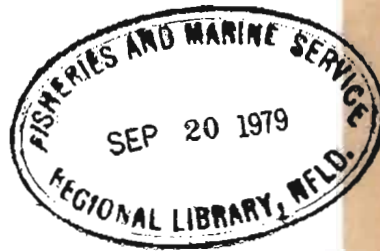


# Catalogue of Salmon Streams and Spawning Escapements for Kamloops Sub-District

R. F. Brown, M.M. Musgrave and D.E. Marshall

Enhancement Services Branch  
Fisheries & Oceans  
Vancouver, B.C. V6E 2P1

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Fisheries and Environment  
Canada

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and Marine Service

Pêches et Environnement  
Canada

Service des pêches  
et de la mer

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## ABSTRACT

Brown, R. F., M. M. Musgrave and D. E. Marshall. 1979. Catalogue of Salmon Streams and Spawning Escapements for Kamloops Sub-District. Fisheries and Marine Service Data Report #151. 226 pp.

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 included a topographical map of the stream's location and in some cases a sketch which further describes the surrounding area.

KEYWORDS: British Columbia, Kamloops, Thompson River, salmon streams, spawning escapements

## RÉSUMÉ

Brown, R. F., M. M. Musgrave and D. E. Marshall. 1979. Catalogue of Salmon Streams and Spawning Escapements for Kamloops Sub-District. Fisheries and Marine Service Data Report #151. 226 pp.

Catalogue indiquant la situation de chaque cours d'eau, l'aire de reproduction, les obstacles et les points de remonte difficile, les taux de remonte et d'autres données générales sur le cours d'eau. Le catalogue comprend aussi une carte topographique de la situation du cours d'eau et, dans certains cas, un dessin de la situation du cours d'eau décrivant davantage la zone environnante.

MOTS-CLEFS: Colombie-Britannique, Kamloops, rivière Thompson, rivières à saumons, saumons de remonte



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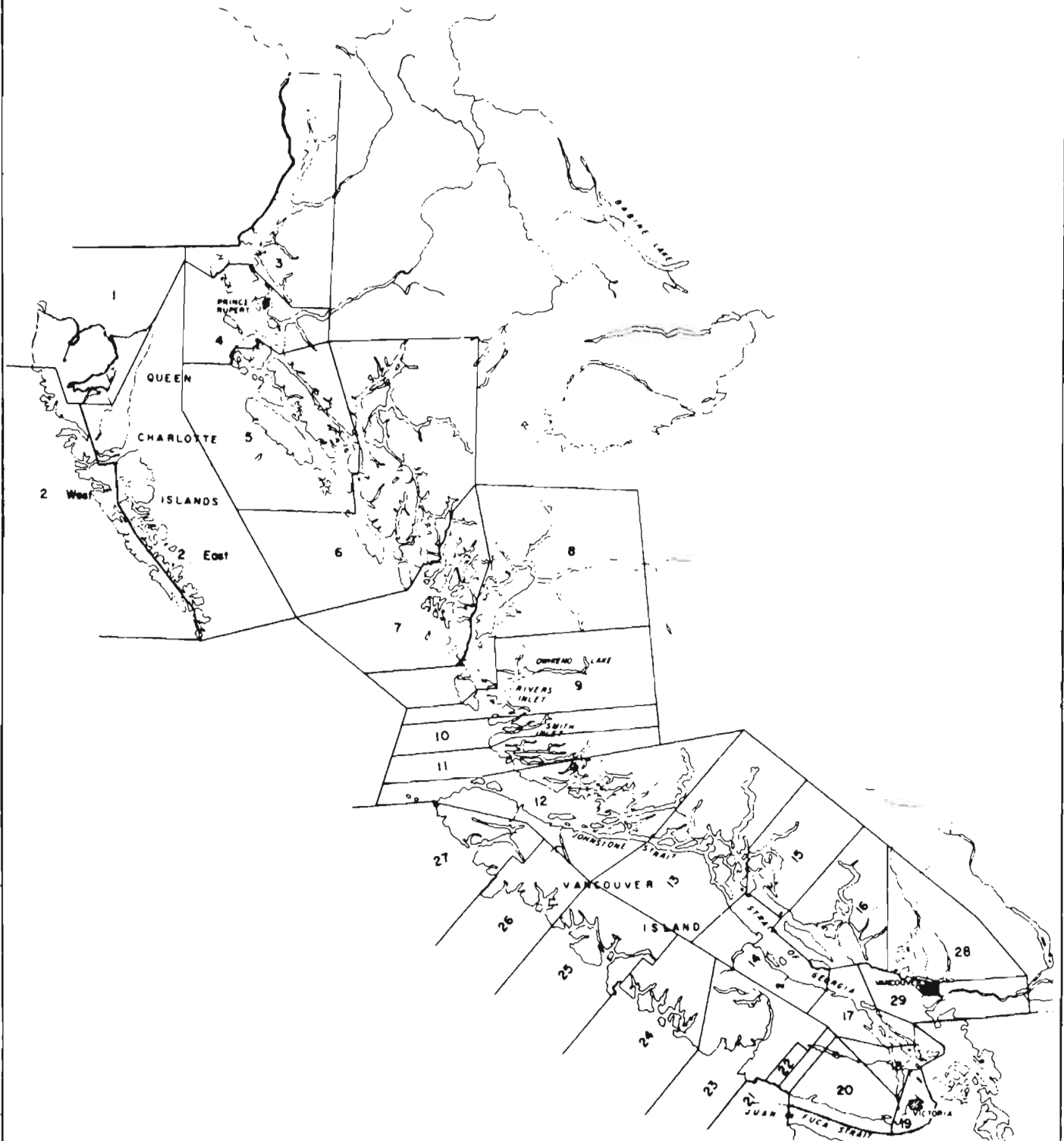
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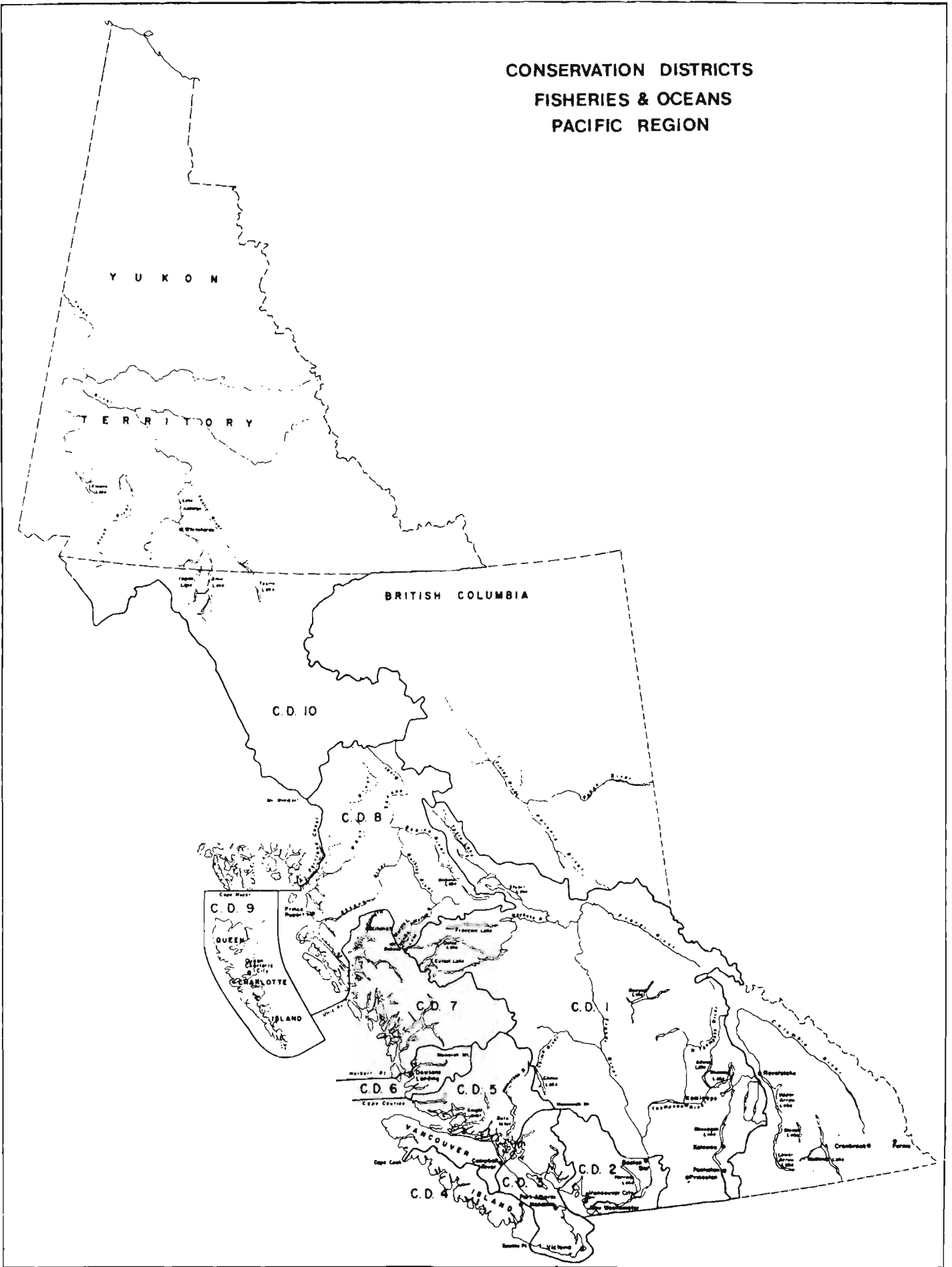
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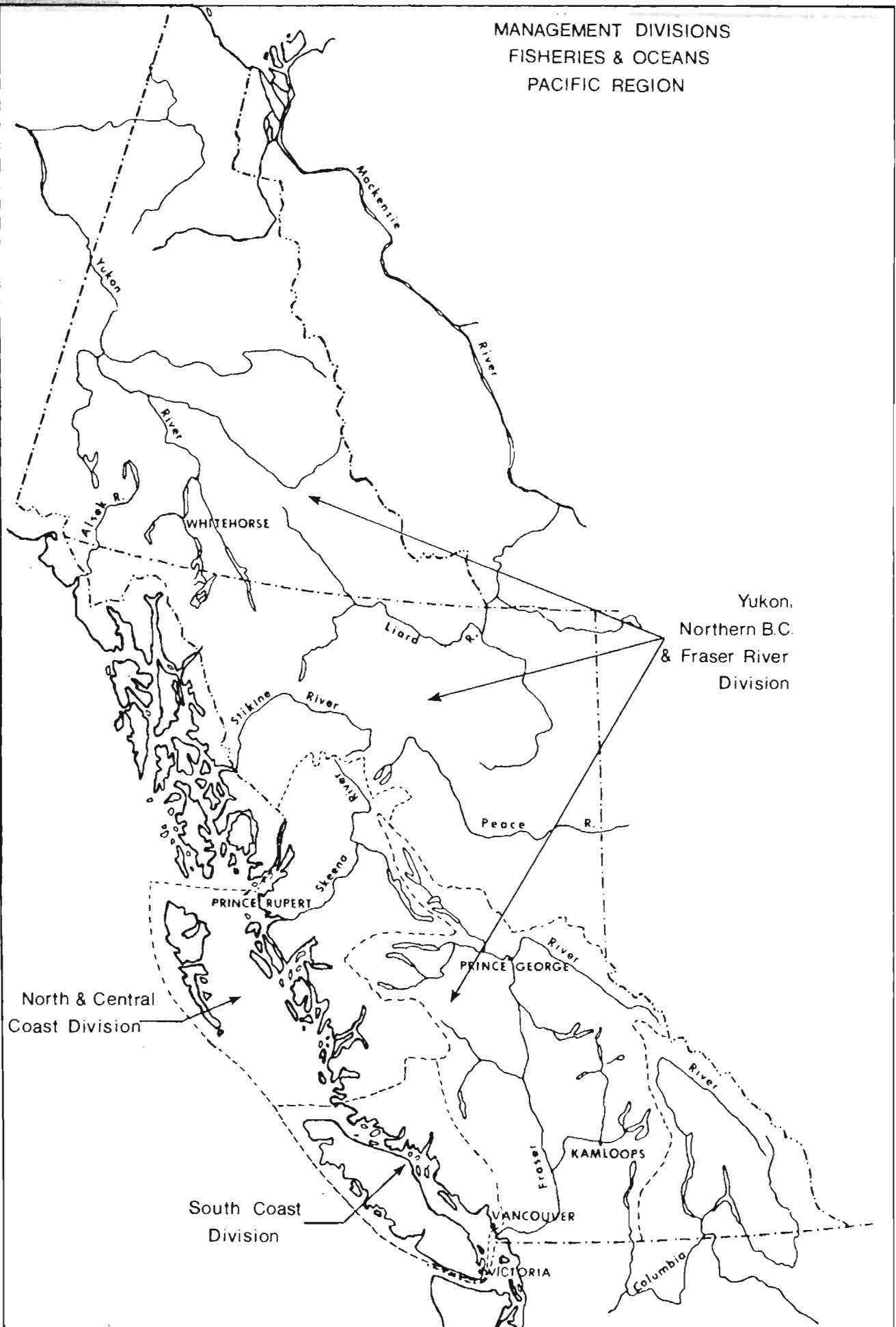
STATISTICAL AREAS  
FISHERIES & OCEANS  
PACIFIC REGION



CONSERVATION DISTRICTS  
FISHERIES & OCEANS  
PACIFIC REGION



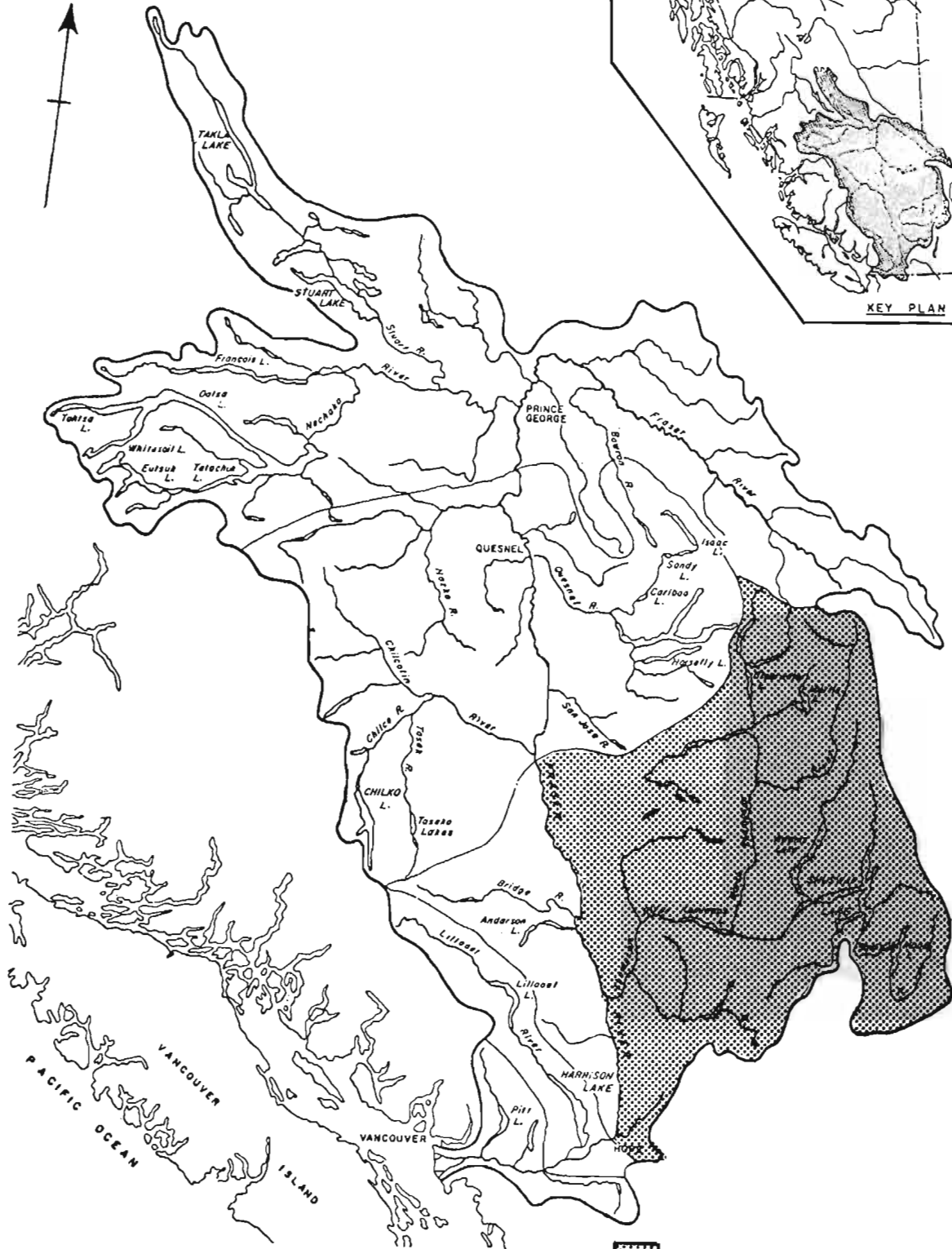
MANAGEMENT DIVISIONS  
FISHERIES & OCEANS  
PACIFIC REGION




# FRASER RIVER WATERSHED



KEY PLAN



 Kamloops District

STANDARDS USED ON STREAM DATA PAGE

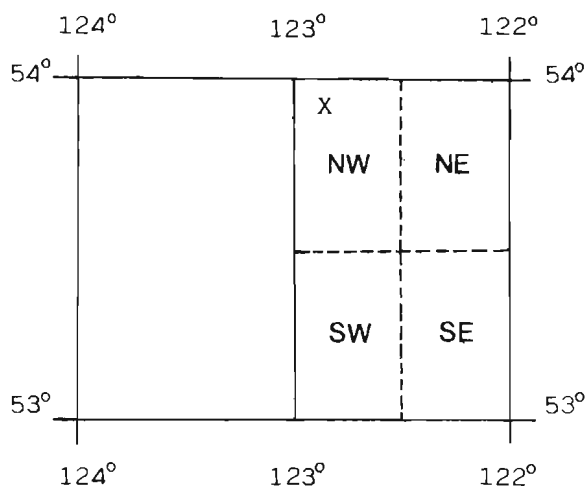
Name of Stream: Name as given in Gazetteer of Canada, British Columbia edition; local or non-gazetted names are added in lower case type.

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

Statistical Area: As defined by Department of Fisheries Statistical Map (June 1957).

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).

EXAMPLE "X"  
53° 122° NW



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

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

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

Composition:

Bedrock	bedrock
Boulder	>256 mm (>10")
Coarse	50.9 - 256 mm (2 - 10")
Fine	3.37 - 50.8 mm (1/8 - 2")
Sand & Silt	<3.37 mm
Unclassified	where bottom cannot be observed, e.g. log jam, 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 square yardage 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.

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) and Stream Management Files. 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 31st of the month)

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



# MAP REFERENCES

## Roads:

hard surface, all weather	more than 2 lanes	
hard surface, all weather	2 lanes	
hard surface, all weather	2 lanes wide or more	
loose surface, all weather	all weather	
"	dry weather	
"	less than 2 lanes	
Private Road, Trail	Private Road	
	Trail	

## Railways:

normal gauge, multiple track	
normal gauge, single track	
abandoned, or under construction	
narrow gauge, single track	
Bridge, underpass or overpass	
Tunnel	

Boundary, International	
" Province	
" County or District	
" Township or Parish	
" City or Town	
" Reservation, Indian, Military, etc	
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	
Loose Surface, All Weather	
Loose Surface, Less than 2 lanes	
Private (Logging, Mining, etc.)	
Four Wheel Drive	
Trail	
Railway	
Main Telephone Line	
Main Electric Power Line	
Horizontal Control Station	
Contours (Interval 500 feet)	
Elevation in feet above mean sea-level	2584'-6312'
Intermittent Stream	
Swamp or Marsh	
Dam	
Spring	
Navigation Light	
Mine	
Glacier	
Customs Office	

House, Building	
School	
Church	
" with conspicuous Tower or Spire	
Post Office	
Tower, Radio Mast, Lookout, etc.	
Cemetery	
Quarry	
Sand or Gravel Pit	
Cliff	
Cutting	
Embankment	
Saw Mill	

Lighthouse	
Wharf or Pier	
Foreshore Flats	
Swamp or Marsh	
Lake or Pond, intermittent	
Glacier or Snowfield	
Stream, intermittent	
Irrigation Canals, Ditches	
Inundated Land, seasonal	
Contours, elevation	
" depression	
" approximate	
Forest, unclassified	

Surveyed timber license number	TL 2841
Lot number	L 124 or S 66
Building	
School	
Non-perennial stream	
Marsh or Swamp	
Glacier	
Foreshore flats	
Contours, elevation	
Contours, depression	
Forest	

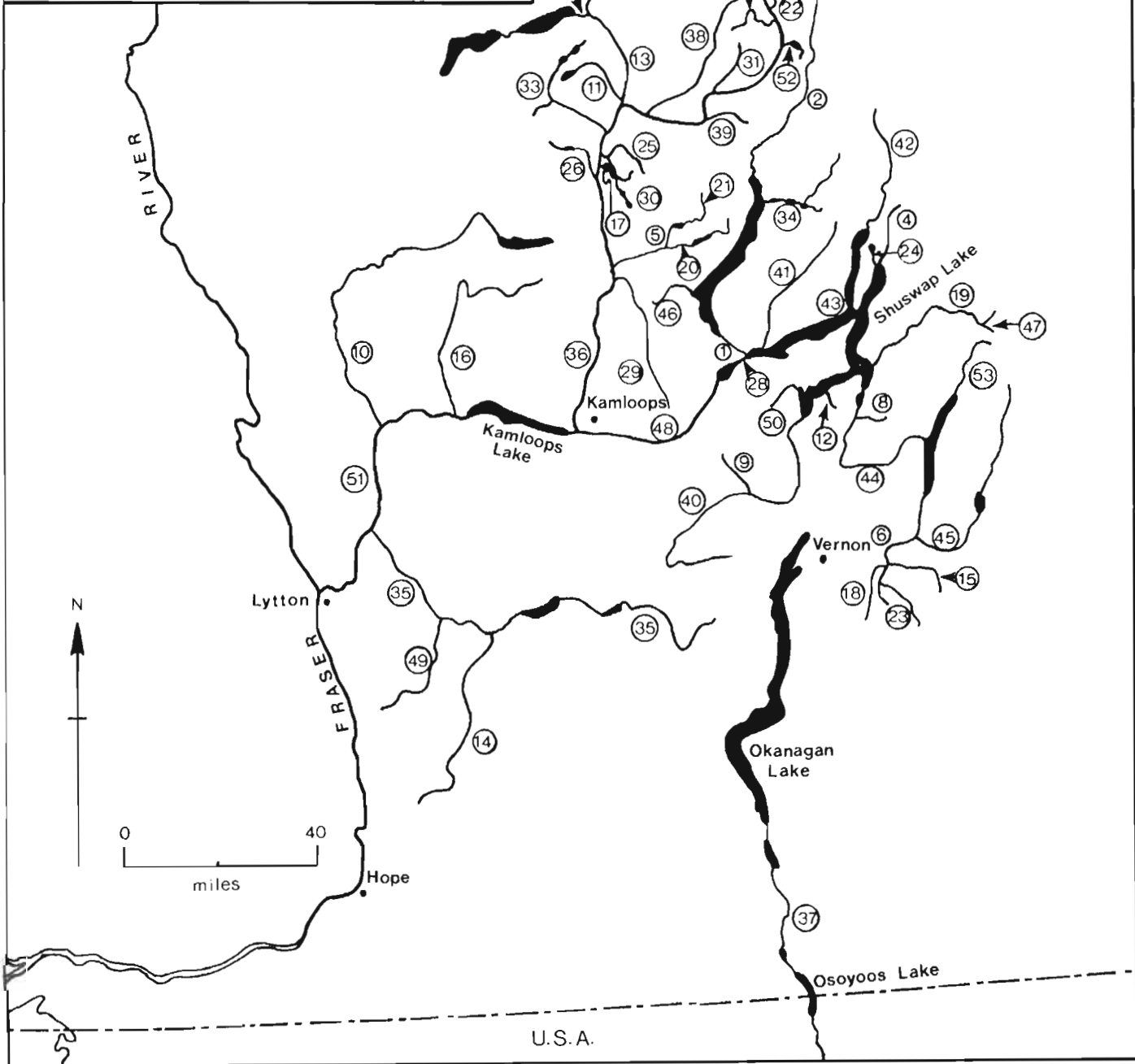
City or large town	
Town	
Village or settlement	
Streams:	
intermittent or dry	
indefinite	
Irrigation canal or ditch	
Rapids, falls	
Aerodrome	
Landing ground	

Post office	
School	
Church	
Boundary monument	
Astronomical position	
Horizontal control point	
Intermittent lake	
Marsh or swamp	
Sand, gravel or mud	
Wooded areas	
Seaplane base	
Seaplane anchorage	

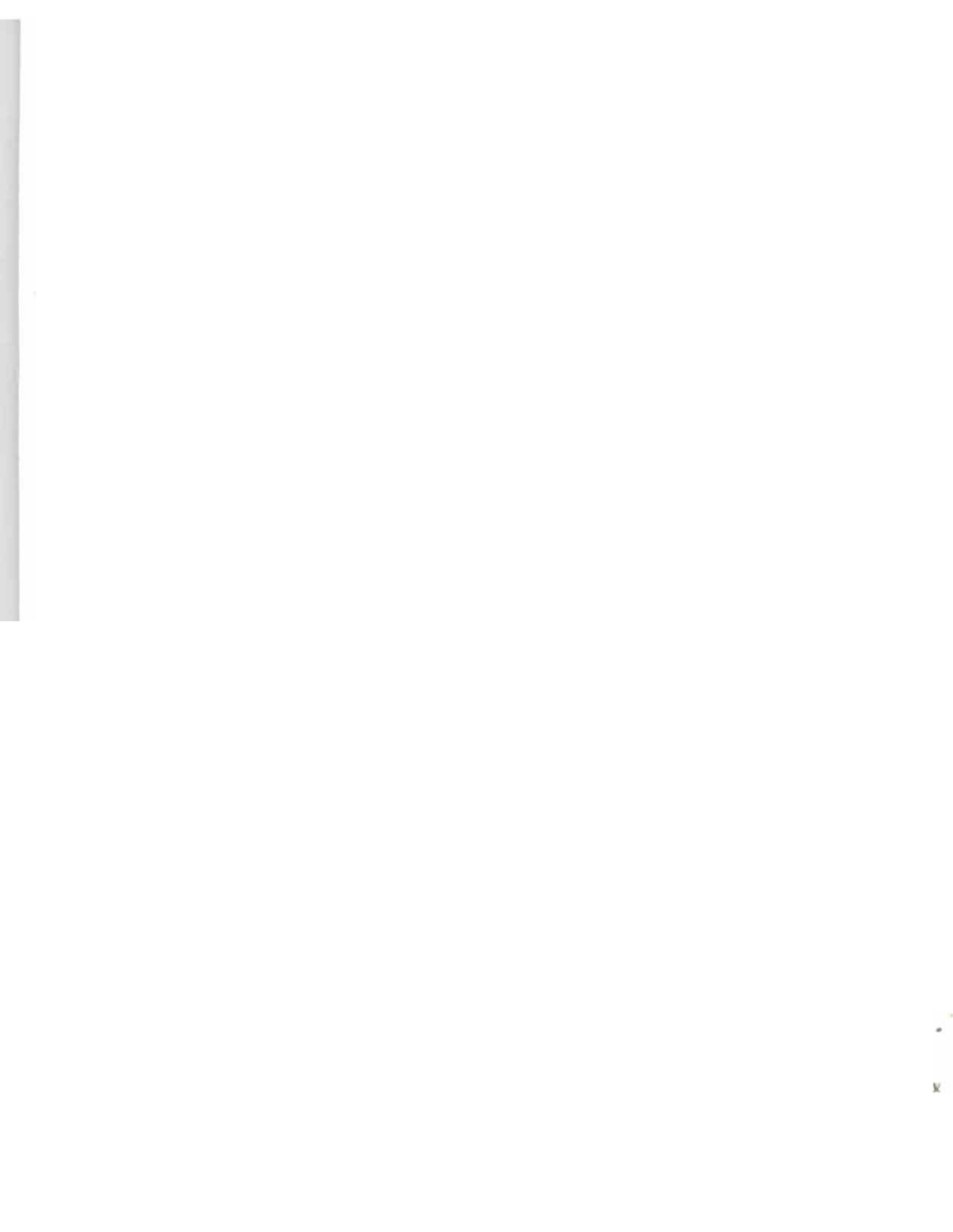
Streams		Dam	
Highways		Log Jams	
Roads		Log	
Trails		Power Line	
Houses		Coho	
Railroad		Chum	
Falls		Pink	
Rapids		Chinook	
Rip-Rap		Sockeye	
Bridges			

Salmon Spawning Streams  
of Kamloops Sub-District

- |                         |                            |
|-------------------------|----------------------------|
| 1. Adams River          | 28. Little River           |
| 2. Adams River (upper)  | 29. Louis Creek            |
| 3. Albreda River        | 30. McTaggart Creek        |
| 4. Anstey River         | 31. Mad River              |
| 5. Barrière River       | 32. Mahood River           |
| 6. Bessette Creek       | 33. Mann Creek             |
| 7. Blue River           | 34. Momich River           |
| 8. Blurton Creek        | 35. Nicola River           |
| 9. Bolean Creek         | 36. North Thompson River   |
| 10. Bonaparte River     | 37. Okanagan River         |
| 11. Brookfield Creek    | 38. Raft River             |
| 12. Canoe Creek         | 39. Reg Christie Creek     |
| 13. Clearwater River    | 40. Salmon River           |
| 14. Coldwater River     | 41. Scotch Creek           |
| 15. Creighton Creek     | 42. Seymour River          |
| 16. Deadman River       | 43. Shuswap Lake           |
| 17. Dunn Creek          | 44. Shuswap River (lower)  |
| 18. Duteau Creek        | 45. Shuswap River (middle) |
| 19. Eagle River         | 46. Sinmax Creek           |
| 20. East Barrière River | 47. South Pass Creek       |
| 21. Fennel Creek        | 48. South Thompson River   |
| 22. Finn Creek          | 49. Spius Creek            |
| 23. Harris Creek        | 50. Tappen Creek           |
| 24. Hunakwa Creek       | 51. Thompson River         |
| 25. Joseph Creek        | 52. Tumtum Creek           |
| 26. Lemieux Creek       | 53. Wap Creek              |
| 27. Lion Creek          |                            |







STREAM DATA  
KAMLOOPS SUB-DISTRICT



Adams River



NAME OF STREAM ADAMS RIVER (Shuswap Lake to Adams Lake)  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet  
 LOCATION OF MOUTH Flows S., SW. and SE. into W. end of Shuswap L., Kamloops Dist.  
 POSITION 50 119 NW  
 LENGTH 7 MI. WIDTH \_\_\_\_\_ FT. DRAINAGE 1190 SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_  
 SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE 2583 CFS MAX 14,000 cfs (72/06/13) MIN 85 cfs (12/04/30)

TEMPERATURE \_\_\_\_\_

BARRIERS OR POINTS OF DIFFICULT ASCENT \_\_\_\_\_  
Passable through to Adams Lake.

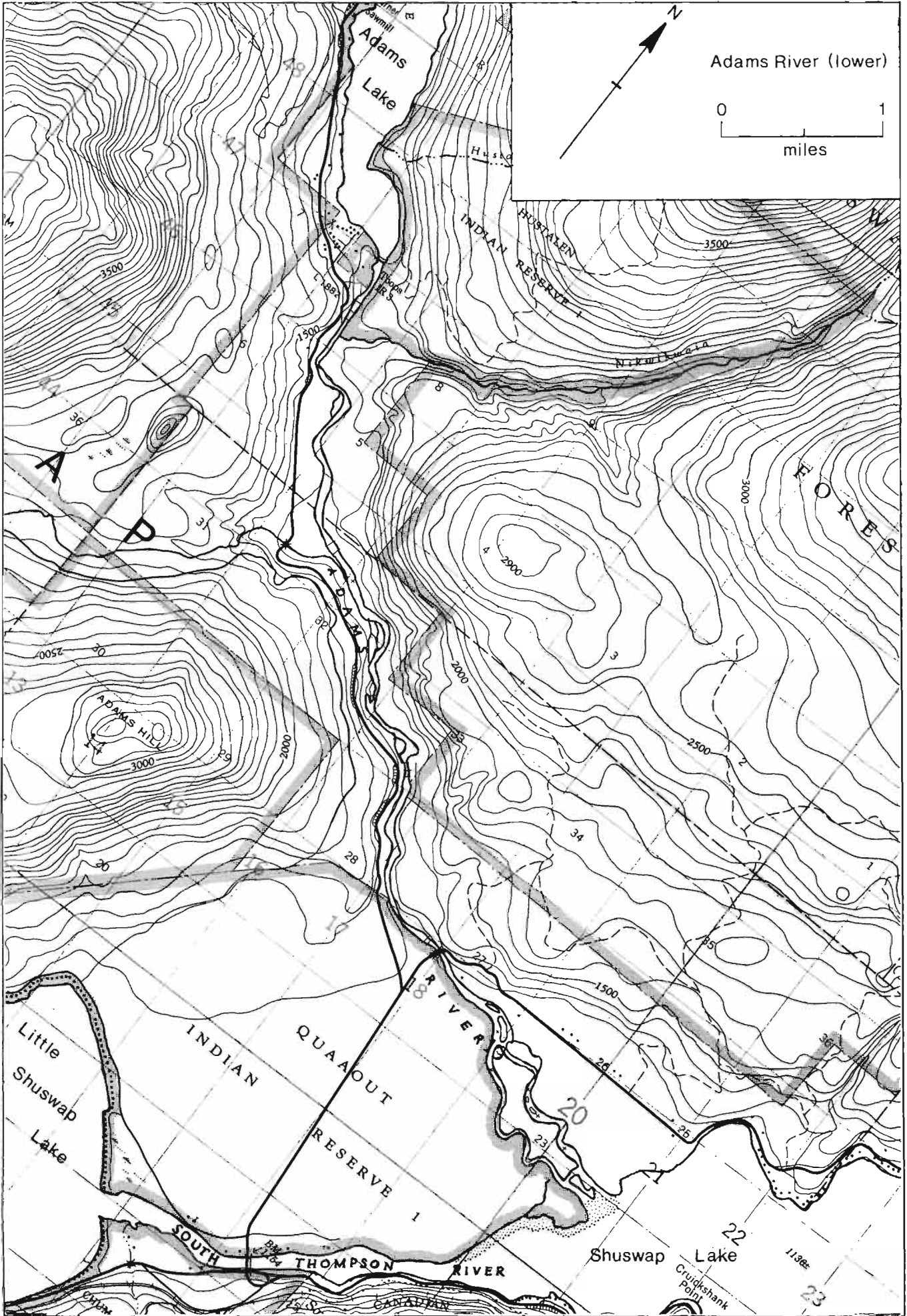
## SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	- throughout (heaviest just below highway bridge at 2 miles)
CHINOOK	- throughout (heaviest in mid-lower reaches & side channels)
COHO	- throughout (heaviest in mid-lower reaches & side channels)
CHUM	
PINK (ODD YEAR)	- throughout (heaviest in mid-lower reaches & side channels)
PINK (EVEN YEAR)	
STEELHEAD	

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

## GENERAL REMARKS:

- The Adams River is one of the major sockeye salmon producing rivers of B. C.
- The lower reaches of this river suffer from bank erosion, silting and debris problems.
- The water level is often high during the spawning period and when it drops again in November, the side channels and river edges dry up causing a loss of sockeye and chinook spawn.
- 1958. An electric fence was installed at the mouth of the stream to divert a late migration of sockeye into Shuswap Lake, thus preventing additional spawning in the



## GENERAL REMARKS (cont.) - Adams River

already adequately seeded river.

