

NAME OF STREAM HIRSCH CREEK
 CONSERVATION DISTRICT 7 STATISTICAL AREA 6
 LOCATION OF MOUTH Flows NW. into Kitimat R., N. of Kitimat Arm.
Rge. 5, Coast Dist. POSITION 54 128 SW.
 LENGTH 4.5 MI. WIDTH 85 FT. DRAINAGE 142.4 SQ. MI.
 COMPOSITION: BEDROCK _____ BOULDER 60 COARSE 35 FINE 5
 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 224000 SQ. YD. SPAWNING AREA 87000 SQ. YD.
 DISCHARGE *885 CFS MAX 24/10/66 13500 MIN 01/04/67 118
 TEMPERATURE 29/08/70 52.0°F.

BARRIERS OR POINTS OF DIFFICULT ASCENT Canyon, 4.5-7.5 mi., many cascades, has impassable falls, 6.5 mi., 10 ft. vertical drop, may be accessible to this point. No spawning gravel in canyon.

SPAWNING DISTRIBUTION:

SPECIES

SECTION OF STREAM USED

SOCKEYE

CHINOOK

COHO

CHUM

PINK (ODD YR)

PINK (EVEN YR)

STEELHEAD

POTENTIAL OF INACCESSIBLE PORTION OF STREAM Above canyon (7.0 mi.), stream flows through valley for 6.0 mi., appears to have good gravel.

GENERAL REMARKS:* 2 years data (66-68).

- Est. discharge: 29/08/70 410 c.f.s.

- 0.0-3.5 mi.: mainly coarse gravel, some fine in vicinity of mouth.

3.5-4.5 mi.: boulders.

4.5-7.0 mi.: vertical walled canyon, cascades, 10 ft. (min.) vertical falls at 6.5 mi.

7.0-13.0 mi.: valley stream, appears to have good gravel, water temp. 09/09/69 48.0°F.

- Elevation from mouth to 13.0 mi. 1740 ft. (25'/000 approx.)



Hirsch Creek
at confluence with Kitimat River



Hirsch Creek. Looking downstream from 3 mi.

HOTSPRINGS CREEK

For map, refer to page 16



Hot Springs Creek

HUGH CREEK

For map, refer to page 16

YEAR	SOCKET	DEPTH	TEMP
1900			
1901			
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NAME OF STREAM HUGH CREEK Deer, Hughes
 CONSERVATION DISTRICT 7 STATISTICAL AREA 6
 LOCATION OF MOUTH Flows S. into Devestation Chan., E. of Sue Chan.,
Rge. 4, Coast Dist. POSITION 53 128 NW.
 LENGTH 2.0 MI. WIDTH 54 FT. DRAINAGE 21.6 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 63000 SQ. YD. SPAWNING AREA _____ SQ. YD.
 DISCHARGE 215 cfs (est.) 08/09/69
 TEMPERATURE 08/09/69 49.0°F.
 BARRIERS OR POINTS OF DIFFICULT ASCENT Impassable falls. 2.0 mi.

SPAWNING DISTRIBUTION:

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

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS: _____

CONSERVATION DISTRICT
 LOCATION OF MOUNTAIN
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 COUNTY
 STATE

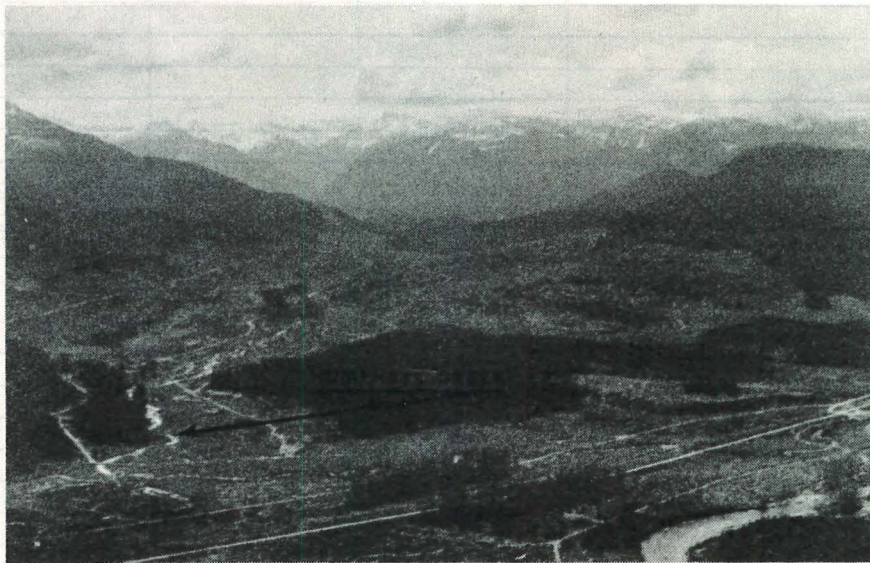
DISTRICT
 COUNTY
 STATE

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HUMPHRYS CREEK

For map, refer to page 15



Humphrys Creek

NAME OF STREAM HUMPHRYS CREEK

CONSERVATION DISTRICT 7 STATISTICAL AREA 6

LOCATION OF MOUTH Flows W. into Kitimat R., N. of mouth of Wedeene R., Rge. 5, Coast Dist.

POSITION 54 128 SW.

LENGTH 3.0 MI. WIDTH 25 FT. DRAINAGE 14.0 SQ. MI.

COMPOSITION: BEDROCK _____ BOULDER 25 COARSE 25 FINE 25
SILT & SAND _____ UNCLASSIFIED 25

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 44000 SQ. YD. SPAWNING AREA 22000 SQ. YD.

DISCHARGE 60 cfs (est.) 10/09/69

TEMPERATURE 10/09/69 51.0°F

BARRIERS OR POINTS OF DIFFICULT ASCENT Impassable falls, 3.0 mi.

SPAWNING DISTRIBUTION:

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

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS:

- Small, slow moving creek
- heavily logged

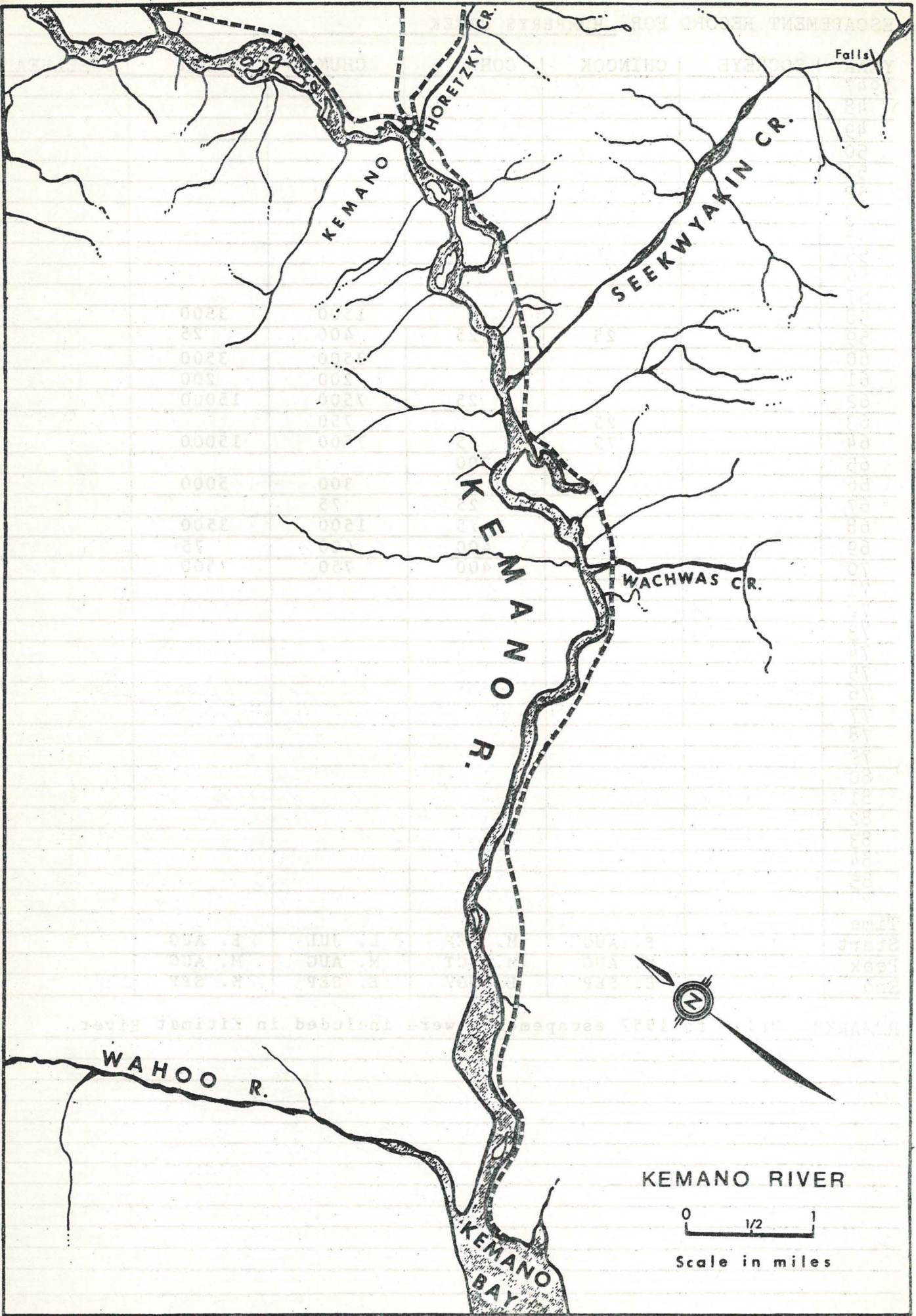
NAME OF STREAM: UNCLASSIFIED
 COUNTY: UNCLASSIFIED
 LENGTH: 2.0 MI.
 WIDTH: FT.
 COURSE: COARSE
 POSITION: 24-128 24
 STATISTICAL AREA: UNCLASSIFIED

