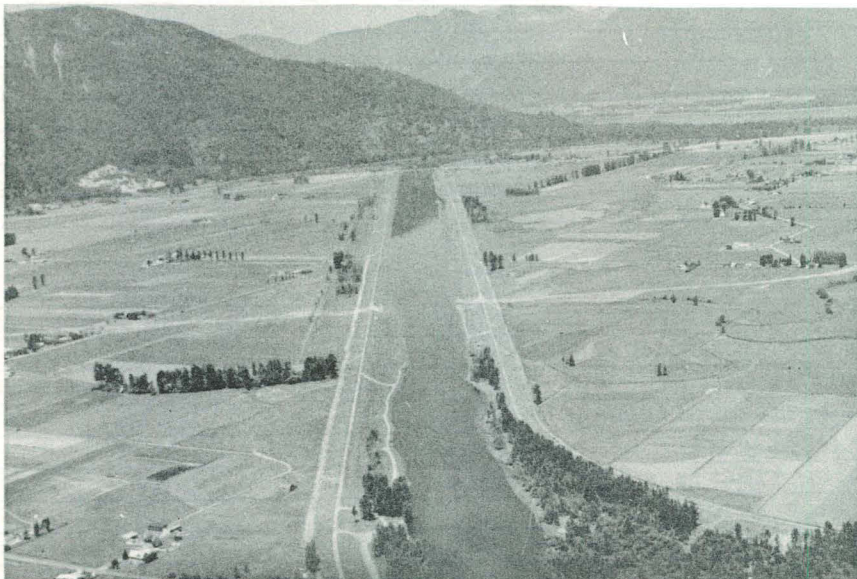
- Water of the Chilliwack R. has been reserved by the crown since 1909 with a view to its potential for domestic use and hydro-electric power but there have not been any major developments to date.
- During early 1900's, Chilliwack R. was diverted into Vedder R. at Vedder Crossing and has since been called Chilliwack-Vedder River.
- Water: clear, except during heavy rainfalls.
- Stream at spawning time is subject to floods.
- Slight tidal effect at mouth.
- Numerous logging operations for past 35 years.
- Three B.C. Forestry Camps are located on the River. Residential and farmlands surround lower half of river.

GENERAL REMARKS: (Cont'd)

- The river is heavily sport fished year round.
- The average freshet discharge in June is 10,000cfs.
- Average annual precipitation is 60.0 inches.
- Accessible Tributaries to Chilliwack-Vedder River:
 

Street Cr.	5.8 mi	see separate report
Salwein Cr.	6.0 mi	see separate report
Sweltzer R.	10.4 mi	see separate report
Liumchen Cr.	13.0 mi	no spawning in this creek
Ryder Cr.	15.0 mi	see separate report
Tamihi Cr.	17.0 mi	no spawning in this creek
Borden Cr.	23.5 mi	see separate report
Slesse Cr.	24.5 mi	see separate report
Chipmunk Cr.	28.0 mi	no spawning reported
Foley Cr.	28.5 mi	see separate report
Middle Cr.	31.0 mi	see separate report
Centre Cr.	34.0 mi	pinks; coho (25-50) in lower one-half mi.
Post Cr.	37.0 mi	no spawning reported
- Chilliwack Lake:
  - Chilliwack Lk. has an area of 4.6 sq. mi. (5.6 x .8 mi.) The lake is accessible by road which was completed in 1967.
  - Mean annual discharge of the lake is 653.0 cfs.
  - Average runoff rate at lake outlet is 4.98 cfs/sq. mi.
- Accessible Tributaries to Chilliwack Lake:
 

Paleface Cr.	see separate report
Depot Cr.	see separate report
Dolly Varden Cr. (upper Chilliwack R.)	see separate report



Vedder Canal 4.0 miles

CHILLIWACK-VEDDER RIVERGeneral Remarks

The Chilliwack-Vedder River is the largest tributary entering the Fraser River from the south between Hope and the sea. The river rises in Chilliwack Lake (3,000 acres) at 2,030 ASL, and flows 38 miles to join the Fraser River 50 miles east of Vancouver. One hundred sixty-four square miles of drainage area lies above Chilliwack Lake and is located within the State of Washington.

From Chilliwack Lake to Vedder Crossing (28 miles), the stream is known as the Chilliwack River and is confined in a U valley. The water surface gradient averages 7'/000. Several major tributaries enter the Chilliwack River in this area, however, Sweltzer River, which drains Cultus Lake, is the most important one for salmon production.

The river below Vedder Crossing is known locally as the Vedder River and in the first four miles flows on an alluvial fan with an average drop of 4'/000. Extensive gravel deposits exist in this area and substantial quantities have been removed for various purposes. For the last five miles of its course, the Vedder River is confined between dykes and flows across the former flood plain of the Fraser River. The gradient in this reach is approximately 1'/000 and consequently a considerable amount of silt deposition occurs. The only tributary of the Vedder River in this section is the Sumas River which drains adjacent farm land.

Chilliwack River and tributaries have been recommended as a good source of water for domestic purposes to serve the expanding metropolis of the Lower Mainland. A conditional water licence was issued in 1954 to divert 100,000 gallons per day from Liumchen Creek and an application, which has been held in abeyance, was made in 1949 to divert 2,000,000 gallons per day from Tamih Creek. No action has been taken to date in regards to these water licences. Several small diversions have been made from the Chilliwack-Vedder River for domestic water supply for the village of Yarrow.

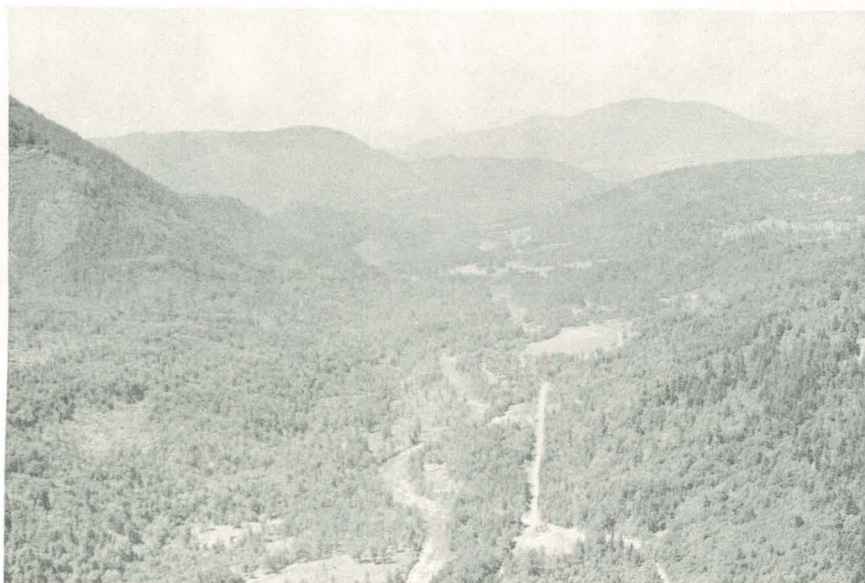
Extensive logging operations have occurred in the watershed, however, present operations are limited. Logging operations and forest fires have denuded large areas and this may be the main cause for flash floods. The second growth of forest cover is making a good showing and it is anticipated that a more stable runoff will occur in the future.