- 1963. Tens of thousands of juvenile sockeye were killed by a mosquito control spraying program in the Adams River rearing area.
  - 1968-69. Erosion of the banks in the lower reaches caused trees to fall into the stream, resulting in side channel diversions and further erosion.
  - 1974. I.P.S.F.C. constructed a rock groin along the left bank shore near the mouth of the stream to equalize the division of flow between the left and right channels. Previously, low flows in the right channel caused exposure of the eggs. (e.g. April 1969: right channel flow = 40 cfs; left channel flow = 400 cfs)
  - 1978. Two major and several minor log jams were removed by stream clearance programs.
- In October, a conservation area of 2442 acres was established on either side of the Adams River extending from Adams Lake to Shuswap Lake to preserve and protect the sockeye spawning grounds.
- Each dominant run year of sockeye, Fisheries & Oceans and I.P.S.F.C. set up an educational display for the public near the spawning grounds called "Salute to the Sockeye".

## References:

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- Larkin, P. A. 1971. Simulation studies of the Adams River sockeye salmon. J. Fish. Res. Board Can. 28(10): 1493-1502.
- Salmonid Enhancement Newsletter. 1978. The Adams River sockeye run. Vol. III No. 4.
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## ESCAPEMENT RECORD FOR ADAMS RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947	75000	200	400			
48	15000	750	400			UNK
49	3500	750	400			UNK
50	100000+	1500	7500			
51	100000+	750	750			
52	15000	3500	3500			
53	100000+*	3500	3500			
54	100000+	1500	750			
55	75000	1500	3500			
56	7500	1500	750			
57	100000+*	3500	750			
58	100000+	1500	400			
59	75000	1500	750			
60	1500	1500	1500			
61	35000 *	1500	200			
62	1000000	1500	750			
63	151373	1500	750			
64	796	400	400			
65	55041 *	1500	750		53	
66	1141272	3500	400			
67	765000	1500	200			
68	3983	3500	400			
69	45908 *	5000	750		25	
70	1280300	1500	400			
71	280000	750	300		25	
72	3500 *	1500	200			
73	35000	1500	300		25	
74	100000+	1500	200			
75	35000	1500	100		25	
76	5100	400	10			
77	15000 *	1750	338		1000	
78	1480600	2200	150			
79						
80						
81						
82						
83						
84						
85						

## TIMING:

ARRIVE	M. SEP	E. SEP	M. OCT		L. SEP	
START	E. OCT	M. SEP	L. OCT		E. OCT	
PEAK	L. OCT	E. OCT	M. NOV		E. OCT	
END	NOV	L. OCT	DEC		M. OCT	

## REMARKS

Sockeye escapements determined by the I.P.S.F.C. can be found in the I.P.S.F.C. annual reports.

\* More than 85% of these runs were composed of jacks.

N  
↑  
Adams River (Upper)  
0 4  
miles



NAME OF STREAM ADAMS RIVER (Adams Lake to Tuntum Lake)  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet  
 LOCATION OF MOUTH Flows S., SW, and SE, into W. end of Shuswap L., Kamloops Dist.  
 POSITION 50 119 NW  
 LENGTH \_\_\_\_\_ MI. WIDTH \_\_\_\_\_ FT. DRAINAGE \_\_\_\_\_ SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_  
 SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE \_\_\_\_\_ CFS MAX \_\_\_\_\_ MIN \_\_\_\_\_

TEMPERATURE \_\_\_\_\_

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

Passable throughout

## SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	- from Mica Lake to Harbour Creek
CHINOOK	
COHO	- from 7 miles below Tuntum Lake to 5 miles above Tuntum Lake
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

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

## GENERAL REMARKS:

- The combination of the 1913 Hell's Gate rockslide (which blocked salmon migration) and the presence and operation of a logging splash dam at the outlet of Adams Lake from 1908 - 1945 (the river was continually in either a dry state or a flood state), caused the destruction of the Upper Adams River sockeye run. Several egg transplants to this stream by I.P.S.F.C. in an attempt to restore the run, have been unsuccessful.
- The streambed between Adams Lake and Mica Lake is silted over.
- Transportation and access difficulties to the upper reaches of this stream allow

## GENERAL REMARKS (cont.) - Adams River

only very infrequent inspections. The upper reaches are not raftable.  
- 1976. Logging activity is increasing in the watershed.

ESCAPEMENT RECORD FOR ADAMS RIVER (UPPER)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53		NO	RECORDS PRIOR TO 1955			
54						
55	N/O		3500			
56	5		1000			
57			750			
58	UNK		3500			
59	N/O		1500			
60	N/O		750			
61	N/O		3500			
62	100		500			
63	6		750			
64	162	25	1500			
65	N/O	N/O	3500			
66	63		UNK			
67	N/O		N/O			
68	N/O		N/O			
69	N/O		UNK			
70	25		UNK			
71			UNK			
72	25		UNK			
73			UNK			
74	25		200			
75	25		75			
76	25		UNK			
77			150			
78	25		UNK			
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE	M. AUG		L. OCT		
START	L. AUG		E. NOV		
PEAK	E. SEP		M. NOV		
END	L. SEP		L. NOV		

REMARKS

Sockeye escapements determined by the I.P.S.F.C. can be found in the I.P.S.F.C. annual reports.



Albreda River



NAME OF STREAM ALBRED A RIVER  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet  
 LOCATION OF MOUTH Flows S. into North Thompson R. at Gosnell, Kamloops Dist.  
 POSITION 52 119 SE  
 LENGTH 8 MI. WIDTH \_\_\_\_\_ FT. DRAINAGE \_\_\_\_\_ SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_  
 SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE \_\_\_\_\_ CFS MAX \_\_\_\_\_ MIN \_\_\_\_\_

TEMPERATURE \_\_\_\_\_

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

Impassable beaver dams at 8 miles.

## SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- for 2 miles above confluence with Clemina Creek
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

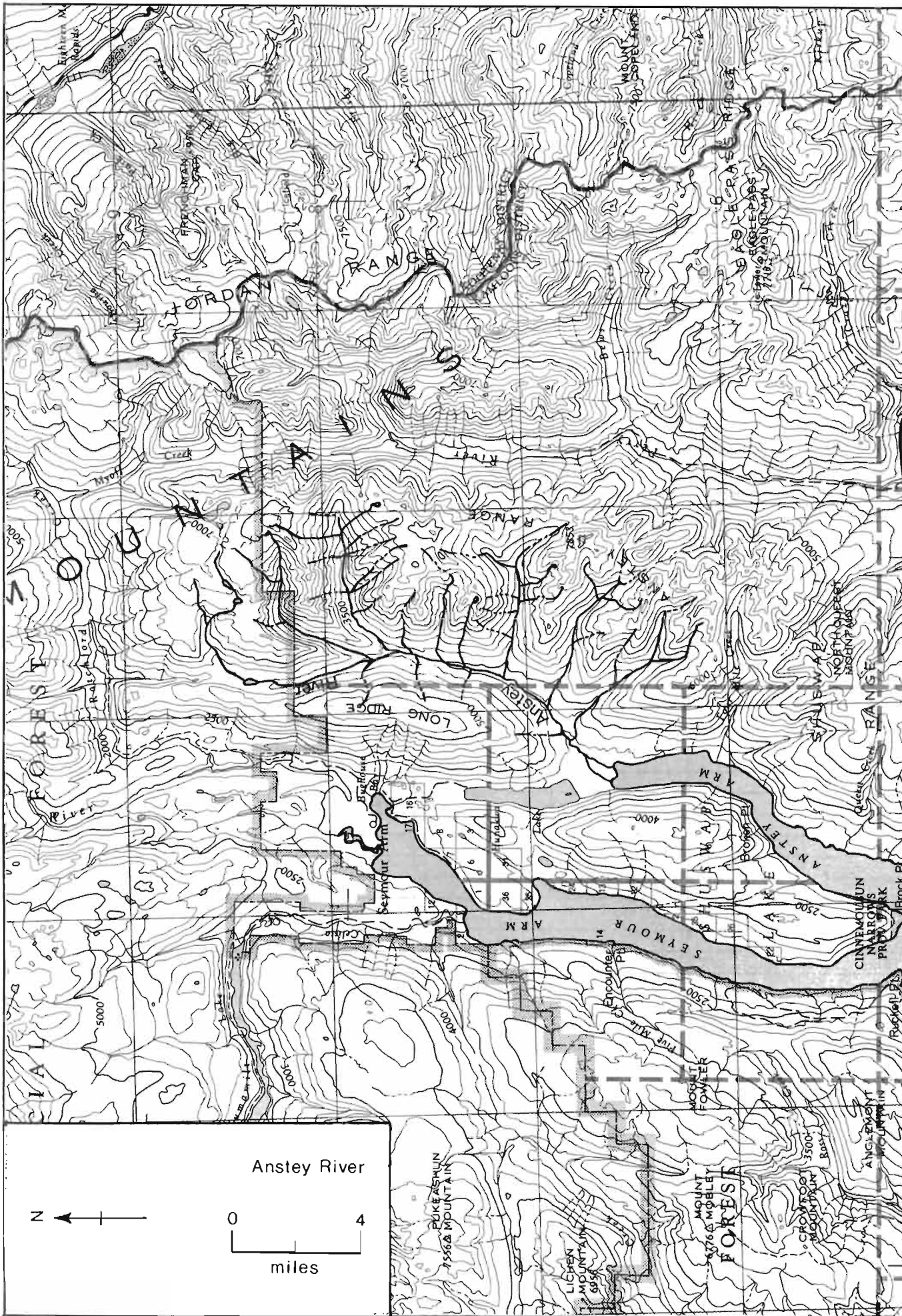
POTENTIAL OF INACCESSIBLE PORTION OF STREAM \_\_\_\_\_

GENERAL REMARKS: \_\_\_\_\_

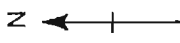
- The best spawning area in this stream is from the mouth to Allan Creek.- Main tributaries:1. Allan Creek enters the Albreda River from the west at 3 miles and is essentially a series of rapids from its mouth to 5 miles.2. Clemina Creek enters from the east at about 6.0 miles and is a small, fairly clear stream. It has a series of impassable falls about 2 miles upstream from the highway bridge.- 1974. This was the first year that salmon were observed in this stream.







Anstey River



miles

NAME OF STREAM ANSTEY RIVER

CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet

LOCATION OF MOUTH Flows S. into Anstey Arm, Shuswap L., Kamloops Dist.

POSITION 51 118 SW

LENGTH 3 MI. WIDTH \_\_\_\_\_ FT. DRAINAGE \_\_\_\_\_ SQ. MI.

COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_

SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE \_\_\_\_\_ CFS MAX \_\_\_\_\_ MIN \_\_\_\_\_

TEMPERATURE \_\_\_\_\_

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

Impassable falls at 3 miles.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	- lower reaches; Shuswap Lake beach
CHINOOK	
COHO	- lower reaches; Shuswap Lake beach
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

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

GENERAL REMARKS:

- There are heavy accumulations of logs and debris throughout the lower mile of this stream. There is continual erosion of the streambank around the log jams which causes more trees to fall into the stream. Debris accumulation causes a considerable amount of scouring during each freshet.



ESCAPEMENT RECORD FOR ANSTEY RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53						
54						
55						
56			NO RECORDS PRIOR TO 1958			
57						
58	1500		750			
59	N/O		N/O			
60	N/O		25			
61			750			
62			75			
63	N/O		25			
64			75			
65	41		25			
66	1352		N/O			
67	200		25			
68	N/O		25			
69	N/O		25			
70	500		25			
71	50		N/O			
72	N/O		25			
73	N/O		25			
74	1500		25			
75	25		25			
76	N/O		25			
77	N/O		N/O			
78	1327		75			
79						
80						
81						
82						
83						
84						
85						

TIMING:

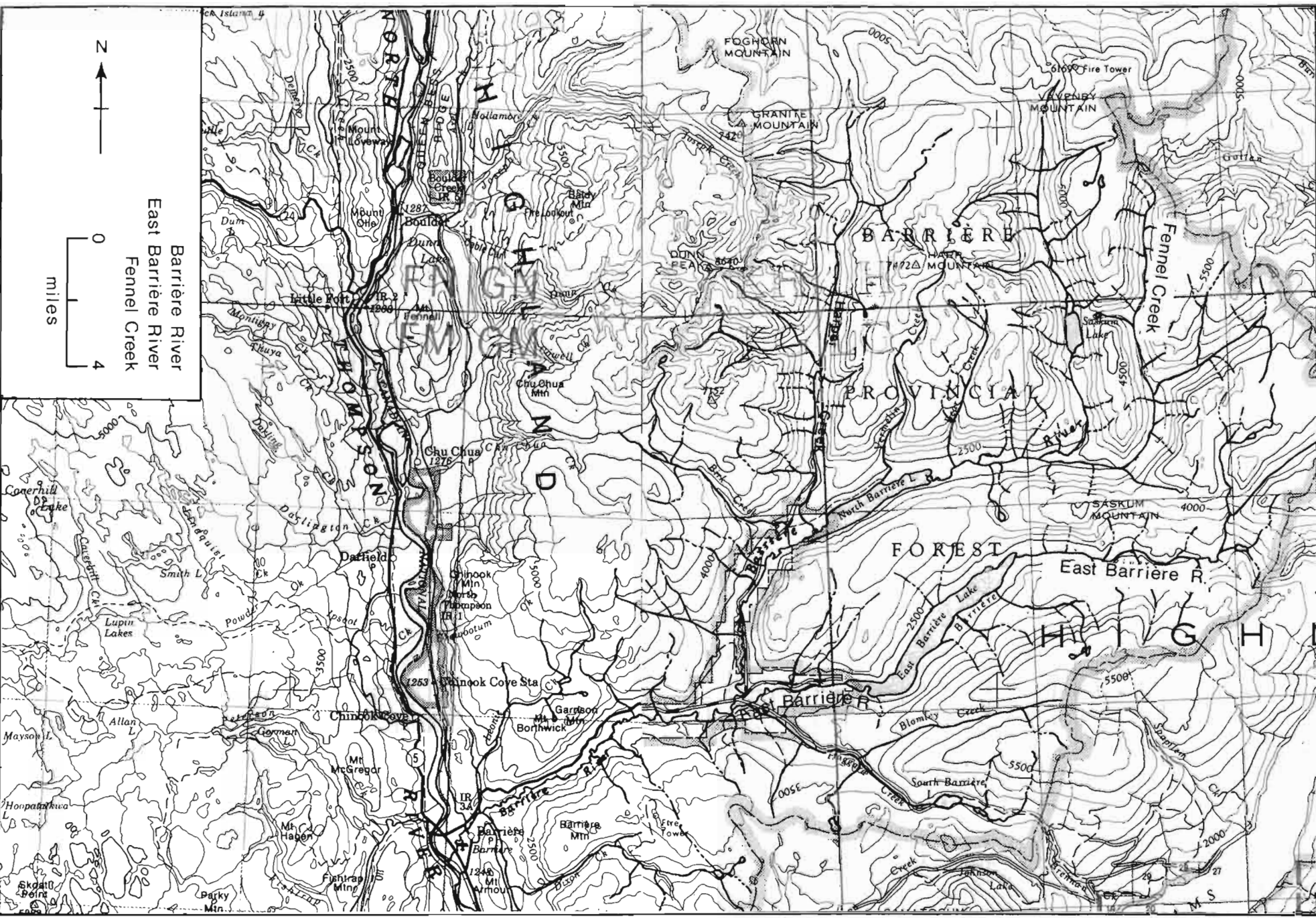
ARRIVE	AUG		M. OCT		
START	E. SEP		L. OCT		
PEAK	E. SEP		E. NOV		
END	SEP		DEC		

REMARKS

The sockeye escapements include an early run and a late run. Timing of the late run is as follows:

Arrive: SEP  
 Start: OCT  
 Peak: L. OCT  
 End: L. NOV

Sockeye escapements determined by the I.P.S.F.C. can be found in the I.P.S.F.C. annual reports.



NAME OF STREAM BARRIÈRE RIVER  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet  
 LOCATION OF MOUTH Flows SW. into North Thompson R., Kamloops Dist.  
 POSITION 51 120 SE  
 LENGTH 17 MI. WIDTH 25 FT. DRAINAGE 440 SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_  
 SILT & SAND \_\_\_\_\_ 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 249,000 SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE 523 CFS MAX 5,530 cfs (72/05/31) MIN 20 cfs (21/02/06)

TEMPERATURE see General Remarks

BARRIERS OR POINTS OF DIFFICULT ASCENT \_\_\_\_\_  
Passable throughout to North Barrière Lake.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	- from confluence with East Barrière R. to North Barrière L.
CHINOOK	- from 4 mi. below East Barrière R. to North Barrière L.
COHO	- from 0.25 mi. below outlet of North Barrière L. to the lake
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

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

GENERAL REMARKS:

- The streambed composition from 1.5 miles to 4.5 miles is as follows:  
Boulder - 8% Coarse - 34% Fine - 28% Silt & Sand - 30%
- Accessible tributaries:
  1. Harper Creek - contains medium sized gravel  
 - no evidence of spawning in this creek
  2. Fennel Creek - see page 85
- Sample temperatures (°F): 54°(70/06/04) 52°(70/06/09) 66°(70/07/09)  
60°(70/07/29) 66°(70/08/08) 49°(70/09/23) 46°(70/10/22) 37°(71/03/23)

## GENERAL REMARKS (cont.) - Barrière River

- 1955. The B. C. Power dam at 10 miles was removed. In previous years it had been an obstruction to migrating salmon.
- 1970-71. 75% of the spawning gravel had been silted over for 0.25 miles below North Barrière Lake.

ESCAPEMENT RECORD FOR BARRIÈRE RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947		75				
48		25	UNK			UNK
49	75	400				750
50	25	25	200			400
51		75	400			
52		UNK	UNK			UNK
53		400	750			1500
54		25	200			UNK
55	200	400	1500			
56	75	N/O	750			
57	25	25	25			
58	N/O	25	750			
59	200	200	750			
60	25	25	200			
61	75	25	750			
62	25	75	750			
63	92	75	75			
64	85	200	400			
65	104	400	1500			
66	4	25	400			
67	16	N/O	200			
68	275	N/O	400			
69	25	50	750			
70	25	25	750			UNK
71	4	10	463			UNK
72		25	400			
73			350			
74	25	25	750			
75	75	25	400			
76	100	75	300			
77	N/O	10	420			
78	N/O	25	400			
79						
80						
81						
82						
83						
84						
85						

TIMING:

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

REMARKS

Sockeye escapements determined by the I.P.S.F.C. can be found in the I.P.S.F.C. Annual Reports.

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NAME OF STREAM BESSETTE CREEK

CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet

LOCATION OF MOUTH Flows NE. into Shuswap R., S. of Mabel L., Osoyoos Dist.

POSITION 50 118 SW

LENGTH 12\* MI. WIDTH \_\_\_\_\_ FT. DRAINAGE 233 SQ. MI.

COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_

SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE 141 CFS MAX 1780 cfs (72/06/01) MIN 0 cfs

TEMPERATURE \_\_\_\_\_

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

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- scattered below Lumby
COHO	- scattered just above and below Lumby; throughout Duteau Creek
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

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

GENERAL REMARKS:

- \* Length may be 10 - 14 miles, depending on water levels
- The major portion of the spawning takes place in Duteau Creek (has been reported separately since 1976).
- This stream is subject to high run-off water levels in the spring, followed by low water during the summer and fall.
- 1970-71. There was insufficient water in the stream for spawning to take place above Lumby.
- 1972. A silt slide (extending 100 yds. wide by 100 yds. long) came down about

## GENERAL REMARKS (cont.) - Bessette Creek

- 1 mile above the upper limit of the spawning area. The slide contributes silt to the stream after every rainfall.
- 1977. Some erosion occurred throughout the stream due to extensive land clearing for agriculture and to logging in the upper watershed.
  - 1978. An agreement between the Dept. of Fisheries and the Vernon Irrigation District Headgate Dam on Duteau Creek has provided minimum flows to the Bessette system. In previous years, the operation of the dam often resulted in erratic flow fluctuations in Bessette Creek.

## References:

- Anthony, E. D. 1976. Report of the Bessette Creek Watershed Committee.  
5903-85-B107.

## ESCAPEMENT RECORD FOR BESSETTE CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57						
58						
59						
60		NO	RECORDS	PRICR	TO	1962
61						
62		25	200			
63		25	75			
64		25	1500			
65		N/O	3500			
66		N/O	1500			
67		25	25			
68		N/O	1500			
69		N/O	1500			
70		25	750			
71		25	750			
72		25	2000			
73		N/O	750			
74		25	1500			
75		25	750			
76		N/O	25			
77		15	70			
78		20	N/O			
79						
80						
81						
82						
83						
84						
85						

## TIMING:

ARRIVE		E. SEP	M. OCT			
START		E. SEP	L. OCT			
PEAK		L. SEP	E. NOV			
END		M. OCT	DEC			

## REMARKS

Prior to 1976, escapements to Bessette Creek included those to Duteau, Harris and Creighton Creeks.



NAME OF STREAM BLUE RIVER

CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet

LOCATION OF MOUTH Flows NE. into North Thompson R., E. of Murtle L., Kamloops  
Dist. \_\_\_\_\_ POSITION 52 119 SE

LENGTH 8 MI. WIDTH 150 FT. DRAINAGE \_\_\_\_\_ SQ. MI.

COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER 10% COARSE 60% FINE \_\_\_\_\_  
SILT & SAND 10% UNCLASSIFIED 20%

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 704,000 SQ. YD. SPAWNING AREA 422,000 SQ. YD.

DISCHARGE \_\_\_\_\_ CFS MAX \_\_\_\_\_ MIN \_\_\_\_\_

TEMPERATURE \_\_\_\_\_

BARRIERS OR POINTS OF DIFFICULT ASCENT \_\_\_\_\_  
Impassable 40 ft. falls at 8 miles.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	<u>- from confluence with N. Thompson River to Highway #5 (1.5 mi.)</u>
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

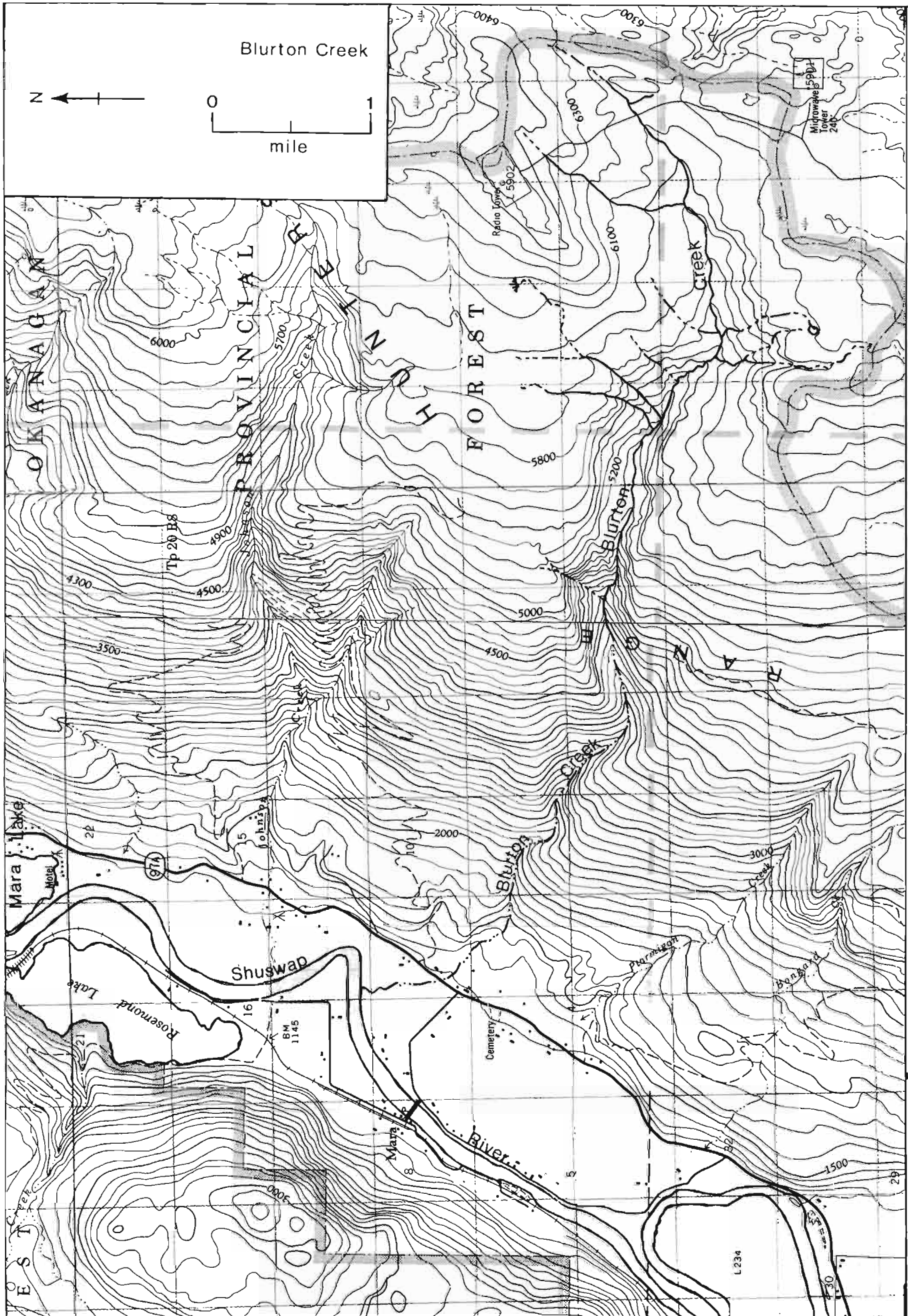
POTENTIAL OF INACCESSIBLE PORTION OF STREAM \_\_\_\_\_

GENERAL REMARKS:

- The water in this stream is very clear and the water level is stable throughout the year. The first 7 miles of the stream contain excellent spawning gravel.
- 1977. Logging operations began in the lower end of the valley.







NAME OF STREAM BLURTON CREEK

CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet

LOCATION OF MOUTH Flows NW. into Shuswap R. near mouth, Kamloops Dist.

POSITION 50 119 NE

LENGTH 1.5 MI. WIDTH \_\_\_\_\_ FT. DRAINAGE \_\_\_\_\_ SQ. MI.

COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_

SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE \_\_\_\_\_ CFS MAX \_\_\_\_\_ MIN \_\_\_\_\_

TEMPERATURE \_\_\_\_\_

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

Impassable falls at 1.5 miles.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- mouth to 0.5 miles
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

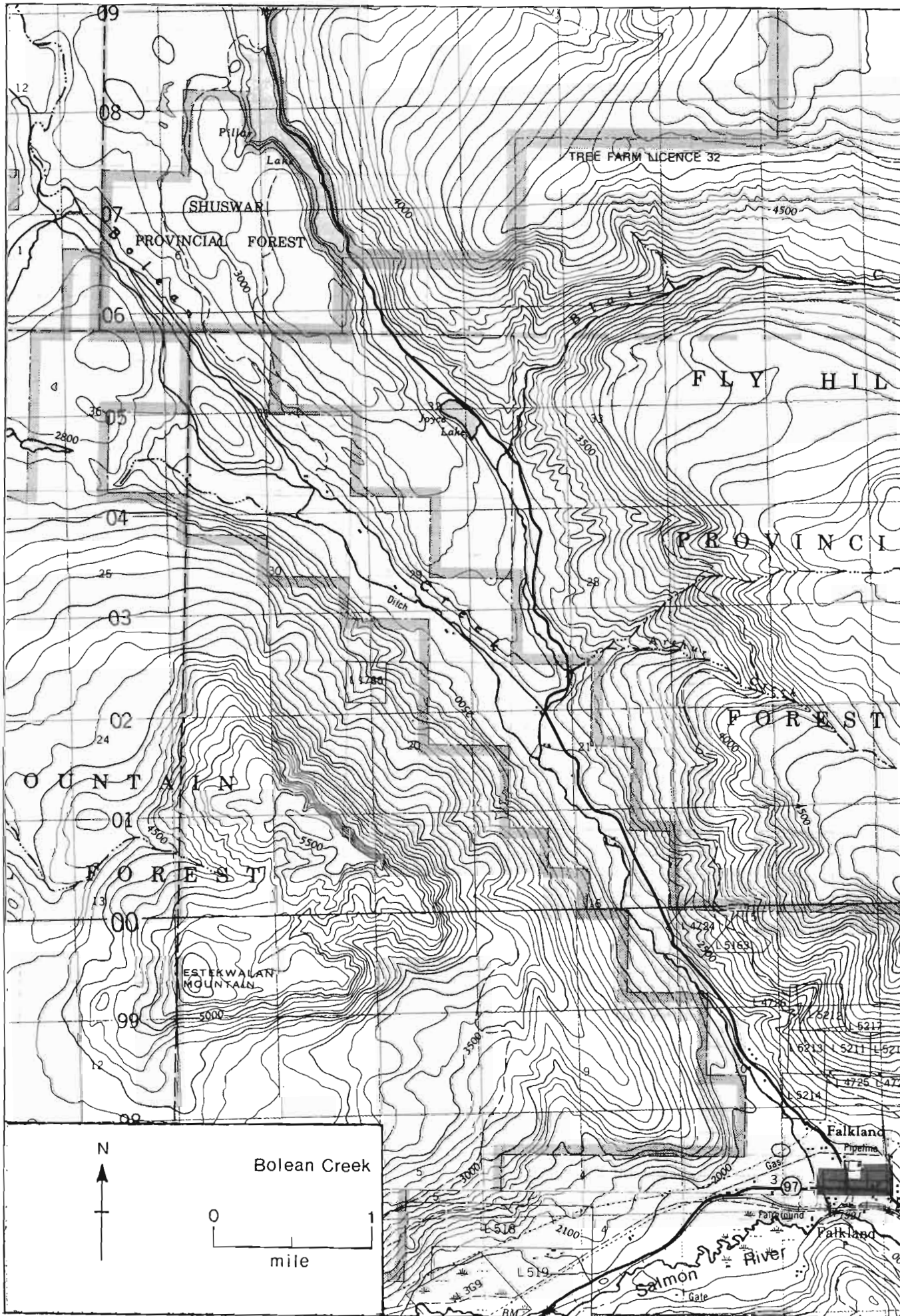
POTENTIAL OF INACCESSIBLE PORTION OF STREAM \_\_\_\_\_

GENERAL REMARKS: \_\_\_\_\_

- 1976. This was the first year that any salmon were observed in this stream.







NAME OF STREAM BOLEAN CREEK

CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet

LOCATION OF MOUTH Flows SE. into Salmon R. at Falkland, Kamloops Dist.

POSITION 50° 29' 119° 33'

LENGTH 9.5 MI. WIDTH \_\_\_\_\_ FT. DRAINAGE 86.4 SQ. MI.

COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_

SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE 33.2 CFS MAX 361 cfs (75/06/03) MIN 2.3 cfs (77/08/20)

TEMPERATURE \_\_\_\_\_

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

Beaver dams frequently cause access problems.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	<u>- 0 to 4 miles</u>
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

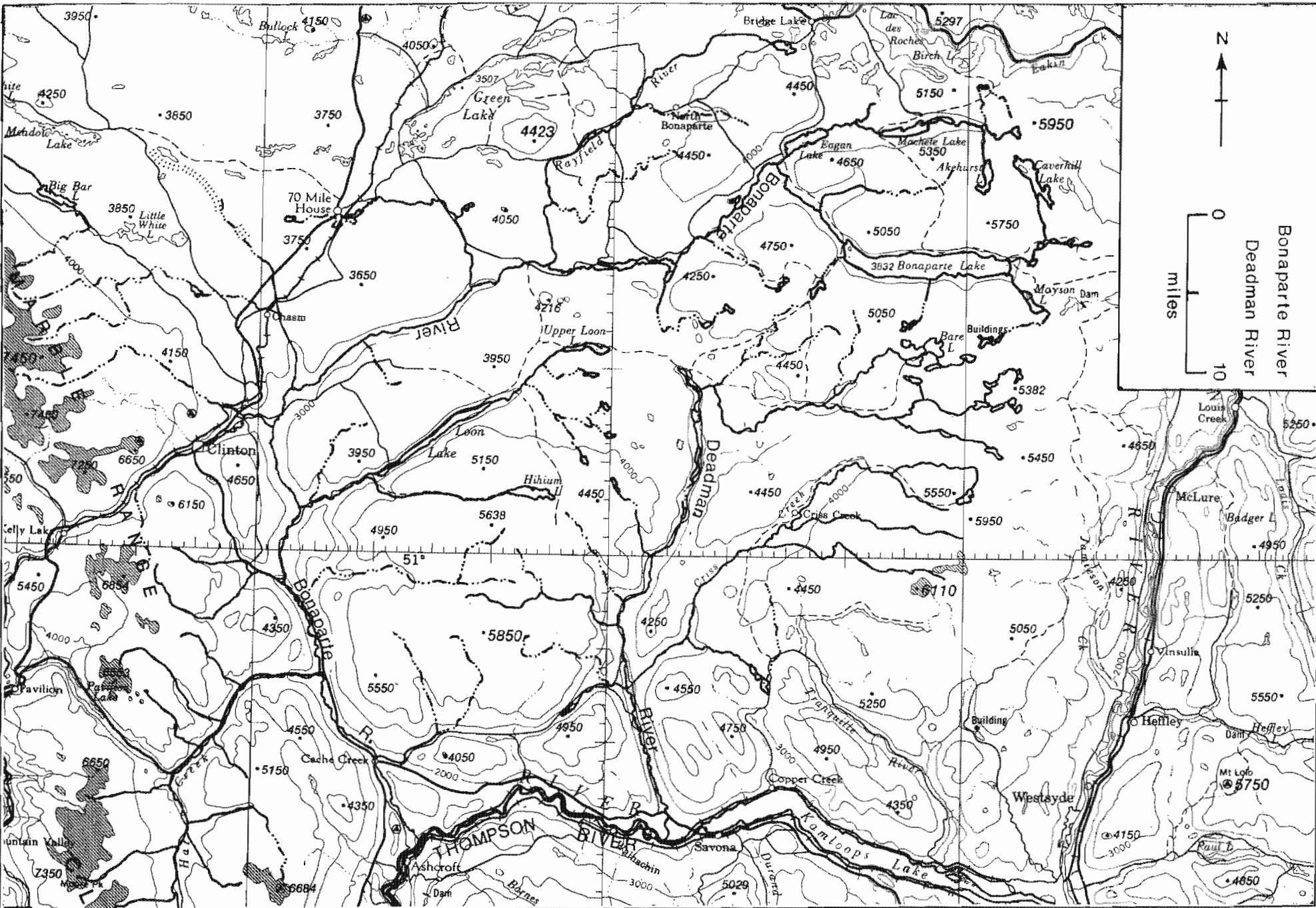
POTENTIAL OF INACCESSIBLE PORTION OF STREAM \_\_\_\_\_

GENERAL REMARKS: \_\_\_\_\_

- 1976. This was the first year that salmon have been observed in this stream.







N  
↑  
0  
10  
miles

Bonaparte River  
Deadman River

NAME OF STREAM BONAPARTE RIVER  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet  
 LOCATION OF MOUTH Flows SW., S. and SE. into Thompson R., Kamloops Dist.  
 POSITION 50 121 NE  
 LENGTH 2 MI. WIDTH \_\_\_\_\_ FT. DRAINAGE 1940 SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_  
 SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE 188 CFS MAX 1820 cfs (75/05/31) MIN 6.8 cfs (62/12/24)

TEMPERATURE \_\_\_\_\_

BARRIERS OR POINTS OF DIFFICULT ASCENT \_\_\_\_\_  
Impassable 25 ft. falls at 2 miles.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- 0 to 2 miles
COHO	- 0 to 2 miles
CHUM	
PINK (ODD YEAR)	- 0 to 2 miles
PINK (EVEN YEAR)	
STEELHEAD	

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

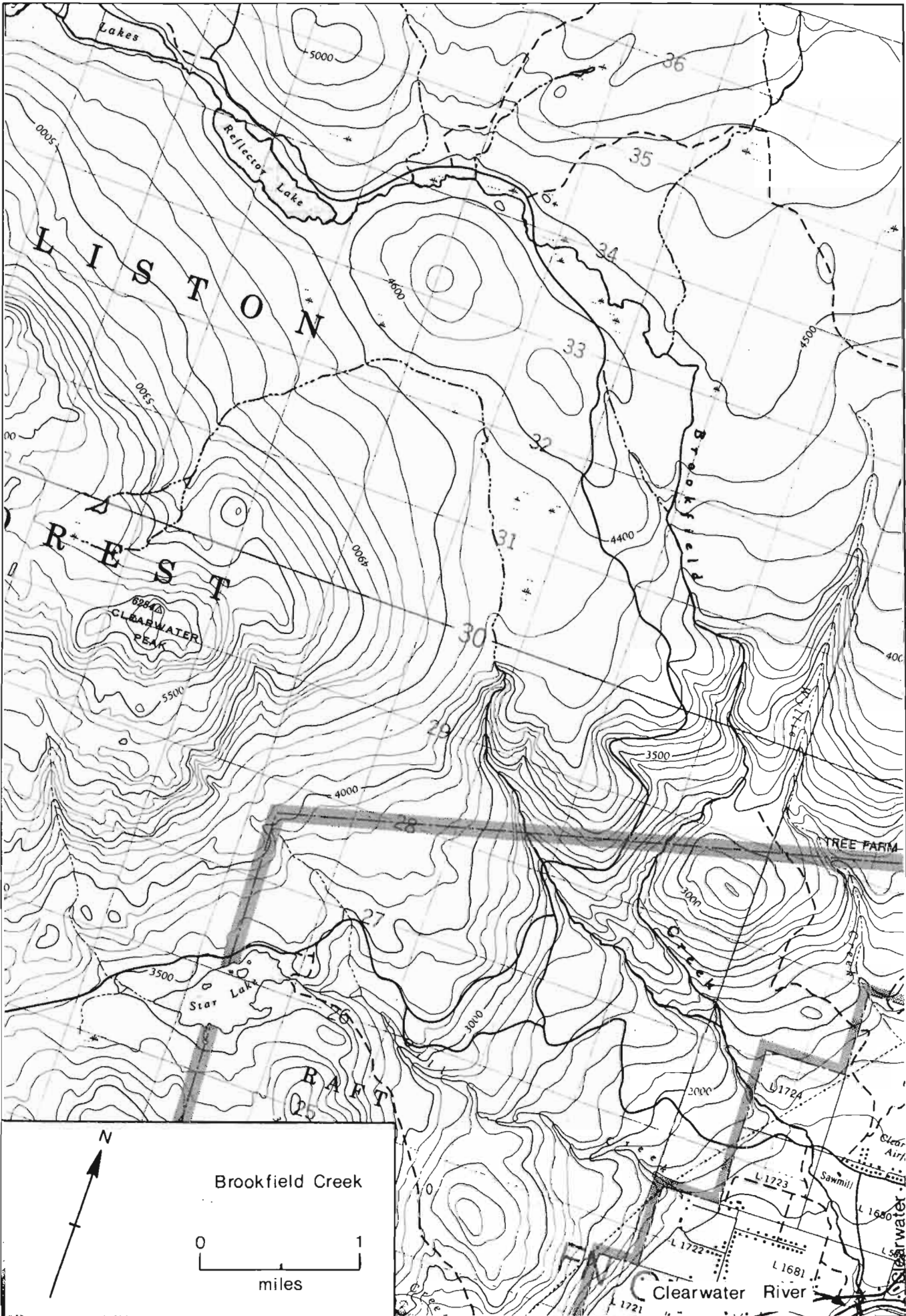
A fish ladder and removal of the unused dam would open up considerable spawning areas to all species of salmon. Before the dam was built, this stream had salmon populations in the upper reaches.

GENERAL REMARKS:

- 1953. This was the first pink salmon run since 1911.
- 1960-61. Low water and high temperatures caused the bulk of spawning to take place in the Thompson River.
- 1970. Extreme low water levels during this spawning season hampered the salmon migration.







NAME OF STREAM BROOKFIELD CREEK  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops - Lillooet  
 LOCATION OF MOUTH Flows SE. into Clearwater R., near Jct. of Clearwater and  
North Thompson Rs., Kamloops Dist. POSITION 51 120 NE  
 LENGTH \_\_\_\_\_ MI. WIDTH 20 FT. DRAINAGE \_\_\_\_\_ SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_  
 SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE \_\_\_\_\_ CFS MAX \_\_\_\_\_ MIN \_\_\_\_\_

TEMPERATURE see General Remarks

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

## SPAWNING DISTRIBUTION:

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

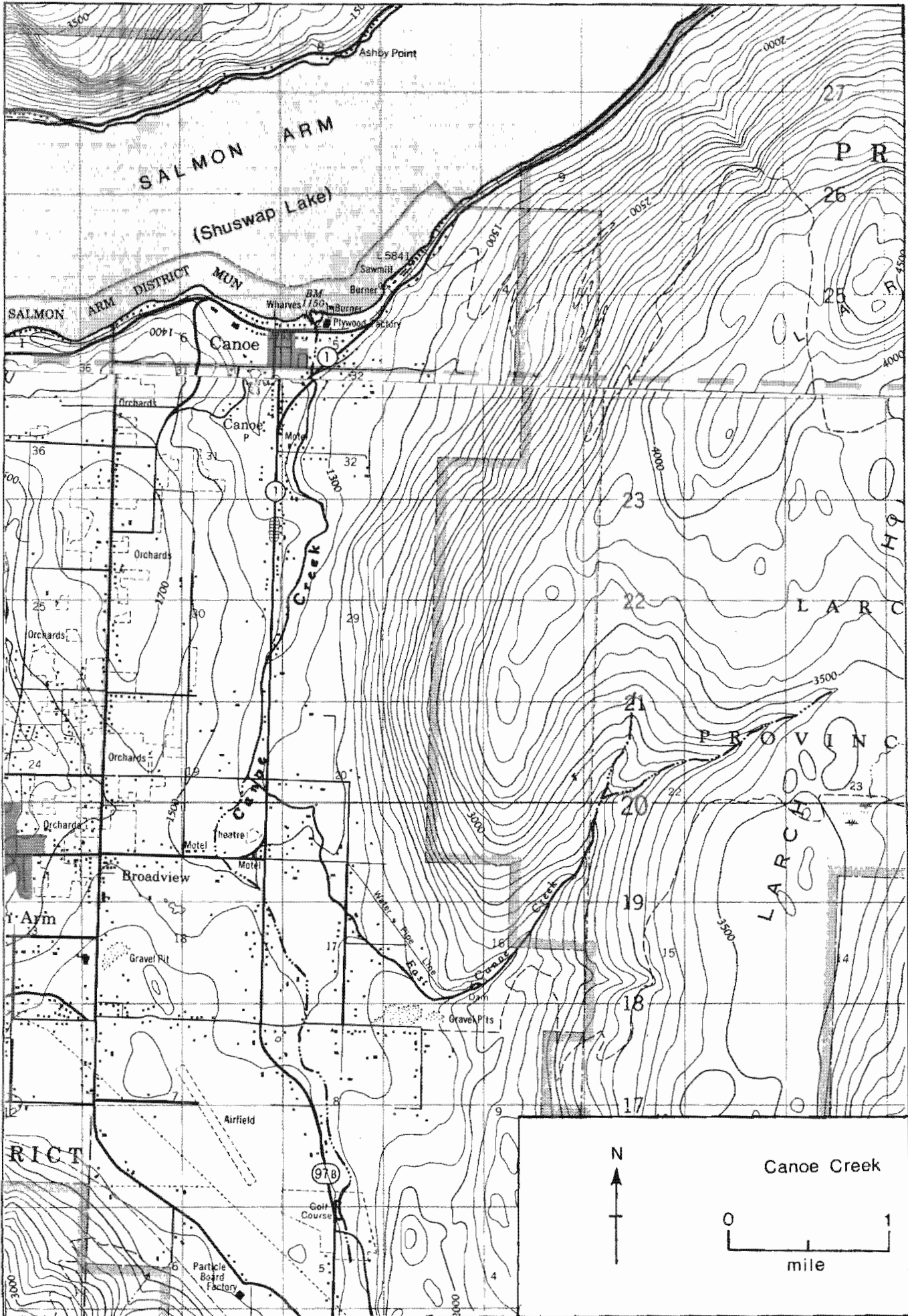
POTENTIAL OF INACCESSIBLE PORTION OF STREAM \_\_\_\_\_

## GENERAL REMARKS:

- Sample temperatures (°F):  
45°(70/05/25) 66°(70/07/09) 72°(70/07/16) 65°(70/07/28) 43°(70/09/23)  
41°(70/10/22) 34°(70/11/17) 34°(71/02/25) 33°(71/03/23)
- This is a small stream with limited spawning area. It often dries up in summer.
- Flash floods in the spring cause scouring throughout the lower 0.5 miles.
- A large sawmill complex surrounds the spawning grounds.
- 1978. The streambed has been scoured to bedrock and boulders. No spawning gravel remains. A natural fall (impassable) due to scouring has appeared at .75 miles.







NAME OF STREAM CANOE CREEK

CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet

LOCATION OF MOUTH Flows N. into Salmon Arm, Shuswap L., Kamloops Dist.

POSITION 50 119 NE

LENGTH 4 MI. WIDTH \_\_\_\_\_ FT. DRAINAGE 15.1 SQ. MI.

COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_

SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE \_\_\_\_\_ CFS MAX 5.4 cfs (66/04/18) MIN 0.7 cfs (67/07/ )

TEMPERATURE \_\_\_\_\_

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

SPAWNING DISTRIBUTION:

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

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

GENERAL REMARKS:

- This is a small stream with a minimal flow of water. A good portion of the flow is diverted for irrigation of the surrounding farmland.

- 1978. Impassable beaver dam at 2 miles.







NAME OF STREAM CLEARWATER RIVER  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet  
 LOCATION OF MOUTH Flows S. into North Thompson R., SE. of Mahood L., Kamloops  
 Dist. \_\_\_\_\_ POSITION 51 120 NE  
 LENGTH 35 MI. WIDTH 150 FT. DRAINAGE 4320 SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_  
 SILT & SAND \_\_\_\_\_ 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 3,080,000 SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.  
 DISCHARGE 8028 CFS MAX 54,500 cfs (28/05/26) MIN 690 cfs (53/01/12)  
 TEMPERATURE see General Remarks

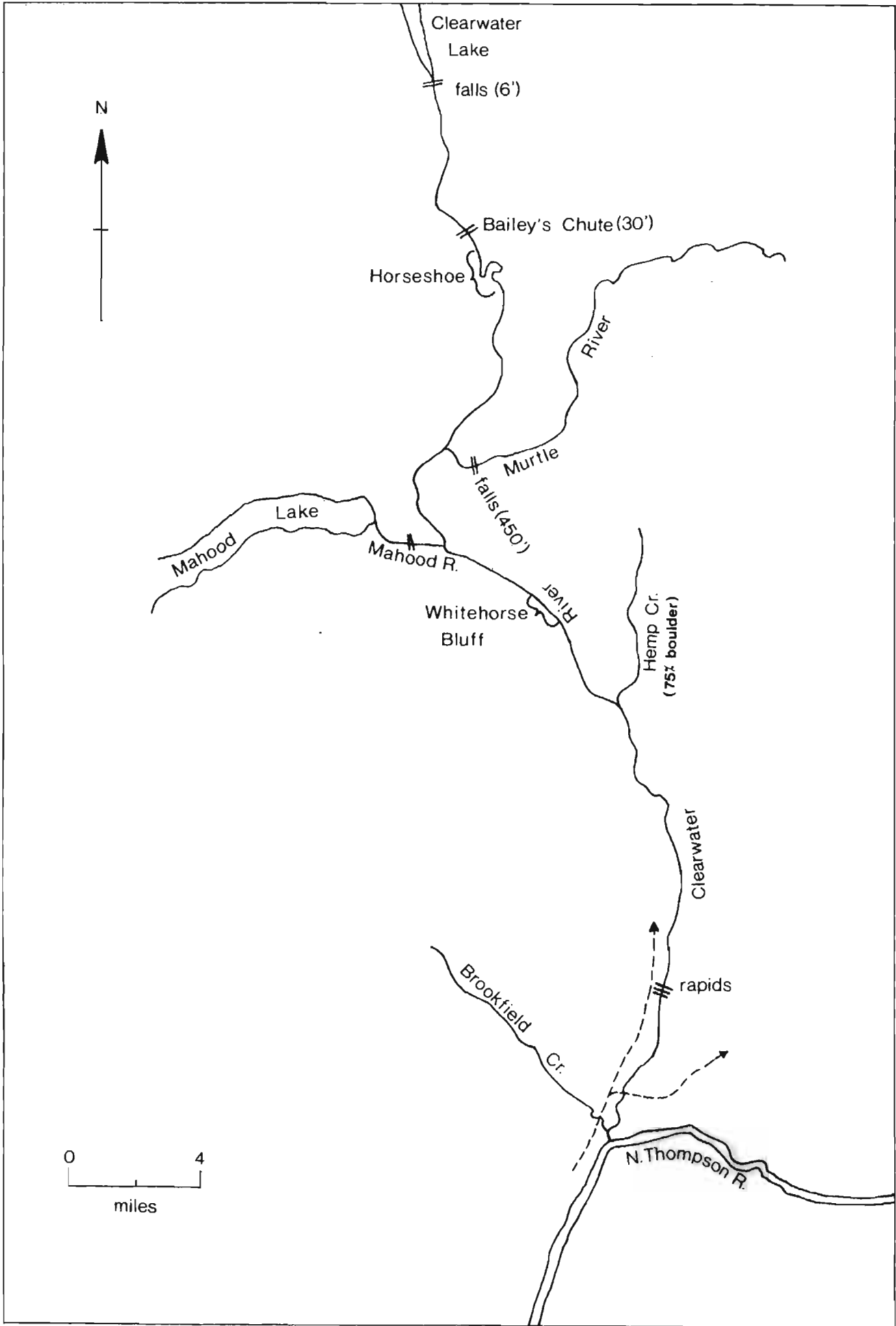
BARRIERS OR POINTS OF DIFFICULT ASCENT \_\_\_\_\_  
 1. Partial obstruction (for coho) at 4.5 miles - canyon with very strong water flow  
 2. Impassable 30 foot falls (Bailey's Chute) at 35 miles.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	<u>- mainly in areas of Whitehorse Bluff and the Horseshoe</u>
COHO	<u>- spawning areas unknown; observed in rapids at 4.5 mile canyon</u>
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM \_\_\_\_\_  
The streambed above the "Chute" is mainly composed of boulder.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

GENERAL REMARKS: \_\_\_\_\_  
 - There are two main spawning areas of the Clearwater River - Whitehorse Bluffs at 15 miles and the Horseshoe situated 10 miles downstream of the outlet of Clearwater Lake. The Horseshoe is approximately 4 miles long with a streambed composition of 5% boulder, 70% coarse gravel and 25% fine gravel. The Whitehorse Bluffs spawning area covers 2 miles and has a streambed composition of 15% bedrock, 5% boulder, 50% coarse gravel and 30% silt and sand.  
 - This stream is very large and has several lakes forming storage reservoirs which stabilize the stream flow.



GENERAL REMARKS (cont.) - Clearwater River

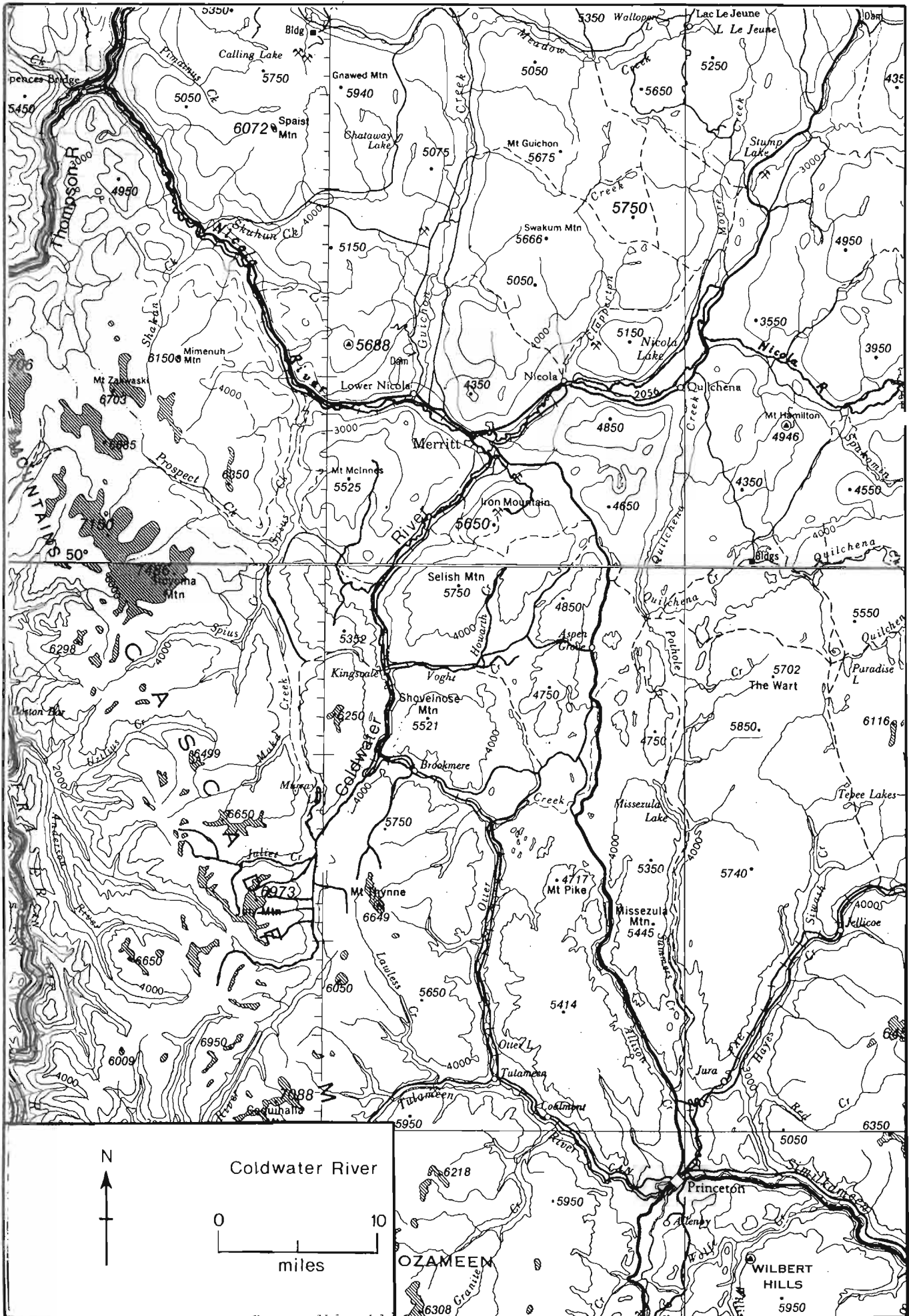
- The Clearwater River flows through Wells Gray Provincial Park.

References:

Smith, S. B. 1954. Biological survey of Clearwater Lake in Wells Gray Provincial Park. 31-1-C46.







NAME OF STREAM COLDWATER RIVER

CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet

LOCATION OF MOUTH Flows NE. and NW. into Nicola R., Kamloops Dist.

POSITION 50 120 SW

LENGTH 44 MI. WIDTH \_\_\_\_\_ FT. DRAINAGE 353 SQ. MI.

COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_

SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE 344.4 CFS MAX 4060 cfs (72/05/30) MIN 0 cfs (14/10/18)

TEMPERATURE \_\_\_\_\_

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

Passable log jams need to be watched so that they do not become obstructions to the salmon or cause re-routing of the channels.

\_\_\_\_\_

\_\_\_\_\_

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- confluence with Nicola R.; Kingsvale and Brodie
COHO	- upper regions
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

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

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

GENERAL REMARKS: \_\_\_\_\_

- Salmon counts on this stream are difficult because of the wide distribution of the fish, poor winter travel conditions and ice formation on the stream (especially during coho spawning).
- There is heavy bear predation along this stream.
- Poaching and molesting of the salmon is a serious problem.
- 1957. Irrigation diversion dams present major problems as obstructions and by changing the course of the stream.
- 1961. Water temperatures rose as high as 68°F on the lower river during the

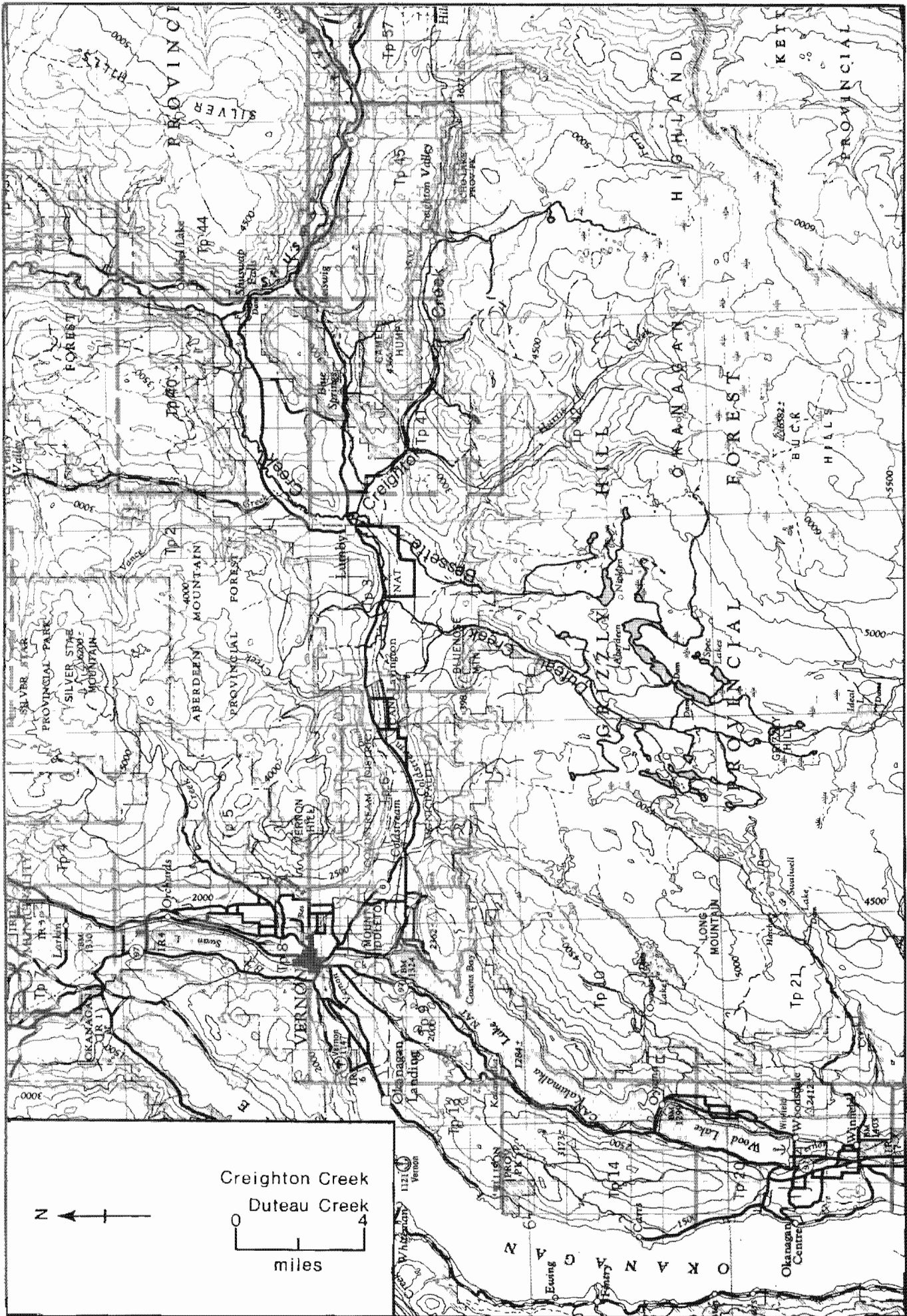
## GENERAL REMARKS (cont.) - Coldwater River

- summer.
- 1969. Ranchers on this system are prone to shifting gravel as desired throughout the year. They completely block access to provide flow for irrigation projects.
  - 1970. Irrigation use was extremely high this year leaving water at less than a minimum flow for spawning. Open irrigation ditches also result in a loss of fry.
  - 1972. Spring freshets destroyed spawning beds in the lower reaches of the river in the vicinity of Merrit.  
A new road was put in along the Coldwater River providing easy access to the stream.
  - 1974. Sudden thaw in the spring resulted in ice scouring the spawning beds as it was being washed downstream.
  - 1976. Unscreened irrigation ditches still take a heavy toll of fry and smolts.
  - 1978. Logging operations are taking place throughout the entire upper watershed.  
Powerful winds in the area often create blowdown problems.

## References:

- Eliassen, R. 1976. An inventory of the Nicola - Coldwater Valley.  
Memo. 5903-85-N110 Vol. 1.
- Langer, O. E. and M. D. Nassichuk. 1976. Toxicity of chlorinated sewage effluent to fish, salmon eggs and periphyton in the Nicola and Coldwater Rivers. Internal Report Series No. PAC/1-76-1.
- Russell, Rob. 1979. Nicola - Coldwater Rivers juvenile salmon inventory.  
Memo. 5903-85-N110 Vol. 4.
- Russell, Rob. 1978. Nicola - Coldwater Rivers juvenile salmon inventory.  
Memo. 5903-85-N110 Vol. 3.





NAME OF STREAM CREIGHTON CREEK  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet  
 LOCATION OF MOUTH Flows NW. into Bessette Cr., E. of Lumby, Osoyoos Dist.  
 POSITION 50 118 SW  
 LENGTH 0.5 MI. WIDTH \_\_\_\_\_ FT. DRAINAGE \_\_\_\_\_ SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_  
 SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

\* DISCHARGE 28.8 CFS MAX 87 cfs (77/04/26) MIN 6.6 cfs (77/07/23)

TEMPERATURE \_\_\_\_\_

BARRIERS OR POINTS OF DIFFICULT ASCENT

1. Impassable dam at 0.5 miles
2. Impassable dam at 2.5 miles

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- 0 to 0.5 miles
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

The stream has good potential for salmon spawning between the 2 dams and for some distance above the upper dam.

GENERAL REMARKS:

\* Discharge figures are for 1977 only.





DEADMAN RIVER - for topographical map refer to Bonaparte River,  
page 39.

NAME OF STREAM DEADMAN RIVER  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet  
 LOCATION OF MOUTH Flows S. into Thompson R., W. of Kamloops L., Kamloops Dist.  
 POSITION 50 120 NW  
 LENGTH 13 MI. WIDTH \_\_\_\_\_ FT. DRAINAGE 541 SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_  
 SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.  
 DISCHARGE 63 CFS MAX 1100 cfs (17/05/19) MIN 0 cfs (19/04/13)  
 TEMPERATURE \_\_\_\_\_

BARRIERS OR POINTS OF DIFFICULT ASCENT

Various man-made obstructions, irrigation dams and beaver dams limit the fish from 0 to 13 miles.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- slightly scattered throughout
COHO	- slightly scattered throughout
CHUM	
PINK (ODD YEAR)	- lower .5 miles
PINK (EVEN YEAR)	
STEELHEAD	

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

GENERAL REMARKS:

- 1953. This was the first year since 1911 that pink spawning occurred in this stream.
- 1960. The spawning ground condition was very poor. Numerous beaver dams had flooded and silted out extensive areas which had previously been seeded by salmon.
- 1961. Beaver populations are on the increase and constant attention is necessary to maintain a migration passage for spawners.
- 1967. This stream is in extreme difficulties as a salmon producer. Extreme use of water for irrigation results in very low water levels, making the stream impassable in some places. Poaching is also a problem.

## GENERAL REMARKS (cont.) - Deadman River

- 1976. The problems of 1967 are still applicable.
- 1977/78. Biological and engineering surveys are being carried out on Deadman River in relation to proposed construction of salmonid enhancement facilities for chinook, coho and steelhead.

## References:

Hamilton, Roy. 1974. Water requirements for the fisheries resource of the Deadman River. Environment Canada, Fisheries & Marine Service, Internal Report Series No. PAC/1-74-1.