CHASING
 FALL IN
 0.0
 2.0
 2.0
 2.0
 2.0

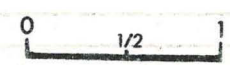
SPAWNING AREA: 25000
 BARRIERS BY POINTS OF TYPICAL
 DISCHARGE: 2.0 mi

POTENTIAL OF TRANSPORTATION OF STREAM
 STEEPHEAD
 PINK (EVEN) 0.0 - 2.0 mi
 PINK (ODD) 0.0 - 2.0 mi
 CHAM 0.0 - 2.0 mi
 COHO
 CHINOOK
 COCKLE
 SPECIES
 SECTION OF STREAM USED
 SPAWNING AREA

GENERAL REMARKS
 - small flow during fresh
 - heavily logged



KEMANO RIVER



Scale in miles

NAME OF STREAM KEMANO RIVER
 CONSERVATION DISTRICT 7 STATISTICAL AREA 6
 LOCATION OF MOUTH Flows W. into Kemano Bay, Gardner Canal, Rge. 4, Coast Dist.
 POSITION 53 128 SE.
 LENGTH 20.6 MI. WIDTH 90-200* FT. DRAINAGE 513.6 SQ. MI.
 COMPOSITION: BEDROCK _____ BOULDER 83 COARSE 11 FINE 6
 SILT & SAND _____ UNCLASSIFIED _____

GRADIENT:

FALL IN FT/000

0.0 - 2.5	
2.5 - 5.0	0.0 - 9.6 mi (Kemano Townsite)
5.0 - 7.5	
7.5 - 10.0	9.6 - 19.0 mi
> 10.0	

WETTED AREA 1707000 SQ. YD. SPAWNING AREA 286000 SQ. YD.
 DISCHARGE** _____ CFS MAX 27/10/51 27900 MIN 10/02/53 80
 TEMPERATURE 05/09/69 48.0°F

BARRIERS OR POINTS OF DIFFICULT ASCENT Cascades, 15.0 mi., passable during high water.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	throughout, observed to 17.0 mi. (main stem) and trib.'s
COHO	throughout (fry observed to 18.5 mi.) and tributaries
CHUM	0.0 - 11.0 mi
PINK (ODD YR)	0.0 - 11.0 mi
PINK (EVEN YR)	0.0 - 11.0 mi
STEELHEAD	

GENERAL REMARKS: In 1954 a hydro power station was completed on the Kemano River 9.6 miles upstream of Gardner Canal. Sub-surface water is drawn from Tahtsa Lake (Nechako and Fraser River Systems), transported via tunnel to the turbines and released to the Kemano River on a continuing basis. Approximately 3, 500 cfs are involved.