Various agencies have undertaken studies and made attempts to control the river in order to prevent erosion and flooding in the lower reaches during freshet conditions. In 1952, the B. C. Department of Public Works drew up plans for the confinement of the Vedder River in a dyked channel from Vedder Canal to Vedder Crossing. No action was taken, however.

Studies undertaken by the Water Resources Investigation Branch, Department of Lands and Forests, indicate the feasibility for a dam at the outlet of Chilliwack Lake for flood control and storage for hydroelectric power and a power tunnel from the lake to a downstream powerhouse near Nesakwatch Creek. A second diversion of the water at Chipmunk Creek would take part of the flow by tunnel to a powerhouse on the Fraser River. Complete flood control would be achieved by a storage dam between Tamihi and Borden Creeks. There has been no further action taken, however, on this proposal.

Flood control work, particularly in the area between the B. C. Electric bridge and Vedder Crossing has endeavoured to restrict the river to one channel by a combination of dykes and deepened river bottom. Present work, however, is confined more to dykes and riprap. Three major side channels on the left and several minor channels on the right bank have been blocked off as a result of dyke construction. Seepage water now accounts for most of the flow in these channels.

Chilliwack River  
downstream near  
Vedder crossing



Chilliwack River  
downstream from  
Tamihi Creek

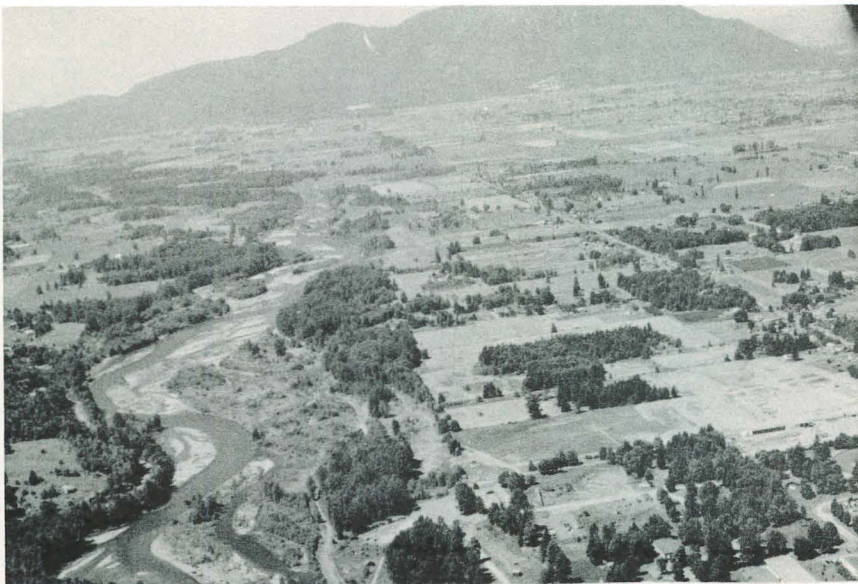
Chilliwack River  
upstream to lake





Chilliwack River  
28.0 mile log jam

Chilliwack River  
looking upstream  
from 28.0 mile  
log jam



Vedder River  
immediatley below  
Vedder Crossing

ESCAPEMENT RECORD FOR CHILLIWACK - VEDDER RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK <sup>1</sup>	PINK <sup>2</sup>
1947		300	4500	25000	100000	
48	100	300	7000	40000		
49	50	300	5000	30000	100000	
50	300	350	8000	30000		
51	100	1000	17000	25000	107500	
52	500	750	18000	45000		
53	100	400	16000	18000	80000	
54	50	700	9000	12000		
55	150	700	17000	16000	115000	
56	100	500	15000	10000		
57	150	400	17000	17000	205000	212334
58	100	800	25000	9000		
59	300	700	16000	17000	137500	91517
60	150	400	7000	70500		
61	150	400	15000	45500	240000	188059
62	150	400	50000	39500		
63	400	400	60000	53500	235000	312685
64	150	400	36000	93400		
65	100	200	8000	30500	207500	188843
66	100	100	16000	54500		
67	150	50	5000	79500	250000	249499
68	200	50	7000	160000		
69	100	300	7000	48800	65000	92222
70	300	300	7000	55900		
71	300	50	6000	45000	150000	160511
72						
73						
74						
75						
76						
77						
78						
79						
80						
81						
82						
83						
84						
85						
Time						
Start	M Jul	E Jul	E Oct	E Oct	M Sep	
Peak	L Jul	E Aug	M Oct	M Dec	Oct 17-25	
End	M Aug	L Sep	L Dec	M Jan	M Nov	

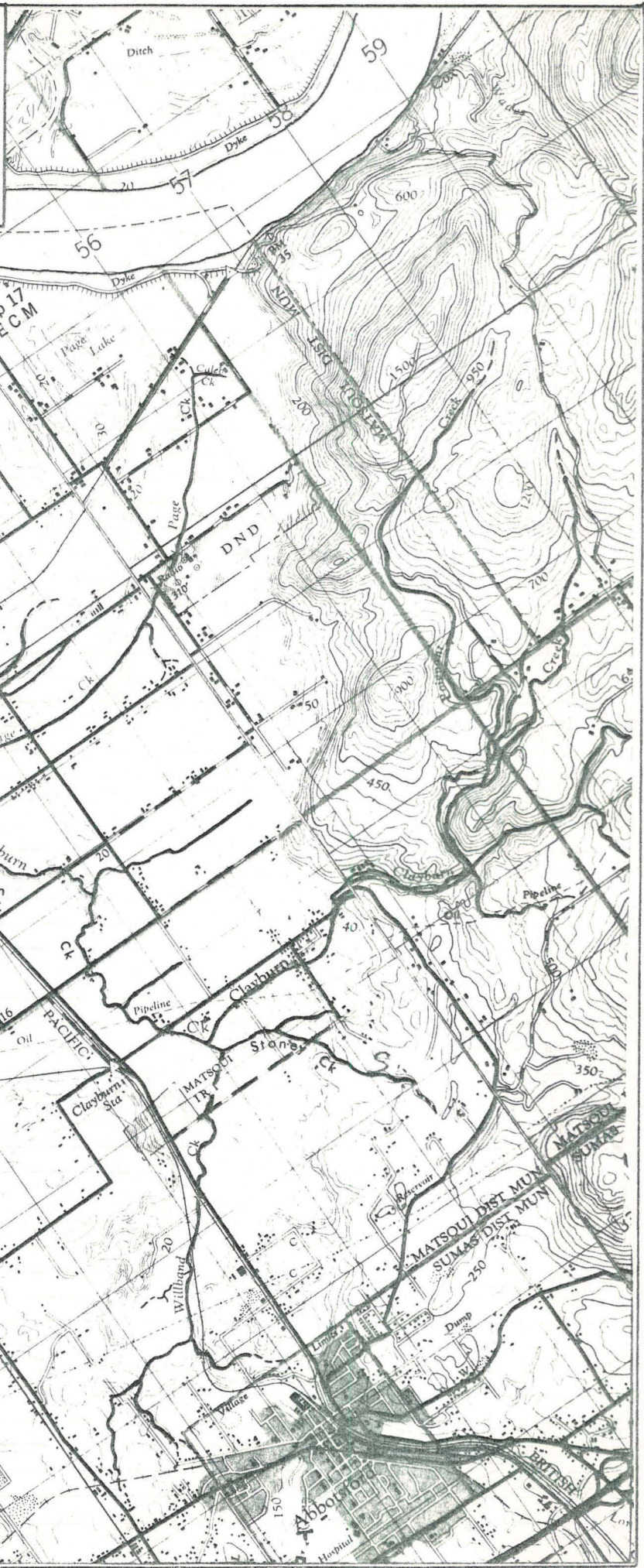
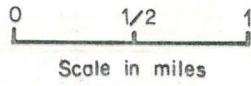
REMARKS Timing of entry, Pink - First fish Sep 17 (approx.)  
- Last fish Nov 2 (approx.)