## ESCAPEMENT RECORD FOR DEADMAN RIVER

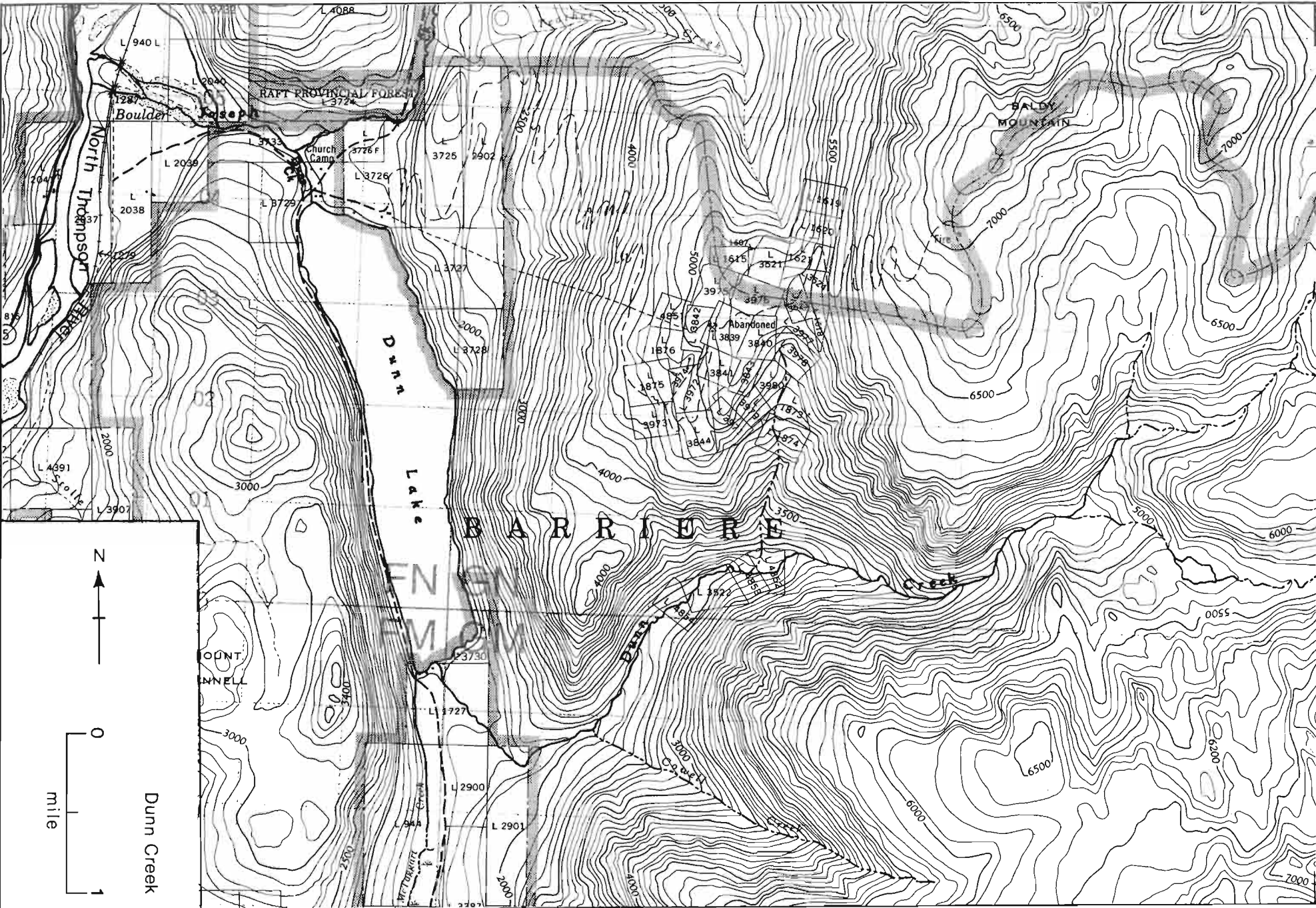
YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947		3500	200			
48		200	750			
49		1500	750			
50		200	UNK			
51		25	UNK			
52		400	3500			
53		750	200		400	
54		400	750			
55		750	3500			
56		750	400			
57		25	200		200	
58		750	1500			
59		750	400			
60		750	1500			
61		200	750			
62		750	400			
63		750	750		101	
64		200	75			
65		200	1500		39	
66		25	400			
67		N/O	N/O		N/O	
68		20	20			
69		25	25			
70		25	50			
71		25	50		25	
72		10	25			
73		200	100			
74		100	50			
75		250	25		500	
76		20	35			
77		200	50		50	
78	2	280 *	100			
79						
80						
81						
82						
83						
84						
85						

## TIMING:

ARRIVE		JUL	OCT		SEP	
START		L. JUL	M. OCT		L. SEP	
PEAK		M. AUG	L. OCT		E. OCT	
END		L. AUG	M. NOV		M. OCT	

## REMARKS

\* 70% of this run was composed of jacks.



NAME OF STREAM DUNN CREEK

CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet

LOCATION OF MOUTH Flows N. into Joseph Cr. E. of Boulder, Kamloops Dist.

POSITION 51 120 SE

LENGTH .5 MI. WIDTH 30 FT. DRAINAGE \_\_\_\_\_ SQ. MI.

COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER 25% COARSE 50% FINE 5%

SILT & SAND 10% UNCLASSIFIED 10%

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 8,800 SQ. YD. SPAWNING AREA 4,800 SQ. YD.

DISCHARGE \_\_\_\_\_ CFS MAX \_\_\_\_\_ MIN \_\_\_\_\_

TEMPERATURE see General Remarks

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

SPAWNING DISTRIBUTION:

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

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

GENERAL REMARKS:

Sample temperatures(°F): 67°(70/07/30) 68°(70/08/18) 45°(70/11/08) 44°(70/11/15)





DUTEAU CREEK - for topographical map refer to Creighton Creek,  
page 61.

NAME OF STREAM DUTEAU CREEK  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet  
 LOCATION OF MOUTH Flows NE. into Bessette Creek, E. of Lumby, Osoyoos Dist.  
 POSITION 50 118 SW  
 LENGTH 12 MI. WIDTH \_\_\_\_\_ FT. DRAINAGE 40.5 SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_  
 SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE 29 CFS MAX 485 cfs (74/05/01) MIN 0 cfs

TEMPERATURE \_\_\_\_\_

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

Impassable Vernon Irrigation District Dam at 12 miles.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- mouth to 6 miles above Lumby
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

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

GENERAL REMARKS:

- Duteau Creek receives 80% of the coho escapements to the Bessette Creek system.
- The flows in this stream are directly affected by the Vernon Irrigation District Headgate Dam. The operation of the dam had often resulted in erratic flow fluctuation downstream. In 1978 an agreement between the V.I.D. and Dept. of Fisheries was established to control flows to meet fisheries requirements.
- Large amounts of flyash and debris have entered the creek from various sawmills.
- Heavy agricultural use of the land around the creek is resulting in high nutrient input, breakdown of the banks and erosion throughout the creek.



ESCAPEMENT RECORD FOR DUTEAU CREEK

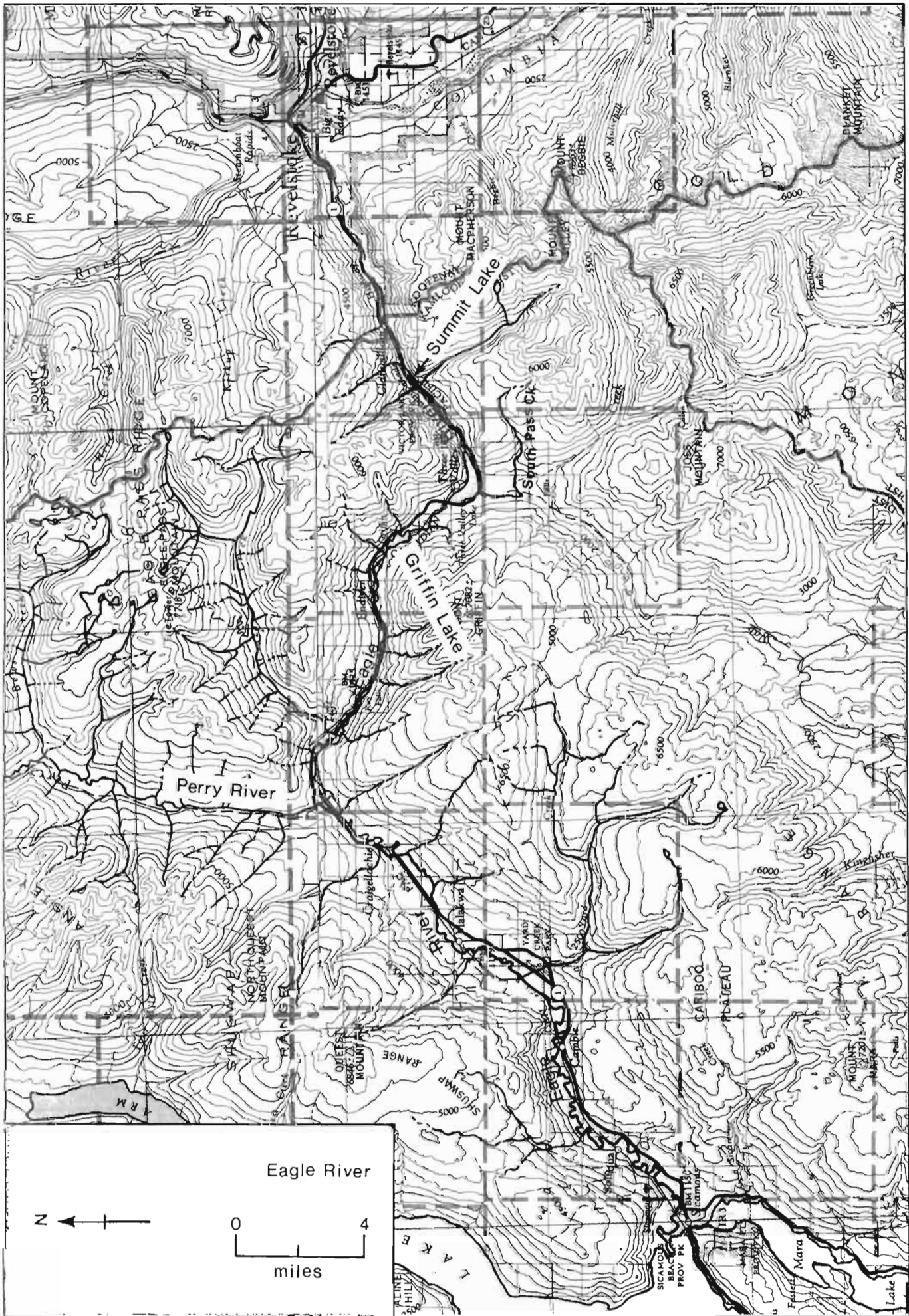
YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57						
58						
59						
60						
61						
62						
63						
64						
65						
66						
67						
68						
69						
70						
71						
72						
73						
74						
75						
76				325		
77				94		
78				400		
79						
80						
81						
82						
83						
84						
85						

## TIMING:

ARRIVE			M. OCT			
START			L. OCT			
PEAK			E. NOV			
END			DEC			

## REMARKS

Prior to 1976, this stream was included with Bessette Creek records.



NAME OF STREAM EAGLE RIVER  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet  
 LOCATION OF MOUTH Flows SW. into Shuswap L., N. of Sicamous Narrows, Kamloops Dist.  
 POSITION 50 119 NE  
 LENGTH 40 MI. WIDTH \_\_\_\_\_ FT. DRAINAGE \_\_\_\_\_ SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_  
 SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE 1,368 CFS MAX 12,200 (13/06/10) MIN 123 cfs (75/01/11)

TEMPERATURE \_\_\_\_\_

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

## SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	- from Perry River to Griffin Lake
CHINOOK	- from Perry River to Griffin Lake
COHO	- from Perry River to Summit Lake; in South Pass Creek
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

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

## GENERAL REMARKS:

- 1967. A permanent trap for kokanee was installed 1 mile above the Perry R. by B. C. Fish and Wildlife with provision allowing for upstream migration of salmon.  
 - 1968. There was considerable silting of the stream resulting from a landslide at the outlet of Griffin Lake in June.  
 - 1978. April. A large volume of sand, silt and debris entered the river 2.5 miles upstream of Three Valley Lake as a result of logging road construction.  
 - Highway #1 and the C.P. Railway follow the Eagle River Valley from Sicamous to Revelstoke.



## ESCAPEMENT RECORD FOR EAGLE RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947		75	200			
48			UNK			
49	25	750	3500			
50	1500	750	3500			
51		750	750			200
52		3500	7500			
53	25 *	3500	1500			UNK
54	1500	1500	3500			UNK
55	N/O	400	1500			
56	N/O	750	3500			
57	750	1500	3500			
58	750	1500	1500			UNK
59	25	750	1500			UNK
60		1500	1500			
61	25	750	3500			
62	7700	3500	3500			
63	N/O	1500	750			UNK
64		400	1500			
65	398 *	750	3500			
66	10148	750	1500			
67	25	750	750			
68	N/O	200	1500			
69	75 *	400	750			
70	7525	300	1500			
71	200	750	1500			
72	25	300	1500			
73	50 *	400	1500			
74	3700	400	3500			
75	100	300	1500			
76	N/O	250	1100			
77	444	756	2694			
78	8218 *	400	2000			
79						
80						
81						
82						
83						
84						
85						

## TIMING:

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

## REMARKS

The escapements for sockeye include two separate runs. Timing for the late run is as follows: Arrive: M. SEP  
Start: E. OCT  
Peak: L. OCT  
End: NOV

Sockeye escapements determined by the I.P.S.F.C. can be found in the I.P.S.F.C. Annual Reports.

\* More than 80% of these runs were composed of jacks.

EAST BARRIÈRE RIVER - for topographical map refer to Barrière River,  
page 19.

NAME OF STREAM EAST BARRIÈRE RIVER  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet  
 LOCATION OF MOUTH Flows W. into Barrière R., Kamloops Dist.  
 POSITION 51 119 SW  
 LENGTH \_\_\_\_\_ MI. WIDTH 22 FT. DRAINAGE \_\_\_\_\_ SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_  
 SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.  
 DISCHARGE \_\_\_\_\_ CFS MAX \_\_\_\_\_ MIN \_\_\_\_\_  
 TEMPERATURE \_\_\_\_\_

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

Beaver dams and log jams throughout the stream frequently cause problems. They are often impassable during periods of low water. (e.g. Only .25 miles were accessible to salmon during 1973.)

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- from 0 to 1 mile
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

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

GENERAL REMARKS:

- 1971. An old abandoned sawmill at the outlet of East Barrière Lake has caused large amounts of mill rubbish and debris to pile up at the top end of the stream causing the stream to divert around and under it. This section of stream contains the best spawning gravel.  
- East Barrière Lake: length = 6 miles  
width = 1 mile



ESCAPEMENT RECORD FOR EAST BARRIÈRE RIVER

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			191			
72			75			
73			65			
74			25			
75			75			
76			25			
77			18			
78			110			
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			M. OCT			
START			E. NOV			
PEAK			M. NOV			
END			L. NOV			

REMARKS

Prior to 1971, escapements to this stream were included with those to Barrière River.

FENNEL CREEK - for topographical map refer to Barrière River,  
page 19.

NAME OF STREAM FENNELL CREEK  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet  
 LOCATION OF MOUTH Flows S. into Barrière R., Kamloops Dist.  
 POSITION 51 119 SW  
 LENGTH 9.5 MI. WIDTH 12 FT. DRAINAGE \_\_\_\_\_ SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE 15% FINE 80%  
 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 67,000 SQ. YD. SPAWNING AREA 64,000 SQ. YD.  
 DISCHARGE \_\_\_\_\_ CFS MAX \_\_\_\_\_ MIN \_\_\_\_\_  
 TEMPERATURE see General Remarks

BARRIERS OR POINTS OF DIFFICULT ASCENT \_\_\_\_\_  
Beaver dams and log jams throughout the stream require constant attention so that they do not become obstructions to the salmon.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	- from N. Barrière Lake to 5 miles
CHINOOK	
COHO	- from N. Barrière Lake to 5 miles
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

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

GENERAL REMARKS:  
 - This stream contains plenty of good, available spawning gravel plus plenty of good rearing area.  
 - Log jams, logging debris and beaver dams create erosion and scouring throughout the stream.  
 - Silting occurs over the lower 1-2 miles of the stream.  
 - Sample temperatures (°F): 58°(70/07/29) 57°(70/08/13) 46°(70/08/09) 37°(70/11/09) 35°(70/11/18)



ESCAPEMENT RECORD FOR FENNELL CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57						
58						
59						
60						
61			NO RECORDS PRIOR TO 1963			
62						
63	439		N/O			
64	146		N/O			
65	N/O		750			
66	N/O		25			
67	920		N/O			
68	954		200			
69	25		200			
70	25		1500			
71	1281		432			
72	1931		750			
73	142		120			
74	25		200			
75	3500		75			
76	3500		75			
77	600		380			
78	600 *		300			
79						
80						
81						
82						
83						
84						
85						

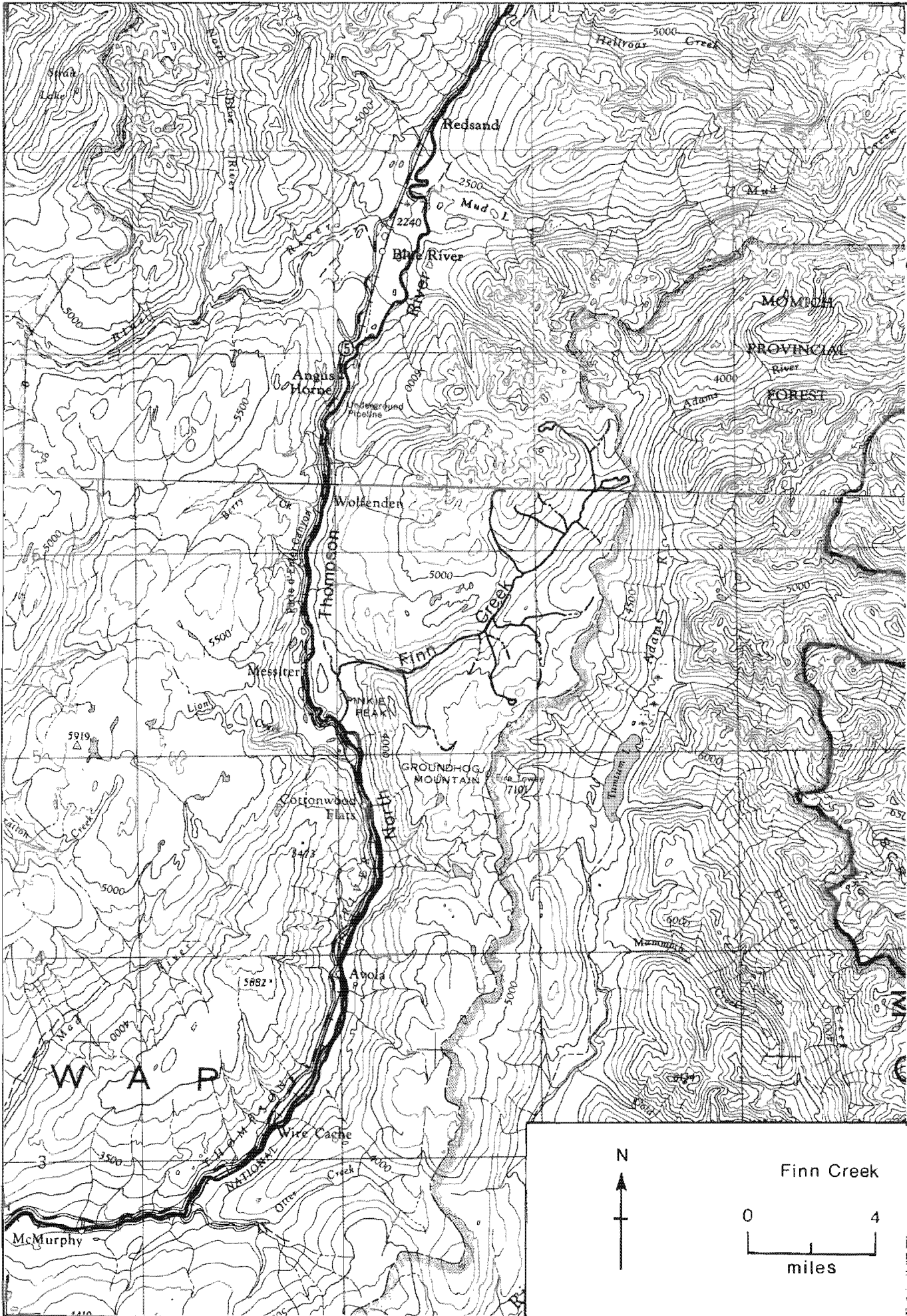
## TIMING:

ARRIVE	E. AUG		L. OCT			
START	L. AUG		E. NOV			
PEAK	L. AUG		M. NOV			
END	M. SEP		L. NOV			

## REMARKS

Sockeye escapements determined by the I.P.S.F.C. can be found in the I.P.S.F.C. Annual Reports.

\* 75% of this run was composed of jacks.



NAME OF STREAM FINN CREEK  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet  
 LOCATION OF MOUTH Flows S. into North Thompson R., S. of Porte d'Enfer Canyon,  
Kamloops Dist. POSITION 51 119 NE  
 LENGTH 4.0 MI. WIDTH 30 FT. DRAINAGE \_\_\_\_\_ SQ. MI.  
 \* COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER 20% COARSE 50% 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	

WETTED AREA 70,400 SQ. YD. SPAWNING AREA 49,000 SQ. YD.  
 DISCHARGE 17 cfs (71/03/23)  
 TEMPERATURE see General Remarks

BARRIERS OR POINTS OF DIFFICULT ASCENT

1. Beaver dams, logging debris and log jams create potential obstructions in the lower .5-2 miles of the stream. They require annual attention.
2. Impassable canyon with series of four falls beginning at 4.0 miles. Fall #1 - 20 ft. vertical drop; fall #2, #3 and #4 - each with 15 - 20 ft. vertical drop. The falls are approximately 150 feet apart and there is a steep gradient between each.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	<u>- 0 to 3 miles</u>
COHO	<u>- 0 to 3 miles</u>
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

For approximately 2 miles above the canyon, the streambed contains 40 - 50% coarse gravel.

GENERAL REMARKS:

\*Re Composition: These figures are from a survey done in 1971. However, in the past 4-5 years, logging of the upper watershed has contributed to extreme run-off flows, scouring and channel changes with the result being that most of the good gravel has been washed into the North Thompson.  
- Sample temperatures (°F): 64°(61/08/29) 42°(70/06/04) 56°(70/07/09)  
56°(70/07/23) 56°(70/07/28) 55°(70/08/12) 52°(70/08/19) 55°(70/08/24)  
41°(70/10/19) 36°(70/11/13) 33.5°(71/02/25) 32°(71/03/23)  
- 1954. 80% of the streambed was silted over.

## GENERAL REMARKS (cont.) - Finn Creek

- 1960. There was a marked decrease in spawners due to abnormally low water temperatures during summer (e.g. 44°F, July 26; 40°F, Aug. 30; 40°F, Sept. 28).
- 1970. A mudslide due to road construction 12 miles upstream caused heavy silting throughout the stream during October.
- 1971. Logging and logging road construction in the upper watershed are causing silting during heavy rains.
- 1973. Log jams and gravel built up at the forks, diverted water flow mainly to the west fork.
- 1975. There was severe scouring of the spawning beds in November.
- 1975-76. Log jams in the spawning area diverted the creek to new channels which do not contain suitable gravel or water velocities.



HARRIS CREEK - for topographical map refer to Bessette Creek,  
page 23.

NAME OF STREAM HARRIS CREEK

CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet

LOCATION OF MOUTH Flows NW. into Bessette Cr., S. of Lumby, Osoyoos Dist.

POSITION 50 119 SE

LENGTH 3.0 MI. WIDTH \_\_\_\_\_ FT. DRAINAGE \_\_\_\_\_ SQ. MI.

COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_

SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE \_\_\_\_\_ CFS MAX \_\_\_\_\_ MIN \_\_\_\_\_

TEMPERATURE \_\_\_\_\_

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

This stream dries up above 3 miles due to heavy irrigational use.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- 0 to 2.5 miles
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

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

GENERAL REMARKS: \_\_\_\_\_

1978. This stream is suffering from input of mill debris and from agricultural encroachment.



ESCAPEMENT RECORD FOR HARRIS CREEK

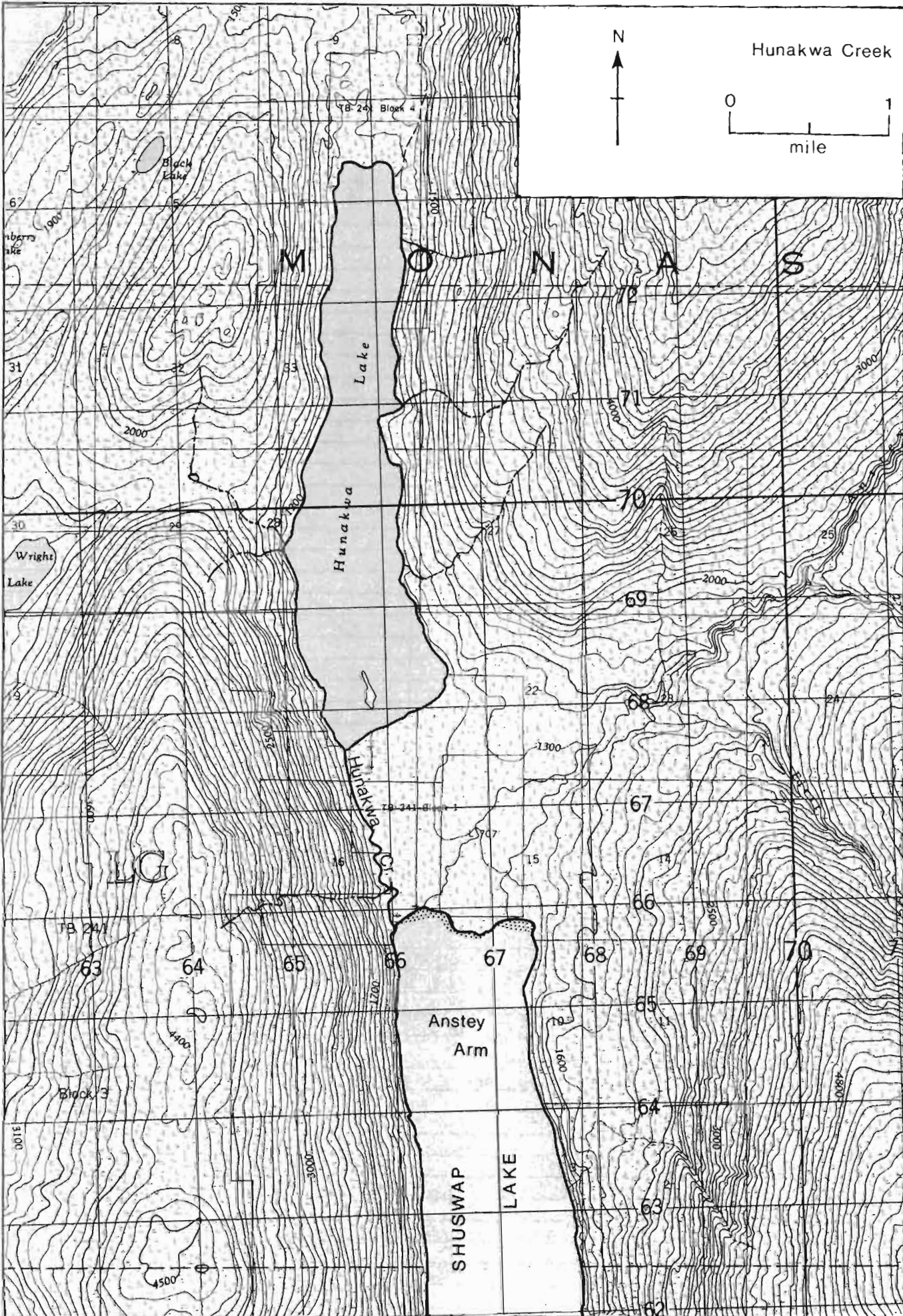
YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57						
58						
59						
60						
61						
62						
63						
64						
65						
66						
67						
68						
69						
70						
71						
72						
73						
74						
75						
76			105			
77			N/O			
78			150			
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			M. OCT			
START			L. OCT			
PEAK			E. NOV			
END			DEC			

REMARKS

Prior to 1976, escapements to this stream were included with those to Bessette Creek.



NAME OF STREAM HUNAKWA CREEK

CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet

LOCATION OF MOUTH Flows S. into N. end of Anstey Arm, Shuswap L., Kamloops Dist.

POSITION 51 118 SW

LENGTH 1.5 MI. WIDTH \_\_\_\_\_ FT. DRAINAGE \_\_\_\_\_ SQ. MI.

COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_

SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE \_\_\_\_\_ CFS MAX \_\_\_\_\_ MIN \_\_\_\_\_

TEMPERATURE \_\_\_\_\_

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

Beaver dams throughout the stream create potential obstructions and require annual attention.

SPAWNING DISTRIBUTION:

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

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

GENERAL REMARKS:

- There is heavy bear predation along this stream.
- The lake system above this stream helps to stabilize it. There is very little evidence of erosion or erratic flows.
- The streambed consists of mud and silt near the mouth, extending into excellent spawning gravel beginning 150 yds. upstream.
- Access to this stream for inspection is possible by boat only.



## ESCAPEMENT RECORD FOR HUNAKWA 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		NO RECORDS PRIOR TO 1965					
64							
65	25 *		75				
66	400		25				
67	N/O		N/O				
68	N/O		25				
69	25 *		75				
70	200		25				
71	N/O		25				
72	N/O		25				
73	25 *		75				
74	200		75				
75	25		25				
76	N/O		25				
77	N/O		N/O				
78	1290		200				
79							
80							
81							
82							
83							
84							
85							

## TIMING:

ARRIVE	SEP		M. OCT			
START	OCT		L. OCT			
PEAK	L. OCT		E. NOV			
END	M. NOV		L. NOV			

## REMARKS

The 1978 sockeye escapements include two separate runs. Timing of the early run was as follows:

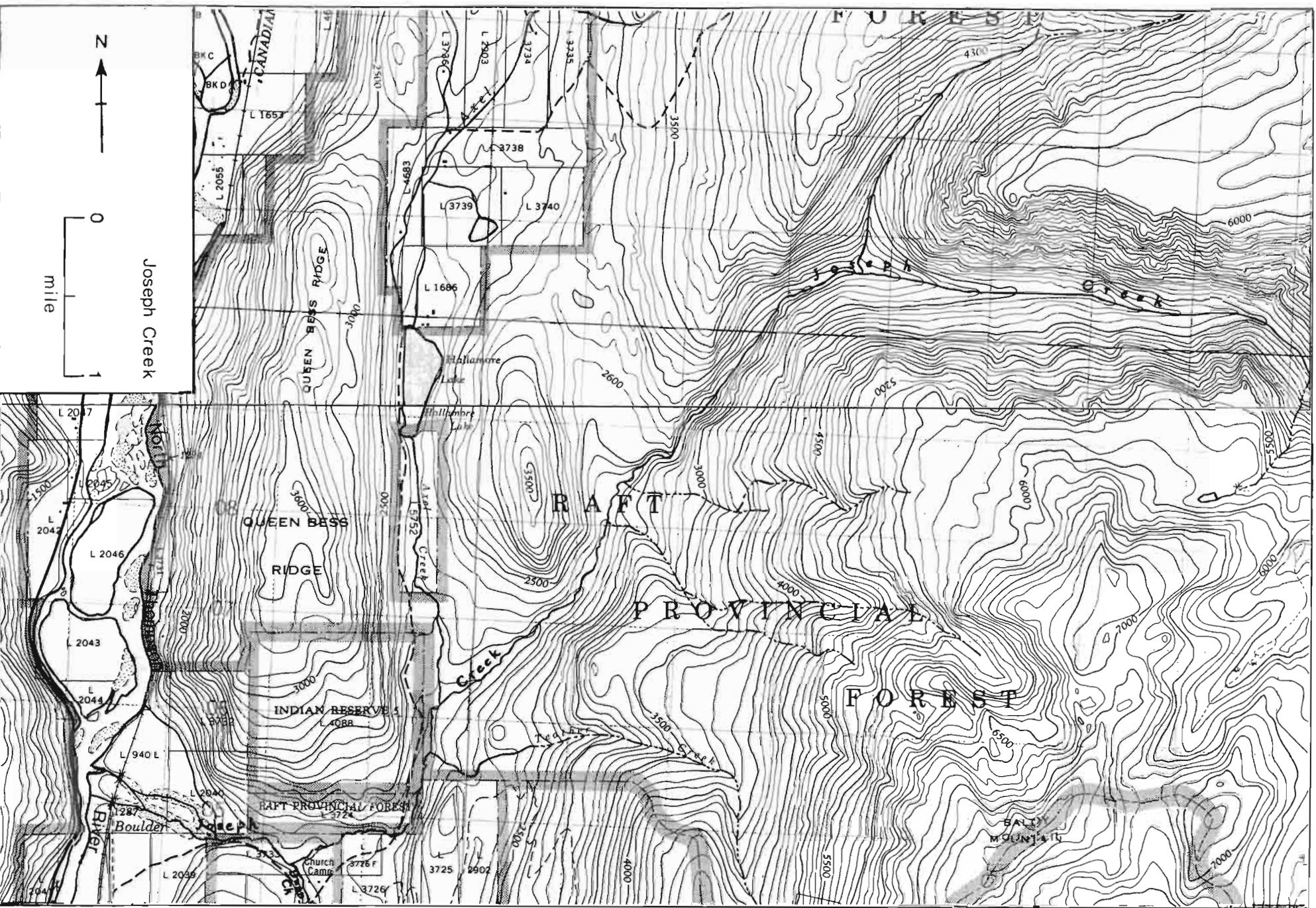
Arrive: E. AUG

Start: M. AUG

Peak: E. SEP

End: SEP

\* 100% of these runs were composed of jacks.



