Environment Canada
Fisheries and Marine Service

Environnement Canada
Service des pêches et des sciences de la mer

Preliminary Catalogue of Salmon Streams and Spawning Escapements of Statistical Area 28 (Howe Sound - Burrard Inlet)

D.E. Marshall
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Pac/D-76-4

Pacific Region

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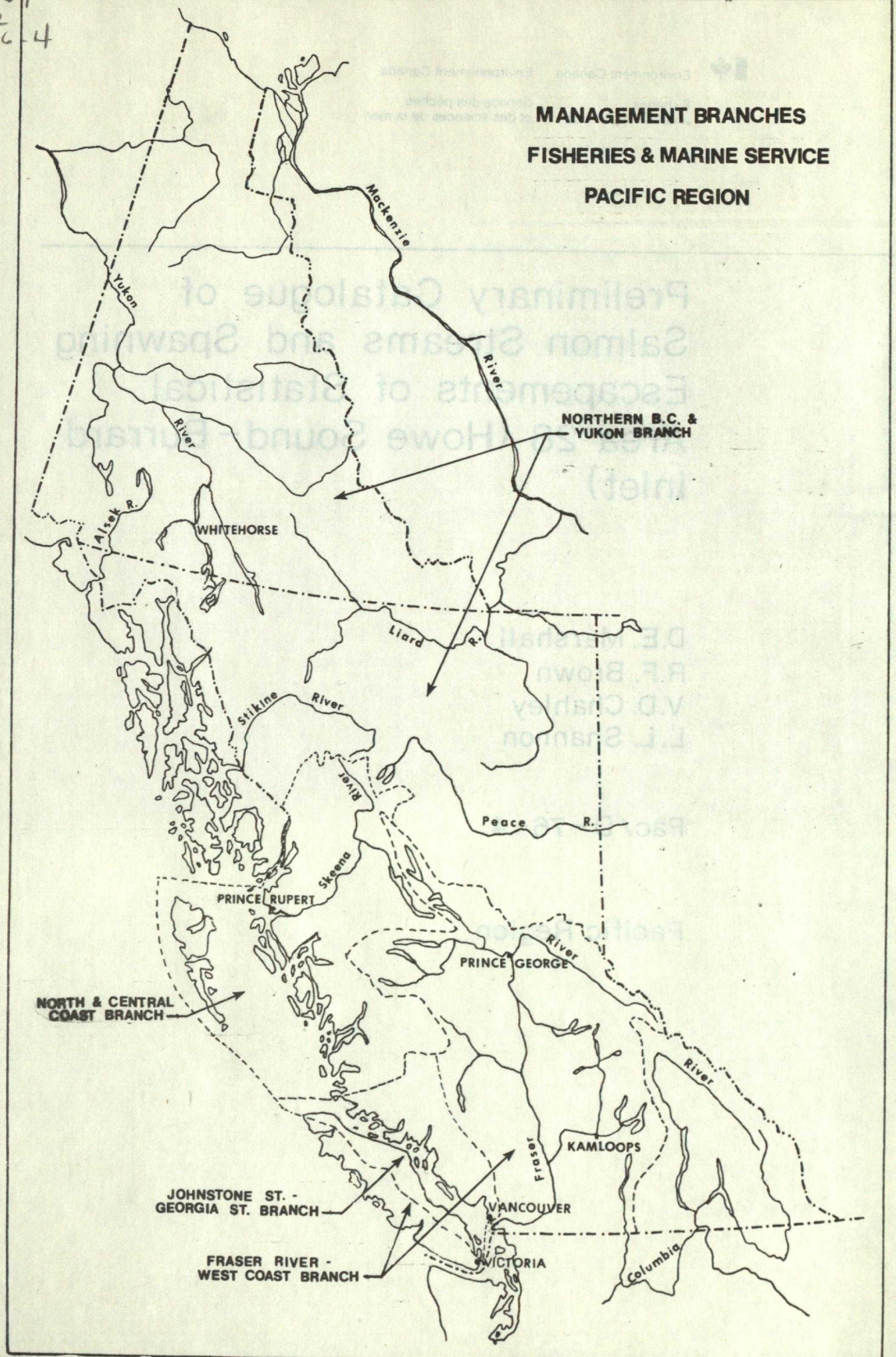

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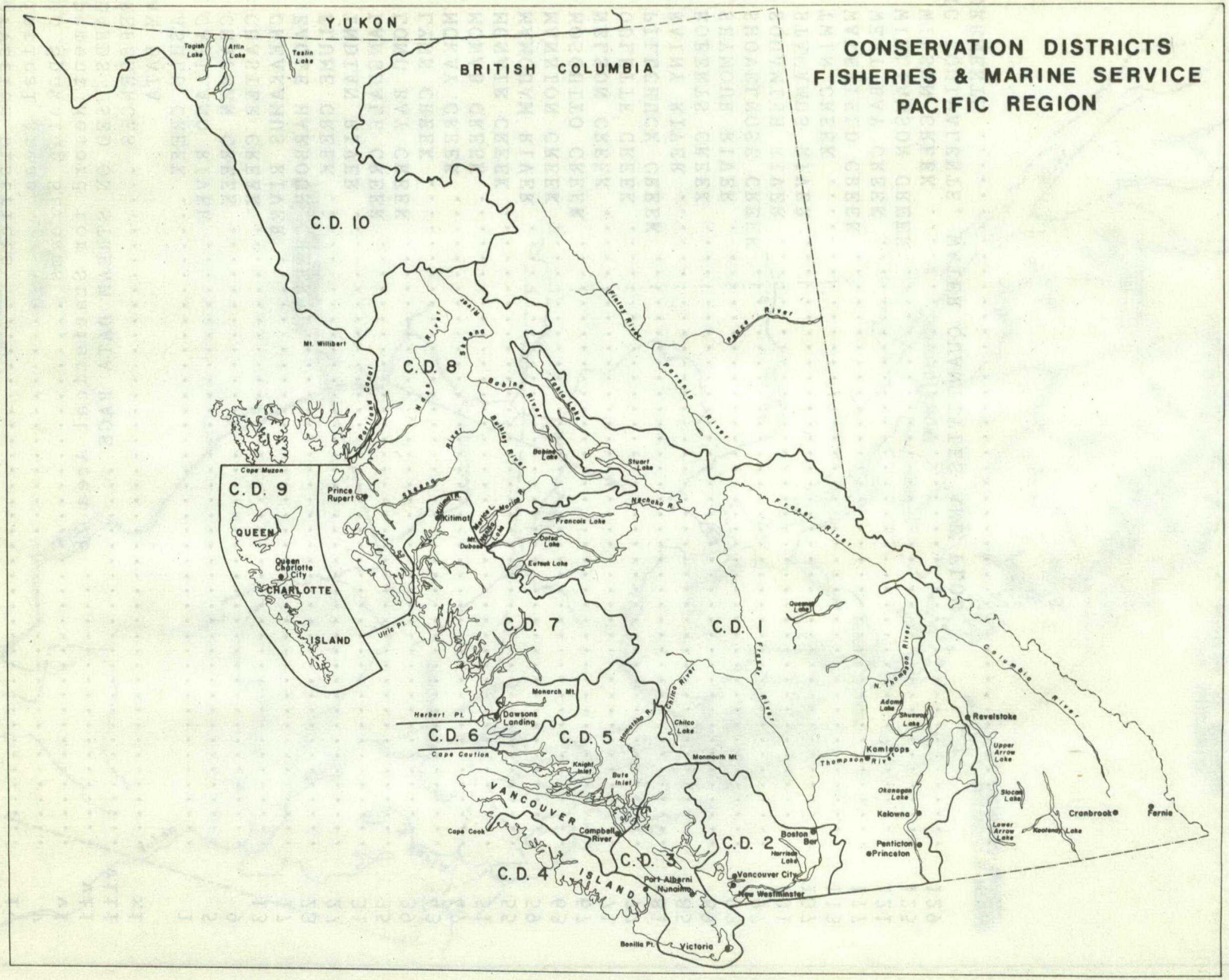
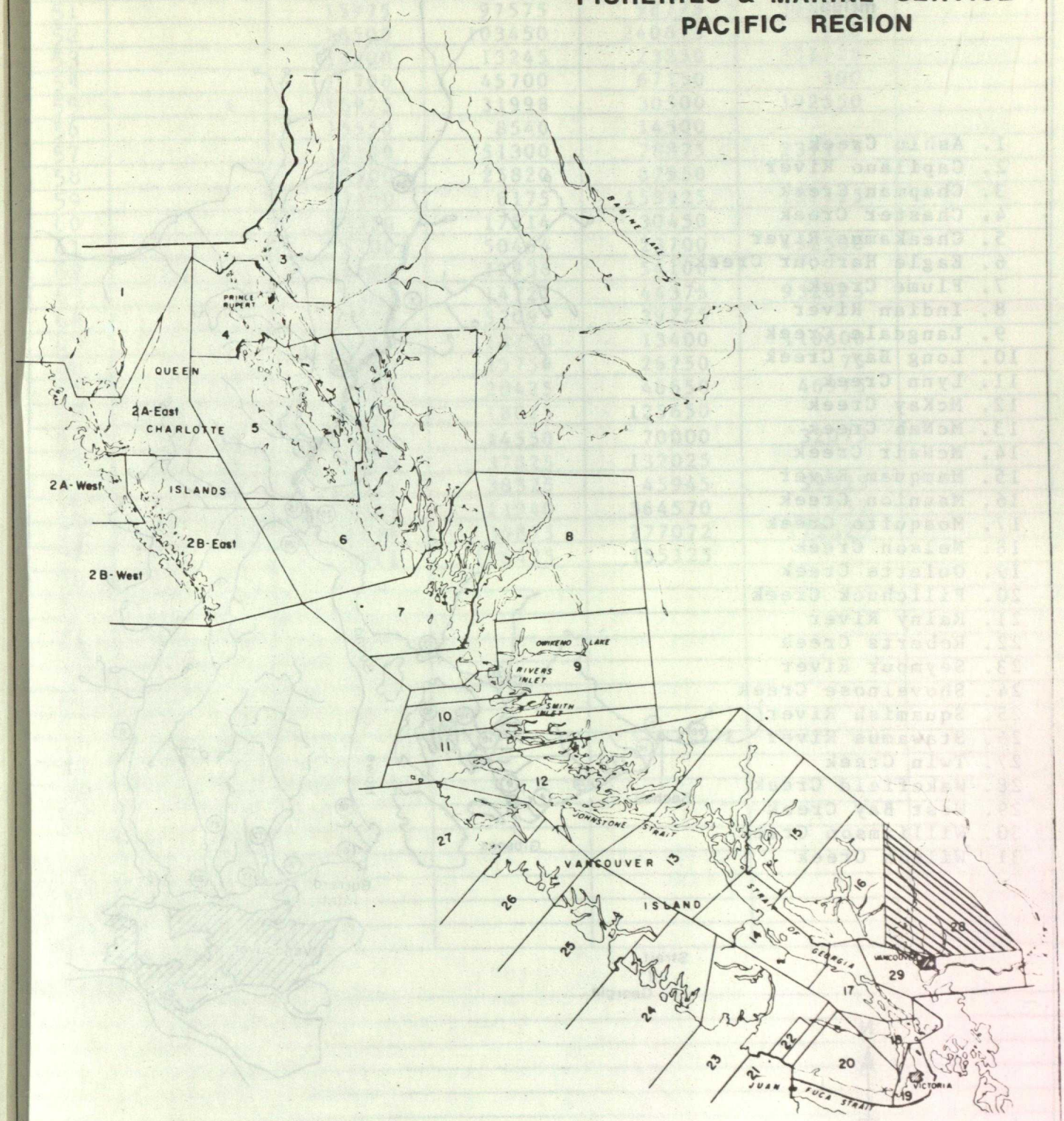
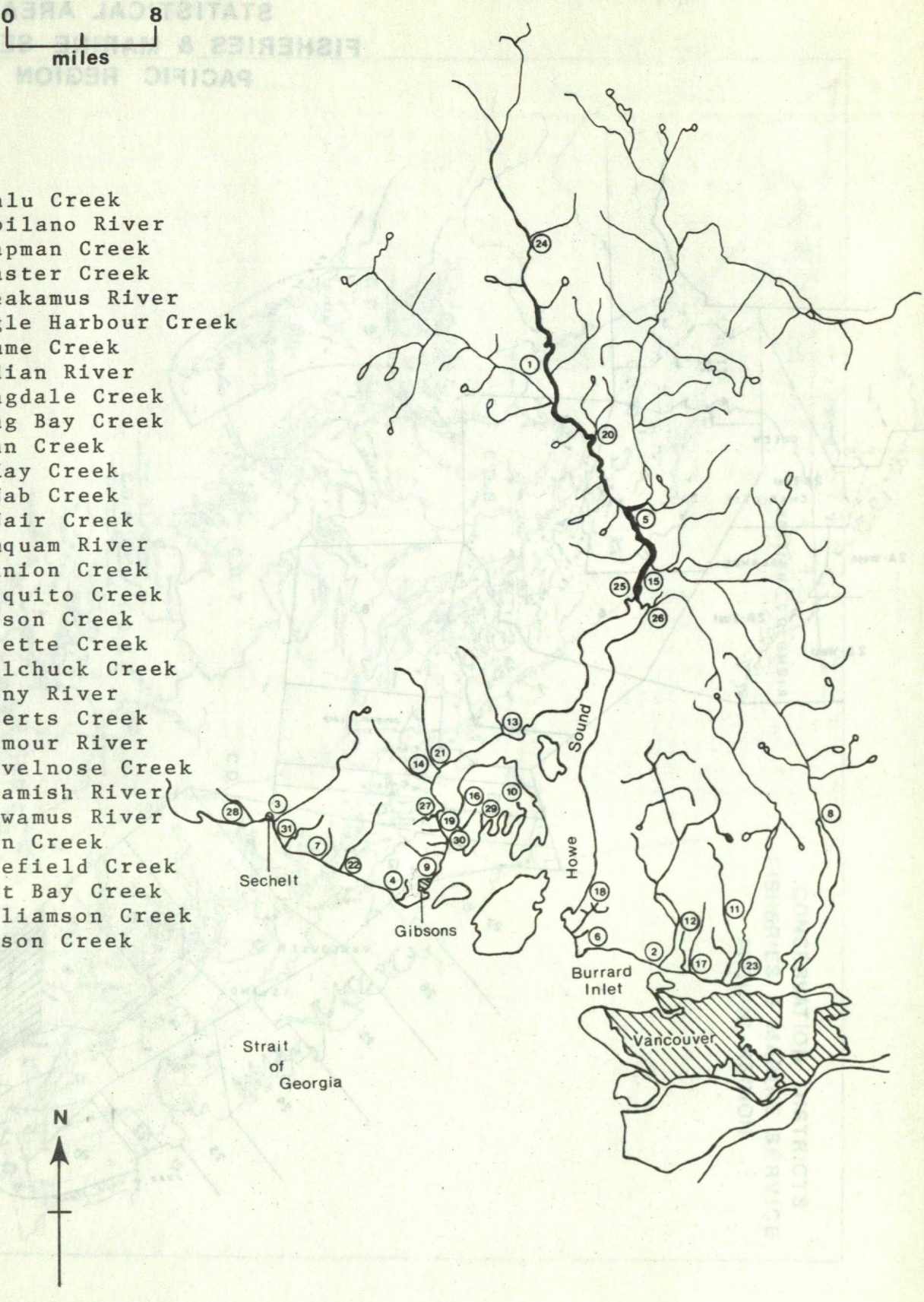


CONSERVATION DISTRICTS
FISHERIES & MARINE SERVICE
PACIFIC REGION
YUKON
BRITISH COLUMBIA
Tagish Lake
Atlin Lake
Teslin Lake
C.D. 10
Mt. Willibert
C.D. 8
Portland Canal
Peace River
Finlay River
Parsnip River
Takla Lake
Babine River
Babine Lake
Stuart Lake
Nechako R.
Cape Muzon
C.D. 9
Prince Rupert
QUEEN
Queen Charlotte City
CHARLOTTE
ISLAND
Kitimat
Francois Lake
Ootsa Lake
Eutsuk Lake
Ulric Pt.
C.D. 7
C.D. 1
Fraser River
Quesnel Lake
Monarch Mt.
Herbert Pt.
Dawsons Landing
C.D. 6
Cape Caution
C.D. 5
Chilko River
Chilko Lake
Monmouth Mt.
Knight Inlet
Bute Inlet
VANCOUVER
ISLAND
Cape Cook
Campbell River
C.D. 4
C.D. 3
C.D. 2
Port Alberni
Nanaimo
Vancouver City
New Westminster
Boston Bar
Harrison Lake
Bonilla Pt.
Victoria
N. Thompson River
Adams Lake
Shuswap Lake
Kamloops
Thompson River
Revelstoke
Columbia River
Upper Arrow Lake
Okanagan Lake
Kelowna
Penticton
Princeton
Slocan Lake
Lower Arrow Lake
Kootenay Lake
Cranbrook
Fernie