Sockeye - Chilliwack Lake spawners.

1 FISHERIES SERVICE escapements.

2 I.P.S.F.C. escapements.

CLAYBURN CREEK



NAME OF STREAM CLAYBURN CREEK Kelly Creek  
 CONSERVATION DISTRICT 2 STATISTICAL AREA Chilliwack  
 LOCATION OF MOUTH Flows W. and N. into Matsqui Slough, New Westminster Dist.  
 POSITION 49 122 SE  
 LENGTH 6.0 MI. WIDTH 16 FT. DRAINAGE 80.0 SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER 5 COARSE 15 FINE 30  
 SILT & SAND 50 UNCLASSIFIED \_\_\_\_\_

GRADIENT:  
 FALL IN FT/000

0.0 - 2.5	0.0 - 7.5 mi
2.5 - 5.0	
5.0 - 7.5	
7.5 - 10.0	
> 10.0	above 7.5 mi

WETTED AREA 56000 SQ. YD. SPAWNING AREA 25400 SQ. YD.  
 DISCHARGE \_\_\_\_\_ CFS MAX 294.0 21/02/61 MIN 6.0 -/09/63

TEMPERATURE \_\_\_\_\_  
 BARRIERS OR POINTS OF DIFFICULT ASCENT \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	2.0 - 4.0 mi, headwaters and entire length of Stoney Creek
CHUM	2.0 - 3.0 mi, above confluence of Clayburn and Willband Creeks
PINK (ODD YR)	2.0 - 3.0 mi, above confluence of Clayburn and Willband Creeks
PINK (EVEN YR)	
STEELHEAD	2.0 - 4.0 mi

POTENTIAL OF INACCESSIBLE PORTION OF STREAM \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

GENERAL REMARKS: Est. discharge: 50.0 cfs -/04/71  
 - Coho arrive in early November and are present until mid January; Steelhead enter about February to spawn in main creek from Clayburn School upstream.  
 - Coho smolts rear in Matsqui Slough area.  
 - Willband Creek drains into Kelly Creek at 2.8 mile and is used as an outfall for Abbotsford Sewer treatment plant.  
 - Color of creek becomes quite brown from peat land; entire lower creek is surrounded by farm land  
 - A water recording station is maintained at lower Old Clayburn Road crossing.

Accessible Tribs

## Stoney Creek:

2.5 miles long, 9 ft. wide. 70% gravel.  
Wetted area: 13200 sq. yds.  
Spawning area: 9200 sq. yds.  
supports a good run of coho and is now  
becoming a residential area on its headwaters

## Willband Creek:

12 feet wide, 100% silt, no spawning in this  
creek.

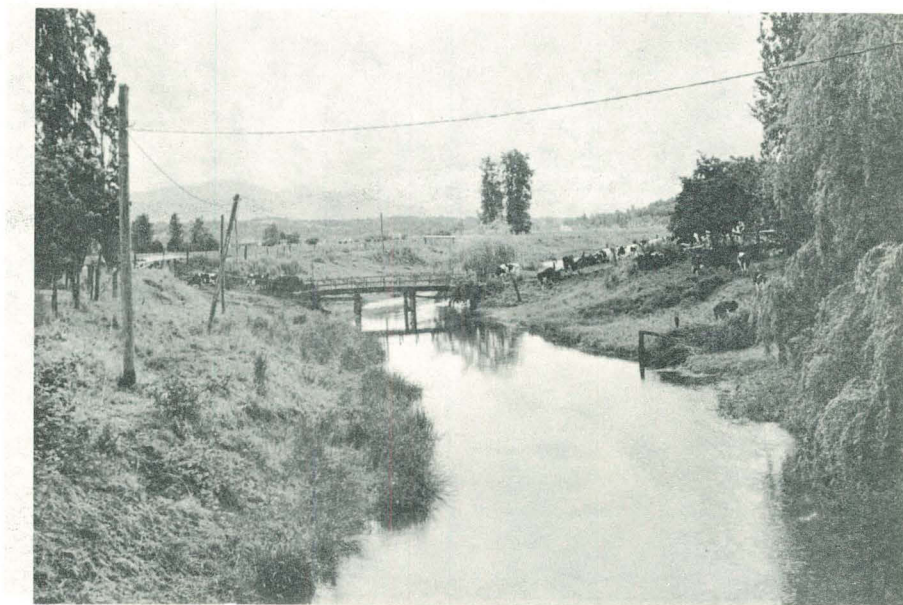
For many years a garbage and refuse dump was used on the  
banks of Kelly Creek, this has now been discontinued and  
cleaned up.



Clayburn Creek - downstream from highway  
(4.0 mi)



Clayburn Creek - upstream from highway  
(4.0 mi)



Willband Creek - Tributary. Upstream from  
road crossing (0.5 mi)



Stoney Creek - Tributary looking upstream



Stoney Creek - Tributary looking downstream





NAME OF STREAM COQUIHALLA RIVER  
 CONSERVATION DISTRICT 2 STATISTICAL AREA Chilliwack  
 LOCATION OF MOUTH Flows SW. into Fraser R. at Hope, Yale Dist.  
 POSITION 49 121 SE.  
 LENGTH 20.0 MI. WIDTH 149 FT. DRAINAGE 360.0 SQ. MI.  
 COMPOSITION: BEDROCK 1 BOULDER 50 COARSE 26 FINE 18  
 SILT & SAND 5 UNCLASSIFIED \_\_\_\_\_

## GRADIENT:

FALL IN FT/000

0.0 - 2.5
2.5 - 5.0
5.0 - 7.5
7.5 - 10.0
> 10.0

WETTED AREA 1760000 SQ. YD. SPAWNING AREA 775000 SQ. YD.DISCHARGE 1240.0 CFS MAX 16400.0 12/12/21 MIN 52.0 21-22/10/57

## TEMPERATURE \_\_\_\_\_

BARRIERS OR POINTS OF DIFFICULT ASCENT Rock obstruction 4.0 miles from mouth with an approximate drop of 8 feet vertical in 10 feet horizontal. Second obstruction 4.25 miles from mouth with drop of 8 feet in 50 feet. Both obstructions are passable to steelhead only under favorable water conditions.

## SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	0.0-4.0 mi.
CHUM	0.0-4.0 mi.
PINK (ODD YR)	0.0-4.0 mi.
PINK (EVEN YR)	
STEELHEAD	0.0-20.0 mi.

POTENTIAL OF INACCESSIBLE PORTION OF STREAM Good gravel sections exist for 16.0 miles above obstructions; gravel area estimated at 620,000 square yards. Theoretical coho production is 11,000 adults.