NAME OF STREAM JOSEPH CREEK (Boulder Creek)  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet  
 LOCATION OF MOUTH Flows W. into North Thompson R., N. of Dunn L., Kamloops Dist.  
 POSITION 51 120 SE  
 LENGTH \_\_\_\_\_ MI. WIDTH \_\_\_\_\_ FT. DRAINAGE \_\_\_\_\_ SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER 100% COARSE \_\_\_\_\_ FINE \_\_\_\_\_  
 SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.  
 DISCHARGE \_\_\_\_\_ CFS MAX \_\_\_\_\_ MIN \_\_\_\_\_  
 TEMPERATURE \_\_\_\_\_  
 BARRIERS OR POINTS OF DIFFICULT ASCENT \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

SPAWNING DISTRIBUTION:

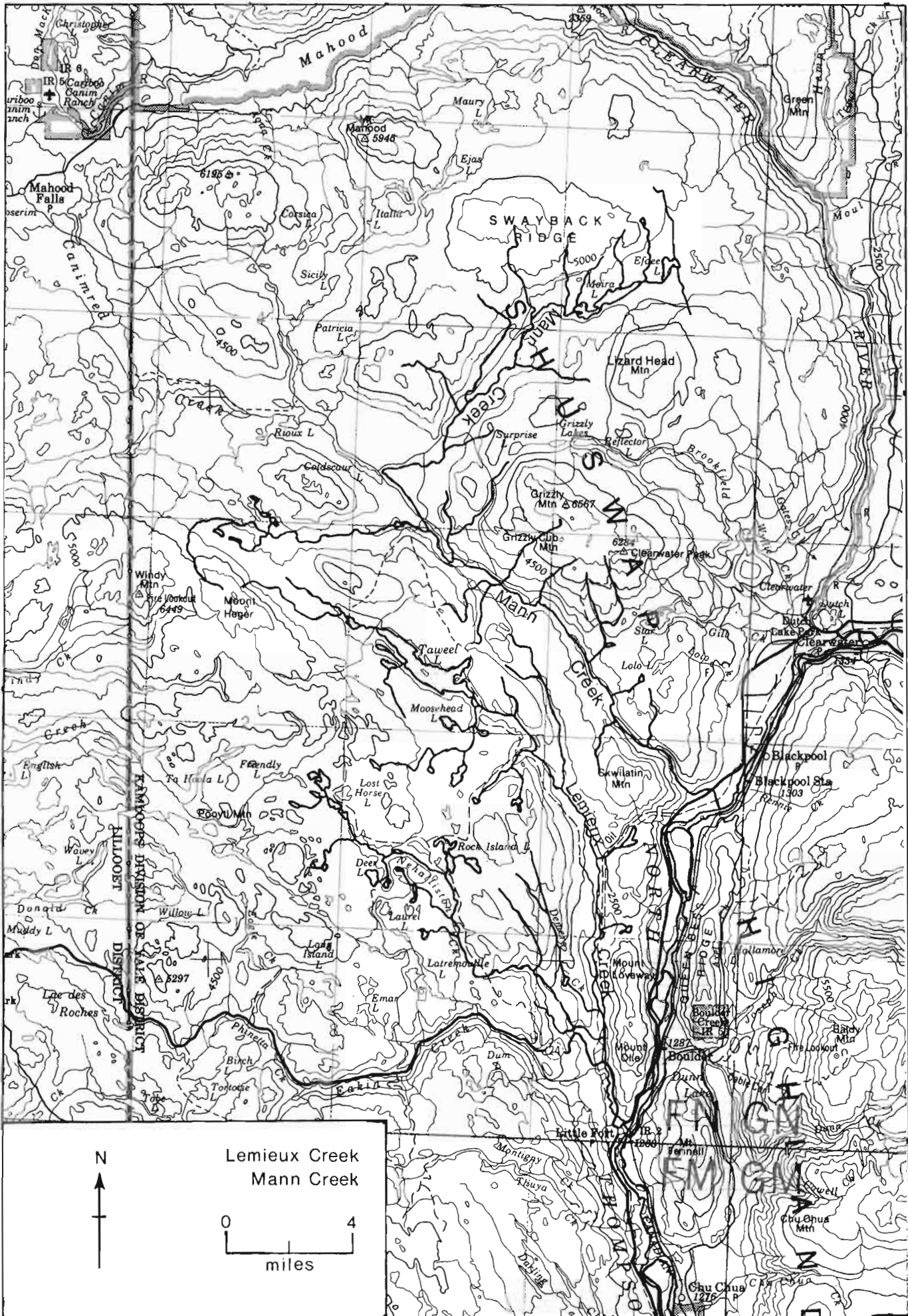
SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

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

GENERAL REMARKS: \_\_\_\_\_  
 - The last was spawning report was for 1969.  
 - 1957-1960. Continual gravel removal operations by C.N.R. have caused silting, scouring and erosion of the entire streambed.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_







NAME OF STREAM LEMIEUX CREEK  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet  
 LOCATION OF MOUTH Flows S. into North Thompson R. at Little Fort, Kamloops Dist.  
 POSITION 51 120 SE  
 LENGTH 8 MI. WIDTH \_\_\_\_\_ FT. DRAINAGE 171 SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER 5% COARSE 20% FINE 35%  
 SILT & SAND 40% 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

\* DISCHARGE 67 CFS MAX 373 cfs (77/05/12) MIN 6.4 cfs (77/08/22)

TEMPERATURE see General Remarks

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

Impassable falls at 8.0 miles.  
Beaver dams throughout the stream create potential obstructions.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- from 3 - 5 miles; few scattered in lower 3 miles
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

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

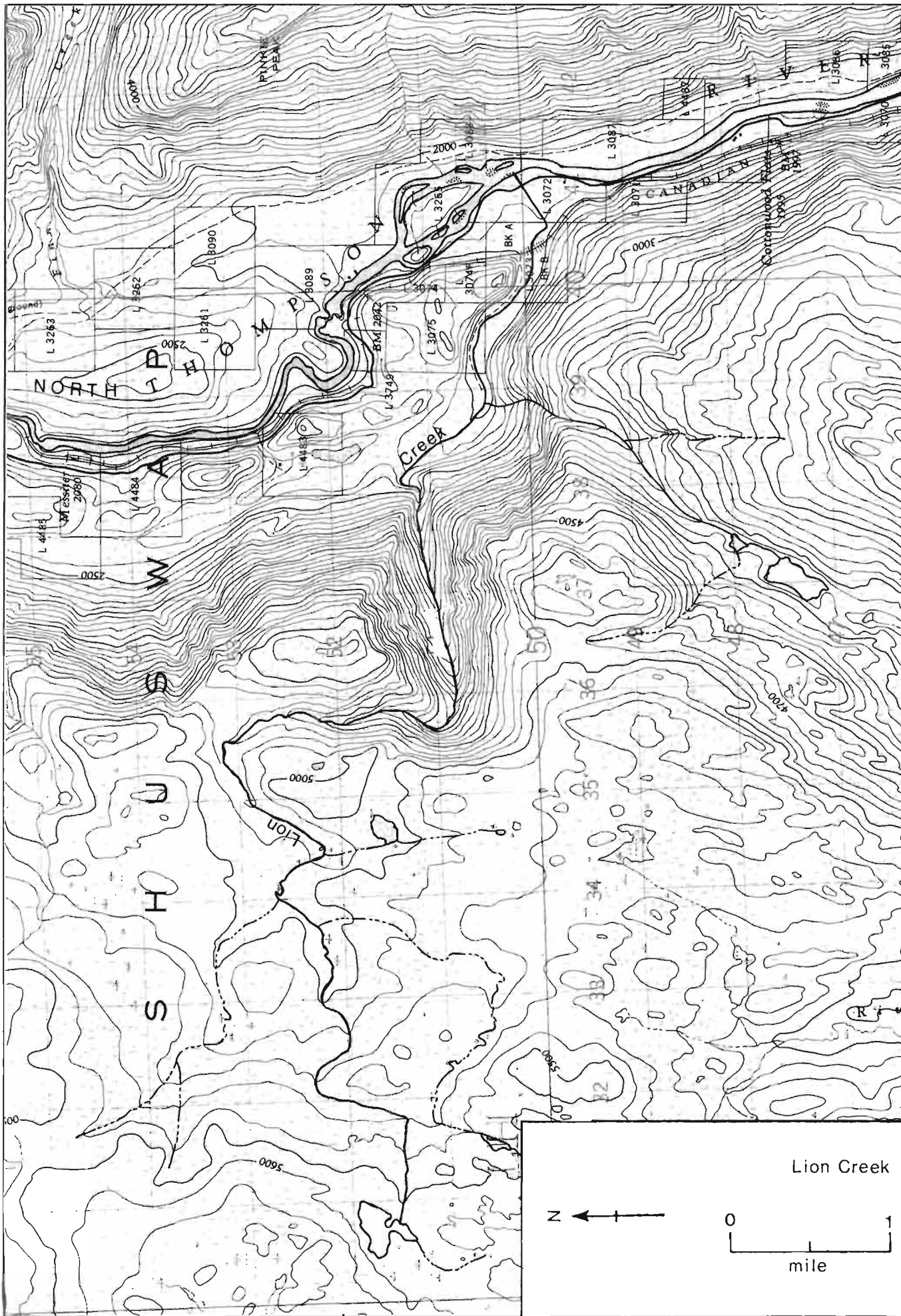
GENERAL REMARKS:

- \* Discharge figures are for 1977 only.
- Sample temperatures (°F): 60°(70/06/04) 54°(70/06/09) 60°(70/07/07)  
 63°(70/07/16) 55°(70/07/30) 66°(70/08/08) 54°(70/08/18) 49°(70/09/23)  
 46°(70/10/08) 46°(70/10/22) 41°(70/11/14) 35°(70/12/16) 37°(71/02/24)  
 33.5°(70/03/03)
- This is a pool-riffle type stream.
- This stream often goes dry at the mouth and at 4 - 4.5 miles July through Oct.
- Under natural conditions, Taweel Lake at the head of the creek acts to stabilize

## GENERAL REMARKS (cont.) - Lemieux Creek

the water flows. However, the stream is surrounded by agricultural land and extreme low flows occur during the summer due to excessive irrigation.





NAME OF STREAM LION CREEK  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet  
 LOCATION OF MOUTH Flows SE. into North Thompson R., S. of Porte d'Enfer Canyon,  
Kamloops Dist. POSITION 51 119 NE  
 LENGTH 3 MI. WIDTH 30 FT. DRAINAGE \_\_\_\_\_ SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER 5% COARSE 45% FINE 50%  
 SILT & SAND \_\_\_\_\_ 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 53000 SQ. YD. SPAWNING AREA 50000 SQ. YD.

DISCHARGE \_\_\_\_\_ CFS MAX \_\_\_\_\_ MIN \_\_\_\_\_

TEMPERATURE (°F) 48°(70/08/19) 45°(70/10/22) 43°(70/11/12)

BARRIERS OR POINTS OF DIFFICULT ASCENT \_\_\_\_\_  
Beaver dams frequently cause impassable obstructions. e.g. impassable beaver dam  
at: 1 mile (1975); 3 miles (1976-77); 200 yards (1978).

There are passable small falls at the outlet of the C.N. Railroad tunnel at .75 miles.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	<u>- 0 to 3 miles</u>
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

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

GENERAL REMARKS:

- This watershed has been logged off.
- There is frequent silting of the spawning beds due to beaver dam construction.
- 1970. A fish baffle was installed at the small falls below the C.N.R. culvert  
(which was previously passable but with difficulty).
- 1968 & 1971. Forest fires occurred in the upper watershed.







NAME OF STREAM LOUIS CREEK  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet  
 LOCATION OF MOUTH Flows N. into North Thompson R., Kamloops Dist.  
 POSITION 51 120 SE  
 LENGTH 30 MI. WIDTH 25 FT. DRAINAGE 199 SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_  
 SILT & SAND \_\_\_\_\_ 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 440,000 SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.  
 DISCHARGE 115 CFS MAX 1,530 cfs (72/05/31) MIN 2.4 cfs (73/09/16)  
 TEMPERATURE see General Remarks

BARRIERS OR POINTS OF DIFFICULT ASCENT \_\_\_\_\_  
Beaver dams occasionally create access problems and must be removed annually.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- from 6 miles to 12 miles
COHO	- throughout upper 10 miles
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

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

GENERAL REMARKS:

- Sample temperatures (°F): 58°(70/06/04) 54°(70/06/09) 68°(70/07/07)  
63°(70/08/08) 56°(70/08/17) 46°(70/09/23) 42°(70/10/19) 44°(70/10/22)  
35°(70/12/16) 35.5°(71/02/24) 34°(71/03/04) 32.5°(71/03/19)
- This stream has clean, slow flowing water.
- Near its mouth, the streambed is composed of 75% boulder and 25% silt and sand.
- Above its confluence with Christian Creek, the stream is approximately 6 ft. wide  
 - above this it diminishes into a ditch.
- Extensive rearing areas for fry are produced each spring freshet and large numbers

## GENERAL REMARKS (cont.) - Louis Creek

of fry are lost when the water recedes again.

- Accessible tributaries:

1. Christian Creek - located at 30 miles
  - no fish enter this creek
2. Fadear Creek - located at 6 miles
  - no fish enter this creek
  - stream goes dry each summer

ESCAPEMENT RECORD FOR                      LOUIS CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947		75	N/O			
48		25	1500			
49		400	UNK			UNK
50		75	3500			UNK
51		200	400			
52		200	1500			
53		750	1500			200
54		750	3500			
55		400	7500			
56		400	750			
57		400	750			
58		750	750			
59		750	400			
60		400	1500			
61		400	1500			
62		400	1500			
63		400	750			
64		75	200			
65		N/O	1500			
66		25	750			
67		100	400			
68		75	1500			
69		25	1500			
70		25	1500			
71		200	3327			
72		200	2500			
73		50	700			
74		25	3500			
75		75	1500			
76		200	1500			
77		60	2200			
78		75	1300			
79						
80						
81						
82						
83						
84						
85						

TIMING:

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

REMARKS

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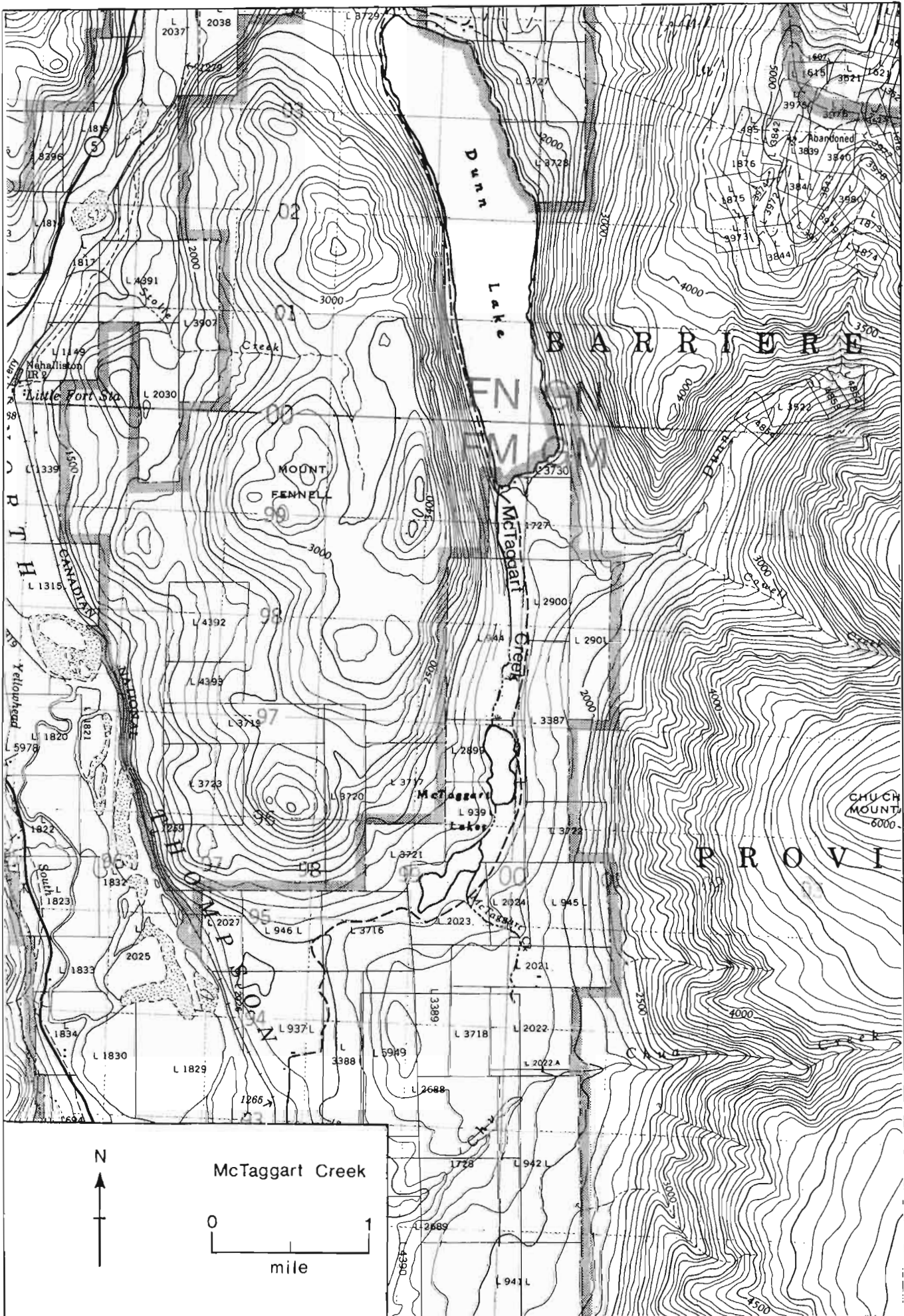
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NAME OF STREAM McTAGGART CREEK

CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet

LOCATION OF MOUTH Flows N. into Dunn L., Kamloops Dist.

POSITION 51 120 SE

LENGTH 1.5 MI. WIDTH 10 FT. DRAINAGE                      SQ. MI.

COMPOSITION: BEDROCK                      BOULDER 2% COARSE 60% FINE 25%

SILT & SAND 13% 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 8,800 SQ. YD. SPAWNING AREA 7500 SQ. YD.

DISCHARGE                      CFS MAX                      MIN                     

TEMPERATURE 39°F (70/11/08) 38°F (70/11/15)

BARRIERS OR POINTS OF DIFFICULT ASCENT                     

Impassable beaver dams at outlet of McTaggart Lakes (1.5 mi.).

SPAWNING DISTRIBUTION:

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

POTENTIAL OF INACCESSIBLE PORTION OF STREAM                     

GENERAL REMARKS:

- This is a very small stream with limited spawning area.

- The top 200 yds. of the stream are shallow muskeg.



ESCAPEMENT RECORD FOR McTAGGART 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			75			
71			32			
72			65			
73			25			
74			25			
75			25			
76		25	25			
77			75			
78			80			
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			L. OCT			
START			E. NOV			
PEAK			M. NOV			
END			L. NOV			

REMARKS

Prior to 1970, escapements to this stream were included with those to Joseph Creek.

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MAD RIVER - for topographical map refer to Reg Christie Creek,  
page 159.

NAME OF STREAM MAD RIVER

CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet

LOCATION OF MOUTH Flows SW. into North Thompson R., Kamloops Dist.

POSITION 51 119 NW

LENGTH 4.0 MI. WIDTH \_\_\_\_\_ FT. DRAINAGE \_\_\_\_\_ SQ. MI.

COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_

SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE \_\_\_\_\_ CFS MAX \_\_\_\_\_ MIN \_\_\_\_\_

TEMPERATURE \_\_\_\_\_

BARRIERS OR POINTS OF DIFFICULT ASCENT \_\_\_\_\_  
Impassable 60 foot falls at 4 miles.

SPAWNING DISTRIBUTION:

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

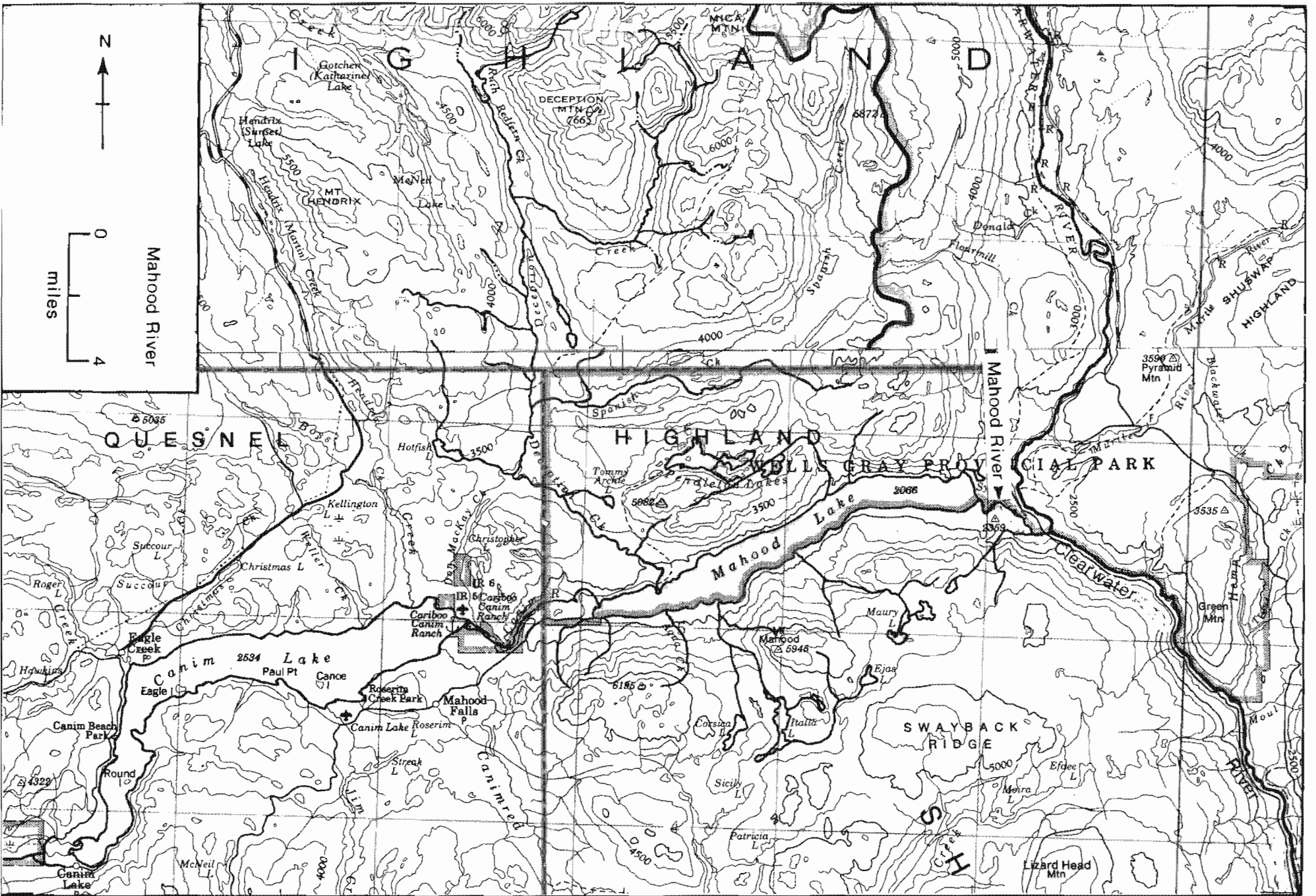
POTENTIAL OF INACCESSIBLE PORTION OF STREAM \_\_\_\_\_

GENERAL REMARKS:

- This stream has a steep gradient. The streambed is composed of 80% boulder and bedrock.







NAME OF STREAM MAHOOD RIVER  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet  
 LOCATION OF MOUTH Flows E. into Clearwater R., E. of Mahood L., Kamloops Dist.  
 POSITION 51 120 NE  
 LENGTH 1.0 MI. WIDTH 50 FT. DRAINAGE 1820 SQ. MI.  
 COMPOSITION: BEDROCK 10% BOULDER 40% COARSE 30% FINE \_\_\_\_\_  
 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	
> 10.0	

WETTED AREA 29,000 SQ. YD. SPAWNING AREA 8,800 SQ. YD.DISCHARGE 1,138 CFS MAX 9,630 cfs (72/06/02) MIN 56.2 cfs (72/12/05)TEMPERATURE (°F) 63°(70/08/05) 54°(70/09/24) 53°(70/09/30)

## BARRIERS OR POINTS OF DIFFICULT ASCENT

1. Impassable 40 ft. falls at 1 mile. (Goodwin Falls)
2. Impassable 60 ft. falls at 3 miles. (Sylvia Falls)

## SPAWNING DISTRIBUTION:

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

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

## GENERAL REMARKS:

- The water colour is dark brown, making enumeration very difficult.
- The water at the mouth of the creek is approximately 2.5 ft. deep (can be waded).



ESCAPEMENT RECORD FOR MAHOOD RIVER

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		200	UNK			
71		136				
72		109				
73		400				
74		200	25			
75		200	25			
76		200	N/O			
77		425	10			
78		450	12			
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE		E. SEP	L. OCT			
START		M. SEP	E. NOV			
PEAK		L. SEP	M. NOV			
END		E. OCT	E. DEC			

REMARKS

Prior to 1970, escapements to this stream were included with those to Clearwater River.

MANN CREEK - for topographical map refer to Lemieux Creek,  
page 105.

NAME OF STREAM MANN CREEK (Blackwater River)  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet  
 LOCATION OF MOUTH Flows SE. into North Thompson R., E. of Taweel L., Kamloops Dist.  
 POSITION 51 120 NE  
 LENGTH 4.0 MI. WIDTH 12 FT. DRAINAGE 114 SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_  
 SILT & SAND \_\_\_\_\_ 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 28,000 SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.  
 DISCHARGE 112.5 CFS MAX 2,160 cfs (73/05/16) MIN 0.9 cfs (73/08/16)  
 TEMPERATURE see General Remarks

BARRIERS OR POINTS OF DIFFICULT ASCENT \_\_\_\_\_  
Beaver dams occassionally create access problems and must be removed regularly.  
Impassable falls at 4 miles.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- mouth to Highway #5 at 1 mile
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

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

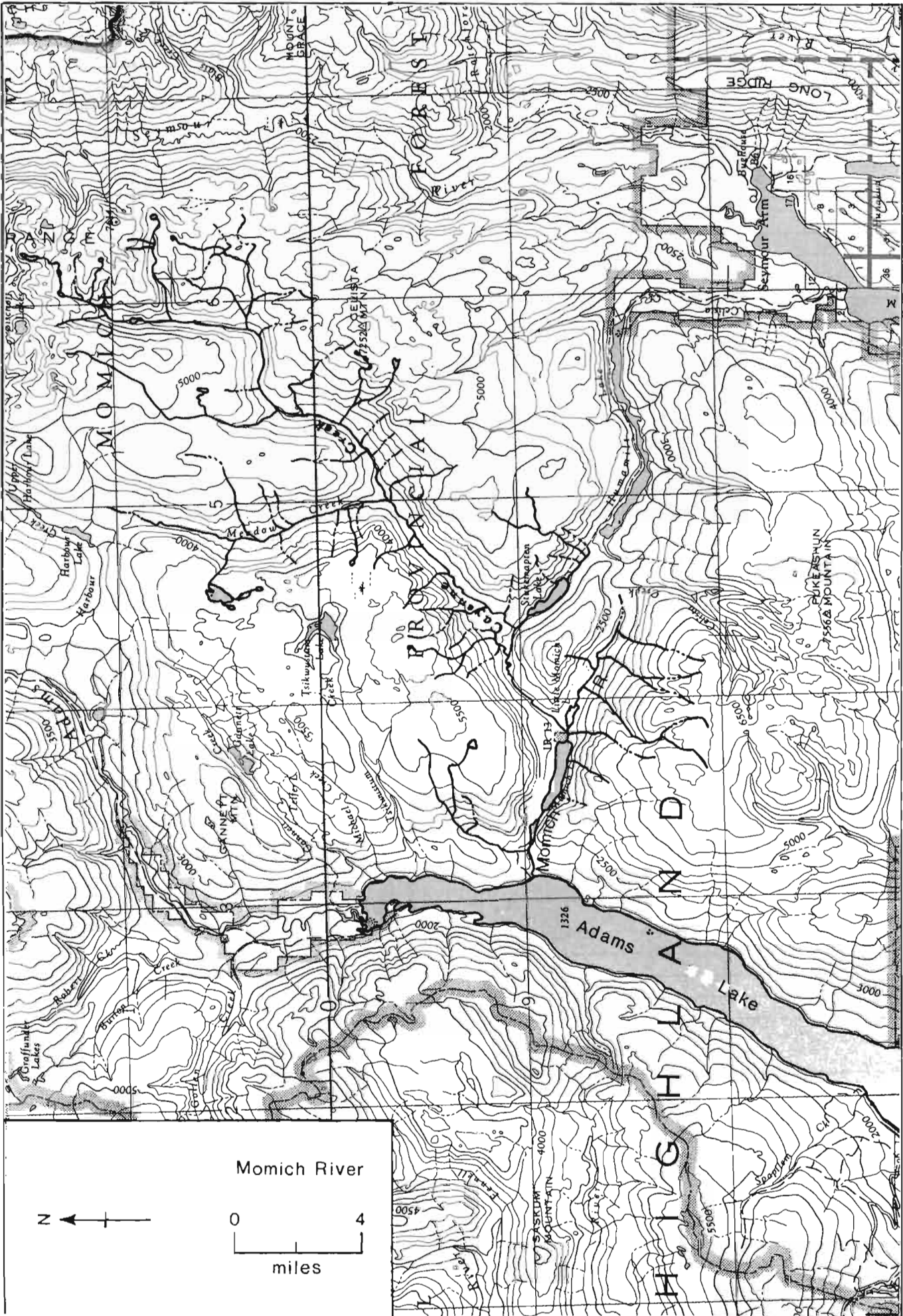
GENERAL REMARKS:

- Sample temperatures (°F): 49°(70/05/25) 57°(70/06/04) 55°(70/06/09)  
 63°(70/07/07) 65°(70/07/16) 57°(70/07/28) 61°(70/08/08) 44°(70/09/23)  
 41°(70/10/22) 35°(70/11/17) 34°(70/12/16)  
 - Streambed composition from 0 - .75 mi. is as follows: boulder - 20%;  
 coarse - 10%; fine - 30%; silt & sand - 40%.  
 - At high water, the spawning area spreads out into many channels.  
 - The upper reaches of the stream are muskeg.  
 - 1976. Dept. of Highways placed rip-rap along the streambanks in the vicinity of the

GENERAL REMARKS (cont.) - Mann Creek

- Highway bridge to stop erosion during the spring freshet.
- I.P.S.F.C. maintains a salmon egg eyeing station at the Highway bridge.





NAME OF STREAM MOMICH RIVER  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet  
 LOCATION OF MOUTH Flows W. into Adams L., Kamloops Dist.  
 POSITION 51 119 SE  
 LENGTH \_\_\_\_\_ MI. WIDTH \_\_\_\_\_ FT. DRAINAGE \_\_\_\_\_ SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_  
 SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE \_\_\_\_\_ CFS MAX \_\_\_\_\_ MIN \_\_\_\_\_

TEMPERATURE \_\_\_\_\_

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

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	- lower .25 miles of Cayenne Creek
CHINOOK	
COHO	- between the Momich Lakes; lower .25 miles of Cayenne Creek
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

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

GENERAL REMARKS:

- There are no access roads to this stream. Inspections are made by flying into Momich Lake.

- Accessible tributaries:

1. Cayenne Creek - impassable falls at 1.5 miles



ESCAPEMENT RECORD FOR MOMICH RIVER

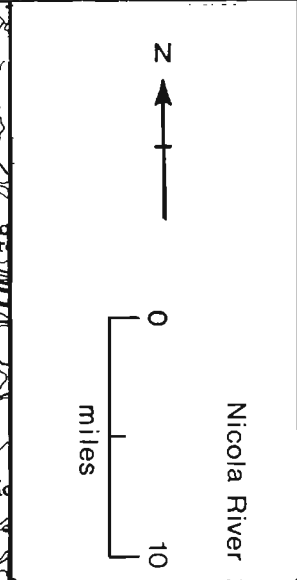
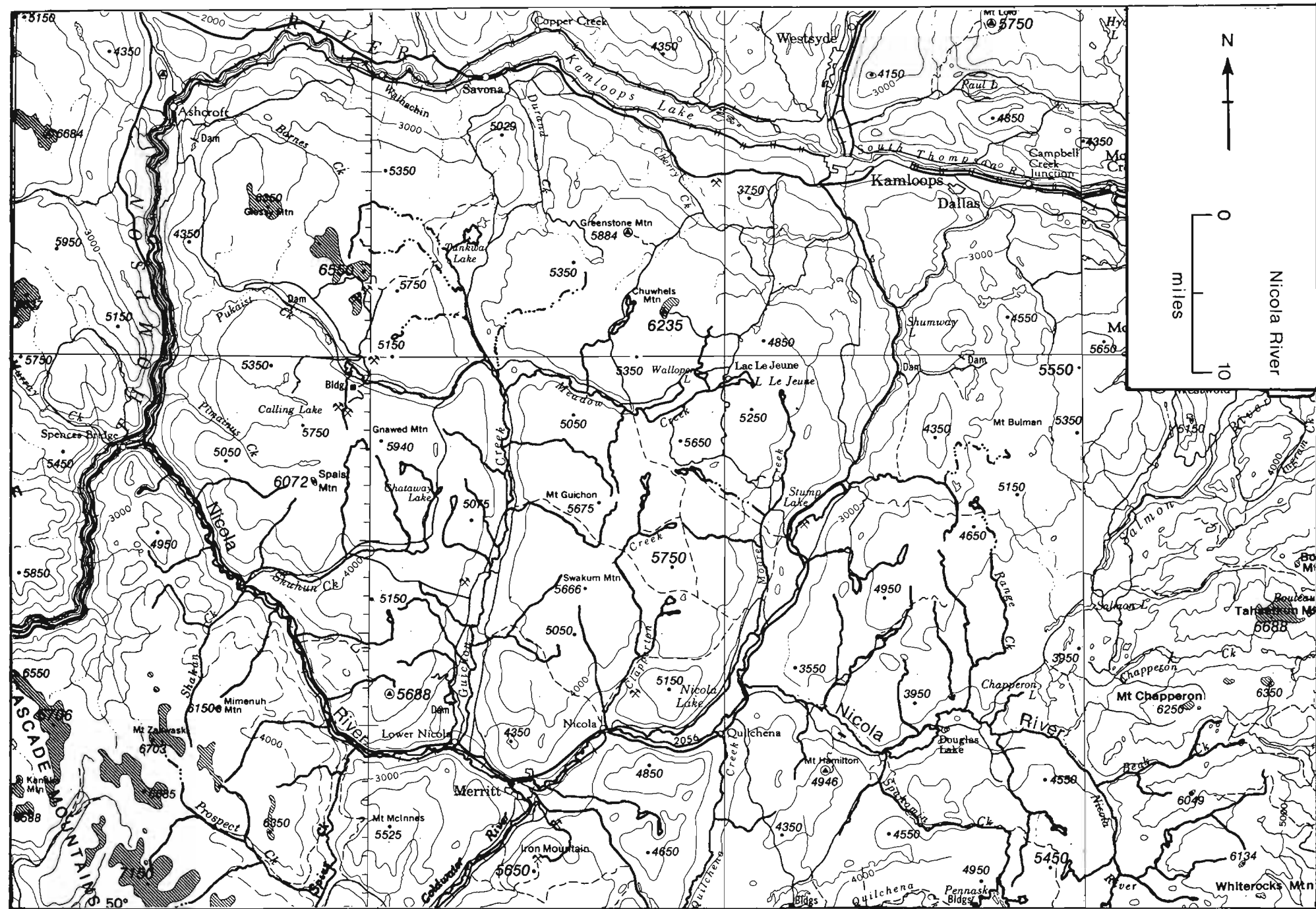
YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57			UNK			
58	200		400			
59			400			
60	1000		400			
61			400			
62	75		750			
63			200			
64	823		200			
65	N/O		N/O			
66	N/O		N/O			
67	N/O		N/O			
68	617		75			
69	N/O		200			
70	200		N/O			
71	25		75			
72	750		25			
73	N/O		25			
74	25		25			
75	N/O		25			
76	2000		N/O			
77	30		20			
78	30		40			
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE	E. OCT		M. OCT			
START	M. OCT		E. NOV			
PEAK	L. OCT		M. NOV			
END	E. NOV		L. NOV			

REMARKS

Sockeye escapements determined by the I.P.S.F.C. can be found in the I.P.S.F.C. Annual Reports.