STATISTICAL AREAS
FISHERIES & MARINE SERVICE
PACIFIC REGION



SALMON SPAWNING STREAMS
STATISTICAL AREA 28



1. Ashlu Creek
2. Capilano River
3. Chapman Creek
4. Chaster Creek
5. Cheakamus River
6. Eagle Harbour Creek
7. Flume Creek
8. Indian River
9. Langdale Creek
10. Long Bay Creek
11. Lynn Creek
12. McKay Creek
13. McNab Creek
14. McNair Creek
15. Mamquam River
16. Mannion Creek
17. Mosquito Creek
18. Nelson Creek
19. Oulette Creek
20. Pillchuck Creek
21. Rainy River
22. Roberts Creek
23. Seymour River
24. Shovelnose Creek
25. Squamish River
26. Stawamus River
27. Twin Creek
28. Wakefield Creek
29. West Bay Creek
30. Williamson Creek
31. Wilson Creek

ESCAPEMENT RECORD FOR STATISTICAL AREA 28

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	[illegible]
1947	25	15625	11025	62275	519575	
48		15500	93000	102550	25	
49	25	15500	17300	52500	399850	
50		15625	13125	52725	25	
51		15975	97575	98775	304625	
52		15500	103450	240875	150	
53		18900	13245	23250	301725	
54		16700	45700	67150	300	
55	4	15975	31998	30500	192550	
56		15550	8540	14500		
57		19100	51300	78875	237175	
58		18900	25820	87950		
59		17100	6175	158925	157125	
60		15550	17514	30450		
61		19100	50464	23700	452500	
62		18900	12936	54100		
63		9100	14721	44375	932625	
64		7575	57097	39225		
65		35750	18750	13400	110800	
66		18900	15750	26750	75	
67		6900	20425	46650	46975	
68		10600	18025	125650		
69	25	24800	14550	70000	32075	
70	25	31000	37825	132025		
71	25	11279	38325	45945	59325	
72		9488	11940	364570	757	
73	12	14015	30875	277072	173325	
74		9343	146425	155125		
75						
76						
77						
78						
79						
80						
81						
82						
83						
84						
85						
Time						
Start						
Peak						
End						

REMARKS

STANDARDS USED ON STREAM DATA PAGE

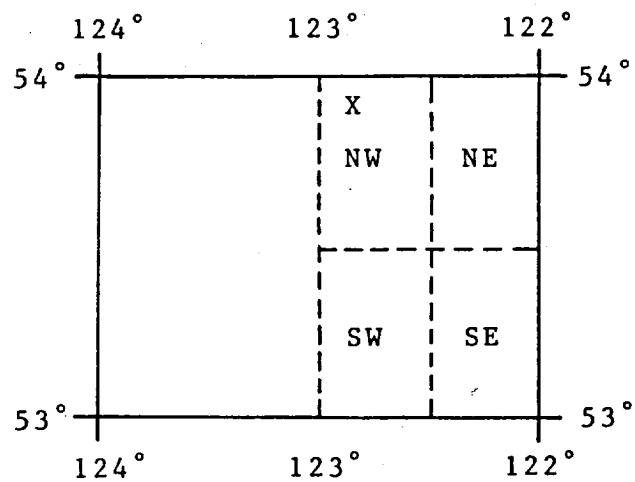
Name of Stream: Name as given in Gazetteer of Canada, British Columbia edition; local names are added in lower case type.

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 utilized by 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: Distribution is indicated by brief comments opposite the species.

Fisheries Potential of Inaccessible Portion of Stream

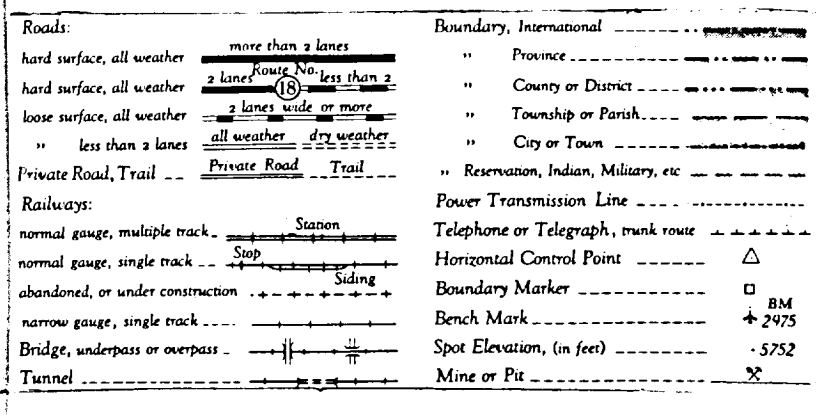
General Remarks: Emphasizes features of stream and spawning populations. Also includes industrial activity, routes of accessibility, etc. The comments with dates following them are taken from "Annual Reports of Salmon Stream & Spawning Grounds" (B.C. 16's).

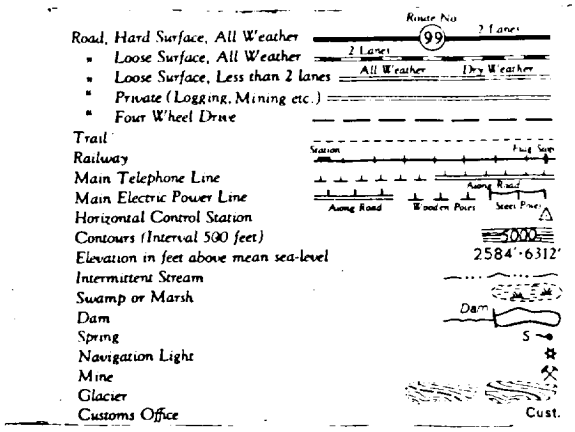
Escapement Record: The escapement represents the mid point of the coded range of escapement for each species. For example: 5000-10000 would be entered as 7500. Where absolute numbers are provided by Fisheries Personnel, these numbers are entered. N/0 means no fish were observed; UNK means some fish were seen but no estimates were made.

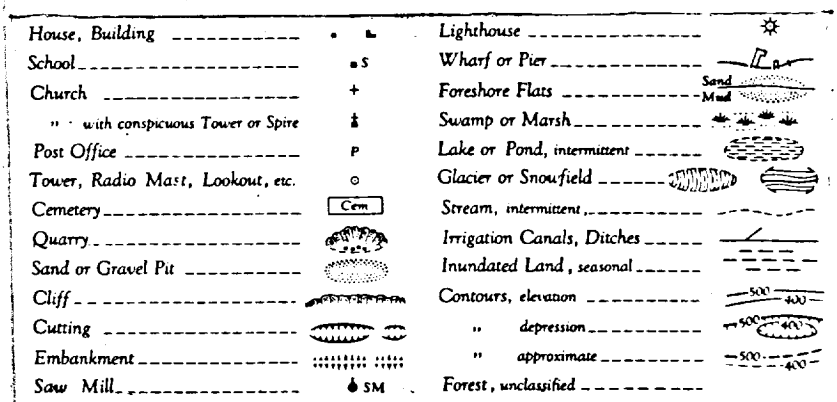
The timing is in reference to spawning:

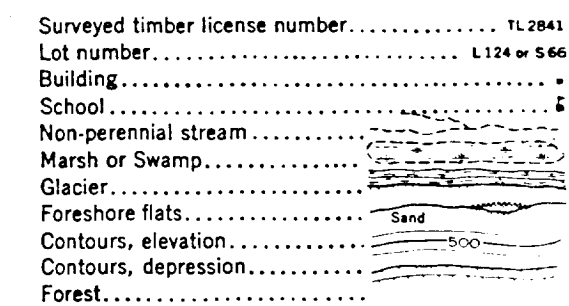
E - early (first 10 days of month)
M - middle of month
L - late (last 10 days of month)

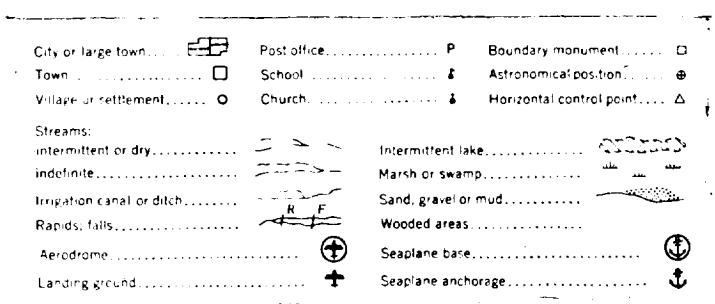
MAP REFERENCES

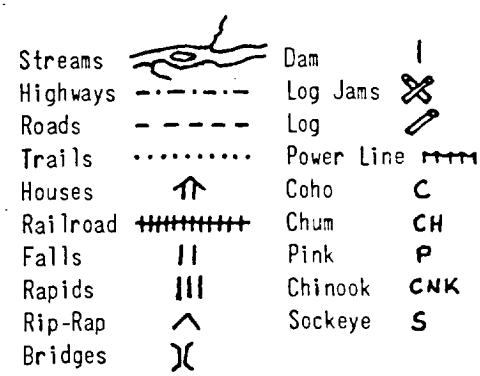






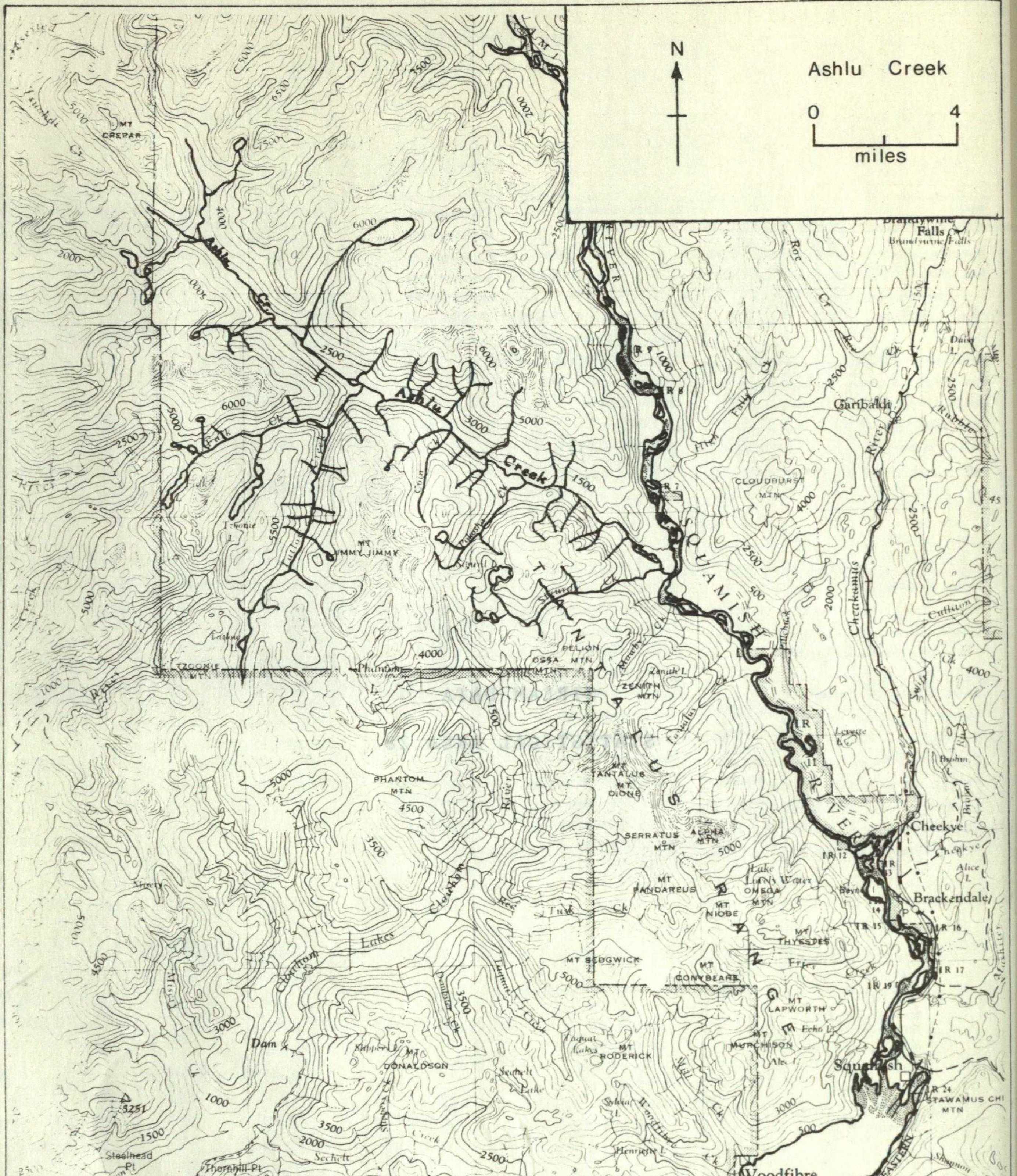






STREAM DATA

STATISTICAL AREA 28


N
Ashlu Creek
0
4
miles
Ashlu Cr
Ashlu Creek
MT JIMMY JIMMY
PELION
OSSA MTN
ZENITH MTN
PHANTOM MTN
MT TANTALUS
MT DIONE
SERRATUS MTN
ALPHA MTN
MT PANDAREUS
MT NIOBE
OMEGA MTN
MT THYESTES
MT SEDGWICK
MT CONYBEARE
MT LAPWORTH
MT MURCHISON
MT RODERICK
MT DONALDSON
MT ELLESMERE
MT WROTTESLEY
TETRAHEDRON PEAK
PANTHER PEAK
CLOUDBURST MTN
SQUAMISH RIVER
TANTALUS RANGE
Brandywine Falls
Garibaldi
Cheekye
Brackendale
Squamish
STAWAMUS CHIEF MTN
Woodfibre
Watts Pt
Britannia
Mount Sheer
GOAT RIDGE
HOWE SOUND
Defence Is
Domett Pt
CAPILANO MTN
Steelhead Pt
Thornhill Pt
Chum Pt
Dam
Clowhom Lakes

NAME OF STREAM ASHLU CREEK

CONSERVATION DISTRICT 2 STATISTICAL AREA 28

LOCATION OF MOUTH Flows S.E. into Squamish R., N. of mouth of Cheakamus R. - New Westminster Dist. POSITION 49 123 N.E.