Est. discharge of Kemano R. at mouth 05/09/69; from power house	3500
mainstem above power house	3500
tributaries	2000
TOTAL	9000 cfs

- 0.0 - 10.0 mi: relatively wide flood plain, much bank cutting, heavy load of forest debris, side channels, est. 80% boulder, 20% gravel.
 10.0 - 20.0 mi: quite steep, 85% boulder, 15% gravel, 90 ft. wide.
 20.0 mi: very steep area, two canyons at 20.6 - 21.6 mi and 23.0 - 24.0 mi., entirely boulder, glacial colour water.

* Avg. width 90 ft. above Kemano Village, 200 ft. below.

** Prior to Alcan project 3 years data (1951-54).

GENERAL REMARKS: (Cont'd)

- Has eulachon run.
- Drainage area includes Wahoo River.
- Accessible Tributaries:

Wahoo River, 0.0 mi.; see Wahoo River data page.

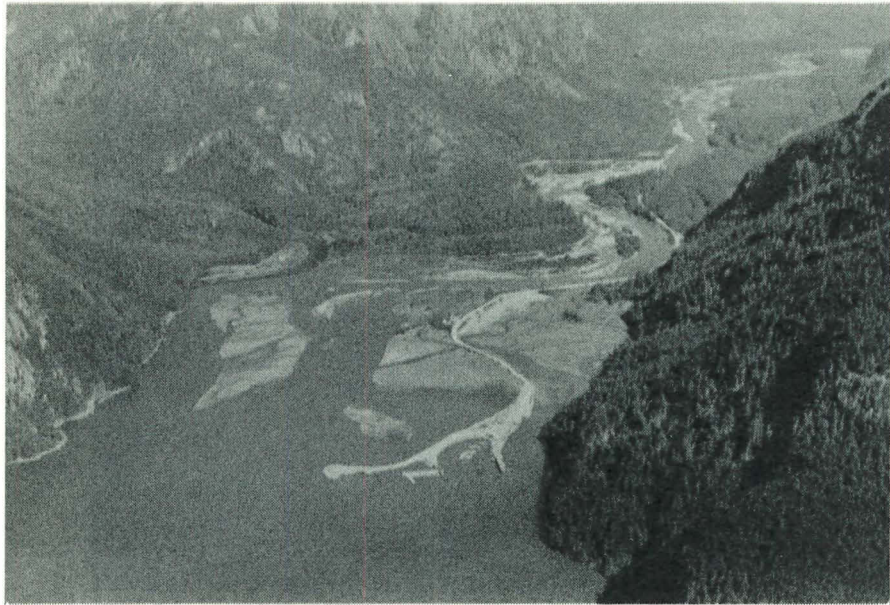
Wachwas Creek, 5.5 mi.; accessible 0.5 mi. (cascades); average width 80 ft.; wetted area 23400 sq. yds., 80% boulder, 20% gravel (mainly coarse); 05/09/69 46.0°F.; chinook throughout, peak spawning Aug. 10-20, 500-1000 escapement.

Seekwyakin Creek, 7.5 mi.; accessible 6.5 mi.; impassable falls, 80 ft. vertical; average width 60 ft.; wetted area 228800 sq. yds., 95% boulder, 5% coarse gravel (11440 sq. yds.); 05/09/69 46.0°F.; heavily silted (glacial); chum, 0.0-1.5 mi., peak spawning Aug. 1-10 and Nov.; too silty for enumeration.