GENERAL REMARKS: Chums enter this stream from Sept. to December.  
- Pinks enter in October and finish spawning by Oct. 30. Coho start in early November and continue until December.  
- This stream supports a run of both summer and winter run steelhead which spawn in the upper reaches between 11.0 mile creek and Boston Bar Creek (11.0-18.0 mi.).  
- Water is clear except during freshets.  
- Logging has been carried out on this stream for many years, however some cover is now returning to the main valley with the expectation that flooding will be less severe.  
- The C.P.R. Kettle Valley line ran through this valley at one time but has been discontinued.

The area of Rock Canyon at the tunnels (4.0 mi) has been the only obstruction to fish for years.

General breakdown:

0.0-4.0 mi	352000 sq. yds.	Wetted Area
	155000 sq. yds.	Spawning Area
4.0-20.0 mi	1408000 sq. yds.	Wetted Area
	620000 sq. yds.	Spawning Area
0.0-20.0 mi	1760000 sq. yds.	Wetted Area
	775000 sq. yds.	Spawning Area

Accessible Tributaries:

Kawkawa Creek (Sucker Creek)  
see separate report.



Mouth of  
Coquihalla River

Coquihalla River  
looking towards  
mouth



Coquihalla River  
valley looking  
upstream near  
Boston Bar Creek



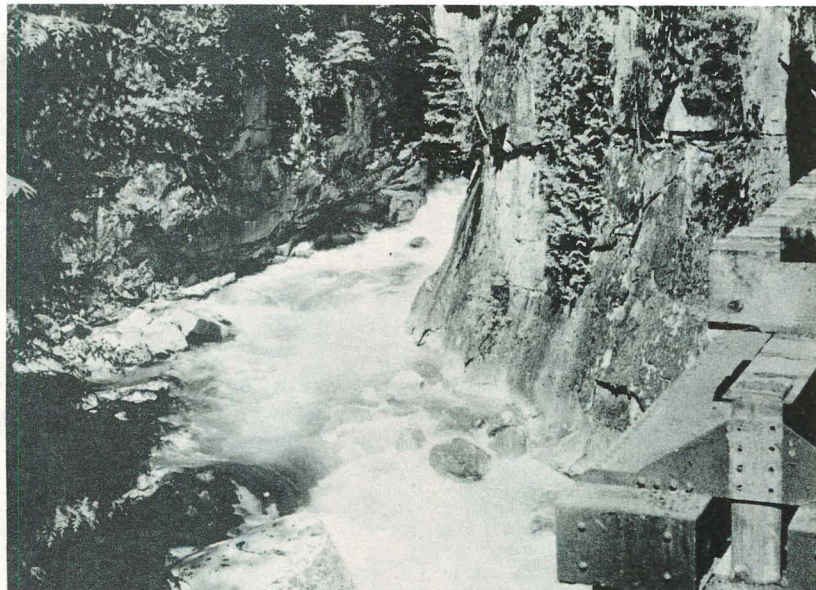
Coquihalla River  
obstruction at  
4.0 miles

Coquihalla River  
above obstruction  
about 10.0 miles





Coquihalla River looking  
downstream from upper  
tunnel at 4.0 miles



Coquihalla River  
looking upstream  
from tunnel  
at 4.0 miles



Coquihalla River  
looking downstream  
from 15.0 miles

ESCAPEMENT RECORD FOR COQUIHALLA RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK <sup>1</sup>	PINK <sup>2</sup>
1947			100	200	1000	
48			75	400		
49			75	300	15000	
50			50	50	25	
51			100	200	3000	
52			200	700		
53			50	200	3000	
54			200	50		
55			200	75	700	
56			50	50		
57			75	75	3000	4433
58			200	75		
59			75	100	3000	16088
60			200	200		
61			200	75	7000	7316
62			200	75		
63			50	50	3000	14971
64			75	75		
65			200	50	3000	3845
66			75	50		
67			50	50	3000	3045
68			50	50		
69			50	50	4500	2193
70			50	50		
71				50	12000	16778
72						
73						
74						
75						
76						
77						
78						
79						
80						
81						
82						
83						
84						
85						
Time						
Start			E Nov	E Oct	L Sep	
Peak			M Nov	M Oct	Oct 5-11	
End			M Dec	L Oct	L Oct	

REMARKS

Timing of entry, Pink - First fish Sep 20  
 - Last fish Oct 15

DEPOT CREEK

For map, refer to  
UPPER CHILLIWACK RIVER  
page 30



Depot Creek

NAME OF STREAM DEPOT CREEK  
 CONSERVATION DISTRICT 2 STATISTICAL AREA Chilliwack  
 LOCATION OF MOUTH Flows NW. into Chilliwack L., Yale Dist.  
 POSITION 49 121 SE.  
 LENGTH 2.0 MI. WIDTH 15 FT. DRAINAGE 15.0 SQ. MI.  
 COMPOSITION: BEDROCK 10 BOULDER 10 COARSE 30 FINE 30  
 SILT & SAND 20 UNCLASSIFIED \_\_\_\_\_

GRADIENT:  
 FALL IN FT/000

0.0 - 2.5	
2.5 - 5.0	
5.0 - 7.5	
7.5 - 10.0	throughout
> 10.0	

WETTED AREA 17600 SQ. YD. SPAWNING AREA 10600 SQ. YD.  
 DISCHARGE 75 cfs (est.) -/05/71

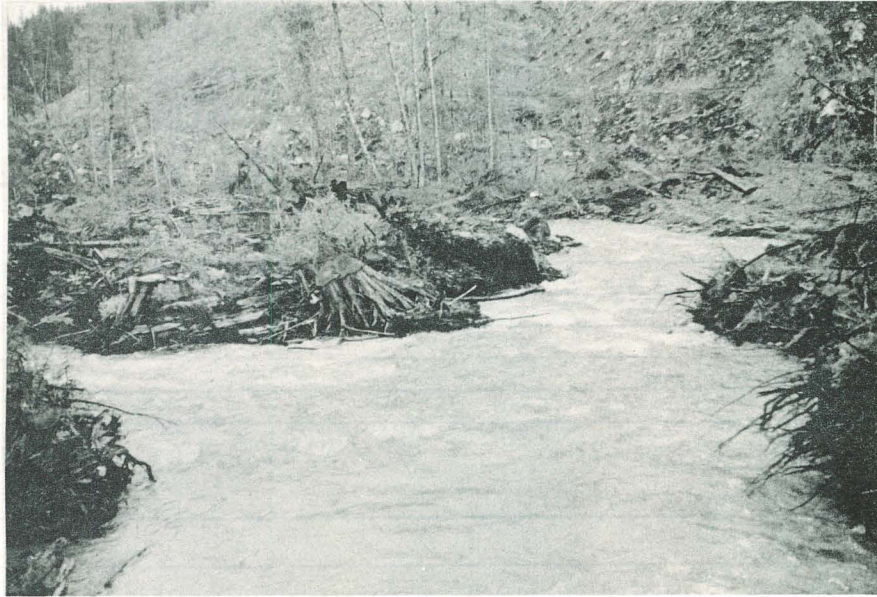
TEMPERATURE \_\_\_\_\_  
 BARRIERS OR POINTS OF DIFFICULT ASCENT Water velocity barrier and steep gradient from 2.0-3.0 mi.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	0.0-1.5 mi.
CHINOOK	
COHO	0.0-1.5 mi.
CHUM	
PINK (ODD YR)	0.0-1.5 mi.
PINK (EVEN YR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM Approximately 1.0 mile of spawning area above water velocity barrier.