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 _____

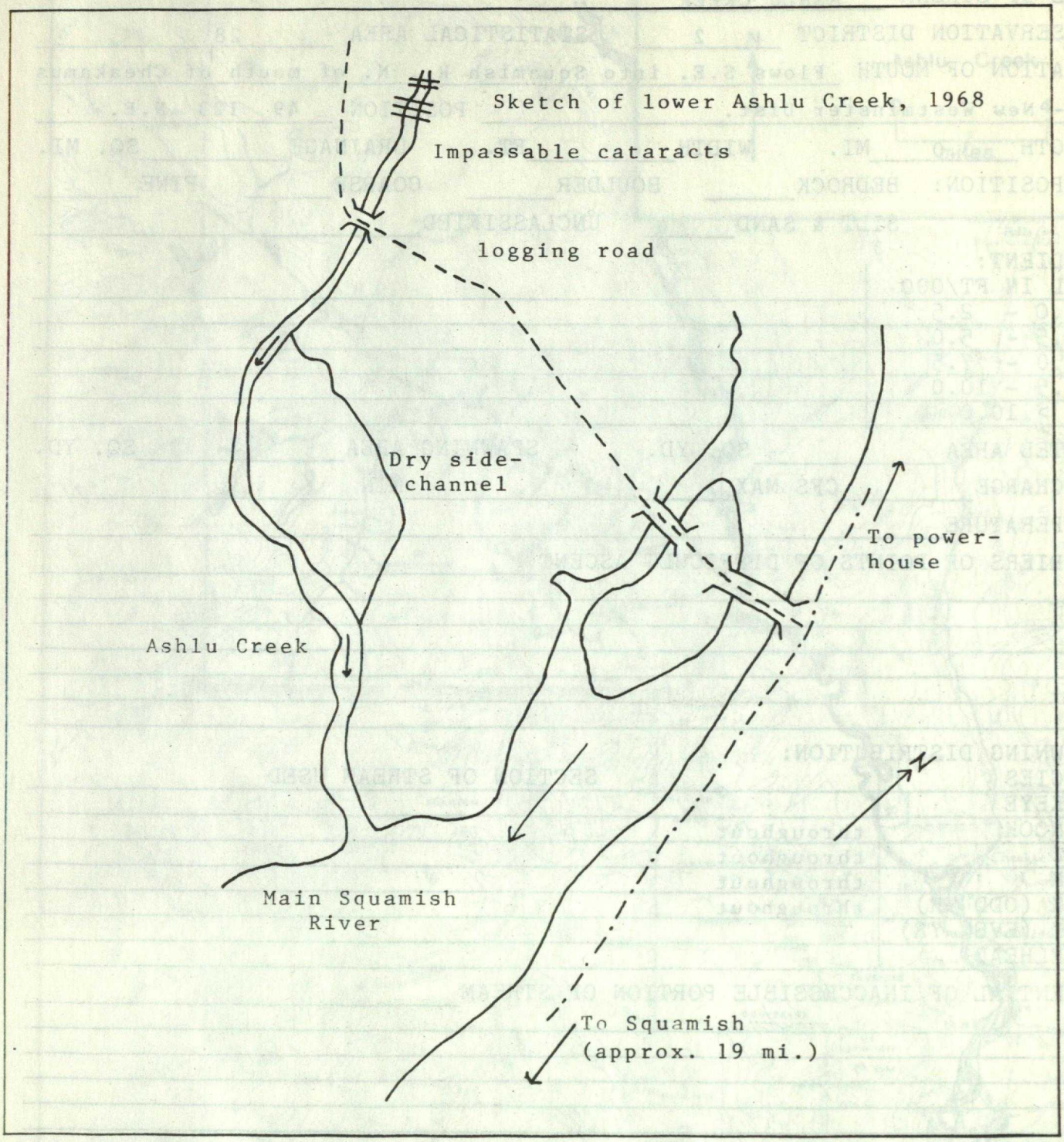
SPAWNING DISTRIBUTION:

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

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS:

- The watershed of this stream has been almost completely denuded by logging over the last 30 years. Consequently, the stream is subject to rapid rise and fall in water levels. (1973)
- In 1973, flooding caused severe bank erosion on the south shore and extensive silting in the lower spawning area of the river. Approx. 25% of the streambed was affected by silting. The stream also shifted 100 yds. to the south. Extensive scouring also affected approx. 25 - 35% of the pink and chinook spawning area.
- Steelhead, coho and chinook are subject to heavy sport fishing. (1973)
- This stream is subject to heavy debris buildups, especially along the bars. (1972)


Sketch of lower Ashlu Creek, 1968
Impassable cataracts
logging road
Dry side-channel
To power-house
Ashlu Creek
Main Squamish River
To Squamish (approx. 19 mi.)

ESCAPEMENT RECORD FOR ASHLU CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947		25	200	75	1500	200
48		25	400	750	N/O	200
49		25	25	400	1500	75
50		25	200	400		75
51		25	200	75	1500	200
52		25	1500	3500		400
53		200	400	400	1500	75
54		200	75	400		200
55		25	750	75	750	75
56		75	200	200		75
57		200	75	750	750	200
58		200	750	400		75
59		400	75	400	3500	75
60		75	200	75		200
61		200	UNK	750	2500	UNK
62		200	750	75		75
63		400	200	400	7000	50
64		100	700	400		100
65		1500	700	400	7000	75
66		200	200	100		50
67		200	200	400	3500	100
68		200	2000	700		100
69		2000	300	700	2000	50
70		1500	1500	400	N/O	150
71		300	700	400	5000	400
72		700	400	1500	N/O	400
73		600	600	7500	5500	150
74		750	3500	8000		1200
75						
76						
77						
78						
79						
80						
81						
82						
83						
84						
85						
Time Start						
Peak						
End						

REMARKS


Capilano River
N
0
4
miles
Squamish
Woodfibre
Britannia
Mount Sheer
HOWE SOUND
GAMBIER ISLAND
Anvil
BOWEN ISLAND
Bowen Island
Horseshoe Bay
Fishermans Cove
Eagle Harbour
Caulfeild
Dundarave
West Vancouver
Capilano
Lower Capilano
North Lonsdale
Upper Lynn
Lynn Creek
NORTH VANCOUVER
Deep Cove
Dollarton
Ioco
Anmore
BURRARD INLET
STANLEY PARK
English Bay
Capitol Hill
Lochdale
Burquitlam
VANCOUVER
Point Grey
Point No Point
SEA ISLAND
Eburne
NEW WESTMINSTER
Sturgeon
Gambier Harbour
Seymour Landing
Point Cowan
Queen Charlotte Channel
Montagu Channel
Ramillies Channel
Porteau (Glen Eden)
Brunswick
Watts Pt
Defence Is
Domett Pt
Ekins Pt
Christie Islet
Pam Rock
Halkett Pt
Bowyer
Hope Pt
Hutt I
Cotton
Point Atkinson
Sherman
Navy Jack Pt
Prospect Pt
Ferguson Pt
Jericho Beach
Iona I
MT SEDGWICK
MT CONYBEARE
MT LAPWORTH
MT MURCHISON
MT RODERICK
STAWAMUS MTN
MT ELLESMERE
MT WROTTESLEY
SKY PILOT 6645 MTN
MT SHEER
RED MTN
BEN LOMOND
MT JUKES 5159
CAPILANO MTN
APPIAN
MT WINDSOR
MT HANOVER
BRUNSWICK MTN 5855
MT HARVEY
THE LIONS
CATHEDRAL MTN 5683
MT BURWELL
COLISEUM MTN
THE NEEDLES
CROWN MTN
GOAT MTN
MT STRACHAN
HOLLYBURN MTN
BLACK MTN 3992
MT FROMME
MT ELSAY
MT SEYMOUR
MOUNT SEYMOUR PROVINCIAL PARK
MT ELDEE
MOUNT FELIX
MT BURNABY
INDIAN ARM
Seymour River
Dam
Fire Tower

NAME OF STREAM CAPILANO RIVER

CONSERVATION DISTRICT 2 STATISTICAL AREA 28

LOCATION OF MOUTH Flows S. into First Narrows, Burrard Inlet - New Westminster Dist. POSITION 49 123 S.E.

LENGTH _____ MI. WIDTH _____ FT. DRAINAGE 68.0 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 1768 CFS MAX 16900 cfs 28/10/21 MIN 25.0 cfs 27-29/08/28

TEMPERATURE _____

BARRIERS OR POINTS OF DIFFICULT ASCENT

- Impassable dam at 3.5 mi. Some fish are trucked around it.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	to hatchery
COHO	to hatchery, some trucked above the dam
CHUM	lower reaches & Brothers Creek confluence
PINK (ODD YR)	lower reaches
PINK (EVEN YR)	
STEELHEAD	to hatchery, some trucked above the dam

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS:

- This stream is connected with the water supply system of greater Vancouver. In 1954, the construction of Cleveland Dam and the adjoining reservoir was completed. This impassable dam was overcome by constructing a fishway and facilities for trucking salmon above the dam. This equipment is still in operation. (1974)
- The Capilano Hatchery was completed in 1972. This hatchery was constructed as part of a program to increase stocks of coho and chinook salmon and steelhead trout. Its yearly designed operating capacity is 1,000,000 coho smolts, 325,000 chinook smolts and 65,000 steelhead smolts.

GENERAL REMARKS: (Cont'd)

- Molestation of fish by the public is a problem. (1973)

References:

Anon. 1971-1974. Capilano Salmon Hatchery (statistics; egg & incubation records; fry & fingerling rearing; adult trapping & trucking; other activities involving hatchery staff). D.O.E., F.M.S., Pac. Reg. Memo. 31-1-C1.

Howard Paish & Assoc. 1973. Recreation Development & Management of the Capilano River. Prepared for: D.O.E., F.M.S. Pac. Reg. 52p & Appendix.

Anon. 1973. Report on "Short Term" Bank Protection Works for the Threatened Areas on the Capilano River. D.O.E., Inland Water Dir., Water Plan & Man. Br.. Pac. Reg. Memo. 31-1-C1. 3p & Appendix.

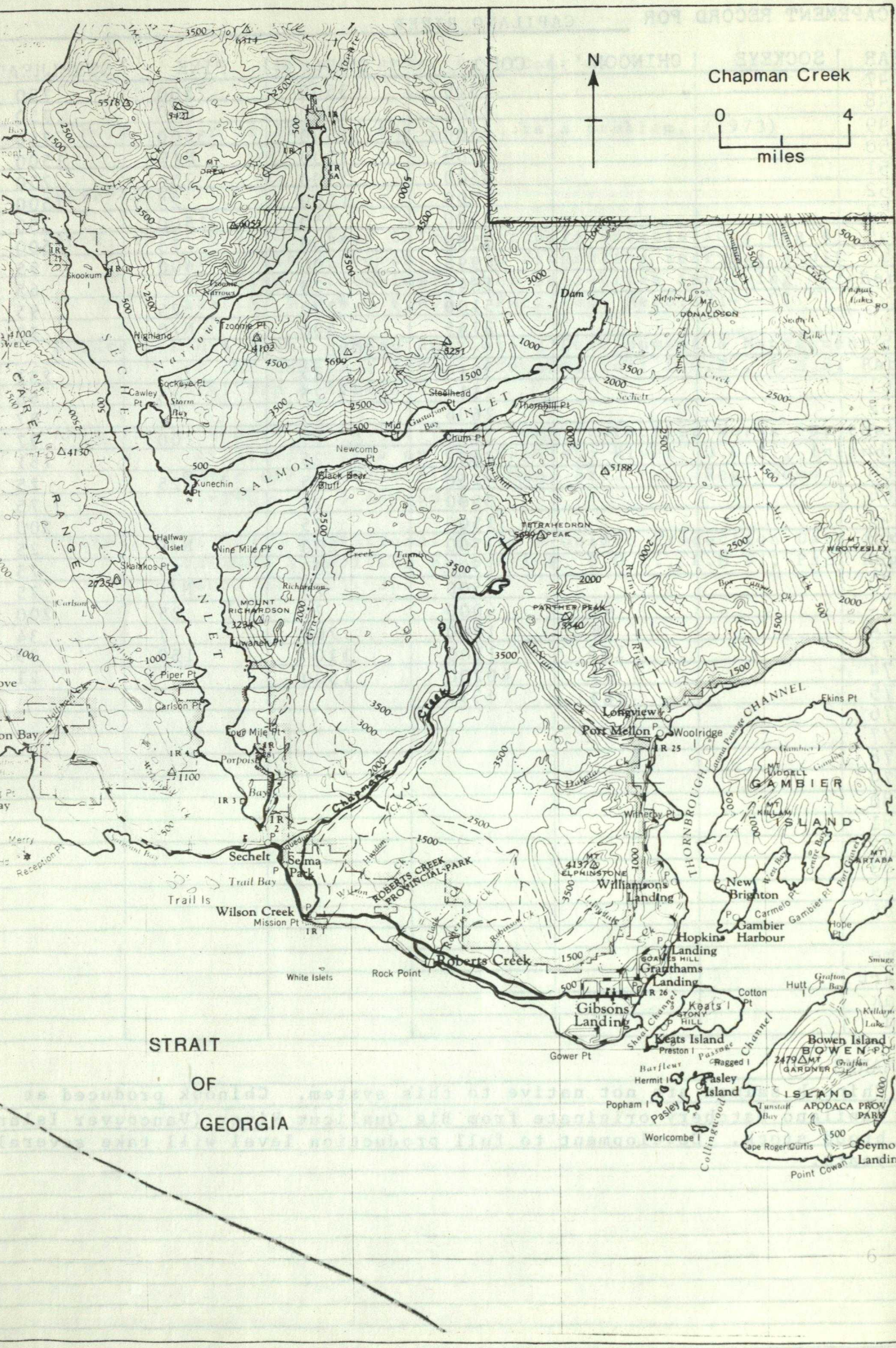
Fraser, F.J. 1973. Operational Costs & Salmon Production Data for Quinsam & Capilano Hatcheries. D.O.E., F.M.S., Pac. Reg. Memo. 31-1-C1. 3p.

ESCAPEMENT RECORD FOR CAPILANO RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947			3500	3500	7500	750
48			7500	1500	N/O	750
49			3500	1500	3500	750
50			3500	1500	N/O	1500
51			3500	3500	750	750
52			7500	1500	25	1500
53			3500	750	1500	750
54			3500	3500	75	1500
55	4		4998	400	400	95
56			1840	25		65
57			5100	200	75	95
58			3745	400	N/O	75
59			NO	RECORD		
60			3614	25		251
61			2114	25	25	86
62			2636	25		97
63			2071	75	100	97
64			2622	25		161
65			750	25	25	25
66			3500	25		75
67			1500	25		200
68			1500	200	N/O	25
69			1500	200	25	75
70			3500	75	N/O	75
71		44	4000	75	25	200
72		38	1200	700	7	34
73		165	1100	1100	150	39
74		93	40200	1500		21
75		767	6391			
76						
77						
78						
79						
80						
81						
82						
83						
84						
85						
Time						
Start						
Peak						
End						

REMARKS

- Chinook salmon are not native to this system. Chinook produced at Capilano Hatchery originate from Big Qualicum River (Vancouver Island) brood stock. Development to full production level will take several years.


Chapman Creek
N
0
4
miles
STRAIT
OF
GEORGIA
SALMON
INLET
SECHELT
INLET
CAREN RANGE
Narrows
Sechelt
Selma Park
Trail Bay
Trail Is
Wilson Creek
Mission Pt
White Islets
Rock Point
Roberts Creek
ROBERTS CREEK PROVINCIAL PARK
Chapman
Creek
Gibsons Landing
Gower Pt
Granthams Landing
Hopkins Landing
Williamsons Landing
ELPHINSTONE
Port Mellon
Longview
Woolridge
THORNBROUGH CHANNEL
GAMBIER ISLAND
New Brighton
Gambier Harbour
Keats Island
Pasley Island
Bowen Island
ISLAND
APODACA PROV PARK
Cape Roger Curtis
Point Cowan
Collingwood Channel
Shoal Channel
Ekins Pt
Cotton Pt
Skookum
Highland Pt
Tzoonie Pt
Cawley Pt
Sockeye Pt
Kunechin Pt
Halfway Islet
Nine Mile Pt
Skaiakos Pt
MOUNT RICHARDSON
Tuwanek Pt
Piper Pt
Carlson Pt
Four Mile Pt
Porpoise
Bay
Newcomb Pt
Black Bear Bluff
Chum Pt
Steelhead
Thornhill Pt
Dam
MT DONALDSON
TETRAHEDRON PEAK
PANTHER PEAK
Reception Pt
Mid Bay
Hermit I
Popham I
Preston I
Worlcombe I
Ragged I
Barfleur Passage
Tunstall Bay
Hutt I
Carmelo Pt
West Bay
Centre Bay
MT GARDNER
Hope Pt

NAME OF STREAM CHAPMAN CREEK

CONSERVATION DISTRICT 2 STATISTICAL AREA 28

LOCATION OF MOUTH Flows S.W. into Str. of Georgia at Wilson Cr. P.O. - New Westminster Dist. POSITION 49 123 S.W.

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 mi.

SPAWNING DISTRIBUTION:

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

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS:

- This stream is the main water source for the Sunshine Coast Regional Water Board. Consumption of this water began in 1970 and will probably increase rapidly in the near future. (1969-70)
- The local water district constructed a small dam near the falls. (1970)
- Molestation of fish is a problem. (1952)
- Heavy rains in July/72 washed out most of the steelhead spawning site. Up to 50% of the chum spawn was lost during Dec./72 because of a severe freshet.