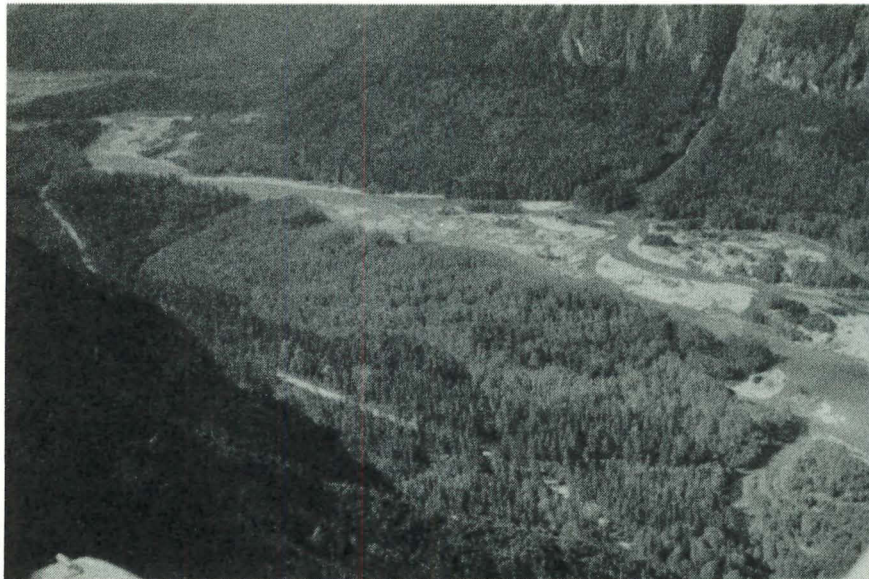
Horetzky Creek, 9.5 mi.; accessible 0.5 mi., impassable falls, 50 ft. vertical; 05/09/69 49.0°F.; est. discharge 01/09/70 160 cfs, water temperature 50.0°F.; average width 60 ft.; wetted area 17600 sq. yds., 30% boulder, 40% coarse gravel, 27% fine gravel (total spawning gravel: 11800 sq. yds.), 3% sand; pinks, peak spawning Aug. 1-30, escapement 5-10000 (even years), chum, peak spawning Aug. 10-20, escapement 5-10000 (30% of Kemano run); major spawning area for pinks and chums.

Unnamed Creek, 12.0 mi.; 100% boulder; steep gradient; average width 40 ft. lower mi.; 05/09/69 45.0°F.; chinook observed to 1.0 mi.; stream has an increasingly higher gradient 1.0 mi.

- Approximately 20000 sq. yds. of additional spawning gravel (not included in Kemano Spawning Area) is available in the above tributaries and a few small sloughs.



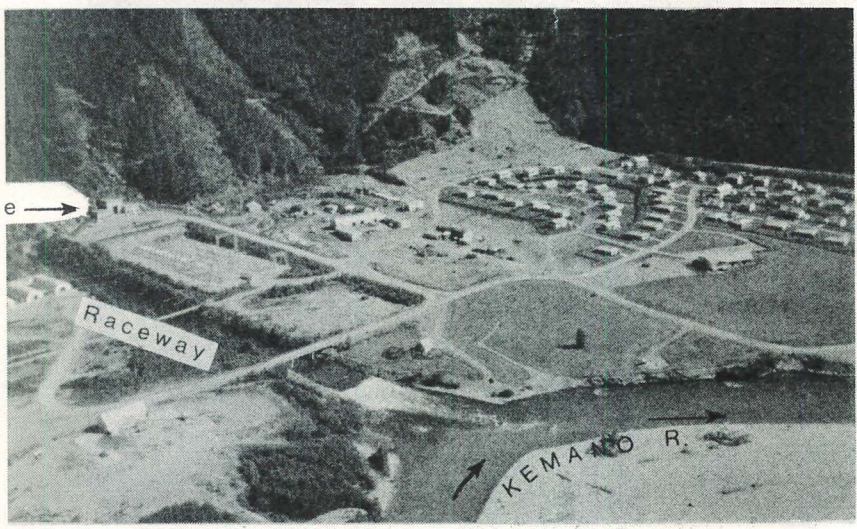
Kemano River - Wahoo River junction mid-left



Kemano River
looking downstream near lower end



Mid-upper Kemano River



Kemano powerhouse site
10.0 mi. from mouth.

KIHESS CREEK

For map, refer to page 14

Station	Left Bank	Right Bank	Channel	Notes
1	1200	1200	1200	
2	1200	1200	1200	
3	1200	1200	1200	
4	1200	1200	1200	
5	1200	1200	1200	
6	1200	1200	1200	
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NAME OF STREAM KIHESSE CREEK Moss Creek

CONSERVATION DISTRICT 7 STATISTICAL AREA 6

LOCATION OF MOUTH Flows S. into Douglas Chan., N. of Kitkiata Inlet,
Rge. 4, Coast Dist.