GENERAL REMARKS:  
 - Since 1968 logging has stripped the timber from the watershed.  
 - A good logging road runs the full length of the stream.  
 - Stream is subject to flash floods in fall and spring.



Depot Creek - downstream from Army Camp  
(0.5 mi)



Depot Creek - upstream from Army Camp  
(0.5 mi )

ESCAPEMENT RECORD FOR DEPOT CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK <sup>1</sup>	PINK <sup>2</sup>
1947						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57						
58						
59						
60						
61						
62						
63						42
64						
65			50		50	112
66			50			
67			50		50	21
68			50			
69			50			
70			50			
71						
72						
73						
74						
75						
76						
77						
78						
79						
80						
81						
82						
83						
84						
85						
Time						
Start			E Oct		M Oct	
Peak			L Oct		L Oct	
End			L Dec		E Nov	

REMARKS

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1 FISHERIES SERVICE escapements.

2 I.P.S.F.C. escapements.

DOLLY VARDEN CREEK

For map, refer to  
UPPER CHILLIWACK RIVER  
page 30

NAME OF STREAM DOLLY VARDEN CREEK CHILLIWACK RIVER (UPPER)  
CONSERVATION DISTRICT 2 STATISTICAL AREA Chilliwack  
LOCATION OF MOUTH Flows N. into Chilliwack L., New Westminster Dist.

POSITION 49 121 SE  
LENGTH 15.0 MI. WIDTH 50 FT. DRAINAGE            SQ. MI.  
COMPOSITION: BEDROCK            BOULDER            COARSE            FINE             
SILT & SAND 15 UNCLASSIFIED           

GRADIENT:  
FALL IN FT/000

0.0 - 2.5	throughout
2.5 - 5.0	
5.0 - 7.5	
7.5 - 10.0	
> 10.0	

WETTED AREA            SQ. YD. SPAWNING AREA            SQ. YD.  
DISCHARGE 350 cfs (est.) -/04/71

TEMPERATURE             
BARRIERS OR POINTS OF DIFFICULT ASCENT             
            
            
          

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	2.0-12.0 mi
CHINOOK	
COHO	2.0-12.0 mi
CHUM	
PINK (ODD YR)	0.0- 2.0 mi
PINK (EVEN YR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM             
            
            
            
          

GENERAL REMARKS:  
- Dolly Varden Creek originates in Washington State and flows into South end of Chilliwack Lk. The stream has good gravel contents with some areas containing mostly sand. A substantial run of coho spawn in this stream with the greatest majority on the American side of the border (1.25 mi). These fish enter about October 1 and have finished spawning by December 31.  
- Few pinks utilize the stream, entering during the first week of Oct. and finishing spawning by Oct. 31.  
- Water; clear. Spawning conditions appear ideal throughout the stream.  
- Accessible by small boat for 2.0 miles.

GENERAL REMARKS: (Cont'd)

- A park is now under construction near the mouth and a road is near completion.
- Dolly Varden, Kokanee, Steelhead and Chinook also utilize the system for spawning.



Dolly Varden Creek  
(near border)



Dolly Varden Creek  
(near mouth)

ESCAPEMENT RECORD FOR DOLLY VARDEN CREEK

Chilliwack River (upper)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK <sup>1</sup>	PINK <sup>2</sup>
1947						
48	25		200			
49						
50						
51						
52						
53						
54						
55						
56						
57						
58						
59						
60						
61						
62						
63						268
64						
65		25	1500		200	382
66			1500			
67			200		200	75
68			75			
69			2020		25	190
70			3000			
71			2000		300	104
72						
73						
74						
75						
76						
77						
78						
79						
80						
81						
82						
83						
84						
85						
Time		L Aug	M Oct		E Oct	
Start		M Sep	L Oct		M Oct	
Peak		L Sep	L Dec		L Oct	
End						

REMARKS

- 1 FISHERIES SERVICE escapements.  
2 I.P.S.F.C. escapements.



NAME OF STREAM DUNVILLE CREEK  
 CONSERVATION DISTRICT 2 STATISTICAL AREA Chilliwack  
 LOCATION OF MOUTH Flows NW. towards Hope Slough, E. of Chilliwack,  
New Westminster Dist. POSITION 49 121 SW  
 LENGTH 2.0 MI. WIDTH 16 FT. DRAINAGE 5.0 SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE 2 FINE 28  
 SILT & SAND 70 UNCLASSIFIED \_\_\_\_\_

GRADIENT:  
 FALL IN FT/000

0.0 - 2.5	Throughout
2.5 - 5.0	
5.0 - 7.5	
7.5 - 10.0	
> 10.0	

WETTED AREA 18800 SQ. YD. SPAWNING AREA 5600 SQ. YD.  
 DISCHARGE 10 cfs (est.) -/04/71

TEMPERATURE \_\_\_\_\_  
 BARRIERS OR POINTS OF DIFFICULT ASCENT Shale fence 2.0 miles from the  
mouth on the West Fork. (impassable)

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	1.5 - 2.0 mi
CHUM	
PINK (ODD YR)	
PINK (EVEN YR)	
STEELHEAD	

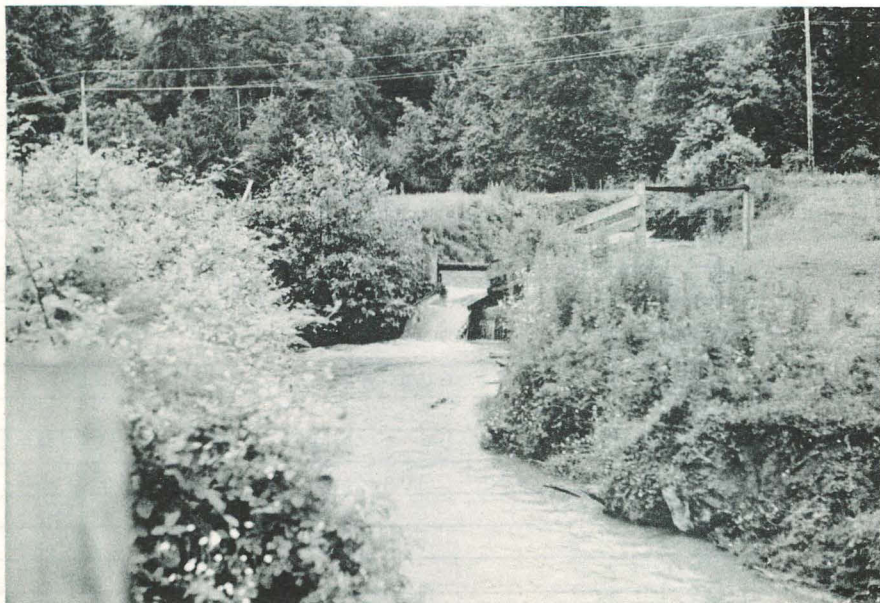
POTENTIAL OF INACCESSIBLE PORTION OF STREAM Nil

- GENERAL REMARKS:
- Elk Creek Water Works draws water from both forks of the stream 1.75 mi above the shale trap.
  - Lower stream is surrounded by farm lands.
  - Only coho utilize this stream as well as small numbers of cutthroat trout in early spring.
  - The shale trap below Highway 401 is maintained by township of Chilliwack. It is excavated to stop flooding of fields with Shale.
  - Water is slightly colored due to peat land.