ESCAPEMENT RECORD FOR CHAPMAN CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947			75	1500	750	75
48			25	750	25	25
49			200	1500	25	25
50			25	750	25	
51			75	1500	200	75
52			75	750	25	25
53						
54						
55			NO RECORDS FOR 1953 - 1964			
56						
57						
58						
59						
60						
61						
62						
63						
64						
65				50		
66				50		
67				100	50	
68				50		
69				200		
70				1500		
71				2200		40
72				3300		75
73				3500	100	200
74			75	3500		400
75						
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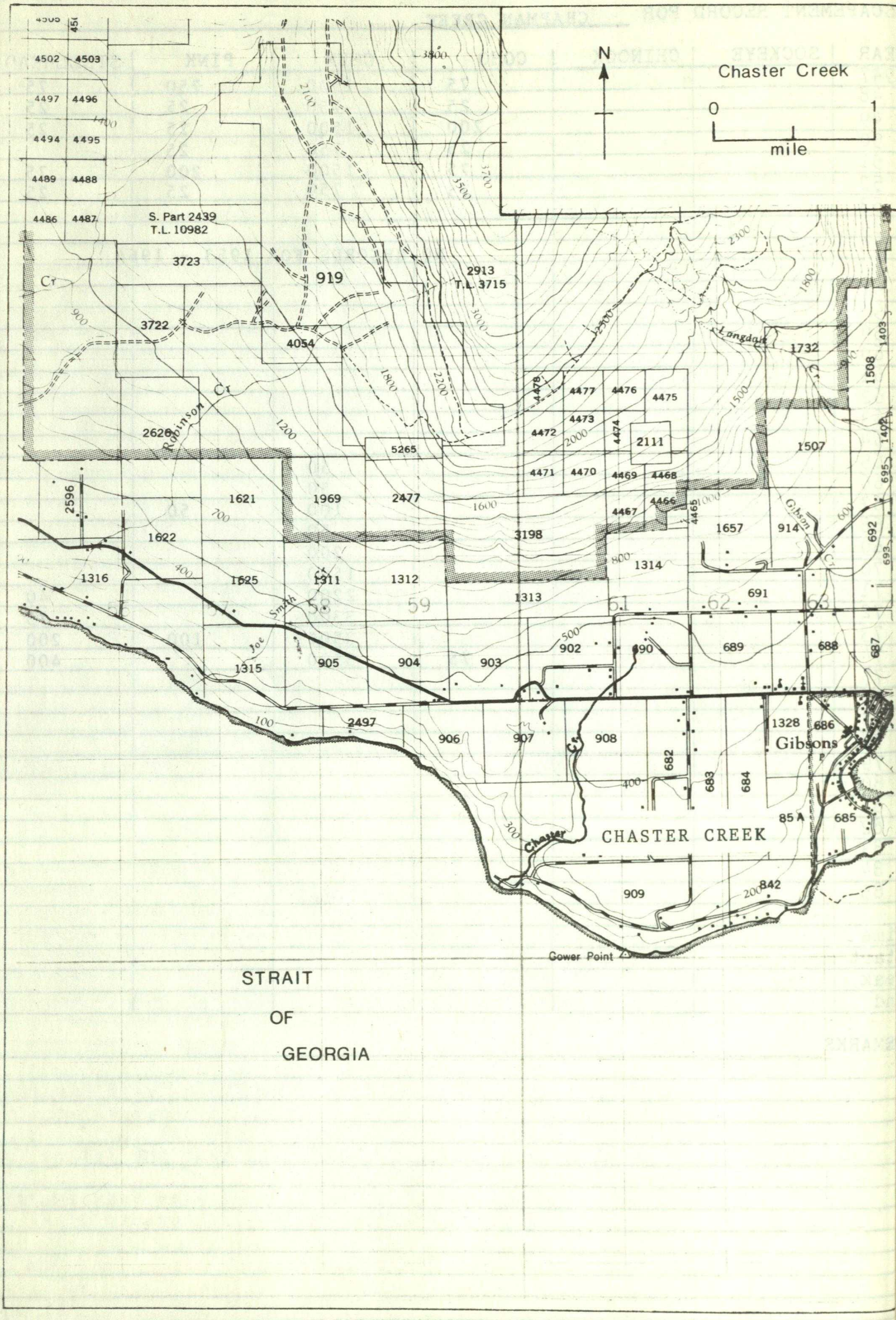
83						
84						
85						
Time						
Start						
Peak						
End						

REMARKS


Chaster Creek
N
0
1
mile
S. Part 2439
T.L. 10982
2913
T.L. 3715
Robinson Cr
Joe Smith Cr
Langdale
Gibson Cr
Chaster Cr
CHASTER CREEK
Gibsons
Gower Point
STRAIT
OF
GEORGIA
4502 4503 4497 4496 4494 4495 4489 4488 4486 4487
3723 919 3722 4054 2626
4478 4477 4476 4475 4473 4472 4474 2111 4471 4470 4469 4468 4467 4466 4465
1732 1508 1403 1507 1402 695 692 693
5265 2596 1621 1969 2477 1622 3198 1657 914 1316 1625 1311 1312 1314 1313 691
902 690 689 688 687 1315 905 904 903
2497 906 907 908 682 683 684 1328 686 85 A 685 909 842

NAME OF STREAM CHASTER CREEK

CONSERVATION DISTRICT 2 STATISTICAL AREA 28

LOCATION OF MOUTH Flows S.W. into Str. of Georgia, N.W. of Gower Pt. - New Westminster Dist. POSITION 49 123 S.W.

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

COMPOSITION: BEDROCK _____ BOULDER _____ COARSE _____ FINE _____

SILT & SAND _____ UNCLASSIFIED _____

GRADIENT: FALL IN FT/000	
10.0 - 2.5	
12.5 - 5.0	
15.0 - 7.5	
17.5 - 10.0	
> 10.0	

WETTED AREA _____ SQ. YD. SPAWNING AREA _____ SQ. YD.

DISCHARGE _____ CFS MAX _____ MIN _____

TEMPERATURE _____

BARRIERS OR POINTS OF DIFFICULT ASCENT

- Passable falls from 1.5 - 2 mi. where stream bed narrows and becomes quite steep.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	evenly throughout first mi.
PINK (ODD YR)	
PINK (EVEN YR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS:

- This stream has good spawning areas scattered throughout the lower 1.5 mi. and probably has spawning capacity for 1500 chums. (1972)
- Heavy rains in Dec. 1972 affected 70% of the stream bed. These rains caused extensive bank erosion, scouring and heavy siltation in the lower spawning areas. An estimated 60-80% of the spawn was lost.

ESCA

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83
84
85

Time
Star
Peak
End

REMA

ESCAPEMENT RECORD FOR CHASTER CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947				400		
48				400		
49				750		
50			NO	RECORDS		
51			NO	RECORDS		
52				200		
53						
54			NO	RECORDS FOR 1953 - 1969		
55						
56						
57						
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63						
64						
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66						
67						
68						
69						
70				200		
71				25		
72				75		
73			NO	RECORDS		
74				75		
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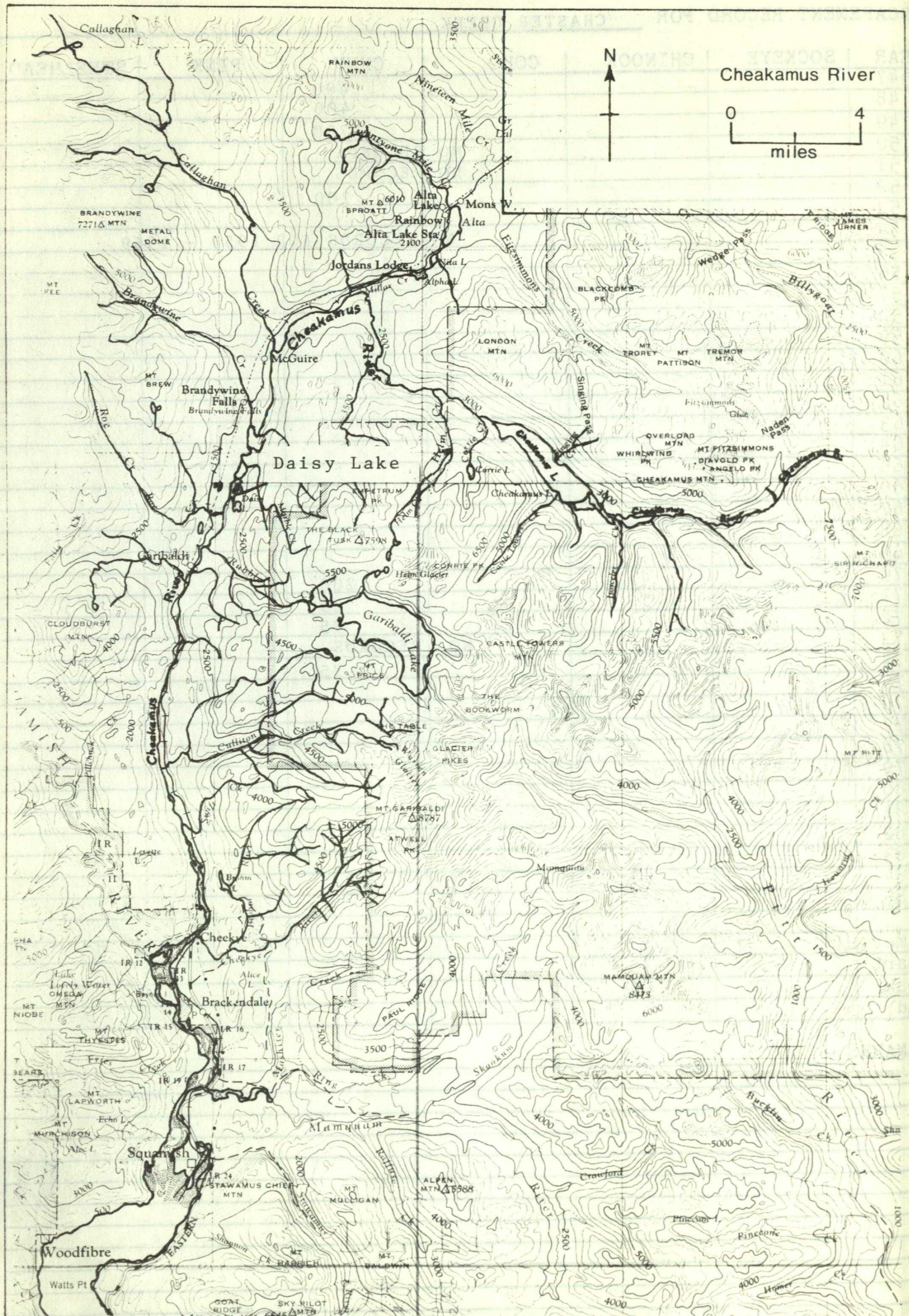
Time						
Start						
Peak						
End						

REMARKS


Cheakamus River
N
0
4
miles
Daisy Lake
Callaghan L.
RAINBOW MTN
Nineteen Mile Cr
Twentyone Mile Cr
Callaghan
BRANDYWINE 7271 MTN
METAL DOME
MT SPROATT 6010
Alta Lake
Rainbow
Alta Lake Sta
Mons
Alta
Jordans Lodge
Alpha L
Brandywine
Cheakamus River
McGuire
MT BREW
Brandywine Falls
Fitzsimmons
BLACKCOMB PK
Wedge Pass
Billygoat
LONDON MTN
Creek
Singing Pass
MT TRORY
MT PATTISON
TREMOR MTN
OVERLORD MTN
WHIRLWIND PK
MT FITZSIMMONS
DIAVOLO PK
ANGELO PK
CHEAKAMUS MTN
Cheakamus L.
Corrie L.
EMPETRUM PK
THE BLACK TUSK 7598
Helm Glacier
CORRIE PK
Garibaldi
Rubble
CLOUDBURST MTN
Garibaldi Lake
MT PRICE
CASTLE TOWERS MTN
THE BOOKWORM
THE TABLE
GLACIER PIKES
Culliton Creek
MT GARIBALDI 8787
ATWELL PK
Cheakamus
Mamquam
MT RITT
Cheekye
Alice L.
Brackendale
PAUL RIDGE
MAMQUAM MTN 8475
MT THYESTES
MT LAPWORTH
Echo L.
MT MURCHISON
Squamish
STAWAMUS CHIEF MTN
MT MULLIGAN
ALPEN MTN 5588
Crawford
Skookum
Bucklin Ck
Pinecone L.
Pinecone
Woodfibre
Watts Pt
MT HARVEY
MT BALDWIN
GOAT RIDGE
SKY PILOT MTN
Ring Ck

NAME OF STREAM CHEAKAMUS RIVER

CONSERVATION DISTRICT 2 STATISTICAL AREA 28

LOCATION OF MOUTH Flows S. and S.W. into Squamish R. - New Westminster Dist. POSITION 49 123 N.E.

LENGTH 8-9 MI. WIDTH FT. DRAINAGE 413 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 * 1219 CFS MAX 30400 cfs 21/10/63 MIN 170 cfs 07/09/58

TEMPERATURE

BARRIERS OR POINTS OF DIFFICULT ASCENT

- Impassable falls at 8 or 9 mi.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	main spawning at 2-7 mi.
CHUM	
PINK (ODD YR)	
PINK (EVEN YR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS:

- Cheakamus Lake elevation is 2724 ft. Peak run-off occurs between May and Aug. Since 1957, flows have been affected by storage and diversion from Daisy Lake via a penstock discharging through a power-house into the Squamish R.
- This stream is continually being encroached upon by stream-side land development, i.e. dyking, channelizing, diversions, etc.
- This stream is subject to an extremely heavy sports fishery for steelhead, dolly varden char, chinook and coho. Migrating fish are also subjected to an Indian net fishery on the Squamish R. before they enter the Cheakamus R.

GENERAL REMARKS: (Cont'd)

- The major tributaries are: Callaghan Cr., Brandywine Cr., Rubble Cr., Culliton Cr. and Cheekeye R.
- Tenderfoot Cr., a .75 mi. long spring fed stream supports coho and steelhead. Cheekeye R. supports runs of steelhead.

* Flow affected by storage and diversion to Squamish R. since Sept 1957.

References:

Robinson, Roberts & Brown Ltd. (Brown, W.L.). 1972. Groundwater Development. Proposed Cheakamus River Hatchery Site. Prepared for: D.O.E. Fisheries Service, Pac. Reg.

Underwood McLellan & Assoc. Ltd. Site Evaluation and Selection for a Fish Hatchery and Rearing Station on the Cheakamus River. Prepared for: D.O.E., F.M.S., Pac. Reg.

Dietz, K. 1966. Cheakamus River Downstream Program. 1966. Dept. of Fisheries, Pac. Reg. Memo. 31-1-C37. 4p.

Hollett, E.L. 1965. Cheakamus River Pink Salmon Escapement. Dept. of Fisheries, Pac. Reg. Memo. 31-1-C37. 2p.

Dept. of Fisheries. 1954. Cheakamus River Report. Dept. of Fisheries Pac. Reg. Memo. (preliminary biological program). 31-1-C 5p.

Marshall, D.E. 1963. Cheakamus River Adult Chum Salmon Enumeration Program. Dept. of Fisheries, Pac. Reg. Memo. 31-1-C37.