NAME OF STREAM NICOLA RIVER  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops - Lillooet  
 LOCATION OF MOUTH Flows W. and NW. into Thompson R., NE. of Spences Bridge,  
Kamloops Dist. POSITION 50 121 SE  
 LENGTH 106 MI. WIDTH \_\_\_\_\_ FT. DRAINAGE 2,810 SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_  
 SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE 1130.1 CFS MAX 11900 cfs (71/05/13) MIN 73 cfs (71/01/01)

TEMPERATURE \_\_\_\_\_

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

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- throughout, mainly between Merrit and Spius Creek
COHO	- throughout, mainly between Merrit and Spius Creek
CHUM	
PINK (ODD YEAR)	- scattered throughout
PINK (EVEN YEAR)	
STEELHEAD	

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

GENERAL REMARKS:

- 1949. This was the first year since 1911 that pinks spawned in this stream.
- 1969. This stream passes through an Indian Reserve and in recent years has been heavily fished.
- 1974. A sudden thaw in Jan. resulted in high water levels and caused ice to be pushed downstream scouring the spawning beds along the way.
- This system suffers from heavy multiple water use which leaves spawners with very little water most years.
- Fry and smolt mortality is extremely high due to the large, unscreened irrigation

## GENERAL REMARKS (cont.) - Nicola River

ditches scattered throughout its length.

## References:

- Eliassen, R. 1976. An inventory of the Nicola - Coldwater Valley. Memo. 5903-85-N110 Vol. 1.
- Langer, O. E. and M. D. Nassichuk. 1976. Toxicity of chlorinated sewage effluent to fish, salmon eggs and periphyton in the Nicola and Coldwater Rivers. Internal Report Series No. PAC/1-76-1.
- Russell, Rob. 1979. Nicola - Coldwater Rivers juvenile salmon inventory. Memo. 5903-85-N110 Vol. 4.
- Russell, Rob. 1978. Nicola - Coldwater Rivers juvenile salmon inventory. Memo. 5903-85-N110 Vol. 3.

## ESCAPEMENT RECORD FOR NICOLA RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947		3500	3500			
48		1500	1500			
49		7500	1500		200	750
50		750	3500			
51		7500			3500	
52		7500	750			
53		7100			2000	
54		7500				
55		7500	3500		3500	
56						
57		3500	750		1500	
58		7500	750			
59		7500	N/O		200	
60		3500	400			
61		400	200		200	
62		3500	400			
63		3500	400		400	
64		4500	25			
65		3500	3500		1500	
66		400	1500			
67		2500	25		1000	
68		3600	1000			
69		4000	2500		1000	
70		3500	1000			
71		2000	750		1600	
72		1500	200			
73		2800	300		600	
74		2100	500			
75		4500	250		4000	
76		2500	400			
77		2700	400		300	
78		3100	350			
79						
80						
81						
82						
83						
84						
85						

## TIMING:

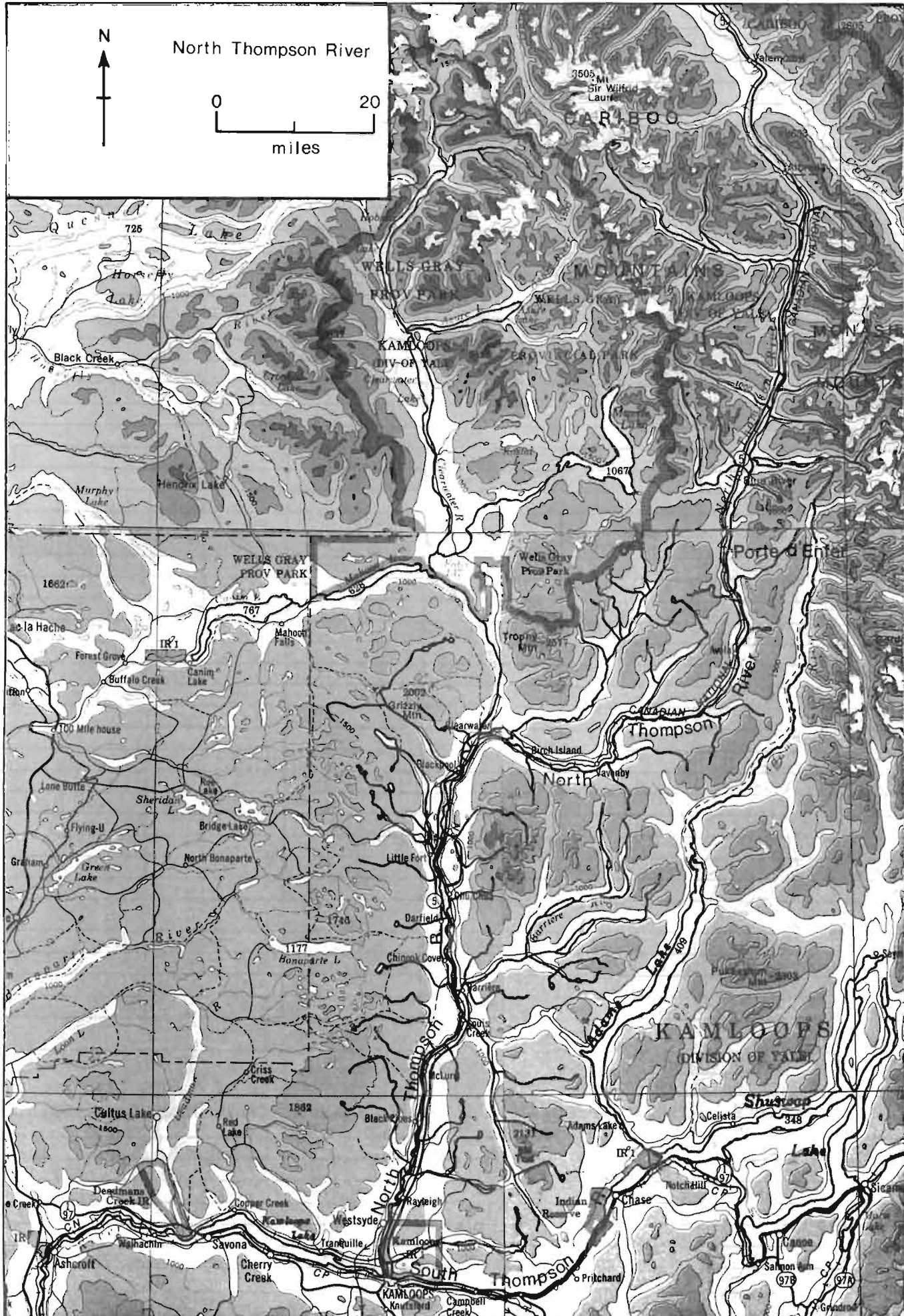
ARRIVE		JUL	SEP		SEP	
START		L. JUL	L. SEP		M. SEP	
PEAK		L. AUG	M. OCT		L. SEP	
END		E. SEP	M. NOV		M. OCT	

## REMARKS

1962. There were two distinct runs of spring salmon this season. The first run entered the stream by July 17 and had finished spawning by August 18. The second and heaviest run entered the stream Sept. 4, peaked by Sept. 18 and finished spawning by Sept. 25.



North Thompson River



NAME OF STREAM NORTH THOMPSON RIVER  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops - Lillooet  
 LOCATION OF MOUTH Flows S. into Thompson R., N. of Kamloops, Kamloops Dist.  
 POSITION 50 120 NE  
 LENGTH 126 MI. WIDTH 500 FT. DRAINAGE 7,870 SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_  
 SILT & SAND \_\_\_\_\_ 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 37,000,000 SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.  
 DISCHARGE 15,635 CFS MAX 96,600 cfs (72/06/13) MIN 1,740 cfs (75/01/16)  
 TEMPERATURE see General Remarks

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable (at some water levels) narrow canyon and rapid water at 126 miles known as Porte d'Enfer Canyon or Little Hell's Gate. The canyon is approximately 2 miles long and has 2 rapid flowing points at either end.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	- throughout; mainly between Little Fort and Blackpool
CHINOOK	- throughout; mainly between Little Fort and Blackpool
COHO	- throughout; mainly between Little Fort and Blackpool (see Remarks)
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

There are numerous creeks above Porte d'Enfer Canyon which contain good spawning gravel.

GENERAL REMARKS:

- Coho spawning may also occur along the gravel bars at the downstream end of Porte d'Enfer Canyon.
- This is a large river which is normally very silty throughout spawning season making salmon counts very difficult. The most efficient method of enumeration is by air.
- The gravel bars throughout the river are continually shifting causing heavy silting and erosion.

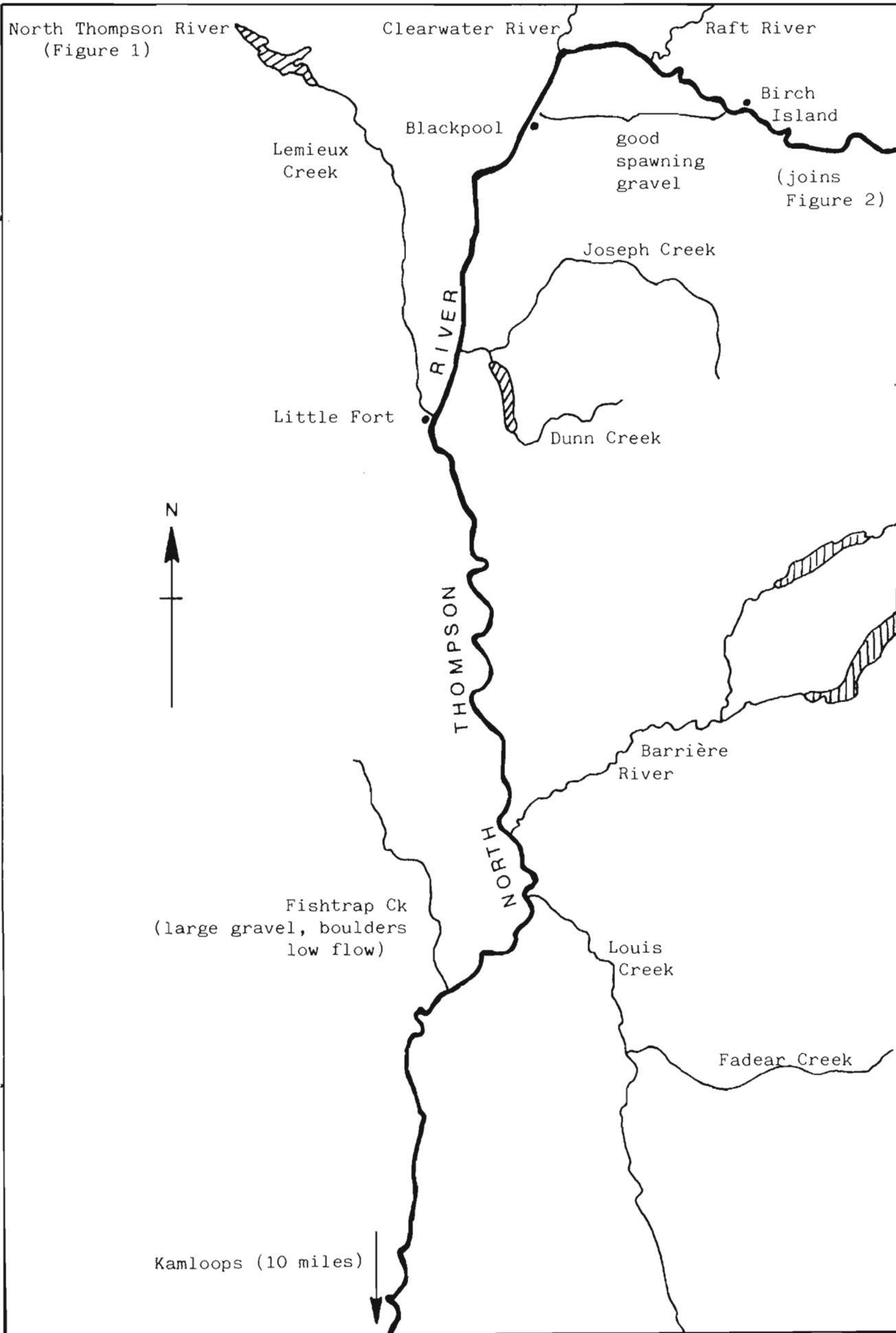


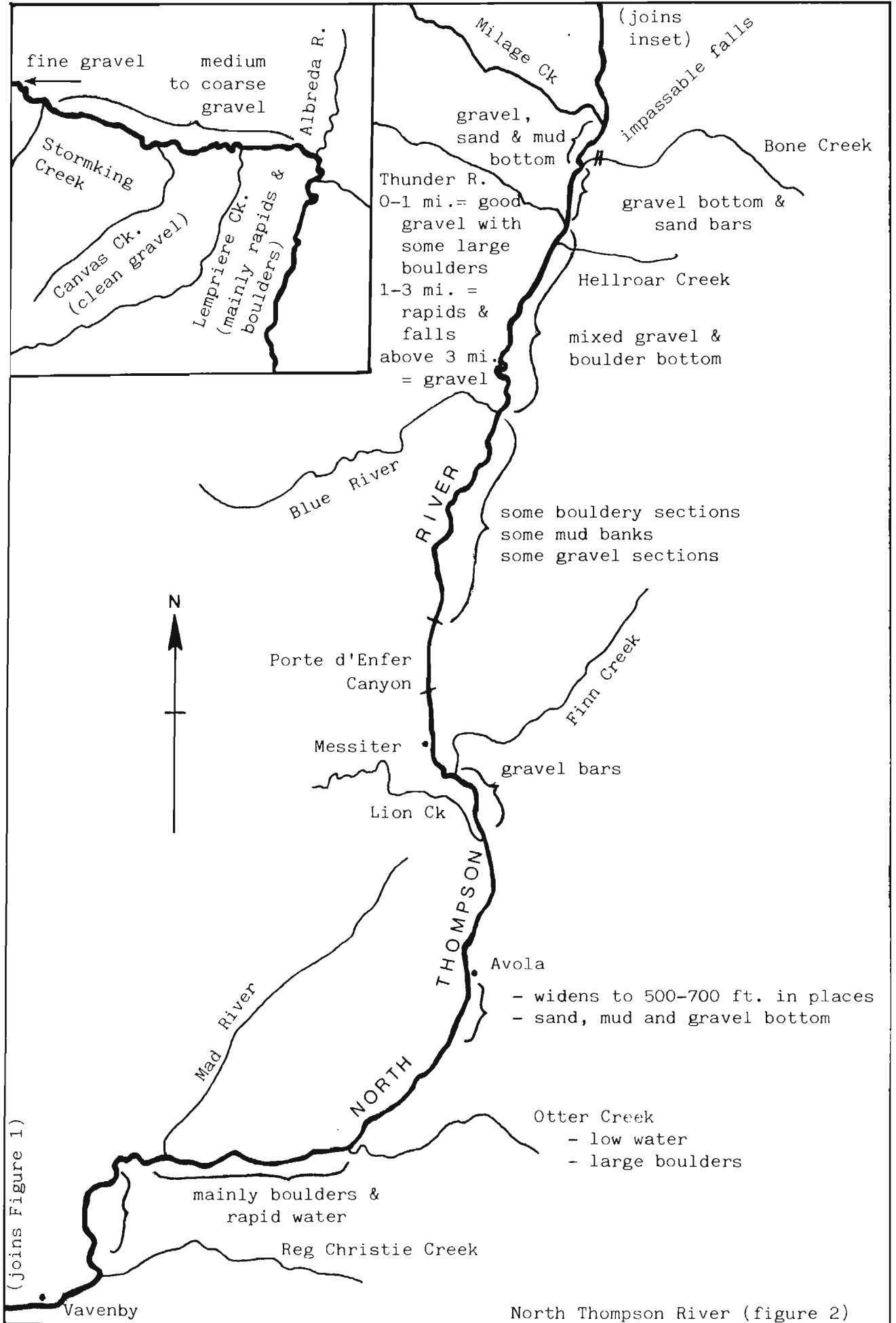
## GENERAL REMARKS (cont.) - North Thompson River

- Sample temperatures (°F):
  - 52° (70/06/04) 53° (70/06/09) 61° (70/07/07) 60° (70/07/09) 45° (70/09/23)
  - 38° (70/11/13) 33° (71/03/19)
- 1977. This was the first year that pink salmon have been observed in the North Thompson River drainage.

## References:

- Fraser River Board Biological Staff. 1962. Progress Summary of Fraser River Board Fisheries Investigations 1961. 76 pp.  
(contains physical description of North Thompson R. and its Tributaries)
- Langer, O. E. and M. D. Nassichuck. 1975. Selected biological studies of the Thompson River system. Environment Canada. Fish. & Mar. Ser. Tech. Rept. PAC/T-75-22. 186 pp.





(joins Figure 1)

North Thompson River (figure 2)



ESCAPEMENT RECORD FOR NORTH THOMPSON RIVER

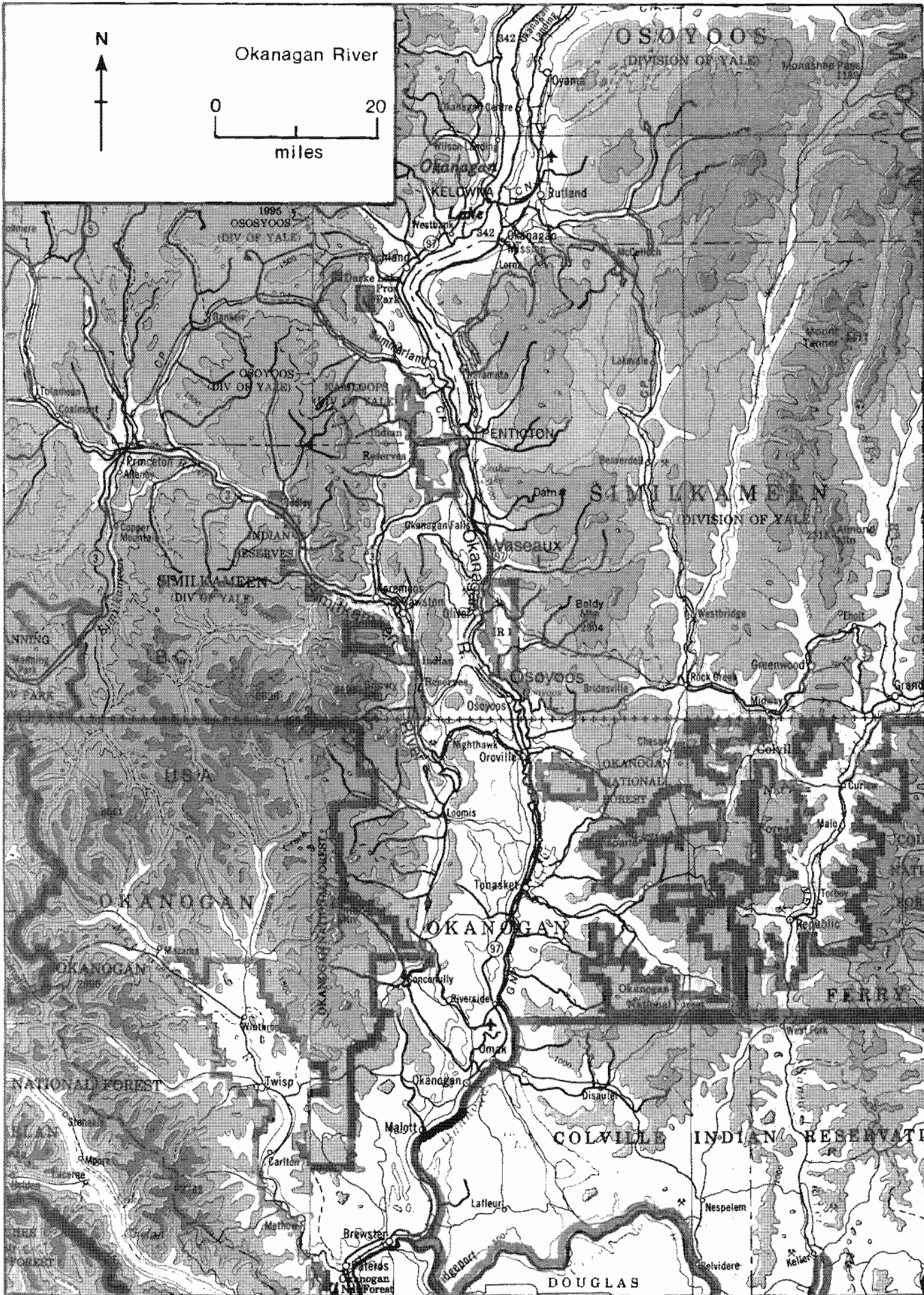
YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947		400				
48		UNK				
49	UNK	200	1500			
50	UNK	750	UNK			
51		750				
52		400				
53		3500	1500			
54	UNK	3500	1500			
55						
56						
57						
58						
59		UNK				
60		UNK	UNK			
61		UNK	UNK			
62		UNK	UNK			
63	70	UNK	UNK			
64	38	2500				
65	72	3500	750			
66	46	1500	UNK			
67	N/O	1500				
68	N/O	750	UNK			
69	N/O	1500	UNK			
70	200	1500	UNK			
71	205	1000	UNK			
72	400	1500	200			
73	UNK	1000	UNK			
74	150	1000	2000			
75	200	750	UNK			
76	500	3500	UNK			
77	850	2250	1500		150	
78	200	2500	300			
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE	M. AUG	M. AUG	M. OCT			
START	E. SEP	E. SEP	E. NOV			
PEAK	M. SEP	M. SEP	M. NOV			
END	E. OCT	E. OCT	E. DEC			

REMARKS

Sockeye escapements determined by the I.P.S.F.C. can be found in the I.P.S.F.C. Annual Reports.



NAME OF STREAM OKANAGAN RIVER  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet  
 LOCATION OF MOUTH Flows S. from Okanagan L. to Osoyoos L., Similkameen Dist.  
 POSITION 49 119 SW  
 LENGTH 24 MI. WIDTH \_\_\_\_\_ FT. DRAINAGE 3120 SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_  
 SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE 605 CFS MAX 2970 cfs (72/06/12) MIN 55.9 cfs (63/01/30)

TEMPERATURE \_\_\_\_\_

BARRIERS OR POINTS OF DIFFICULT ASCENT

1. A series of 13 irrigation vertical drop structures from 5 - 20 miles are opened up during spawning periods and therefore, are made passable to salmon.
2. Impassable dam (McIntyre Dam) at 24 miles.

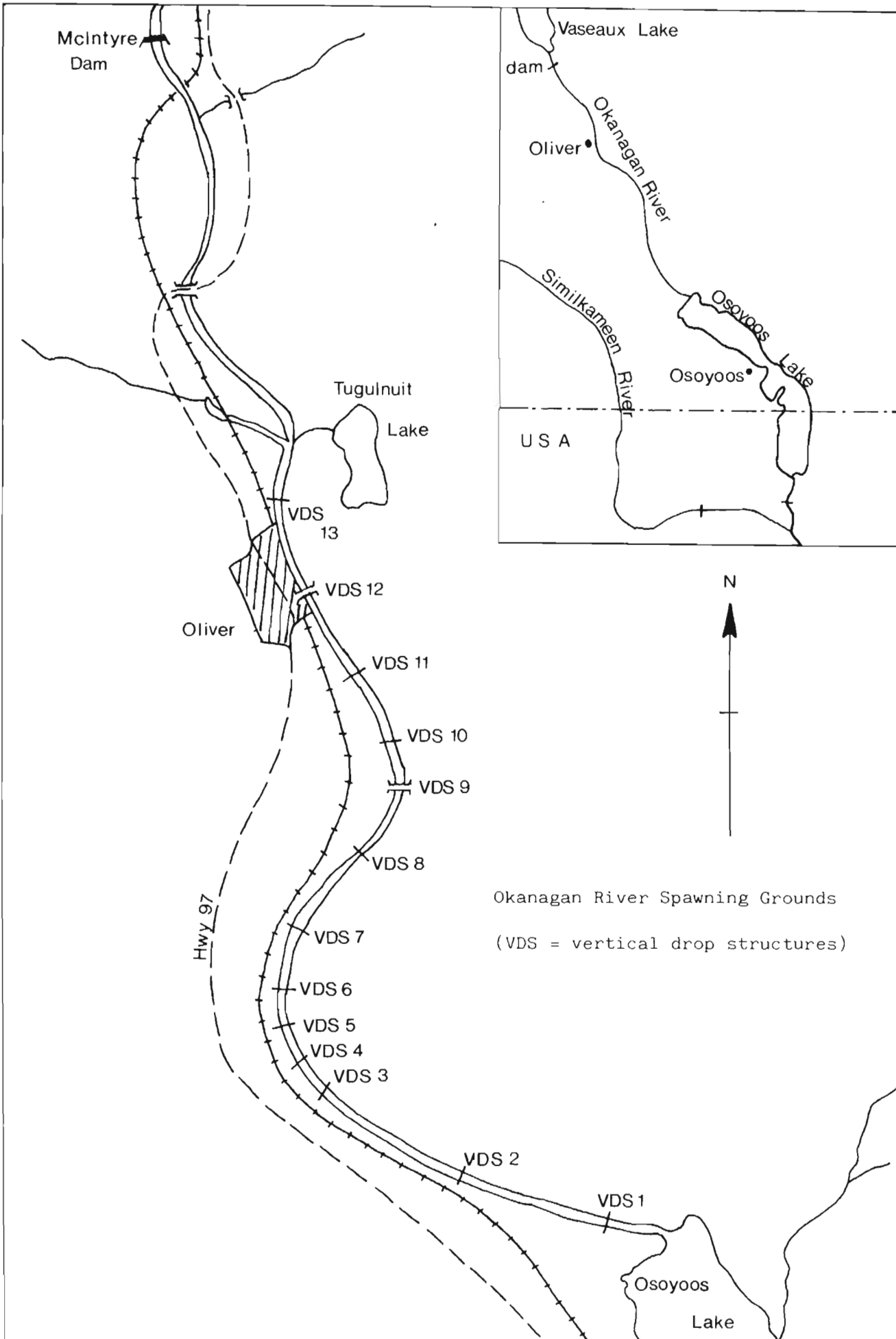
SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	<u>- Osoyoos Lake to McIntyre Dam (heaviest from Oliver to the dam)</u>
CHINOOK	
COHO	
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

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

GENERAL REMARKS:

- The water temperatures in this stream are relatively high until mid-Sept.
- The water is always turbid due to algae.
- Water flow is controlled during spawning periods by the McIntyre Dam (e.g. 1976, 500 - 600 cfs; 1978, 650 cfs).
- The Okanagan River is one of the two remaining tributaries of the Columbia River which supports a sockeye run. Although sockeye spawning takes place entirely in Canada, the fish are exploited by the U.S. commercial fishery in the lower Columbia River.



Okanagan River Spawning Grounds  
(VDS = vertical drop structures)

## GENERAL REMARKS (cont.) - Okanagan River

- 1968. Alternate opening and closing of McIntyre Dam gates in early August allowed some sockeye to reach Vaseaux Lake and the river above.
- 1970. High water temperatures in early October killed approximately 2000 sockeye before they had spawned.

## References:

Canada, Dept. of Energy, Mines & Resources. 1970. Okanagan basin study 1969 water quality data. Ottawa, Q.P.

Canada, Dept. of Fisheries and Forestry, I.P.S.F.C. and B.C. Fish and Wildlife. 1969. Report on the fisheries problems associated with the proposed diversion of water from Shuswap River to Okanagan Lake. 97 pp.

Craddock, D. R. 1956. A report on the blueback spawning migration of the Okanagan River 1955. Pacific Salmon Investigations, U.S. Fish and Wildlife Service.

\_\_\_\_\_ 1957. A report on the blueback spawning population, Okanagan River, 1956. Pacific Salmon Investigations, U.S. Fish and Wildlife Service.

\_\_\_\_\_ 1958. Spawning escapement of Okanagan River blueback salmon 1957 (Oncorhynchus nerka). Pacific Salmon Investigations, U.S. Fish and Wildlife Service.

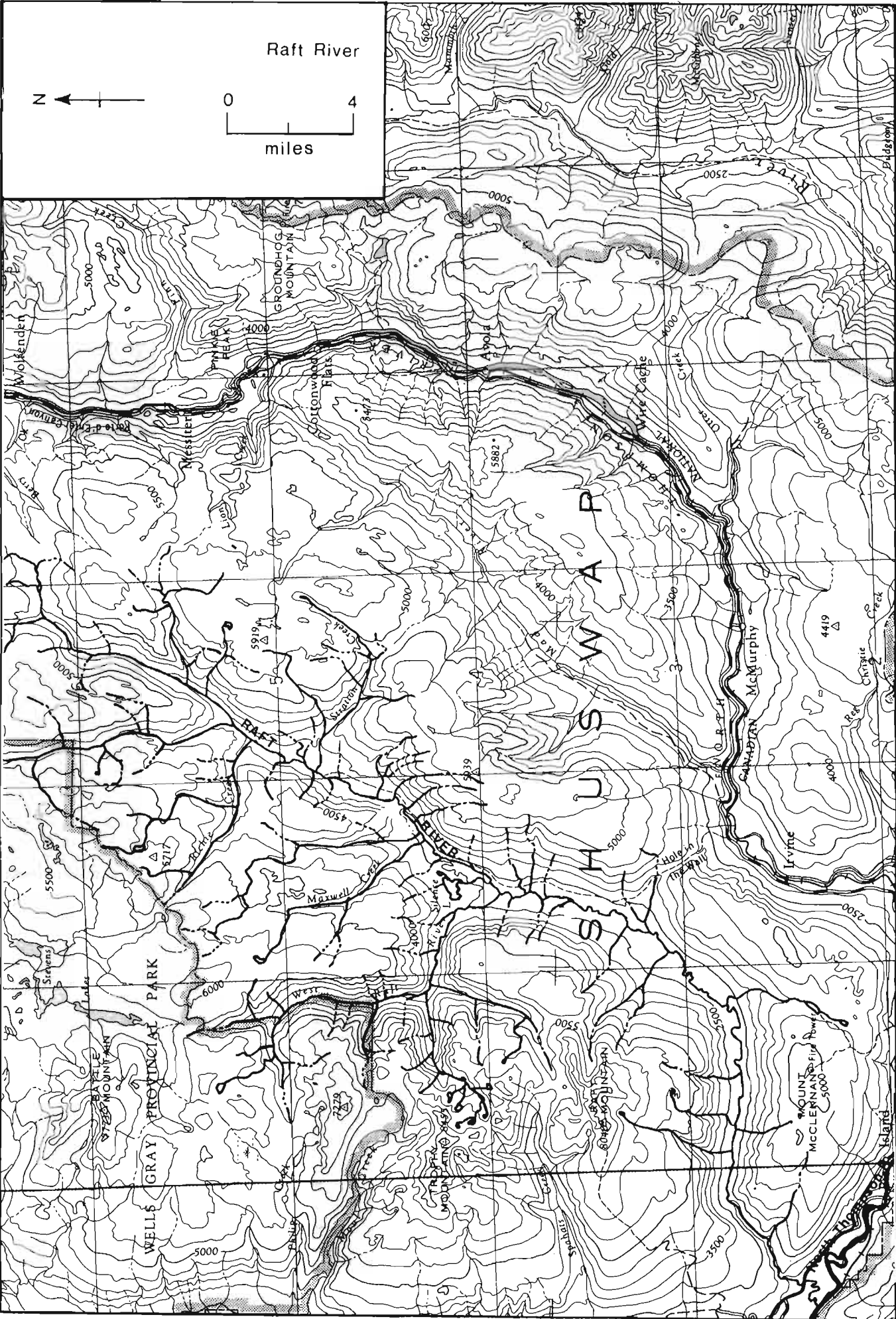
Gangmark, Harold A. and Leonard A. Fulton. 1949. Extension of blueback salmon spawning grounds into the upper Okanagan. 22 pp.

U. S. Fish & Wildlife Service, Washington State Dept. of Fisheries and Canada, Dept. of Fisheries. 1954. The salmon problems associated with the proposed flood control project on the Okanagan River in British Columbia, Canada. 54 pp.