Dunville Creek  
(1.75 mi)

Dunville Creek  
shale trap



Dunville Creek  
shale trap



ELK CREEK

For map, refer to  
DUNVILLE CREEK  
page 58

NAME OF STREAM ELK CREEK  
 CONSERVATION DISTRICT 2 STATISTICAL AREA Chilliwack  
 LOCATION OF MOUTH Flows N. into Hope Slough, New Westminster Dist.  
 POSITION 49 121 SW  
 LENGTH 2.5 MI. WIDTH 16 FT. DRAINAGE 20.0 SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE 2 FINE 18  
 SILT & SAND 80 UNCLASSIFIED \_\_\_\_\_

GRADIENT:  
 FALL IN FT/000

0.0 - 2.5	throughout
2.5 - 5.0	
5.0 - 7.5	
7.5 - 10.0	
> 10.0	

WETTED AREA 23500 SQ. YD. SPAWNING AREA 4700 SQ. YD.  
 DISCHARGE 10.0 CFS MAX 158.0 07/01/62 MIN 0.0 various times

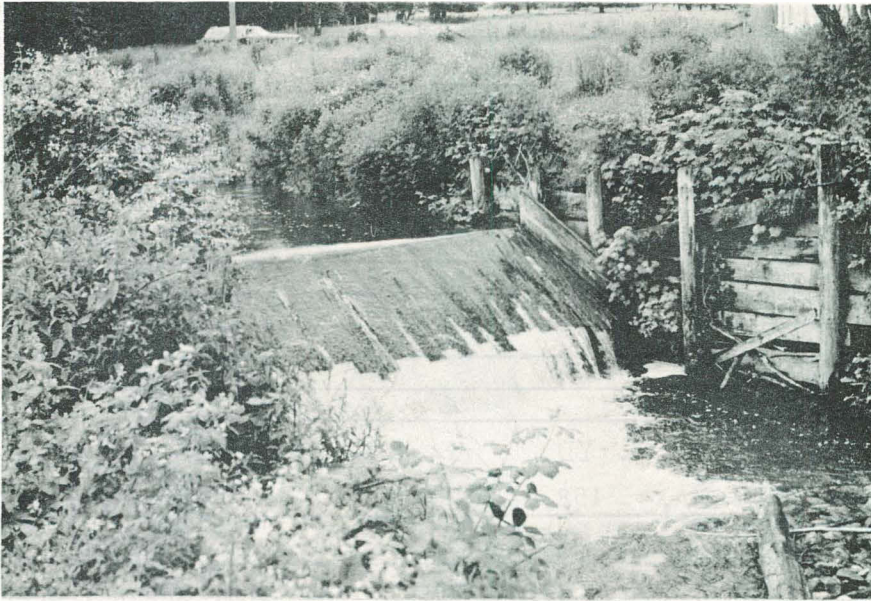
TEMPERATURE \_\_\_\_\_  
 BARRIERS OR POINTS OF DIFFICULT ASCENT Impassable Shale fence at mile 2.5  
(near Prairie Central Road)

SPAWNING DISTRIBUTION:

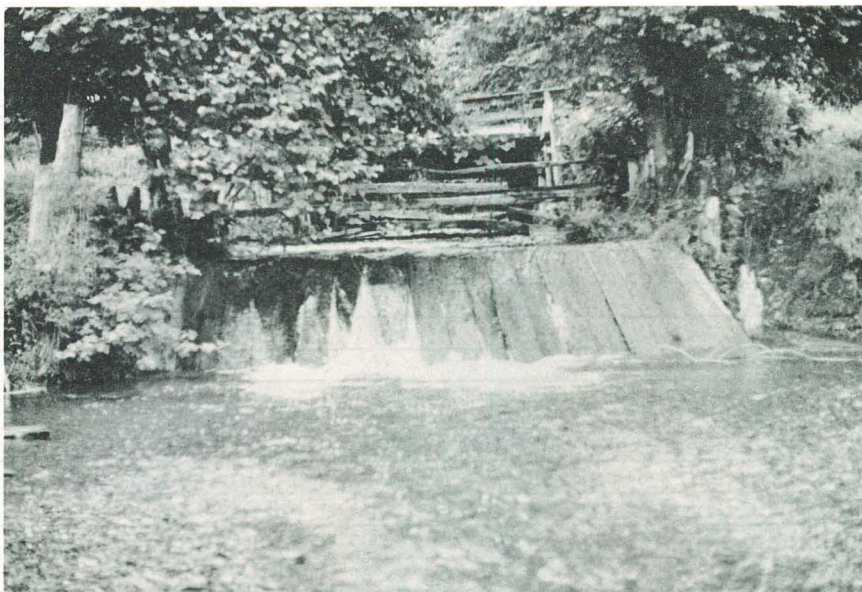
SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	2.0-2.5 mi
CHUM	
PINK (ODD YR)	
PINK (EVEN YR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM Nil - stream sometimes goes  
dry in summer above Shale trap.

GENERAL REMARKS: Coho run until late January or early February.  
 - Floods in 1951 covered spawning beds with up to nine feet of shale. A shale  
fence was installed 1947-48 to prevent shale from spreading onto fields during  
floods. The lower 2.0 miles are heavily silted.  
 - Stream is surrounded by farm lands.  
 - Accessible Tributaries:  
Ford Creek, 1.6 mi, accessible for approx. 2.4 miles,  
Coho spawn from 0.5 mi to 1.5 mi.



Elk Creek - shale fence (2.5 mi)