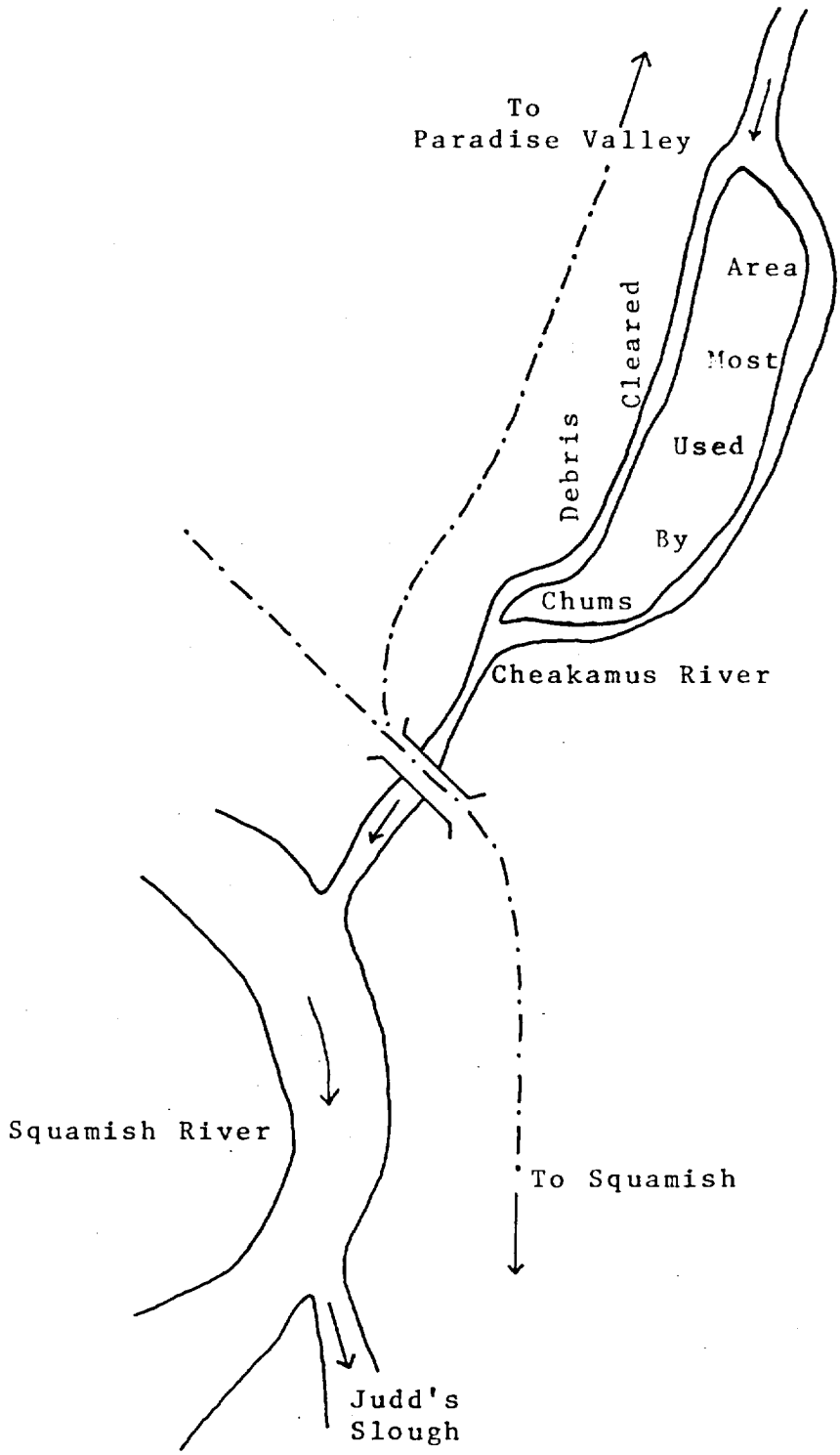
Marshall, D.E. 1963. Cheakamus River Adult Pink Salmon Enumeration Program. Dept. of Fisheries, Pac. Reg. Memo. 31-1-C37.

Hollett, E.L. 1962. Cheakamus - Squamish Chum Escapements. 1962. Dept. of Fisheries, Pac. Reg. Memo. 31-1-C37. 2p.

Hollett, E.L. 1962. Cheakamus River Downstream Survey. Dept. of Fisheries, Pac. Reg. Memo. 31-1-C37. 1p.

Hollett, E.L. 1961. Cheakamus River Chum Salmon Escapement. 1961. Dept. of Fisheries, Pac. Reg. Memo. 31-1-C37. 2p.

Sketch of Chum Spawning Area
on Cheakamus River, 1968



ESCA

YEA
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Time
Start
Peak
End

REMA

ESCAPEMENT RECORD FOR CHEAKAMUS RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947		400	400	3500	75000	400
48		400	1500	3500		400
49		400	750	3500	35000	400
50		400	1500	3500		400
51		750	3500	15000	15000	400
52		400	3500	15000		3500
53		3500	1500	3500	15000	400
54		750	1500	5000		750
55		750	1500	7500	15000	1500
56		400	1500	3500		400
57		3500	3500	35000	35000	750
58		3500	3500	35000		1500
59		1500	3500	75000	75000	400
60		400	1500	15000	UNK	750
61		3500	7500	9300	351700	1500
62		3500	3500	35000		400
63		1500	1500	30000	555000	750
64		400	15000	15000		1500
65		3500	7500	3500	35000	400
66		3500	1500	15000		750
67		1500	5000	20000	20000	1500
68		300	4000	30000		3000
69		2000	2000	20000	12000	1000
70		3000	6000	25000	N/O	1500
71		2200	4500	4500	2200	1200
72		400	1500	60000		2500
73		300	4000	50000	25000	3000
74		400	15000	35000		3500
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Time						
Start						
Peak						
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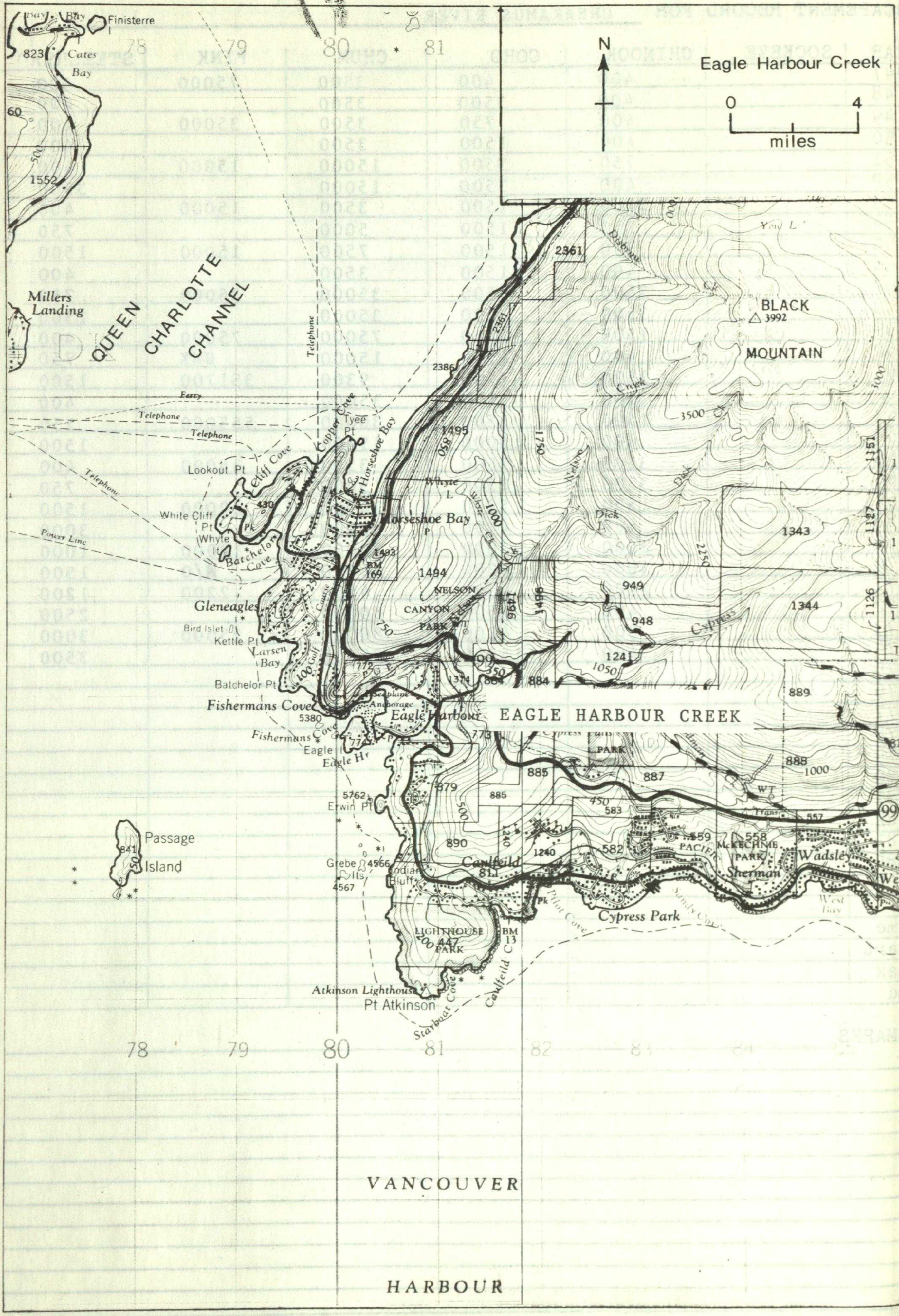
REMARKS


Eagle Harbour Creek
N
0
4
miles
EAGLE HARBOUR CREEK
QUEEN CHARLOTTE CHANNEL
BLACK MOUNTAIN
Horseshoe Bay
Gleneagles
Fishermans Cove
Eagle Harbour
Caulfeild
Cypress Park
Sherman
Wadsley
Passage Island
Atkinson Lighthouse
Pt Atkinson
LIGHTHOUSE PARK
NELSON CANYON PARK
Millers Landing
Finisterre
Cates Bay
Lookout Pt
White Cliff Pt
Whyte Its
Batchelor Cove
Cliff Cove
Copper Cove
Tyee Pt
Whyte L
Bird Islet
Kettle Pt
Larsen Bay
Batchelor Pt
Erwin Pt
Grebe Its
Eagle I
Eagle Hr
Fishermans Cove
Pilot Cove
Sandy Cove
Starboat Cove
Caulfeild C
Telephone
Power Line
Ferry
78
79
80
81
82
VANCOUVER
HARBOUR

NAME OF STREAM (Eagle Harbour Creek)

CONSERVATION DISTRICT 2 STATISTICAL AREA 28

LOCATION OF MOUTH Flows S.E. into Queen Charlotte Chan., Burrard Inlet, N. of Pt. Atkinson - New Westminster Dist. POSITION 49 123 SE

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 CFS MAX MIN

TEMPERATURE

BARRIERS OR POINTS OF DIFFICULT ASCENT

- Culvert at mouth of stream is impassable during low water levels.
- Impassable falls at 0.5 mi.

SPAWNING DISTRIBUTION:

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

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS:

- This small stream is located in the middle of a residential area in North Vancouver. Fish molestation is a problem as the stream flows through many back yards. (1971)
- Chum spawn in the tidal flat at the mouth during years when the culvert is impassable.

ESCA

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85

Time
Star
Peak
End

REMA

ESCAPEMENT RECORD FOR _____ (Eagle Harbour Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
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66						
67						
68						
69			NO RECORDS PRIOR TO 1970			
70				25		
71				15		
72				25		
73				6		
74				25		
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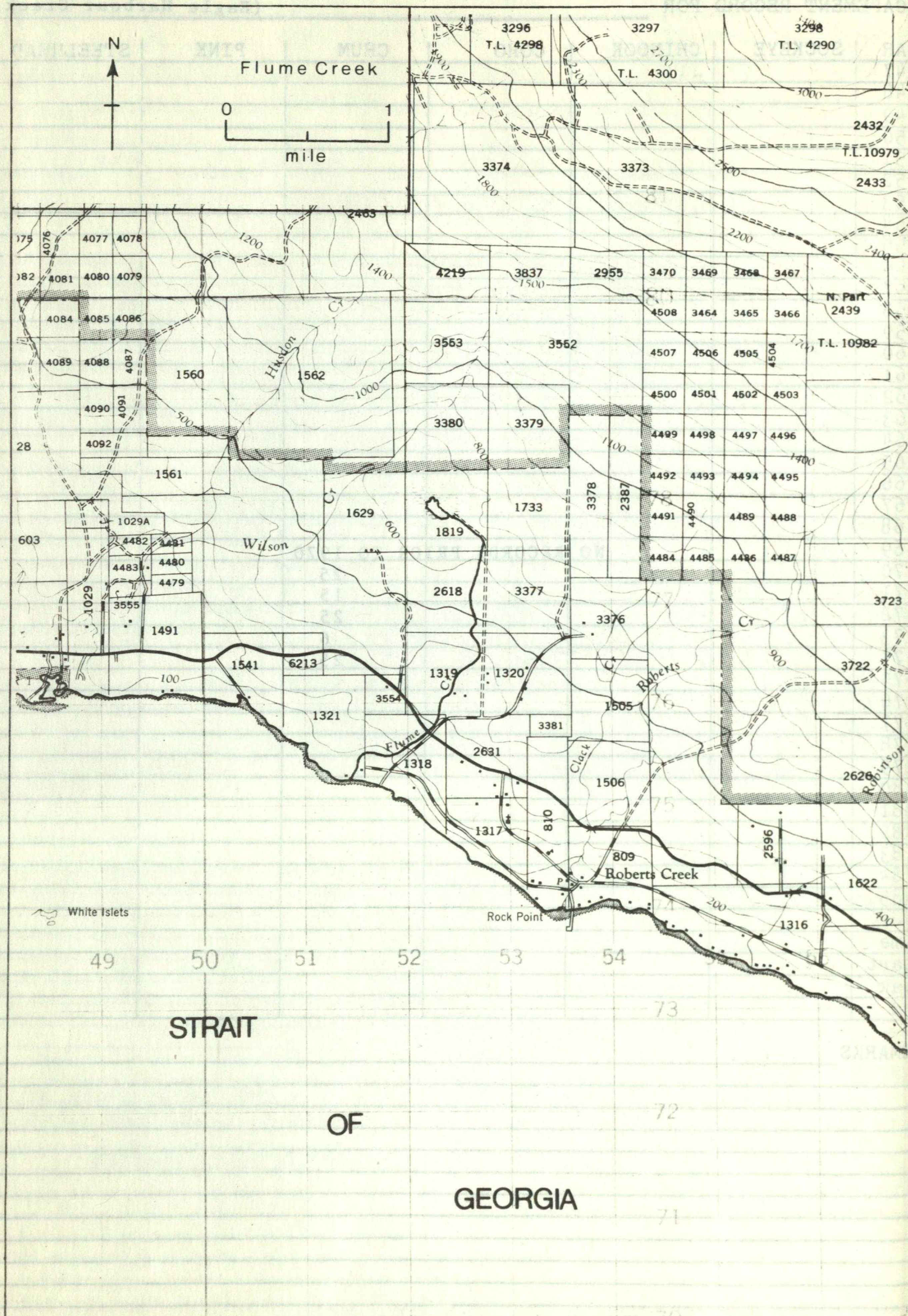
Time Start						
Peak						
End						

REMARKS _____


N
Flume Creek
0
1
mile
Hudson Cr
Wilson Cr
Flume Cr
Clack Cr
Roberts Cr
Robinson
Roberts Creek
Rock Point
White Islets
STRAIT
OF
GEORGIA

NAME OF STREAM FLUME CREEK

CONSERVATION DISTRICT 2 STATISTICAL AREA 28

LOCATION OF MOUTH Flows S.W. into Str. of Georgia, W. of Roberts Cr.

P.O. - New Westminster Dist. POSITION 49 123 S.W.