2  
8  
4  
2  
5  
2







NAME OF STREAM RAFT RIVER  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet  
 LOCATION OF MOUTH Flows SW. into North Thompson R., Kamloops Dist.  
 POSITION 51 119 NW  
 LENGTH 4 MI. WIDTH 50 FT. DRAINAGE \_\_\_\_\_ SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER 25% COARSE 44% FINE 15%  
 SILT & SAND 16% UNCLASSIFIED \_\_\_\_\_

## GRADIENT:

FALL IN FT/000

0.0 - 2.5

2.5 - 5.0

5.0 - 7.5

7.5 - 10.0

&gt; 10.0

WETTED AREA 120,000 SQ. YD. SPAWNING AREA 69,000 SQ. YD.

DISCHARGE \_\_\_\_\_ CFS MAX \_\_\_\_\_ MIN \_\_\_\_\_

TEMPERATURE see General Remarks

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

Impassable 18 ft. falls at 4 miles.

## SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	- mouth to 3 miles; heaviest just above and below bridge
CHINOOK	- mouth to 3 miles; heaviest just above and below bridge
COHO	- mouth to 3 miles; heaviest just above and below bridge
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

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

Above the falls, there is a long canyon in which the water is extremely fast and turbulent. Above the canyon, the water is slow and sluggish for approximately 8 miles.

GENERAL REMARKS: \_\_\_\_\_

- Sample temperatures (°F): 48°(70/06/04) 48°(70/06/09) 62°(70/07/09)

64°(70/07/16) 58°(70/07/30) 64°(70/08/24) 59°(70/08/27) 61°(70/07/28)

42°(70/10/22) 37°(70/11/14) 33°(71/03/23)

- 1952. Excavation of a ditch for the Trans-mountain Oil Pipeline crossing caused silting of the sockeye redds.

-1963. Lethal high temperatures caused 43% of the sockeye run to die unspawned.



ESCAPEMENT RECORD FOR RAFT RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947	7500	200				
48	7500	UNK	UNK			
49	3500	1500	750			
50	3500	750	1500			
51	15000	400	200			
52	7500	400	3500			
53	3500	1500	750			
54	15000	200	UNK			
55	7500	400	1500			
56	7500	400	200			
57	7500	1500	1500			
58	15000	200	75			
59	7500	400	200			
60	7500	200	25			
61	3500	200	750			
62	7500	200	75			
63	8724	200	25			
64	5500	400	1500			
65	6624	750	1500			
66	6250	400	750			
67	1303	200	200			
68	10697	25	750			
69	7500	200	750			
70	3500	75	750			
71	750	200	750			
72	12000	200	550			
73	2900	200	450			
74	1500	200	750			
75	3500	200	400			
76	7500	200	400			
77	750	230	350			
78	800	200	250			
79						
80						
81						
82						
83						
84						
85						

TIMING:

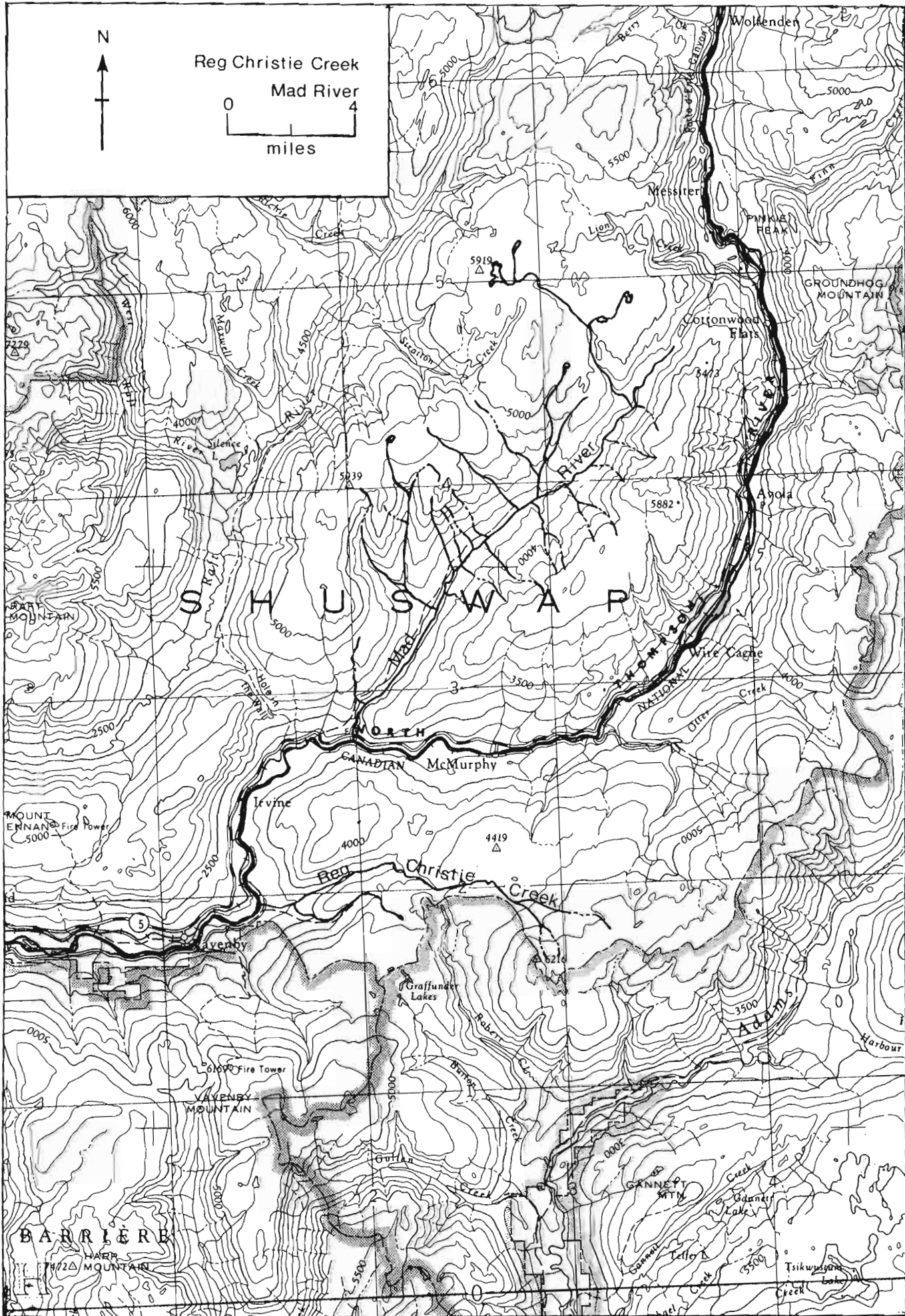
ARRIVE	M. AUG	M. AUG	L. OCT			
START	L. AUG	L. AUG	E. NOV			
PEAK	E. SEP	E. SEP	M. NOV			
END	M. SEP	M. SEP	E. DEC			

REMARKS

Sockeye escapements determined by the I.P.S.F.C. can be found in the I.P.S.F.C. Annual Reports.



Reg Christie Creek  
Mad River  
0 4  
miles



NAME OF STREAM REG CHRISTIE CREEK (Lost Creek)  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops - Lillooet  
 LOCATION OF MOUTH Flows W. into N. Thompson R., E. of Vavenby, Kamloops Dist.  
 POSITION 51 119 NW  
 LENGTH 0.75 MI. WIDTH \_\_\_\_\_ FT. DRAINAGE \_\_\_\_\_ SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER 40% COARSE 40% FINE 10%  
 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	

WETTED AREA \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE \_\_\_\_\_ CFS MAX \_\_\_\_\_ MIN \_\_\_\_\_

TEMPERATURE 56°F (70/07/28) 54°F (70/08/30) 37°F (70/11/13)

BARRIERS OR POINTS OF DIFFICULT ASCENT \_\_\_\_\_  
Impassable 60 ft. falls at 0.75 miles.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	<u>- 0 to .5 miles</u>
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

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

There is no potential above the falls. The streambed is all bedrock & boulder.

GENERAL REMARKS:

- This is a small stream with limited spawning area. The stream is narrow and shallow.
- 1978. Some spawning occurs in a side channel of the N. Thompson immediately downstream of this creek. It is fed by seepage from Reg Christie Creek.







NAME OF STREAM SALMON RIVER  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops -Lillooet  
 LOCATION OF MOUTH Flows W., NE. and N. into S. end of Salmon Arm, Shuswap L.,  
Kamloops Dist. POSITION 50 119 NE  
 LENGTH 35 MI. WIDTH \_\_\_\_\_ FT. DRAINAGE 582 SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_  
 SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.  
 DISCHARGE 212.6 CFS MAX 1440 cfs (75/06/04) MIN 21.2 cfs (12/03/24)  
 TEMPERATURE \_\_\_\_\_

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

The stream runs underground at 35 miles (Westwold).

SPAWNING DISTRIBUTION:

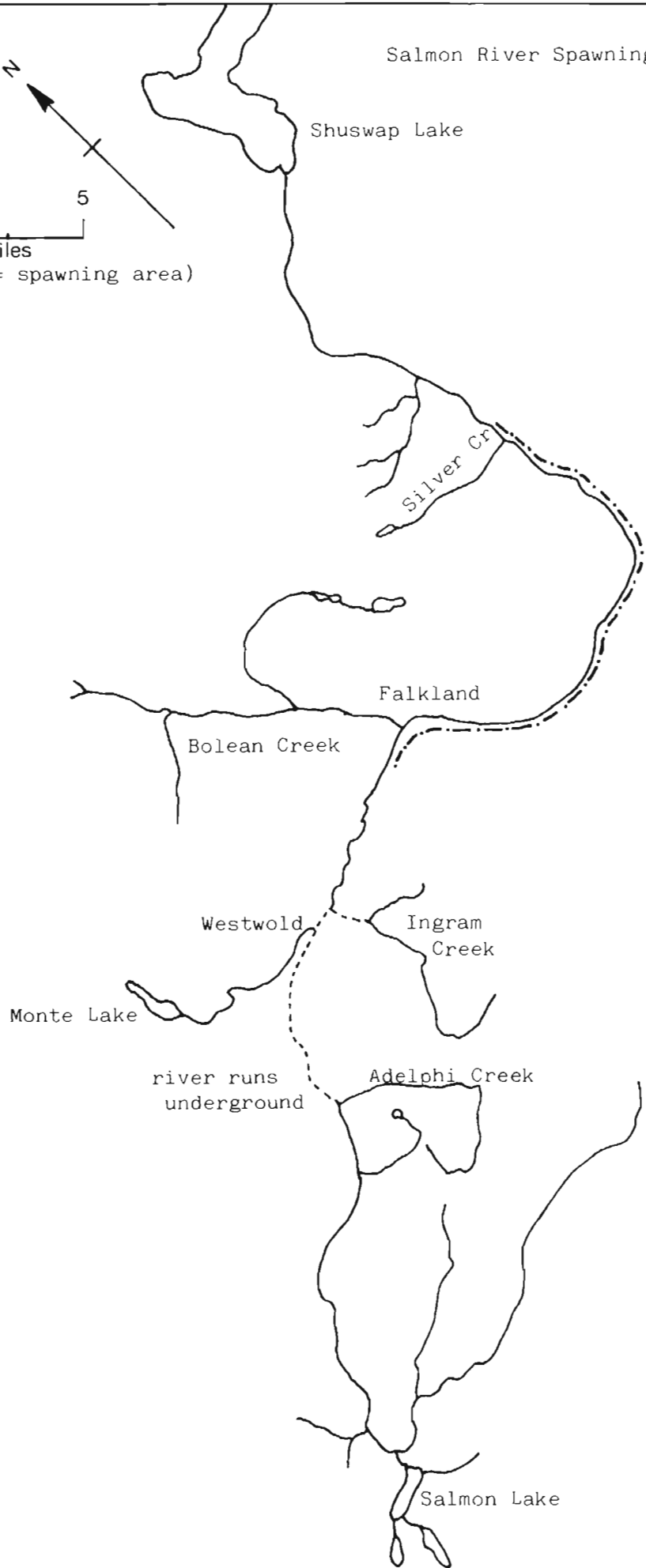
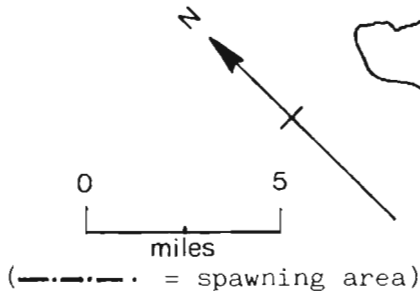
SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	<u>- Silver Creek to Falkland</u>
COHO	<u>- Silver Creek to Falkland</u>
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

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

GENERAL REMARKS:

- During the summer, this stream has low flows and warm water temperatures.
- Agriculture along the stream is having adverse affects: cattle breaking down the banks, nutrient input and heavy water use for irrigation.
- 1954. I.P.S.F.C. stocked this stream with sockeye eggs.
- 1960-1963. There were numerous passable and impassable log jams throughout the stream. They caused silting and erosion in the lower areas.
- At its mouth, this stream spreads over a wide area of mud flats. Numerous shallow channels cut through this area. 10% of the coho run used to be trapped in the mud

Salmon River Spawning Grounds



## GENERAL REMARKS (cont.) - Salmon River

in these 'blind' channels and died unspawned. In 1971, the stream cut a new channel through the estuary which has adequate water flows and water levels.

- 1977. Some erosion occurred throughout the stream due to extensive land clearing along the stream and logging in the upper watershed.







NAME OF STREAM SCOTCH CREEK  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet  
 LOCATION OF MOUTH Flows SW. into Shuswap L., near W. end, Kamloops Dist.  
 POSITION 50 119 NE  
 LENGTH 7.5 MI. WIDTH 40 FT. DRAINAGE \_\_\_\_\_ SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_  
 SILT & SAND \_\_\_\_\_ 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 176,000 SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE \_\_\_\_\_ CFS MAX \_\_\_\_\_ MIN \_\_\_\_\_

TEMPERATURE \_\_\_\_\_

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

Impassable falls at 7.5 miles.  
Log jams and logging debris create potential obstructions throughout the lower 1.5 miles.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	- throughout to falls
CHINOOK	
COHO	- 0 to 1.5 miles
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

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

GENERAL REMARKS:

- Log jams and log debris throughout the lower 1.5 miles are causing severe erosion, silting, scouring and channel changes.
- This watershed has been extensively logged resulting in poor water retention. Flash floods cause scouring of the streambeds.
- Siltation from road construction is becoming a serious problem in this system.



## ESCAPEMENT RECORD FOR SCOTCH CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947	75					
48	25					
49	1500					UNK
50	1500		75			UNK
51			750			
52	400 *					
53	1500		200			UNK
54	15000					
55	N/O					
56	200 *					
57	3500					
58	1500					
59	N/O					
60	25		25			
61	1500					
62	3500					
63	N/O					
64	N/O					
65	1910					
66	5229		UNK			
67	7500	25	25			
68	126 *	25	25			
69	3395	N/O	N/O			
70	5300	N/O	200			
71	750		25			
72	N/O		25			
73	7525 *		25			
74	3900		25			
75	25		25			
76	38		5			
77	13636					
78	3806		N/O			
79						
80						
81						
82						
83						
84						
85						

## TIMING:

ARRIVE	M. AUG		M. OCT		
START	L. AUG		L. OCT		
PEAK	L. AUG		M. NOV		
END	SEP		L. NOV		

## REMARKS

The sockeye escapements include an early run and a late run. The timing of the late run is as follows:

Arrive: L. SEP

Start: E. OCT

Peak: L. OCT

End: NOV

Sockeye escapements determined by the I.P.S.F.C. can be found in the I.P.S.F.C. Annual Reports.

\* More than 75% of these runs were composed of jacks.



NAME OF STREAM SEYMOUR RIVER

CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet

LOCATION OF MOUTH Flows S. into Seymour Arm, Shuswap L., Kamloops Dist

POSITION 51 118 SW

LENGTH 8.0 MI. WIDTH \_\_\_\_\_ FT. DRAINAGE \_\_\_\_\_ SQ. MI.

COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_

SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE 1,276 CFS MAX 9,650 (72/06/11) MIN 116 cfs (73/02/14)

TEMPERATURE \_\_\_\_\_

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

Impassable 20 ft. falls at 8 miles.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	<u>- mouth to just above McNamee Creek; in McNamee Creek</u>
CHINOOK	
COHO	
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

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

GENERAL REMARKS:

- 1973. There has been increased logging activity in the upper watershed.
- A new access road to the stream was constructed.
- I.P.S.F.C. takes sockeye eggs from this stream annually for transplant to the Upper Adams River.







NAME OF STREAM SHUSWAP LAKE

CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet

LOCATION OF MOUTH W. of Revelstoke, Kamloops Dist.

POSITION 50 119 NE

LENGTH \_\_\_\_\_ MI. WIDTH \_\_\_\_\_ FT. DRAINAGE 6000 SQ. MI.

COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_

SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE \_\_\_\_\_ CFS MAX \_\_\_\_\_ MIN \_\_\_\_\_

TEMPERATURE \_\_\_\_\_

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

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	{ adjacent to the mouths of Adams River and Scotch Creek and near Magna Bay, Blind Bay, Anstey Arm and Sunnybrae
CHINOOK	
COHO	
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

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

GENERAL REMARKS:

Lake area = 81,000 acres

Shoreline length = 200 miles

Mean depth = 530 feet

References:

Anon. 1978. Rearing of sockeye in Shuswap Lake. Unpub. 5903-85-S160 Vol 3.

## GENERAL REMARKS (cont.) - Shuswap Lake

- Armstrong, R. W. 1972. Observations of chinook fingerlings in the Shuswap Lake and Thompson River system in 1971. Memo. 31-1-S12 Vol. 10.
- Goodlad, J. C., T. W. Gjernes and E. L. Brannon. 1974. Factors affecting sockeye salmon (Oncorhynchus nerka) growth in four lakes of the Fraser River system. J. Fish. Res. Bd. Can. 31(5): 871-892.

ESCAPEMENT RECORD FOR SHUSWAP LAKE

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	22102					
67						
68						
69						
70	35000					
71						
72						
73						
74						
75						
76						
77						
78						
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE						
START						
PEAK						
END						

REMARKS

1966 and 1970 were the only years that escapements were listed separately for Shuswap Lake. There was excessive beach spawning these years.



NAME OF STREAM SHUSWAP RIVER (Lower - Mabel Lake to Mara Lake)  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet  
 LOCATION OF MOUTH Flows through Sugar and Mabel Lakes and N. into Mara L.,  
Kamloops Dist. POSITION 50 119 NE  
 LENGTH 40 MI. WIDTH \_\_\_\_\_ FT. DRAINAGE 1810 SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_  
 SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE 3104 CFS MAX 22100 cfs (28/05/30) MIN 376 cfs (29/02/08)

TEMPERATURE \_\_\_\_\_

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

Passable throughout from Mara Lake to Mabel Lake

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	- Ashton Creek to Mabel Lake; heaviest just below Hupel
CHINOOK	- Ashton Creek to Mabel Lake; heaviest just below Hupel
COHO	- Ashton Creek to Mabel Lake; heaviest just below Hupel
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

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

GENERAL REMARKS:

- Flooding during the spring (in the vicinity of "The Islands") many years, causes large numbers of fry to be lost as they are stranded in fields and small sloughs when the water recedes again.
- 1976. Natural slides in Kingfisher and Cooke Creeks caused siltation of the stream.
- 1978. Poaching is a serious problem on this stream.

References:

Canada, Dept. of Fisheries & Forestry, I.P.S.F.C. and B. C. Fish & Wildlife. 1969.  
 Report on the fisheries problems associated with the proposed diversion of  
 water from Shuswap River to Okanagan Lake. 97 pp.



ESCAPEMENT RECORD FOR SHUSWAP RIVER (lower)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947		750				
48		1500	1500			
49		7500	UNK			
50	3500	3500	3500			
51		750	UNK			
52		3500				
53	75 *	7500	3500			
54	200	1500	UNK			
55	25	3500	3500			
56	N/O	3500	1500			
57	1500 *	3500	750			
58	7500	7500	3500			
59	N/O	1500	1500			
60	N/O	3500	1500			
61	400	3500	750			
62	35000	3500	750			
63	23	3500	750			
64	N/O	3500	3500			
65	583	1500	200			
66	24629	3500	400			
67	5951	15000	200			
68	25	7500	400			
69	1500	7500	750			
70	29000	7500	400			
71	7500	7500	75			
72	200	3500	300			
73	7500 *	7500	200			
74	75000	10000	100			
75	15000	15000	100			
76	82	2500	40			
77	7500	9500	100		2	
78	187000	10400	300			
79						
80						
81						
82						
83						
84						
85						

## TIMING:

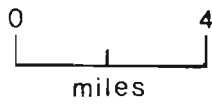
ARRIVE	L. SEP	M. JUL	E. OCT			
START	E. OCT	E. OCT	E. NOV			
PEAK	M. OCT	E. OCT	M. NOV			
END	E. NOV	E. NOV	L. NOV			

## REMARKS

Sockeye escapements determined by the I.P.S.F.C. can be found in the I.P.S.F.C. Annual Reports.

\* More than 80% of these runs were composed of jacks.

Shuswap River (middle)



NAME OF STREAM SHUSWAP RIVER (Middle - Sugar Lake to Mabel Lake)  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet  
 LOCATION OF MOUTH Flows through Sugar and Mabel Lakes and N. into Mara L.,  
Kamloops, Dist. POSITION 50 119 NE  
 LENGTH 14 MI. WIDTH \_\_\_\_\_ FT. DRAINAGE 1560 SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_  
 SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE 2,887 CFS MAX 19,500 cfs (28/05/29) MIN 322 cfs (30/01/26)

TEMPERATURE \_\_\_\_\_

BARRIERS OR POINTS OF DIFFICULT ASCENT \_\_\_\_\_  
Impassable hydro dam at 14 miles (Shuswap Falls).

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	- from 10 miles to dam
CHINOOK	- from 10 miles to dam
COHO	- from 10 miles to dam
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM \_\_\_\_\_  
There is approximately 20 miles of good spawning area above the dam (see General  
Remarks 1977). A dam at the outlet of Sugar Lake provides controlled flow over  
this portion of the middle Shuswap River.

GENERAL REMARKS:

- 1977. SEP transplanted 70 adult chinook to above the falls in a study to determine whether the inaccessible part of the stream was suitable for spawning. The transplanted population spawned successfully. Studies are continuing.
- 1978. (Aug. 29) erratic discharges from the hydro dam (water levels dropped from 1.5 ft. to .8 ft. in 20 min., then up to 2.25 ft.) caused fry to be stranded during the low water period.

References:

Buxton, J. D. and F. J. Fraser, Report on the Middle Shuswap River Chinook Program  
- 1977 - 1978. Unpub.



## ESCAPEMENT RECORD FOR SHUSWAP RIVER (middle)

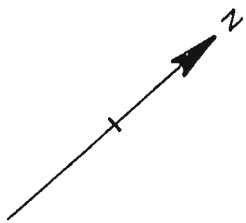
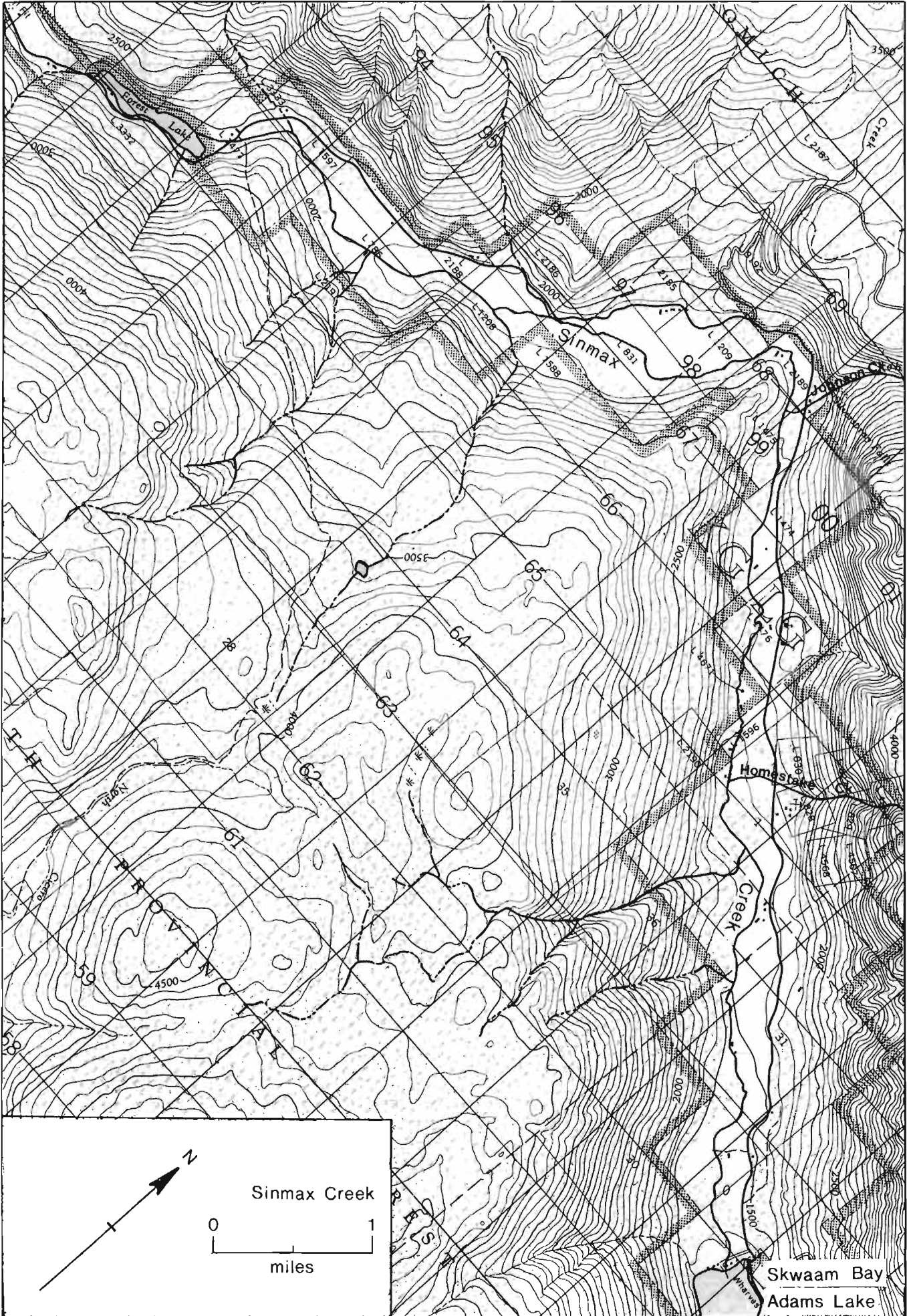
YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947		25	UNK			
48		200	1500			
49		400	UNK			
50	400	1500	750			
51		750	UNK			
52		1500				
53		750	1500			
54			750			
55		1500	3500			
56		1500	750			
57		1500	400			
58		750	1500			
59		750	750			
60		750	3500			
61		1500	3500			
62	400	750	1500			
63		750	1500			
64		750	750			
65		400	400			
66	1872	400	400			
67	25	1500	200			
68	N/O	400	400			
69	N/O	500	750			
70	4559	750	400			
71	200	750	400			
72	N/O	300	400			
73	N/O	400	400			
74	3500	750	500			
75	25	750	200			
76	N/O	400	60			
77	32	550	594			
78	10890	350	350			
79						
80						
81						
82						
83						
84						
85						

## TIMING:

ARRIVE	E. OCT	M. JUL	M. OCT		
START	M. OCT	M. SEP	L. OCT		
PEAK	L. OCT	L. SEP	E. NOV		
END	NOV	M. OCT	L. NOV		

## REMARKS

Sockeye escapements determined by the I.P.S.F.C. can be found in the I.P.S.F.C. Annual Reports.



Sinmax Creek  
0 1  
miles

Skwaam Bay  
Adams Lake

NAME OF STREAM SINMAX CREEK (Pass Creek)  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet  
 LOCATION OF MOUTH Flows SE. into Skwaam Bay, Adams L., Kamloops Dist.  
 POSITION 51 119 SW  
 LENGTH 2 MI. WIDTH 10 FT. DRAINAGE 50 SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE 35% FINE 50%  
 SILT & SAND 15% 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 11,700 SQ. YD. SPAWNING AREA 10,000 SQ. YD.

DISCHARGE \_\_\_\_\_ CFS MAX 171 cfs (76/05/11) MIN 2.2 cfs (73/09/29)

TEMPERATURE \_\_\_\_\_

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

There are considerable amounts of log debris and fallen trees throughout the stream forming potential obstructions.

The stream goes underground at 2 miles during the fall.

Tributary - Johnson Creek has impassable falls at .25 miles.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	<u>- 0 to 1.5 miles</u>
CHINOOK	
COHO	<u>- 0 to 1.5 miles</u>
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

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

GENERAL REMARKS:

- Spawning is limited in this stream by the small flow of water.
- 1971. A silvermine on Homestake Creek caused heavy silting and also caused the water in the creek to turn orange.
- 1976. Compared to 10 years ago, there has been considerable erosion and channel changing in the lower section.
- Thousands of kokanee spawn in this stream beginning when the sockeye arrive and ending after the coho are dead.



ESCAPEMENT RECORD FOR SINMAX CREEK

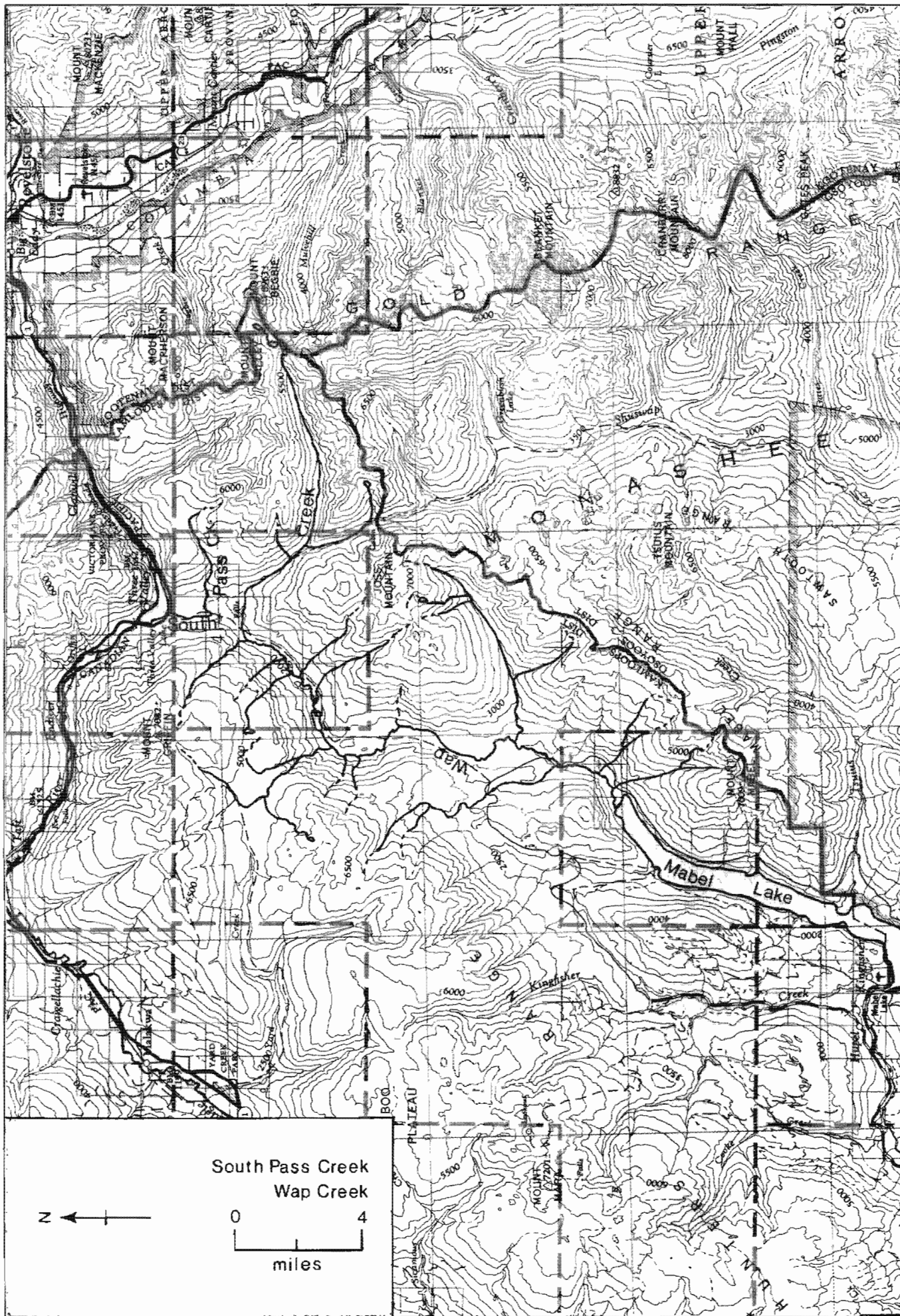
YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53						
54						
55		NO RECORDS PRIOR TO 1957				
56						
57	1500 *		75			
58	750		750			
59	N/O		750			
60	N/O		200			
61	200 *		200			
62	200		750			
63	N/O		200			
64	N/O		75			
65	75		400			
66	344		200			
67	N/O		75			
68	N/O		400			
69	50 *		200			
70	200		200			
71	3		213			
72	25		104			
73	69		165			
74	200		200			
75	N/O		75			
76	25		25			
77	70		40			
78	550		55			
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE	E. OCT		M. OCT		
START	M. OCT		E. NOV		
PEAK	L. OCT		M. NOV		
END	M. NOV		L. NOV		

REMARKS

\* Over 80% of these runs were composed of jacks.



NAME OF STREAM SOUTH PASS CREEK

CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet

LOCATION OF MOUTH Flows W. and N. into Three Valley L., Kamloops Dist.

POSITION 50 118 NE

LENGTH 2 MI. WIDTH \_\_\_\_\_ FT. DRAINAGE \_\_\_\_\_ SQ. MI.

COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_

SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE \_\_\_\_\_ CFS MAX \_\_\_\_\_ MIN \_\_\_\_\_

TEMPERATURE \_\_\_\_\_

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

There are passable and impassable beaver dams in the stream.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- 0 to .5 miles
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

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

GENERAL REMARKS: \_\_\_\_\_



ESCAPEMENT RECORD FOR SOUTH PASS 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						
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68						
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82						
83						
84						
85						

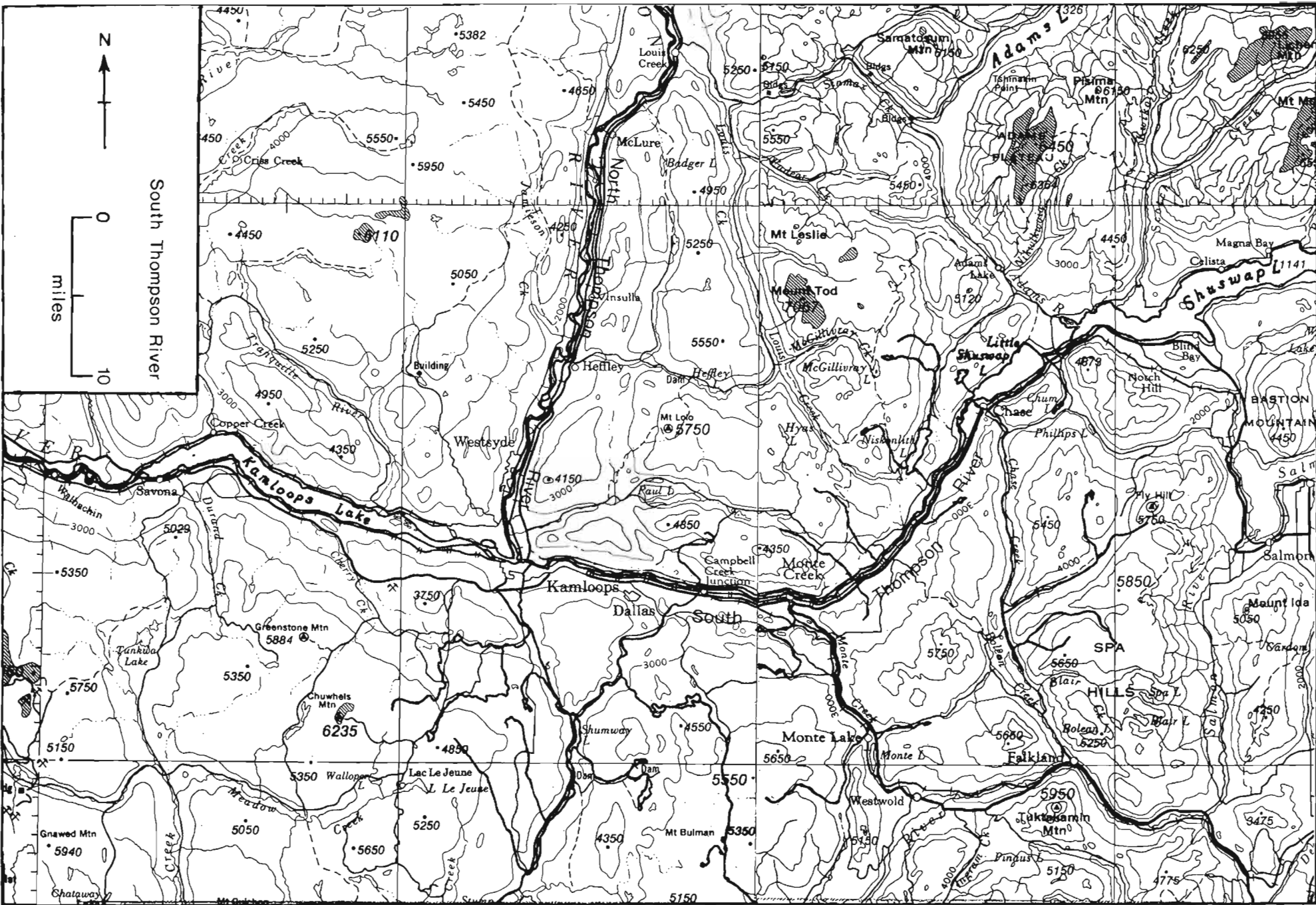
TIMING:

ARRIVE						
START						
PEAK						
END						

REMARKS

Prior to 1976, escapements were included with those to Eagle River.

12/2



NAME OF STREAM SOUTH THOMPSON RIVER  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops - Lillooet  
 LOCATION OF MOUTH Flows SW. and W. into Thompson R., E. of Kamloops L.,  
Kamloops Dist. POSITION 50 120 NE  
 LENGTH \_\_\_\_\_ MI. WIDTH \_\_\_\_\_ FT. DRAINAGE 6240 SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_  
 SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE 10,976 CFS MAX 52,200 (72/06/13) MIN 2,240 cfs (75/04/09)

TEMPERATURE \_\_\_\_\_

BARRIERS OR POINTS OF DIFFICULT ASCENT \_\_\_\_\_  
Passable throughout to Little Shuswap Lake.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	- for 2 miles downstream from Chase
CHINOOK	- areas of Campbell Creek & Monte Creek; heaviest - same as sockeye
COHO	
CHUM	
PINK (ODD YEAR)	- for 1 mile downstream from Chase bridge
PINK (EVEN YEAR)	
STEELHEAD	

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

GENERAL REMARKS:

- The main spawning area is "Chase Riffle" just below Chase Bridge near outlet of Little Shuswap Lake.
- The lower reaches are too silty for salmon spawning.

References:

Armstrong, R. W. 1972. Observation of chinook fingerlings in the Shuswap Lake and Thompson River system in 1971. Memo. 31-1-S12 Vol. 10.

GENERAL REMARKS (cont.) - South Thompson River

Langer, O. E. and M. D. Nassichuk. 1975. Selected biological studies of the Thompson River system. Environment Canada, Fisheries and Marine Service Technical Report PAC/T-75-22. 186 pp.

## ESCAPEMENT RECORD FOR SOUTH THOMPSON RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947	400	7500				
48	400	1500				
49	UNK	7500				
50	7500	3500				
51	UNK	3500				
52	400	3500				
53	UNK *	7500				
54						
55	N/O	25				
56	N/O	400				
57	400 *	1500				
58	125000	3500				
59	3500	1500				
60	N/O	3500				
61	200 *	3500				
62	35000	3500				
63	45	1500				
64	N/O	7500				
65	192 *	3500			400	
66	10586	2000				
67	270	3500			200	
68	UNK	3500	75			
69	750 *	7500			25	
70	7500	7500				
71	1500	3500			25	
72	N/O	5000				
73	750 *	5000			25	
74	3500	3500				
75	200	7500			25	
76	N/O	1500				
77	800 *	7000			1000	
78	9800	3500				
79						
80						
81						
82						
83						
84						
85						

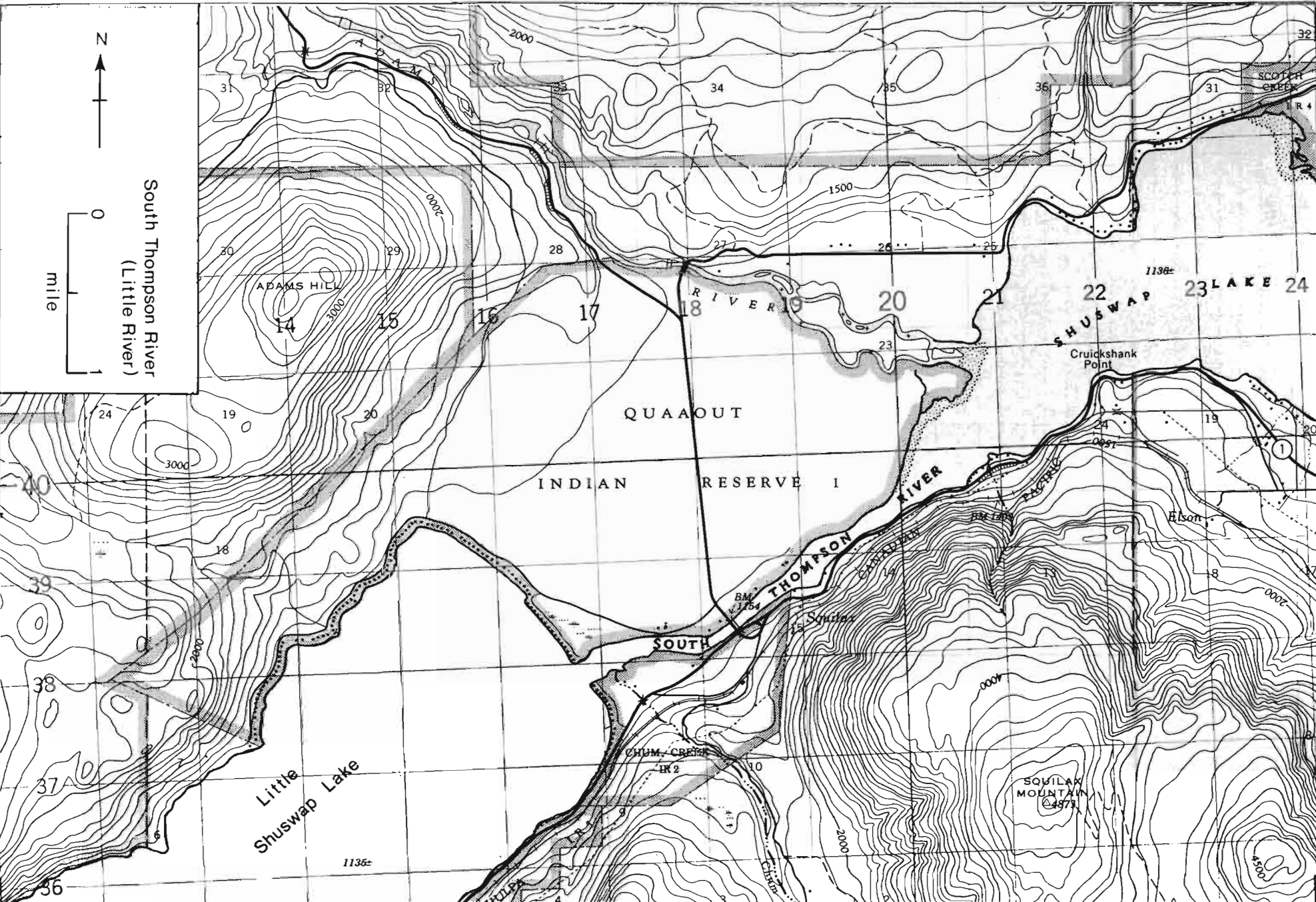
## TIMING:

ARRIVE	SEP	AUG			SEP
START	E. OCT	L. SEP			OCT
PEAK	M. OCT	E. OCT			E. OCT
END	NOV	L. OCT			OCT

## REMARKS

Sockeye escapements determined by the I.P.S.F.C. can be found in the I.P.S.F.C. Annual Reports.

\* More than 85% of these runs are composed of jacks.



NAME OF STREAM SOUTH THOMPSON RIVER (Little River)  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet  
 LOCATION OF MOUTH (Flows SW. into Little Shuswap L. from Shuswap L., Kamloops  
Dist.) POSITION 50 119 NW  
 LENGTH 2.5 MI. WIDTH \_\_\_\_\_ FT. DRAINAGE \_\_\_\_\_ SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_  
 SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE \_\_\_\_\_ CFS MAX \_\_\_\_\_ MIN \_\_\_\_\_

TEMPERATURE \_\_\_\_\_

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

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	- throughout
CHINOOK	- throughout
COHO	
CHUM	
PINK (ODD YEAR)	- within .75 miles downstream of Squilax Bridge
PINK (EVEN YEAR)	
STEELHEAD	

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

GENERAL REMARKS: \_\_\_\_\_

References: \_\_\_\_\_

Fisheries & Oceans, Pacific Region, Stream Management files 5903-85-L187.

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ESCAPEMENT RECORD FOR SOUTH THOMPSON RIVER (Little River)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947	7500	75				
48	750	200				
49	1500	400				
50	75000	400				
51	15000	75				
52	1500	400				
53	15000 *	750				
54	100000+	750				
55	3500	75				
56	750	400				
57	15000 *	750				
58	500000	1500				
59	7500	200				
60	75	200				
61	3500 *	750				
62	125000	750				
63	5148	400				
64	N/O	750				
65	3236 *	200				
66	105288	400				
67	74490	400				
68	N/O	400				
69	6775 *	200			25	
70	222400	750				
71	10000	200			25	
72	75	100				
73	1500 *	200			25	
74	100000+	300				
75	15000	400				
76	175	100				
77	8000 *	600			2100	
78	79500	100				
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE	E. SEP	E. SEP			M. SEP	
START	E. OCT	L. SEP			L. SEP	
PEAK	L. OCT	E. OCT			E. OCT	
END	NOV	L. OCT			M. OCT	

REMARKS

Sockeye escapements determined by the I.P.S.F.C. can be found in the I.P.S.F.C. Annual Reports.

\* More than 85% of these runs were composed of jacks.



NAME OF STREAM SPIUS CREEK (Petite Creek)  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops - Lillooet  
 LOCATION OF MOUTH Flows N. into Nicola R., W. of Coutlee Plateau, Kamloops Dist.  
 POSITION 50 121 SE  
 LENGTH 26 MI. WIDTH \_\_\_\_\_ FT. DRAINAGE 301 SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_  
 SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE 468 CFS MAX 5,840 cfs (71/05/13) MIN 11.9 cfs (74/10/01)

TEMPERATURE \_\_\_\_\_

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

SPAWNING DISTRIBUTION:

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

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

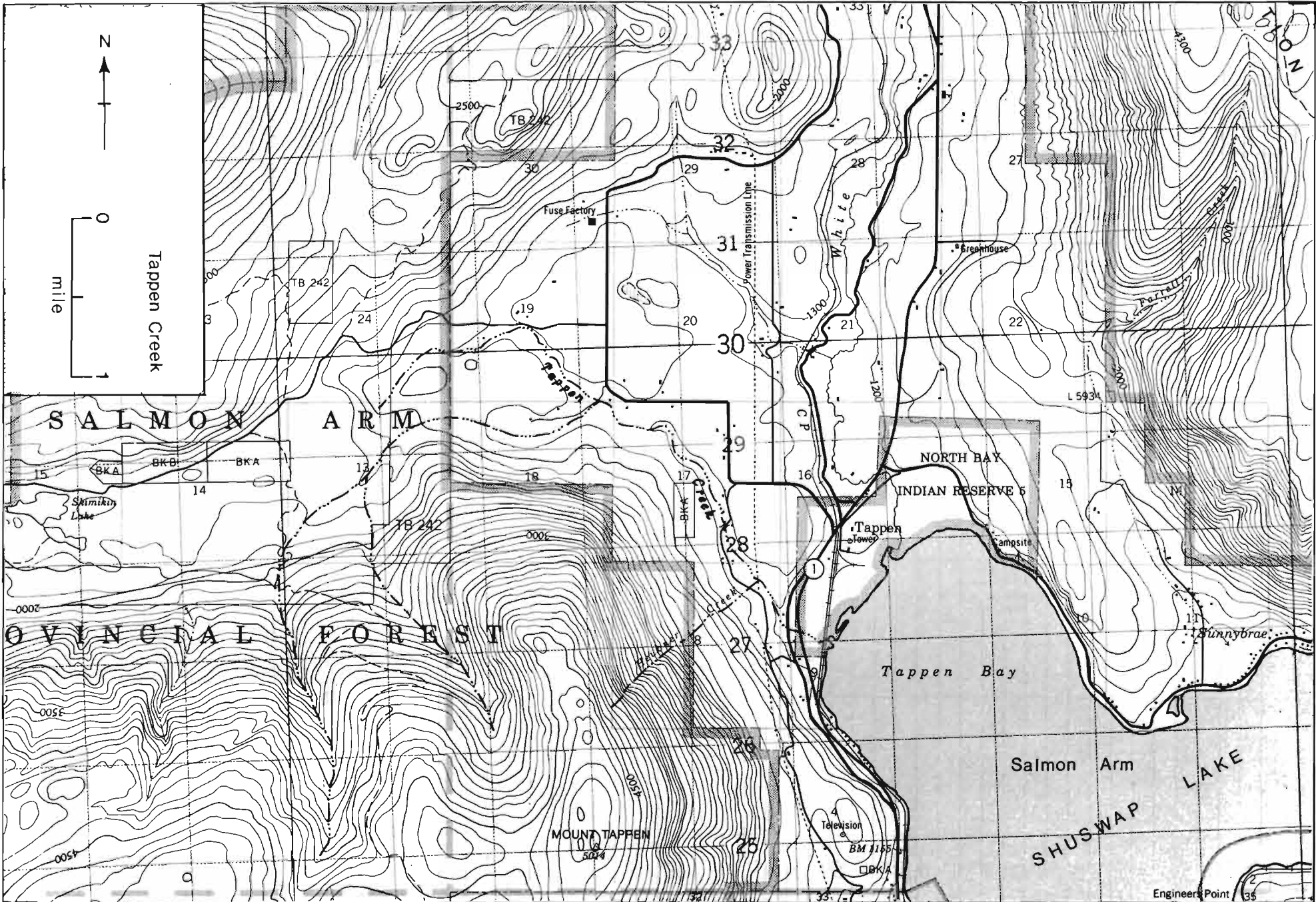
GENERAL REMARKS:

- Coho salmon arriving late in the season are difficult to observe due to ice conditions over the spawning beds. It is difficult to reach the upper areas of the stream to accurately assess populations.
- The most favourable spawning areas are situated in the upper reaches 15 to 20 miles from the mouth.
- 1958. Low water levels prevented the entry of a large percentage of springs.
- 1960. A fire burned off most of the forest cover.
- 1969. A bad forest fire burned both sides of the creek and caused some damage to

## GENERAL REMARKS (cont.) - Spius Creek

spawning areas as a result of lye (ash) in the water and also where bulldozers from the fire fighters crossed the stream.





NAME OF STREAM TAPPEN CREEK (Granite Creek)

CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops - Lillooet

LOCATION OF MOUTH Flows NE. and SE. into W. end of Salmon Arm, Shuswap L.,  
Kamloops Dist. POSITION 50 119 NE

LENGTH 2 MI. WIDTH \_\_\_\_\_ FT. DRAINAGE 15 SQ. MI.

COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_  
SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE \_\_\_\_\_ CFS MAX 15.1 cfs (68/05/23) MIN 2.9 cfs (25/06/11)

TEMPERATURE \_\_\_\_\_

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

Impassable falls at 2 miles.

Passable and impassable beaver dams in the lower reaches.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	<u>- 0 to .5 miles</u>
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

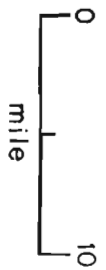
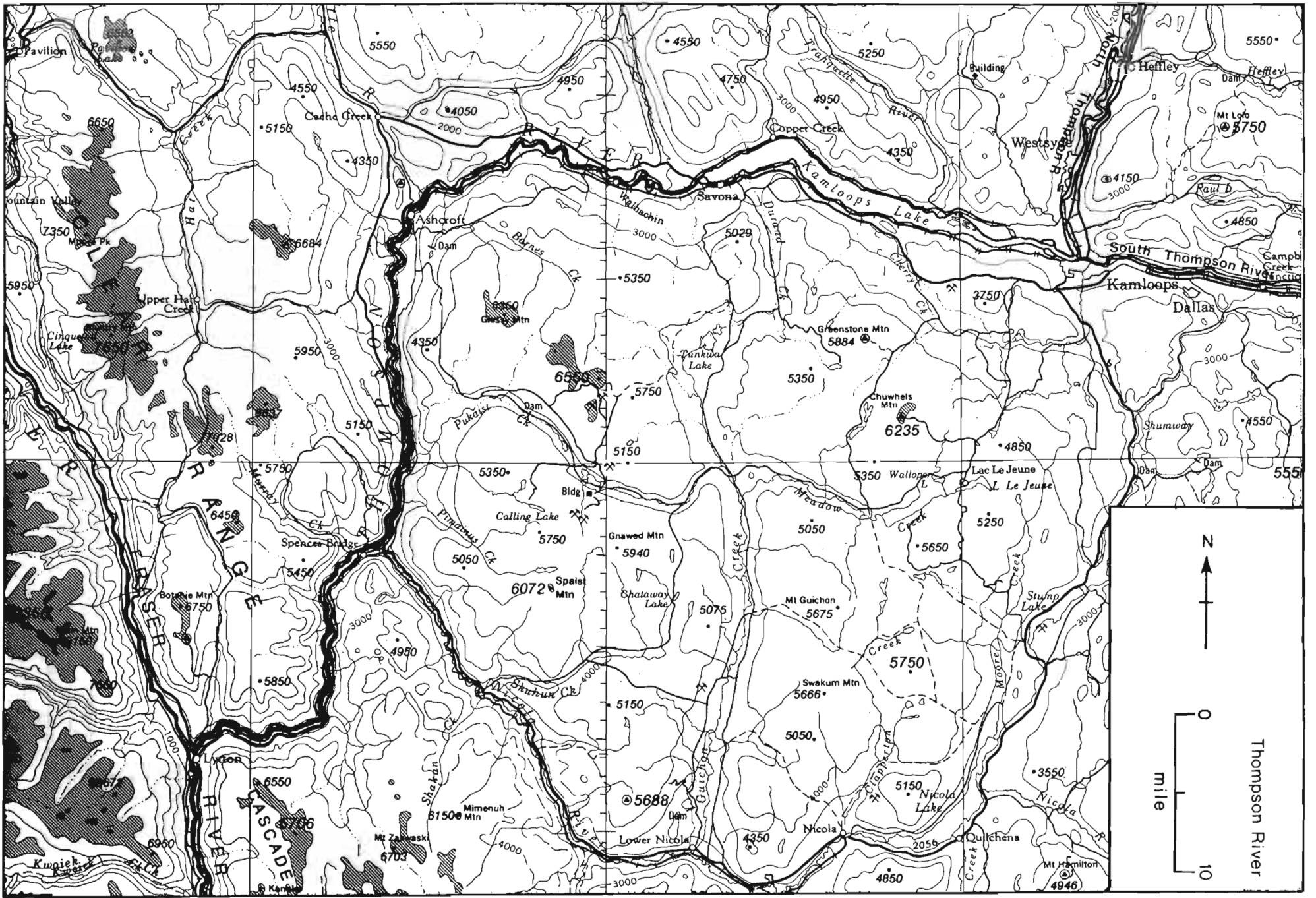
POTENTIAL OF INACCESSIBLE PORTION OF STREAM \_\_\_\_\_

GENERAL REMARKS:

- This is a small stream with limited suitable gravel. It is subject to very low flows.







Thompson River

NAME OF STREAM THOMPSON RIVER  
 CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops - Lillooet  
 LOCATION OF MOUTH Flows W., S. and W. from Kamloops into Fraser River at Lytton,  
Kamloops Dist. POSITION 50 121 SW  
 LENGTH \_\_\_\_\_ MI. WIDTH \_\_\_\_\_ FT. DRAINAGE 21,200 SQ. MI.  
 COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_  
 SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.  
 DISCHARGE 28,089 CFS MAX 146,000 cfs (72/06/15) MIN 4,360 cfs (53/01/14)  
 TEMPERATURE \_\_\_\_\_  
 BARRIERS OR POINTS OF DIFFICULT ASCENT \_\_\_\_\_

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- scattered, mainly Spences Bridge to Savona
COHO	- scattered, mainly Spences Bridge to Savona
CHUM	
PINK (ODD YEAR)	- scattered, mainly Spences Bridge to Savona
PINK (EVEN YEAR)	
STEELHEAD	

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

GENERAL REMARKS:

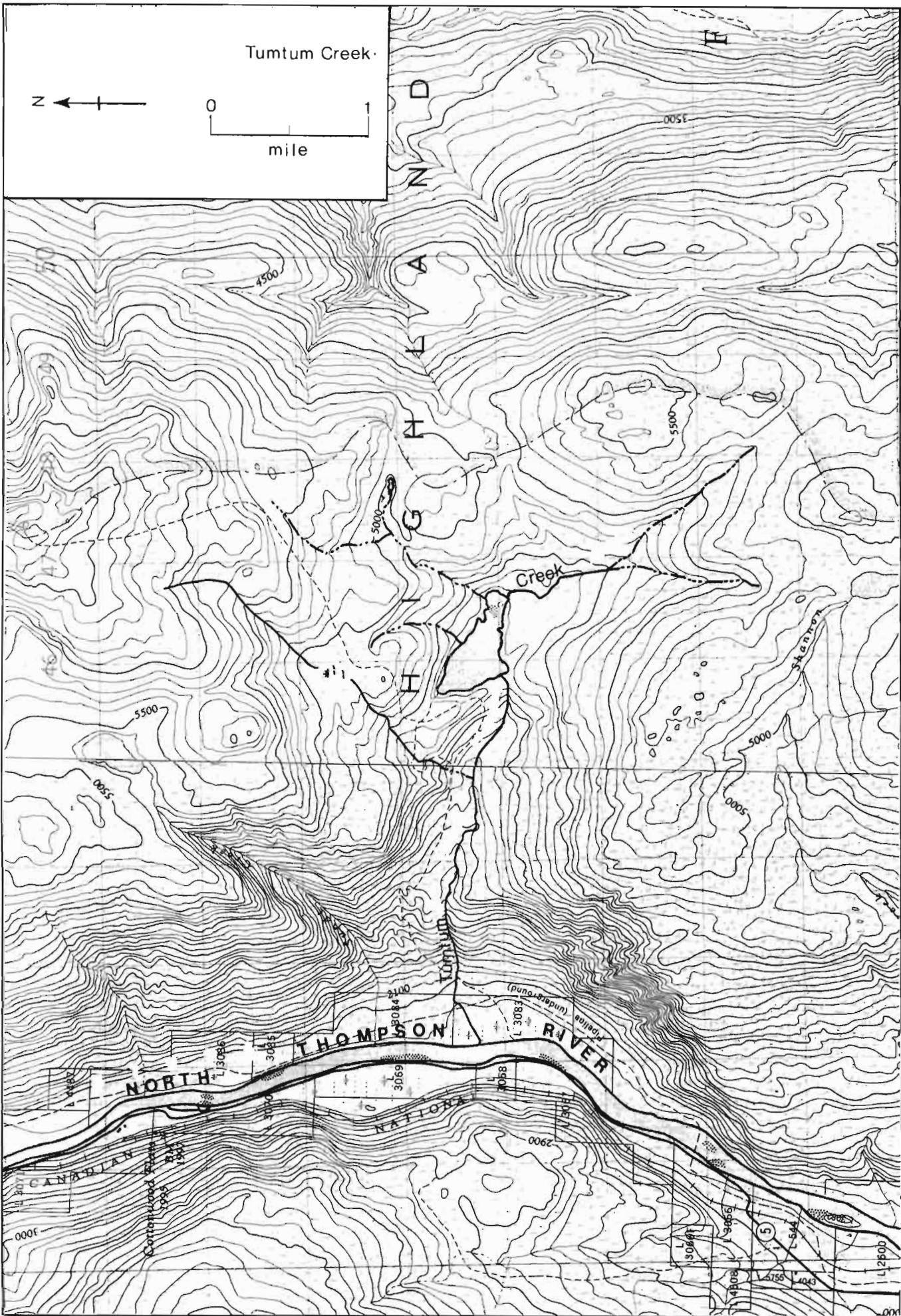
- The Thompson rapids at 10 miles consists of a bedrock gorge divided into two channels by small bedrock islands. During periods of low flows, a constriction in flow is created at this point and migrating salmon are forced close to the river bank by the turbulent water where they are easily caught with dip nets.
- Pollution has become a serious problem over the past 5 - 8 years causing dark turbid water, bad odours, foaming, algal growths and fish tainting. The major sources of pollution are the City of Kamloops and the Weyerhaeuser Canada pulp mill.

## GENERAL REMARKS (cont.) - Thompson River

## References:

- Armstrong, R. W. 1972. Observation of chinook fingerlings in the Shuswap Lake and Thompson River system in 1971. Memo. 31-1-S12 Vol. 10.
- Dolighan, Randy J. 1979. Survey of the 1978 - 1979 Thompson River steelhead fishery. Memo. 5903-85-T85 Vol. 4.
- I.P.S.F.C. 1965. An examination of the factors affecting the migration of sockeye and pink salmon in the Fraser and Thompson Rivers at low river levels. 57 pp.
- Langer, O. E. and M. D. Nassichuk. 1975. Selected biological studies of the Thompson River system. Environment Canada, Fisheries and Marine Service Technical Report PAC/T-75-22. 186 pp.
- Pollution Control Branch and Environment Canada. 1973. A preliminary report on sources and effects of colour, foam and algal growth in the Thompson River system. 90 pp.
- Ward, F. J. 1964. Limnology of Kamloops Lake. I.P.S.F.C. Bulletin XVI. 47 pp.





NAME OF STREAM TUMTUM CREEK

CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops-Lillooet

LOCATION OF MOUTH Flows W. into North Thompson R., W. of Tumtum L., Kamloops

Dist. POSITION 51 119 NE

LENGTH 200 YDS. WIDTH 15 FT. DRAINAGE \_\_\_\_\_ SQ. MI.

COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE 70% FINE 15%

SILT & SAND 15% 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 1000 SQ. YD. SPAWNING AREA 850 SQ. YD.

DISCHARGE 5 cfs (71/03/23)

TEMPERATURE see General Remarks

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

Impassable beaver dam at 200 yds.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	<u>- throughout</u>
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

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

GENERAL REMARKS:

- This is a very small stream running through swampy ground.
- There is a lot of beaver activity on this stream. Dam construction causes silting of the stream.
- Sample temperatures (°F): 50°(70/06/04) 58°(70/07/09) 55°(70/07/23)  
58°(70/07/28) 53°(70/08/19) 36°(70/11/13) 33°(71/02/25) 32.5°(71/03/23)





WAP CREEK - for topographical map refer to South Pass Creek,  
page 193.

NAME OF STREAM WAP CREEK

CONSERVATION DISTRICT 1 SUB-DISTRICT Kamloops - Lillooet

LOCATION OF MOUTH Flows SW. into Mabel L. at N. end, Kamloops Dist.

POSITION 50 118 NW

LENGTH 18 MI. WIDTH \_\_\_\_\_ FT. DRAINAGE \_\_\_\_\_ SQ. MI.

COMPOSITION: BEDROCK \_\_\_\_\_ BOULDER \_\_\_\_\_ COARSE \_\_\_\_\_ FINE \_\_\_\_\_

SILT & SAND \_\_\_\_\_ 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 \_\_\_\_\_ SQ. YD. SPAWNING AREA \_\_\_\_\_ SQ. YD.

DISCHARGE \_\_\_\_\_ CFS MAX \_\_\_\_\_ MIN \_\_\_\_\_

TEMPERATURE \_\_\_\_\_

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

Impassable falls at 18 miles.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	<u>- above Wap Lake to falls; below Wap Lake for 3 miles</u>
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

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

GENERAL REMARKS:

- 1977. There was heavy silting of the spawning area due to erosion from a B.C. Hydro right-of-way crossing 1.5 miles upstream from the falls.

- Extreme erosion and heavy logs jams from 3 miles to 5.5 miles are causing braiding of the channel.







METRIC EQUIVALENTS

<u>Length</u>		<u>Area</u>	
centimeter	= 0.3937 in.	sq. cm.	= 0.1550 sq. in.
meter	= 3.28 ft.	sq. m.	= 10.76 sq. ft.
meter	= 1.094 yd.	sq. m.	= 1.196 sq. yd.
kilometer	= 0.621 mi.	sq. km.	= 0.386 sq. mi.
inch	= 2.54 cm.	sq. in.	= 6.45 sq. cm.
foot	= 0.3048 m.	sq. ft.	= 0.0929 sq. m.
yard	= 0.9144 m.	sq. yd.	= 0.836 sq. m.
mile	= 1.61 km.	sq. mi.	= 2.59 sq. km.
		acre	= 0.405 hectare
		hectare	= 2.47 acres
		acre	= 43560 sq. ft.

<u>Volume</u>		<u>Capacity</u>	
cu. cm.	= 0.061 cu. m.	liter	= 0.0353 cu. ft.
cu. m.	= 35.315 cu. ft.	liter	= 0.2199 gal. (Br.)
cu. m.	= 1.308 cu. yd.	liter	= 61.023 cu. in.
cu. in.	= 16.38 cu. cm.	cu. in.	= 0.0164 l.
cu. ft.	= 0.028 cu. m.	cu. ft.	= 28.32 l.
cu. yd.	= 0.7645 cu. m.	gallon(Br.)	= 4.5459 l.

Weight

gram	= 15.432 grains	ounce	= 28.35 grams
gram	= 0.0353 oz.	pound	= 0.454 kg.
kilogram	= 2.2046 lbs.	ton (sht)	= 907.18 kg.
kilogram	= 0.0011 ton (sht)	ton (sht)	= 0.907 met. ton
metric ton	= 1.1025 ton (sht)	ton (sht)	= 2000 lbs.
grain	= 0.0648 grams		

Degrees Centigrade =  $5/9$  (Degrees Fahr. - 32)

Degrees Fahrenheit =  $9/5$  (Degrees Cent.) + 32

WATER QUANTITIES AND FLOW MEASUREMENTS

1 cubic foot per second (cfs) or second foot	= 373.2 gallons per min. (gpm)
1 cubic foot per second (cfs) or second foot	= .537408 million gallons per day
1 second foot	= approximately 2 acre-feet per day
1 second foot	= 86,400 cubic feet per day
1 million gallons per day	= 1.86 cfs
1 acre-foot	= 43,560 cubic feet or 271,379 gal.
1 cubic foot of water	= 6.23 gal. and weighs 62.4 lbs.
1 cubic meter per second	= 35.31 cubic feet per sec. (cfs)
1 meter per second	= 3.28 feet per second
1233.5 cubic meters	= 1 acre-foot