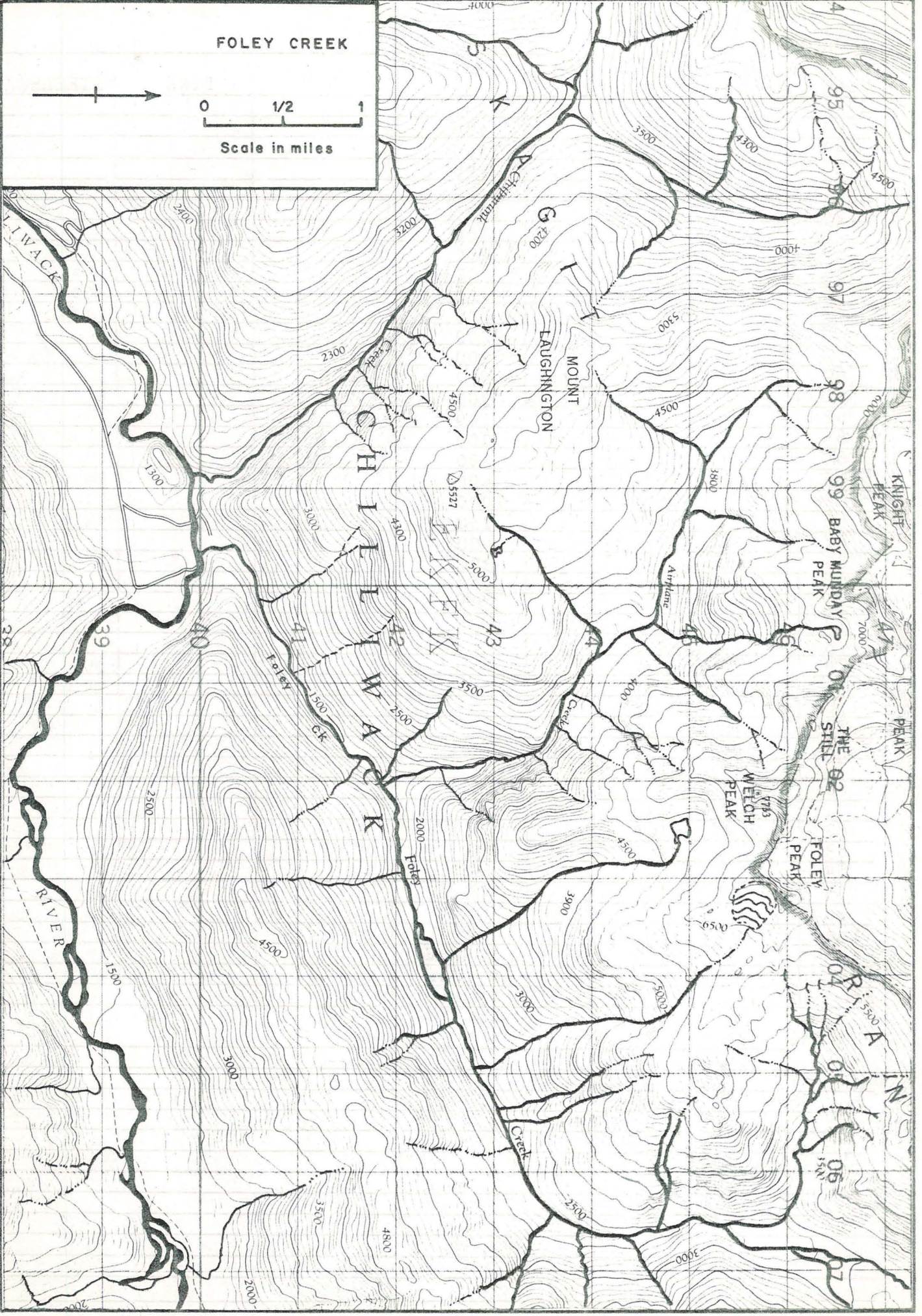
Elk Creek - upper shale fence  
(2.6 mi)



FOLEY CREEK



Scale in miles



NAME OF STREAM FOLEY CREEK Ford Creek  
 CONSERVATION DISTRICT 2 STATISTICAL AREA Chilliwack  
 LOCATION OF MOUTH Flows SW. into Chilliwack R., W. of Chilliwack L., Yale Dist.  
 POSITION 49 121 SW  
 LENGTH 2.5 MI. WIDTH 40 FT. DRAINAGE 30.0 SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER 70 COARSE 20 FINE 5  
 SILT & SAND 5 UNCLASSIFIED \_\_\_\_\_

## GRADIENT:

FALL IN FT/000

0.0 - 2.5	
2.5 - 5.0	
5.0 - 7.5	
7.5 - 10.0	
> 10.0	throughout

WETTED AREA 59000 SQ. YD. SPAWNING AREA 17000 SQ. YD.DISCHARGE 200 cfs (est.) -/04/71

## TEMPERATURE \_\_\_\_\_

BARRIERS OR POINTS OF DIFFICULT ASCENT Impassable rock falls, 2.5 mi.,  
approx. 11.0 ft. vertical over 50.0 ft. horizontal.

## SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	1.5 - 2.5 mi
CHUM	0.0 - 1.0 mi
PINK (ODD YR)	0.0 - 2.0 mi
PINK (EVEN YR)	
STEELHEAD	0.0 - 1.0 mi

POTENTIAL OF INACCESSIBLE PORTION OF STREAM Limited; stream bed is composed  
of huge rocks and has steep gradient.

## GENERAL REMARKS:

- The stream is fast flowing with many boulders over its 10.0 mi. length.
- Logging has removed much of the forest cover.
- Flash flooding has kept the salmon run to a minimum size.
- Coho and pinks enter early Oct. and chums in Nov.



Foley Creek  
2.5 miles



Foley Creek  
2.5 miles



Foley Creek  
near mouth



GREYELL SLOUGH

For map, refer to  
HOPE SLOUGH  
page 74

NAME OF STREAM GREYELL SLOUGH  
 CONSERVATION DISTRICT 2 STATISTICAL AREA Chilliwack  
 LOCATION OF MOUTH N. side of Windermere I., NE. of Chilliwack,  
New Westminster Dist. POSITION 49 121 SW.  
 LENGTH 3.5 MI. WIDTH 100 FT. DRAINAGE 2.0 SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER 15 COARSE 25 FINE 40  
 SILT & SAND 20 UNCLASSIFIED \_\_\_\_\_

GRADIENT:  
 FALL IN FT/000

0.0 - 2.5	throughout
2.5 - 5.0	
5.0 - 7.5	
7.5 - 10.0	
> 10.0	

WETTED AREA 205000 SQ. YD. SPAWNING AREA 134000 SQ. YD.  
 DISCHARGE \_\_\_\_\_ CFS MAX \_\_\_\_\_ MIN \_\_\_\_\_  
 TEMPERATURE \_\_\_\_\_  
 BARRIERS OR POINTS OF DIFFICULT ASCENT \_\_\_\_\_

SPAWNING DISTRIBUTION:

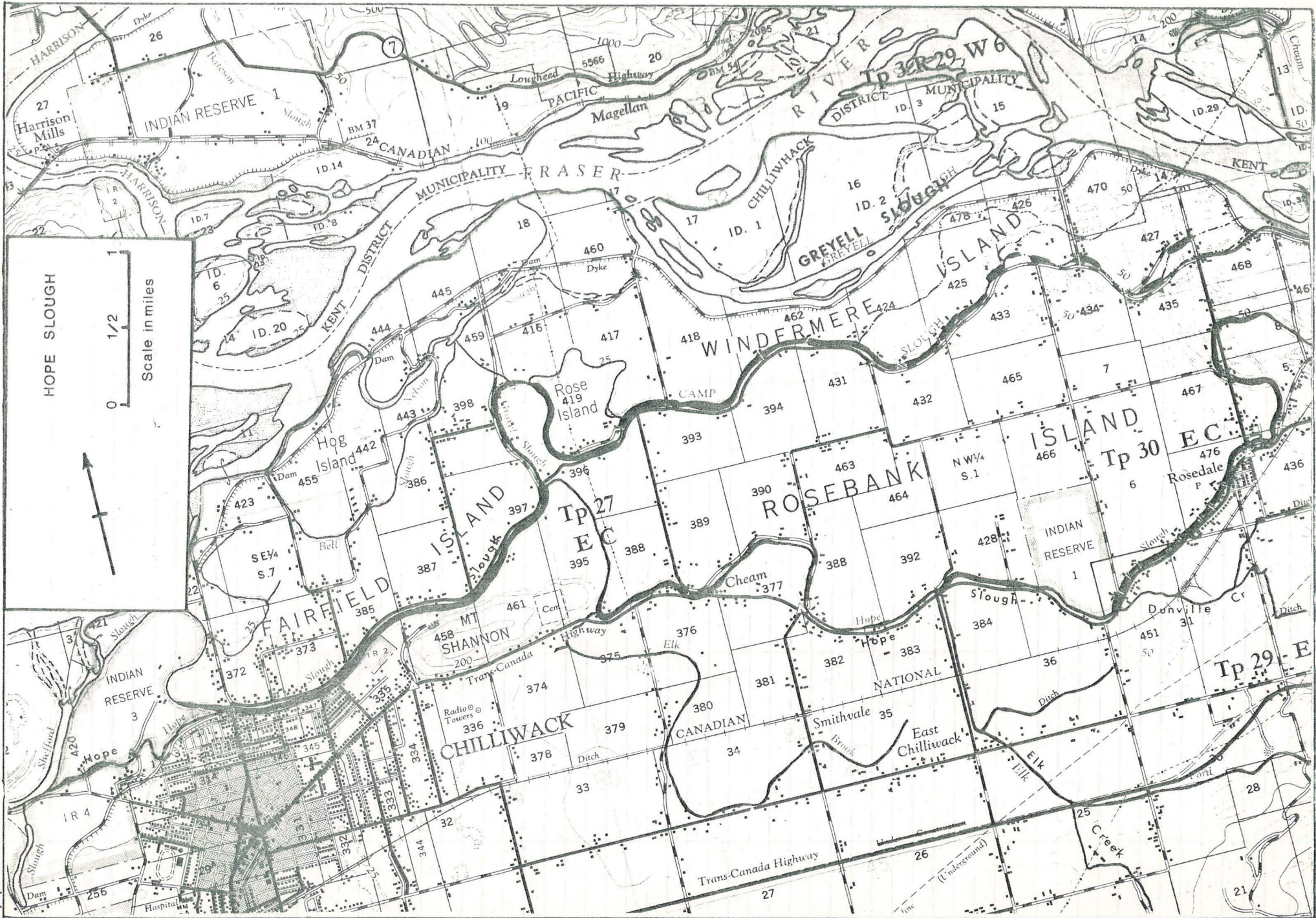
SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	throughout
PINK (ODD YR)	scattered over upper half; heavy in lower half
PINK (EVEN YR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM \_\_\_\_\_

GENERAL REMARKS: Greyell Slough is a side channel of the Fraser River. The channel is large enough for tugboats during high water, normally however boat travel is not feasible.  
- B. C. Dyking Commission authorities have proposed a dyke across the inlet of the slough to eliminate high water flows.  
- In Dec. 1969 redds and carcasses of over 200 pink and chum were found in the vicinity of the gravel removal site.  
- The water in Greyell Slough at spawning time is muddy, so an accurate count of spawners is not available.







HOPE SLOUGH

Scale in miles

0 1/2

NAME OF STREAM HOPE SLOUGH Hope River  
 CONSERVATION DISTRICT 2 STATISTICAL AREA Chilliwack  
 LOCATION OF MOUTH W. of Chilliwack, New Westminster Dist.  
 \_\_\_\_\_ . POSITION 49 121 SW  
 LENGTH 9.0 MI. WIDTH 60 FT. DRAINAGE 45.0 SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE 2 FINE 1  
 SILT & SAND 97 UNCLASSIFIED \_\_\_\_\_

GRADIENT:  
 FALL IN FT/000

0.0 - 2.5	throughout
2.5 - 5.0	
5.0 - 7.5	
7.5 - 10.0	
> 10.0	

WETTED AREA 317000 SQ. YD. SPAWNING AREA 10000 SQ. YD.  
 DISCHARGE 70 cfs (est.) -/04/71

TEMPERATURE \_\_\_\_\_  
 BARRIERS OR POINTS OF DIFFICULT ASCENT \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	Small gravel bars near Rosedale and Camp Slough.
CHUM	
PINK (ODD YR)	
PINK (EVEN YR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

GENERAL REMARKS:  
 - This stream is heavily silted and spawning is confined to several small areas in the upper reaches.  
 - Coho enter late in the fall with the main run occurring in late November. Depending on water levels these late fish mature in Hope Slough; the majority spawn in Elk Creek and Dunville Creek.  
 - Hope Slough, a slow moving stream, runs through farmland and is a nursery for coho fry from Elk and Dunville Creeks. The stream is heavily fished at or adjacent to the slough mouth during the fall months (sport).

GENERAL REMARKS: (Cont'd)

Accessible Tributaries:

- Elk Creek - see separate report
- Dunville Creek - see separate report
- Camp Slough - 2.0 mi x 20.0 ft. Approx. 23600 sq. yds. of Wetted Area and 11800 sq. yds. of spawning Area. Remainder of 11800 sq. yds. is silt and sand in deep quiet pools.



Hope Slough - looking downstream from  
1.0 mile



HUNTER CREEK

For map, refer to  
WAHLEACH CREEK  
page 148

NAME OF STREAM HUNTER CREEK  
 CONSERVATION DISTRICT 2 STATISTICAL AREA Chilliwack  
 LOCATION OF MOUTH Flows N. into Fraser R., W. of Hope, Yale Dist.  
 POSITION 49 121 SW  
 LENGTH 1.0 MI. WIDTH 40 FT. DRAINAGE 5.0 SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER 70 COARSE 10 FINE 15  
 SILT & SAND 5 UNCLASSIFIED \_\_\_\_\_

## GRADIENT:

FALL IN FT/000

0.0 - 2.5	
2.5 - 5.0	
5.0 - 7.5	
7.5 - 10.0	
> 10.0	throughout

WETTED AREA 23000 SQ. YD. SPAWNING AREA 5700 SQ. YD.DISCHARGE 50 cfs (est.) -/04/71

TEMPERATURE \_\_\_\_\_

BARRIERS OR POINTS OF DIFFICULT ASCENT Falls at 1.0 mi. are impassable.

## SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	0.0-1.0 mi
CHUM	0.0-0.5 mi
PINK (ODD YR)	0.0-0.5 mi
PINK (EVEN YR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM Practically Nil.Mountain stream with many large boulders and swift water.Spawning is possible over most of this stream but salmon have not been observed above 1.0 mi.

## GENERAL REMARKS:

- The valley is presently being logged.
- Few fish have been observed in the past 2 or 3 years and spawning reports have been discontinued.



Hunter Creek - downstream from highway 1



Hunter Creek - upstream from highway 1

## ESCAPEMENT RECORD FOR HUNTER CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK <sup>1</sup>	PINK <sup>2</sup>
1947						
48			25	25		
49			25		25	
50						
51			25	25	25	
52			25	25		
53			25	25	25	
54			25	25		
55			25	25		
56			25	25		
57			25	25	25	13
58			25	25		
59			25	25	75	234
60			25			
61			25	25	25	140
62			25	25		
63			25	25	25	254
64			25	25		
65			25	25	25	13
66						
67				25		0
68						
69						
70						
71						411
72						
73						
74						
75						
76						
77						
78						
79						
80						
81						
82						
83						
84						
85						
Time						
Start			M Nov	E Oct	L Sept	
Peak			L Nov	M Oct	Oct 1-8	
End			M Dec	L Oct	L Oct	

REMARKS

1 FISHERIES SERVICE escapements.

2 I.P.S.F.C. escapements.