LENGTH 1 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 mi.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOOKEYE	
CHINOOK	
COHO	
CHUM	evenly in lower reaches
PINK (ODD YR)	
PINK (EVEN YR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS:

- This creek was cleared for the first 200 yds. with bulldozer and power saw to remove a log and gravel accumulation located at the mouth in 1966.
- This stream has been hard hit by sub-division development and road donstruction. However, cover is coming back and the fish habitat is improving. (1972)

ESCA

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81
82
83
84
85

Time
Start
Peak
End

REMA

ESCAPEMENT RECORD FOR FLUME CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
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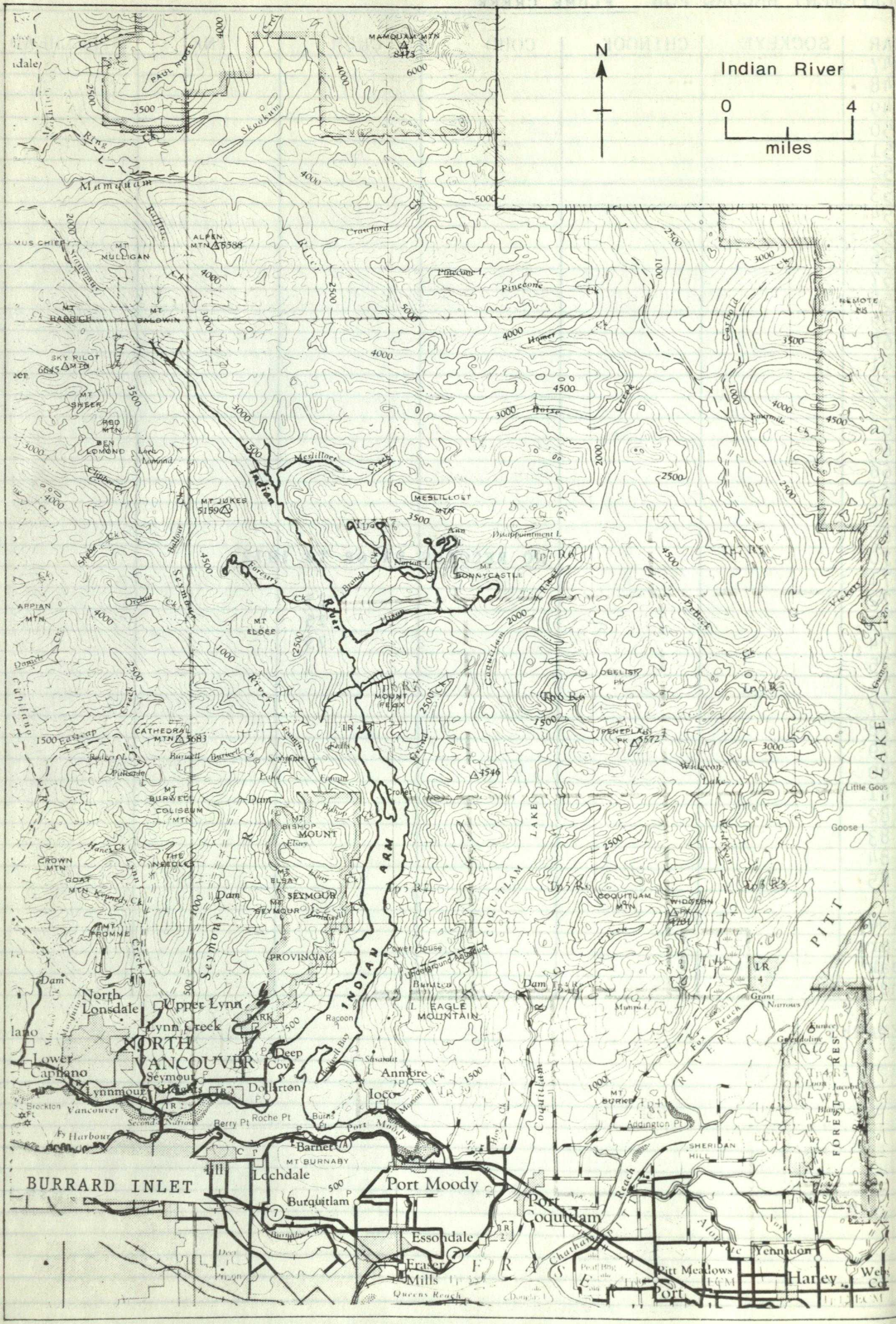
56						
57						
58						
59						
60						
61						
62						
63						
64						
65						
66						
67						
68						
69						
70			NO RECORDS	PRIOR TO 1972		
71						
72				25		
73				75		
74				25		
75						
76						
77						
78						
79						
80						
81						
82						
83						
84						
85						
Time Start						
Peak						
End						

REMARKS


N
Indian River
0
4
miles
MAMQUAM MTN
PAUL RIDGE
MT MULLIGAN
ALPEN MTN
MT BALDWIN
SKY PILOT
MT SHEER
BEN LOMOND
MT JUKES
MESLILLOET MTN
MT BONNYCASTLE
MT ELDEE
MOUNT FELIX
APPIAN MTN
CATHEDRAL MTN
MT BURWELL
COLISEUM MTN
CROWN MTN
GOAT MTN
THE NEEDLES
MT BISHOP
MOUNT SEYMOUR
PROVINCIAL
PARK
OBELISK PK
PENEPLAIN PK
COQUITLAM MTN
WIDGEON PK
EAGLE MOUNTAIN
MT BURKE
SHERIDAN HILL
INDIAN ARM
COQUITLAM LAKE
PITT LAKE
North Lonsdale
Upper Lynn
Lynn Creek
NORTH VANCOUVER
Lower Capilano
Lynnmour
Deep Cove
Dollarton
Anmore
Ioco
Barnet
Lochdale
Burquitlam
Port Moody
Port Coquitlam
Essondale
Fraser Mills
Pitt Meadows
Haney
Yennadon
BURRARD INLET

NAME OF STREAM INDIAN RIVER (Burrard River)

CONSERVATION DISTRICT 2 STATISTICAL AREA 28

LOCATION OF MOUTH Flows S. into Indian Arm - New Westminster Dist.

POSITION 49 122 S.W.

LENGTH 6 MI. WIDTH FT. DRAINAGE 65.0 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 6 mi.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	up to 4 mi. with heavy concentrations in some sloughs
PINK (ODD YR)	up to 3.5 mi.
PINK (EVEN YR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS:

- Water temperatures: 6°C 11/04/51; 6°C 25/04/51; 8°C 09/05/51; 6°C 23/05/51; 10°C 16/08/51; 11°C 12/09/51; 10°C 04/10/51.
- Extreme fluctuations in water levels.
- The Canadian Collieries Resources Ltd. started logging and shake manufacturing at the river mouth in 1960. In 1959, they constructed a logging road up the right bank of the river to the falls.
- In 1961, the Dept. erected a counting weir and holding facilities at 1 mile. Pink salmon eggs were collected for transplant purposes.
- Most of the egg taking facilities installed by the R.D. Branch were

GENERAL REMARKS: (Cont'd)

removed from the lower portion of the river by Weldwood of Canada (formerly Canadian Collieries Resources Ltd.) at the Departments request. (1973)

- When B.C. Hydro cleared their transmission line right of way in 1968, they left areas in the bottom of the valley subject to breakthrough and change in stream course. In 1972, flood water cut through the B.C. Hydro right of way and the existing channel was cut off. The stream course changed to a channel which was cut in 1968. The length of the changed portion of the stream is approx. 2.5 mi.
- In 1972, valley groundwater sources were checked as to their suitability for hatchery use (Memo, 31-1-12). It was concluded that the quality and quantity was suitable for this purpose.
- In 1966, a transplant of chinook fry from the Qualicum River was undertaken in an effort to establish a run of this species. Results were negative.

References:

Brown, W.L. 1972. Groundwater Development Indian River Proposed Hatchery Site. D.O.E., Fisheries Service, Pac. Reg. Memo. 31-1-12. 15p.

Lister, D.B. 1968. An Experimental Transplant of Chinook Salmon to Indian River, Burrard Inlet, British Columbia. 1968 Memo. 31-1-12.

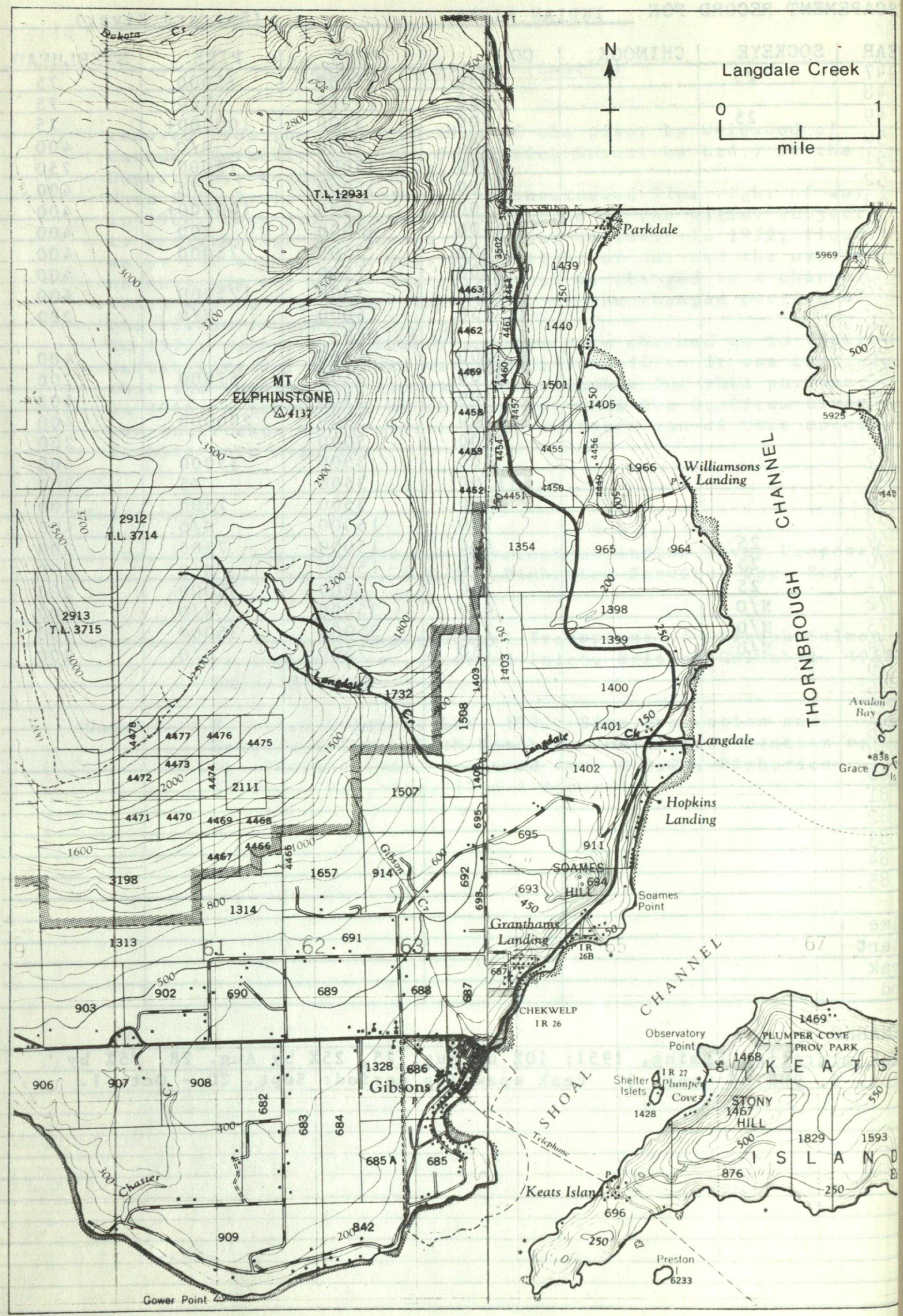
Underwood McLellan & Assoc. Ltd. 1972. Site Evaluation and Selection for a Fish Hatchery and Rearing Station on the Indian River. Prepared for: D.O.E., Fisheries Service, Pac. Reg. 120p & Appendix.

ESCAPEMENT RECORD FOR INDIAN RIVER (Burrard River)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947	25		750	15000	75000	75
48			1500	15000	N/O	75
49	25		1500	3500	100000+	75
50			1500	3500	N/O	400
51			3500	35000	75000	750
52			3500	35000	75	400
53			1500	1500	100000+	400
54			1500	35000	200	400
55			3500	3500	75000	400
56			1500	1500		400
57			1500	3500	125000	400
58			750	15000	N/O	200
59			NO RECORDS			
60			1500	4000		400
61			3500	2500	67800	200
62			400	3500		400
63			1500	3000	200000	400
64			3500	5000		200
65			400	3500	35000	400
66			1500	3500	75	200
67			1500	3500	7500	200
68			750	15000	N/O	400
69	25		400	15000	7500	200
70	25		750	15000	N/O	200
71	25		750	7500	35000	200
72	N/O		400	35000	N/O	200
73	N/O		750	35000	35000	200
74	N/O		750	7500	N/O	200
75						
76						
77						
78						
79						
80						
81						
82						
83						
84						
85						
Time						
Start						
Peak						
End						

REMARKS

Pink migration timing, 1951: 10% by Aug. 25, 25% by Aug. 28, 75% by Sept. 2, 90% by Sept. 3. Peak spawning period: Sept. 20 - Oct. 1.


Langdale Creek
0
1
mile
N
Dakota Cr.
T.L. 12931
MT ELPHINSTONE
4137
2912
T.L. 3714
2913
T.L. 3715
2111
Parkdale
Williamsons Landing
CHANNEL
THORNBROUGH
Langdale
Langdale Cr.
Avalon Bay
Grace Is.
Hopkins Landing
SOAMES HILL
Soames Point
Granthams Landing
IR 26B
CHEKWELP IR 26
Observatory Point
PLUMPER COVE PROV. PARK
K E A T S
I S L A N D
Shelter Islets
IR 27
Plumper Cove
STONY HILL
1467
Telephone
Keats Island
Preston
6233
SHOAL CHANNEL
Gibsons
Gibson Cr.
Chaster
Gower Point
61
62
63
67

NAME OF STREAM LANGDALE CREEK

CONSERVATION DISTRICT 2 STATISTICAL AREA 28

LOCATION OF MOUTH Flows E. into Thornbrough Channel, N. of Hopkins Landing - New Westminster Dist. POSITION 49 123 S.E.

LENGTH 1.0 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 falls at 1 mi.
- Culvert at .75 mi. is passable at suitable water levels.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	coho fry observed above culvert during inspection, Oct./74
CHUM	evenly distributed below culvert
PINK (ODD YR)	
PINK (EVEN YR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS:

- Heavy rains in Dec. 1972 caused silting and erosion which affected 20% of the stream and scouring which affected the entire spawning area. Consequently, 60-70% of the spawn was lost.
- A second growth is becoming well established on the watershed. This should help to stabilize the stream. (1971)
- Fish molestation by juveniles is a problem. (1971)

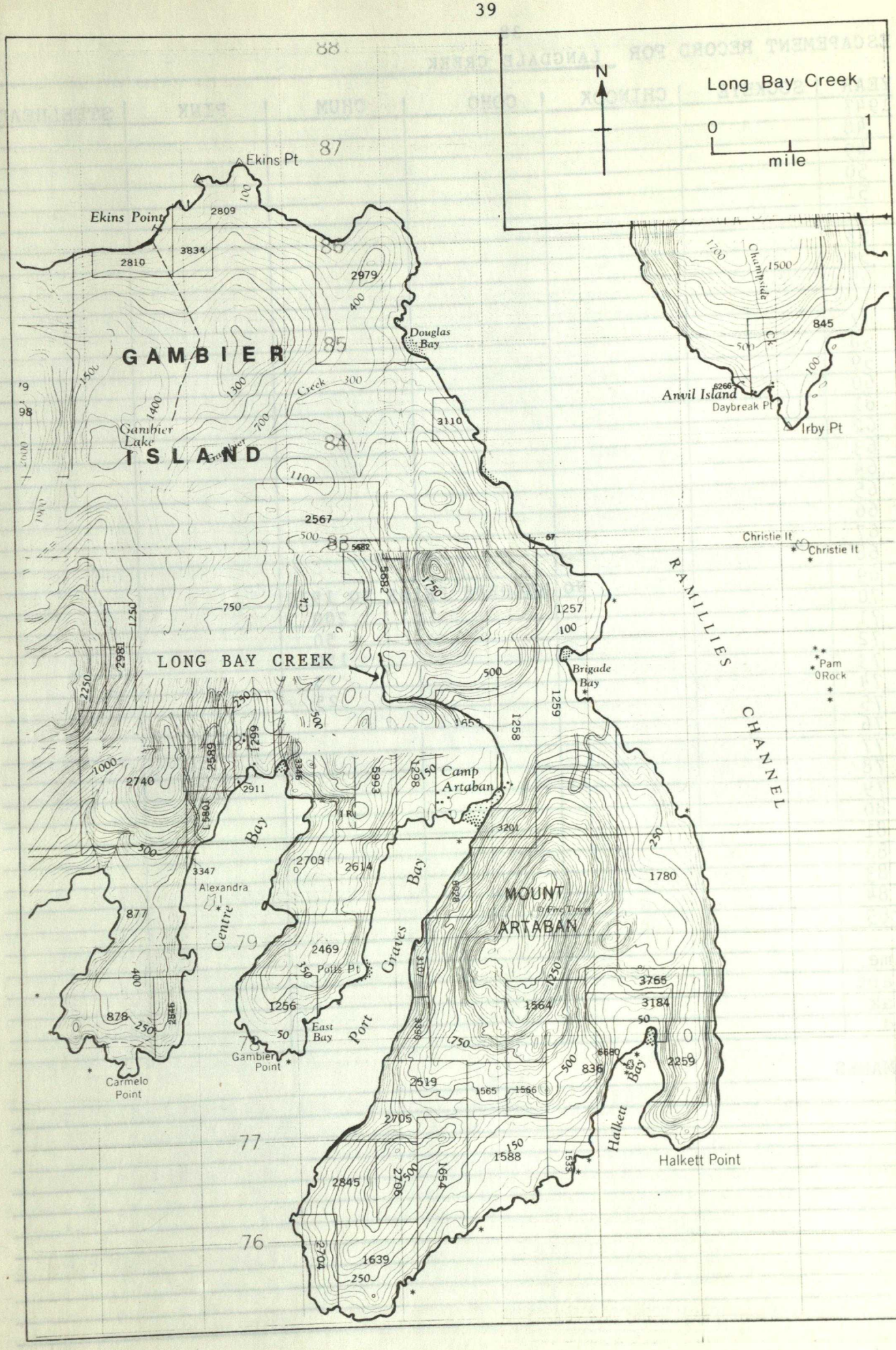
References:

Eddy, W.S. & D.E. Marshall. 1974. Inspection of Langdale Creek. D.O.E., F.M.S., Pac. Reg. Memo. 31-1-L11. 8p.

ESCAPEMENT RECORD FOR LANGDALE 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		NO	RECORDS PRIOR TO 1970			
70				200		
71				50		
72				150		
73				75		
74				25		
75						
76						
77						
78						
79						
80						
81						
82						
83						
84						
85						
Time						
Start						
Peak						
End						

REMARKS


Long Bay Creek
N
0
1
mile
Ekins Pt
Ekins Point
GAMBIER
ISLAND
Gambier Lake
Douglas Bay
Anvil Island
Daybreak Pt
Irby Pt
Christie It
Christie It
RAMILLIES CHANNEL
LONG BAY CREEK
Brigade Bay
Pam Rock
Camp Artaban
Bay
Alexandra Centre
MOUNT ARTABAN
Graves Bay
Potts Pt
East Bay
Port
Gambier Point
Carmelo Point
Halkett Bay
Halkett Point
Champside Ck

NAME OF STREAM (Long Bay Creek)

CONSERVATION DISTRICT 2 STATISTICAL AREA 28

LOCATION OF MOUTH Flows S., E. and S. into Port Graves Bay, Gambier Is. - New Westminster Dist. POSITION 49 123 S.E.

LENGTH .75 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 at .75 mi. where stream narrows and starts to rise rapidly.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	even distribution throughout
PINK (ODD YR)	
PINK (EVEN YR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

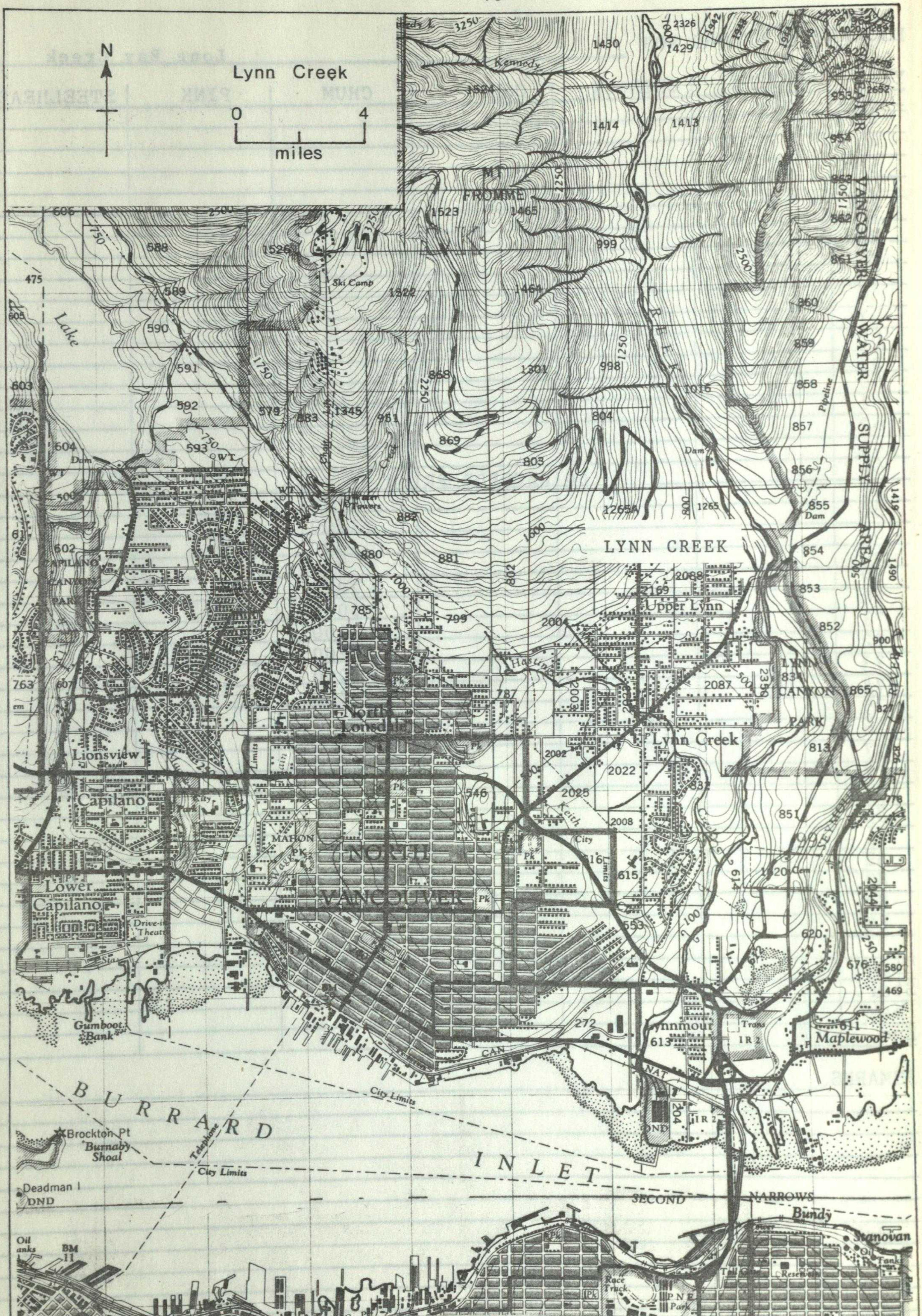
GENERAL REMARKS:

- This small stream has excellent spawning beds, good gravel, well defined banks and a stable water flow. (1969,1970)

ESCAPEMENT RECORD FOR Long Bay 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			NO RECORDS PRIOR TO 1965			
65				100		
66				1500		
67				300		
68				900		
69				2000		
70				3000		
71				1100		
72				2200		
73				3000		
74				200		
75						
76						
77						
78						
79						
80						
81						
82						
83						
84						
85						
Time						
Start						
Peak						
End						

REMARKS


Lynn Creek
N
0
4
miles
LYNN CREEK
MT FROMME
VANCOUVER WATER SUPPLY AREA
Upper Lynn
Lynn Creek
LYNN CANYON PARK
North Lonsdale
NORTH VANCOUVER
Lionsview
Capilano
Lower Capilano
CAPILANO CANYON PARK
Lynnmour
Maplewood
Gumboot Bank
BURRARD INLET
Brockton Pt
Burnaby Shoal
Deadman I
SECOND NARROWS
City Limits
Ski Camp
Pipeline
Stanovan

NAME OF STREAM LYNN CREEK

CONSERVATION DISTRICT 2 STATISTICAL AREA 28

LOCATION OF MOUTH Flows S. into Burrard Inlet, W. of Seymour R. - New Westminster Dist. POSITION 49 123 S.E.

LENGTH 3.5 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 in canyon at 3.5 mi.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	canyon
CHUM	lower reaches
PINK (ODD YR)	
PINK (EVEN YR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

- Hastings Creek (tributary) is presently inaccessible mainly due to the large box culvert under Arbourlynn Road. An assessment of the creek has indicated that it is potentially a very productive salmon and trout stream.

GENERAL REMARKS:

- As the city of North Vancouver takes its water supply from this stream, the water flow is critically low during dry periods. In 1971, the guaranteed flow was 2 cfs.
- Industrial pollution, leachate from Lynn Creek Garbage Dump and gravel removal by North Shore Municipalities over the past 10-15 years may account for the lack of chum and pink in this area. The municipalities are presently observing gravel removal restrictions. (1970,71, 1973)
- Steelhead and coho in this stream are subject to heavy sport fishing pressure during the open season. (1969)

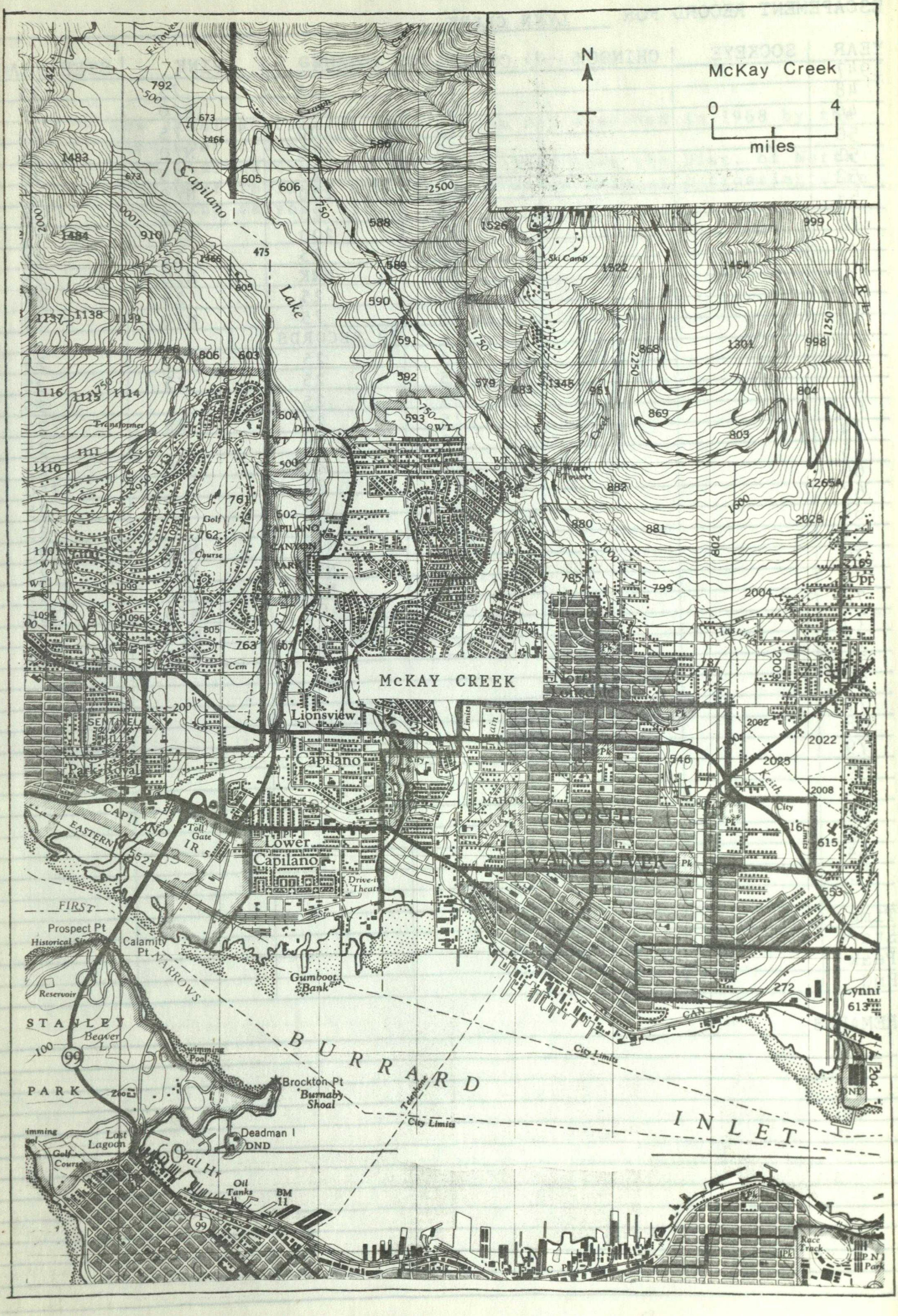
GENERAL REMARKS: (Cont'd)

- The tidal portion of this stream was deepened in 1968 by the Vancouver Cruising Club.
- A partial obstruction was eliminated when the Dist. of North Vancouver replaced and buried a water main at a crossing site below the canyon. (1974)

ESCAPEMENT RECORD FOR LYNN CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947			75	25	75	25
48			400	200	N/O	25
49			75	200	75	25
50			200	75	N/O	25
51			200	25	25	75
52			200	200	N/O	25
53			75	25	25	25
54			75	200	N/O	75
55			200	25	25	75
56			75	UNK	N/O	75
57			200	25	25	25
58			75	75	N/O	75
59				NO RECORDS		
60			25	25		25
61			25	25	25	25
62			25	25		25
63			25	25	25	25
64			25	25		25
65			25	25	25	25
66			25	25		750
67			25	25		25
68			25	25		25
69			200	N/O	N/O	200
70			75	N/O	N/O	25
71			75	N/O	N/O	25
72			400	400	N/O	200
73			75	25	N/O	25
74			75	25	N/O	25
75						
76						
77						
78						
79						
80						
81						
82						
83						
84						
85						
Time						
Start						
Peak						
End						

REMARKS


N
McKay Creek
0
4
miles
McKAY CREEK
Capilano
Lake
CAPILANO CANYON PARK
Lionsview
Capilano
Lower Capilano
Park Royal
NORTH VANCOUVER
Prospect Pt
Calamity Pt
NARROWS
FIRST
Gumboot Bank
STANLEY
PARK
Beaver L
Brockton Pt
Burnaby Shoal
Deadman I
Lost Lagoon
B U R R A R D
I N L E T
City Limits
Telephone
Swimming Pool
Reservoir
Historical Site
Golf Course
Ski Camp
Transformer
Toll Gate
Oil Tanks
Race Track

NAME OF STREAM McKAY CREEK

CONSERVATION DISTRICT 2 STATISTICAL AREA 28

LOCATION OF MOUTH Flows S. into Burrard Inlet, E. of Capilano R. - New Westminster Dist. POSITION 49 123 SE

LENGTH 4.5 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	
CHINOOK	
COHO	even distribution
CHUM	
PINK (ODD YR)	
PINK (EVEN YR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

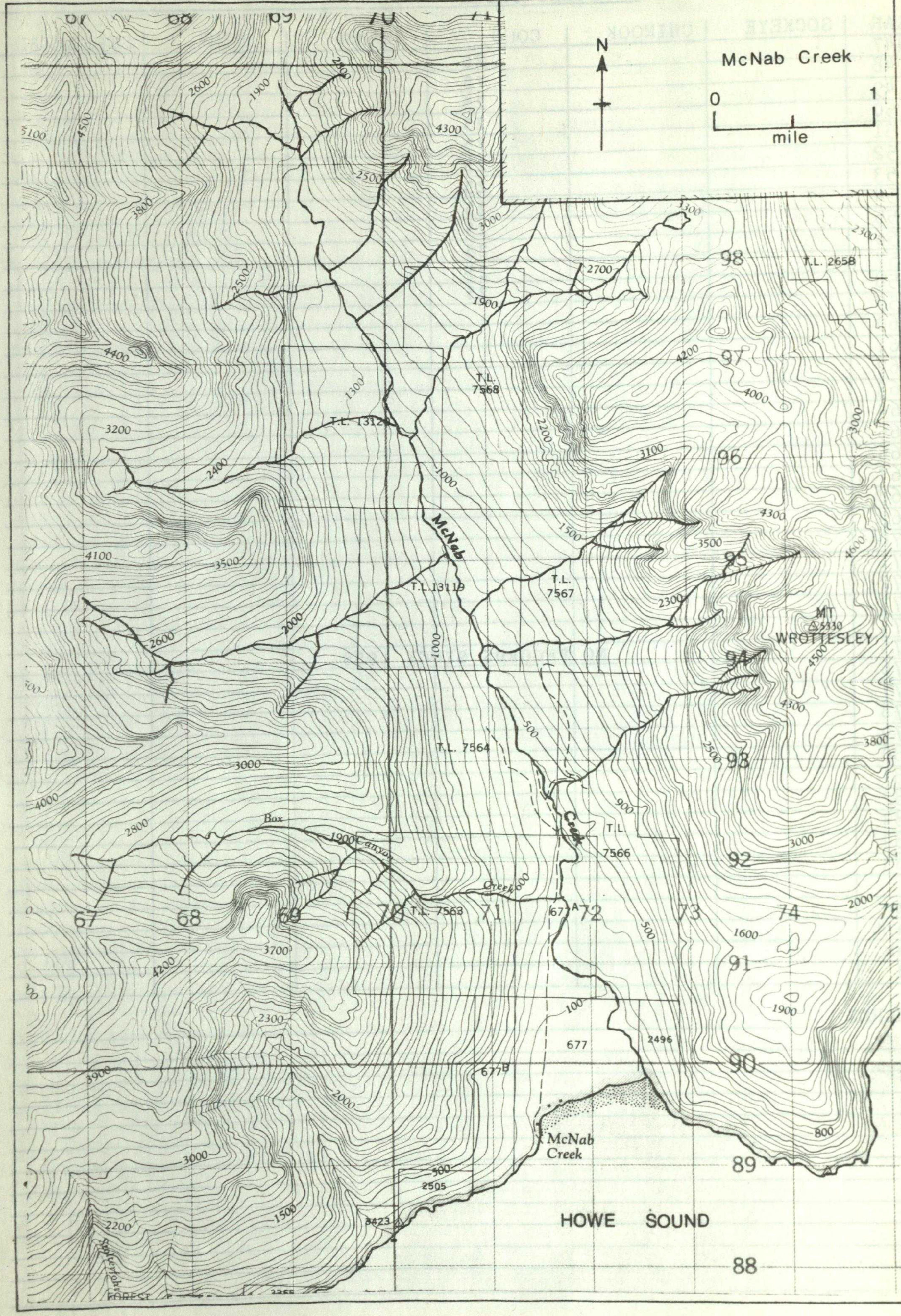
GENERAL REMARKS:

- The last spawning inspection and report was completed in 1958.
- Extensive land clearing and residential development on the watershed affects run-off and causes flash floods, unstable stream flow, scouring and heavy erosion. (1954-56)
- Fifty to seventy-five percent of the coho population is utilized for the local Indian fishery. (1948-51)

ESCAPEMENT RECORD FOR McKAY CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947			25			
48			75			
49			25			
50			25			
51			75			
52			25			
53			25			
54			25			
55			25			
56			25			
57			25			
58			25			
59						
60						
61						
62						
63						
64						
65						
66						
67						
68						
69						
70						
71						
72						
73						
74						
75		NO RECORDS SINCE 1958				
76						
77						
78						
79						
80						
81						
82						
83						
84						
85						
Time						
Start						
Peak						
End						

REMARKS


McNab Creek
N
0
1
mile
McNab
Creek
T.L. 7568
T.L. 13120
T.L. 13119
T.L. 7567
T.L. 7564
T.L. 7566
T.L. 7563
T.L. 2658
Box
Canyon
Creek
MT
WROTTESLEY
5330
McNab
Creek
HOWE SOUND
677
2496
2505
3423

NAME OF STREAM McNAB CREEK

CONSERVATION DISTRICT 2 STATISTICAL AREA 28

LOCATION OF MOUTH Flows S. into Thornbrough Channel, N. of Gambier Is. - New Westminster Dist. POSITION 49 123 NE

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

- Impassable falls at 2.5 mi.

SPAWNING DISTRIBUTION:

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

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS:

- This stream is subject to flooding and has changed course several times over the years.
- Some sections of the stream have excellent gravel. There are some gravel bars and minor debris in the lower reaches. (1969)
- At one point where the road parallels a canyon, road material spills close to the creek and could become a problem during periods of heavy rain or additional construction. In 1969, it was recommended that in the future, close attention should be given to this potential slide area.

GENERAL REMARKS: (Cont'd)

- In Oct. 1973, dredging operations on this stream were complete
A channel approx. 60' wide and 200' in length was dredged out
the mud flats immediately east of the mouth of the creek. The
dredged channel will be used for mooring small boats.

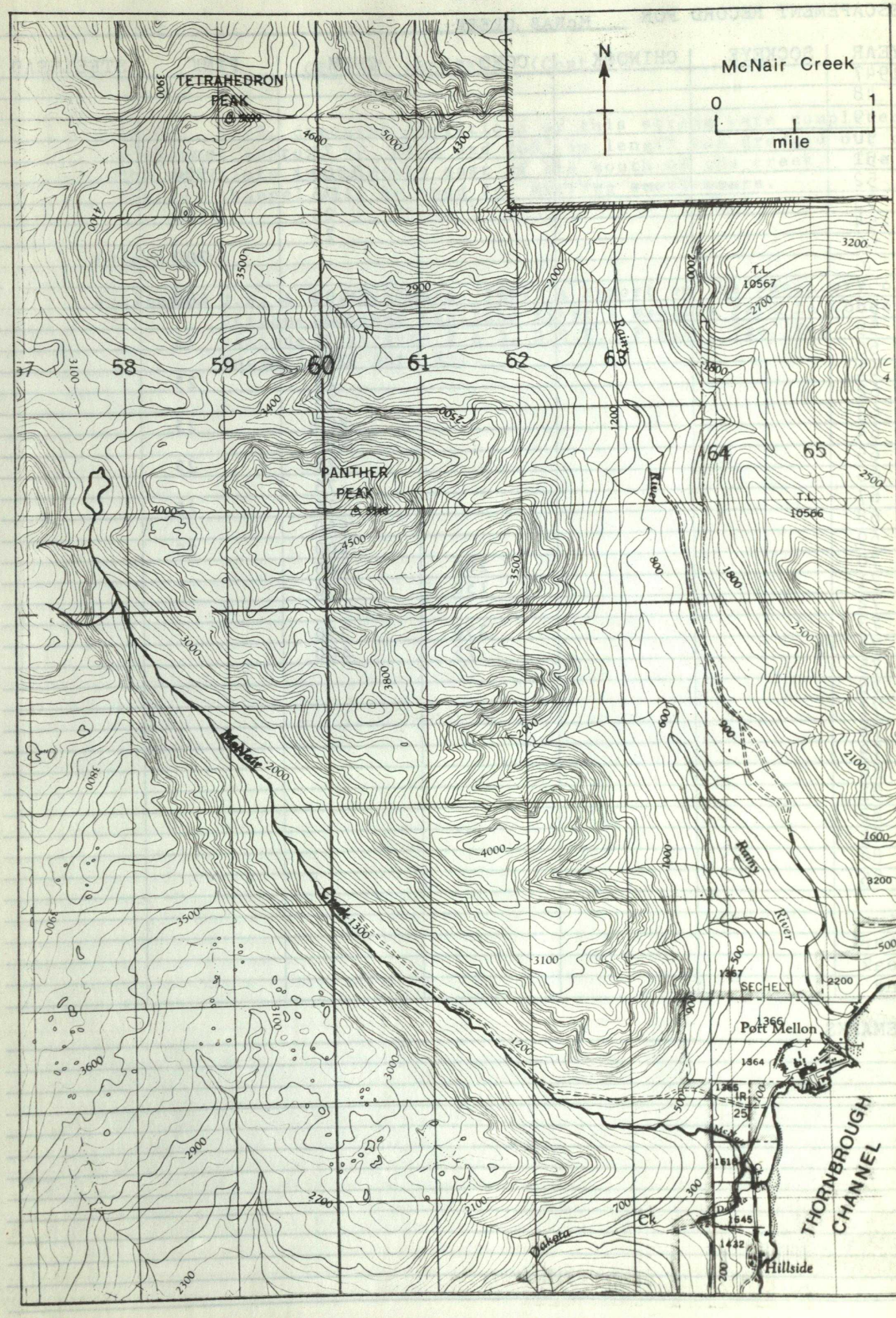
References:

Sweitzer, O.D. & H. Nishimura. 1969. A Report on the Inventory o
Streams Between Capilano River & Madeira Park in Conse
vations Districts 2 & 3. D.O.E., F.M.S., Pac. Reg.
Unpublished Data Rpt.

ESCAPEMENT RECORD FOR McNAB CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50				75		
51				1500	3500	
52				75		
53				25	3500	
54				25		
55					200	
56						
57				400	400	
58				200		
59				75	75	
60				200		
61				25	25	
62				25		
63				200	25	
64				200		
65				25	25	
66				75		
67				75	25	
68				450		
69				200	25	
70			200	600		
71			150	150		
72						
73			350	350		
74			75	400		
75						
76						
77						
78						
79						
80						
81						
82						
83						
84						
85						
Time						
Start						
Peak						
End						

REMARKS


N
McNair Creek
0
1
mile
TETRAHEDRON PEAK
PANTHER PEAK
T.L. 10567
T.L. 10566
Rainy River
McNair Creek
SECHELT
Port Mellon
IR 25
THORNBROUGH CHANNEL
Dakota Ck
Hillside
58
59
60
61
62
63
64
65

NAME OF STREAM McNAIR CREEK

CONSERVATION DISTRICT 2 STATISTICAL AREA 28

LOCATION OF MOUTH Flows S.E. into Thornbrough Channel, W. of Gambier Is. - New Westminster Dist. POSITION 49 123 NE

LENGTH .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 rock falls at 2 mi.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	scattered in pairs up to .5 mi.
PINK (ODD YR)	
PINK (EVEN YR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS:

This stream has suitable spawning area near the mouth. Most of the stream bed has very high gradient and is studded with boulders. The spawning areas are well separated by steep and rocky sections. (1973)

A series of old dams hinder the recruitment of gravel to spawning beds in the lower reaches. (1974)

In Jan. 1974, silt from the Dept. of Highway excavations was released into the stream.

During past gravel operations in the area, tailings were dumped back into the creek.

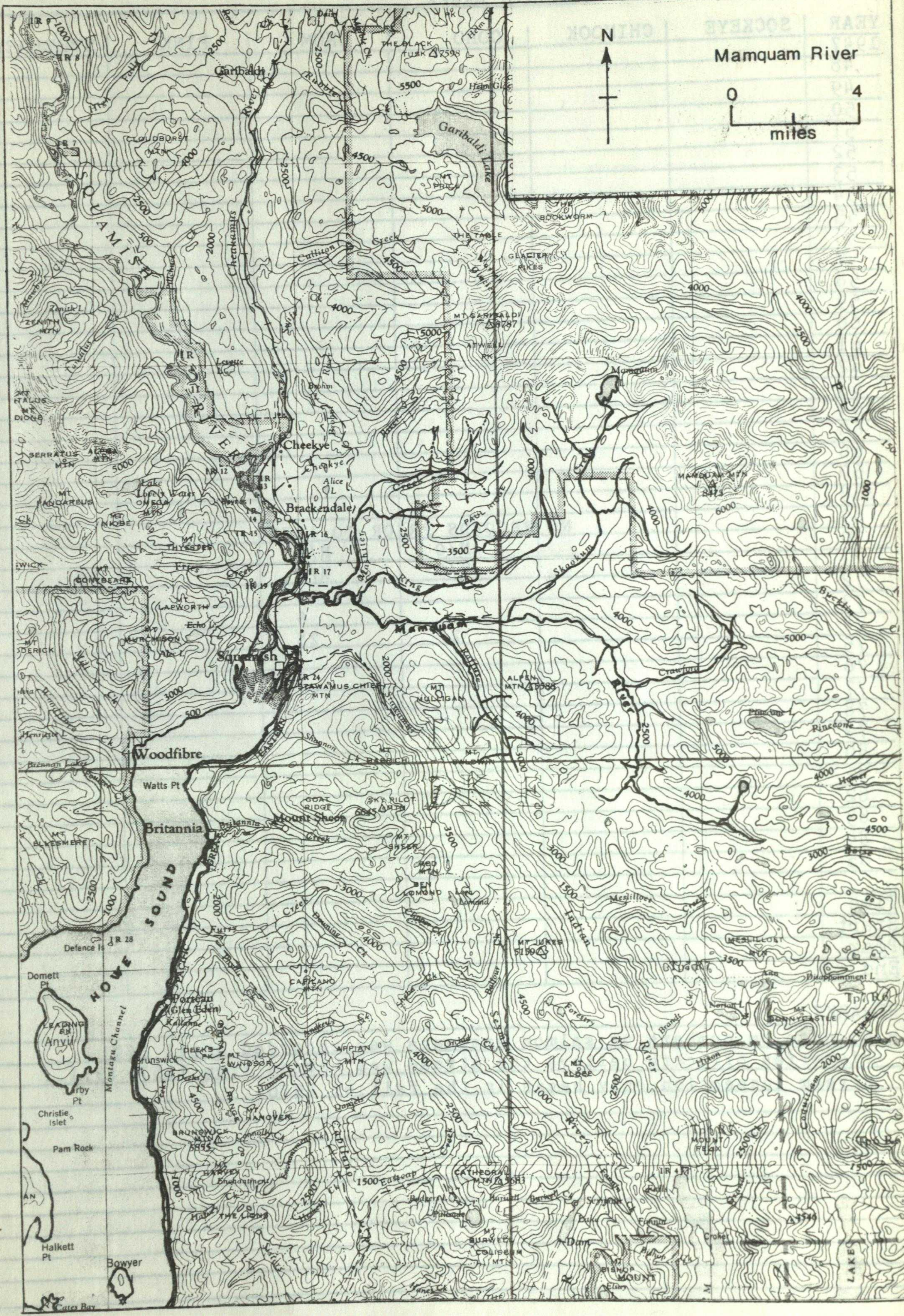
The watershed has been logged off.

ESCAPEMENT RECORD FOR McNAIR 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			NO RECORDS PRIOR TO 1970			
70			N/O	N/O		
71			N/O	N/O		
72				10		
73				6		
74			25	25		
75						
76						
77						
78						
79						
80						
81						
82						
83						
84						
85						
Time						
Start						
Peak						
End						

REMARKS

- No data on numbers of salmon spawners was recorded until 1971. Fisheries officers believe the stream was barren from 1957-1971. Stream inspection only began in the fall of 1970.


Mamquam River
N
0
4
miles
Garibaldi
Cheekye
Brackendale
Squamish
Woodfibre
Watts Pt
Britannia
Mount Sheer
HOWE SOUND
Defence Is
Domett Pt
Porteau
(Glen Eden)
Brunswick
Christie Islet
Pam Rock
Halkett Pt
Bowyer
Anvil
Montagu Channel
SQUAMISH RIVER
Garibaldi Lake
Mamquam
Skookum
Shannon
Indian
River

NAME OF STREAM MAMQUAM RIVER

CONSERVATION DISTRICT 2 STATISTICAL AREA 28

LOCATION OF MOUTH Flows W. and S. into mouth of Squamish R. - New Westminster Dist. POSITION 49 123 N.E.

LENGTH 3-4 MI. WIDTH _____ FT. DRAINAGE 129 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 948 CFS MAX 10100 cfs 31/10/67 MIN 75.1 cfs 15/09/70

TEMPERATURE _____

BARRIERS OR POINTS OF DIFFICULT ASCENT

- Impassable falls from 3 to 4 mi.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	throughout & Mashiter Creek
CHUM	mainly between highway & Mashiter Creek
PINK (ODD YR)	up to 3 mi. & Mashiter Creek
PINK (EVEN YR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS:

- As the watershed in the upper reaches has been logged off, the stream is subject to rapid changes in water level. In 1972, 25-30% of the spawn was lost due to high water levels.
- Flash flooding causes up to 35% of the gravel bars in the spawning grounds to shift after spawning. Most of the side channels are stable but the main channel moves several times a year. (1974)
- In 1963, the Provincial Govt. built a rock groin on the left bank of the river in the lower reaches to help stabilize the bank.
- This stream supports a heavy sport fishery. (1972)

GENERAL REMARKS: (Cont'd)

- Fish molestation is a problem as the main part of the stream runs through the municipality. (1973)
  In 1970, an estimated 1000-1500 chum were destroyed by uninformed citizens.
- Stabilization of flows will be established when the second growth is well established. This should not be too far in the future as some improvement has been noted in the last four years. (1974)