POSITION 53 129 NE

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	
CHINOOK	
COHO	
CHUM	
PINK (ODD YR)	
PINK (EVEN YR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS:

- Tidal falls at mouth, passable at half tide.
- No spawning gravel, no potential, mostly boulder.

NAME OF STREAM: WHEISS CREEK
 CONSERVATION DISTRICT: STATISTICAL AREA
 LOCATION OF MOUTH: Flow S. into Douglas Chan., N. of Killbuck Lake
 Rge.: Coast Dist.
 POSITION: Sta 129 NE
 LENGTH: 30 MI.
 WIDTH: FT.
 DRAINAGE: COARSE
 COMPOSITION: GRAVEL & SAND
UNCLASSIFIED

GRADIENT:

FALL IN FEET	PERCENT
0.0 - 1.0	0.0 - 1.0
1.0 - 2.0	1.0 - 2.0
2.0 - 3.0	2.0 - 3.0
3.0 - 4.0	3.0 - 4.0
4.0 - 5.0	4.0 - 5.0
5.0 - 10.0	5.0 - 10.0
> 10.0	> 10.0

WETTED AREA: 30.00
 DISCHARGE: CFS MAX
 TEMPERATURE: MIN

HARRIERS OR POINTS OF SIGNIFICANT ASCENT:

SPAWNING DISTRIBUTION:

SECTION OF STREAM USED:

SPAWNING DISTRIBUTION:

SPICES

SOCKETS

GRINDS

COHO

CHUM

PINK (EVEN YR)

PINK (ODD YR)

STEELHEAD

POTENTIAL OF IMPROVABLE PORTION OF STREAM:

GENERAL REMARKS:

Tidal falls of water possible at mouth.

No spawning gravel, no potential, mostly boulder.

NAME OF STREAM KILDALA RIVER
 CONSERVATION DISTRICT 7 STATISTICAL AREA 6
 LOCATION OF MOUTH Flows NW. into Kildala Arm, Rge. 4, Coast Dist.
 POSITION 53 128 NE.
 LENGTH 17.3 MI. WIDTH 126 FT. DRAINAGE 136.0 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 1278000 SQ. YD. SPAWNING AREA _____ SQ. YD.

DISCHARGE _____ CFS MAX _____ MIN _____

TEMPERATURE 28/08/69 43.5°F

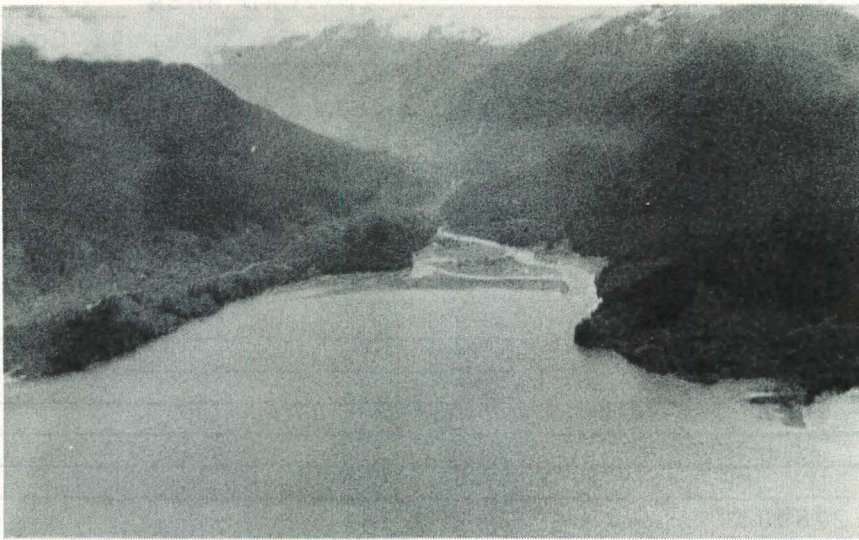
BARRIERS OR POINTS OF DIFFICULT ASCENT Impassable falls, 17.3 mi., base of mountain (500-600 ft. total drop)

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	Scattered throughout
COHO	Throughout
CHUM	Lower 1/4 of stream, scattered to headwaters
PINK (ODD YR)	
PINK (EVEN YR)	Lower 1/4 of stream
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

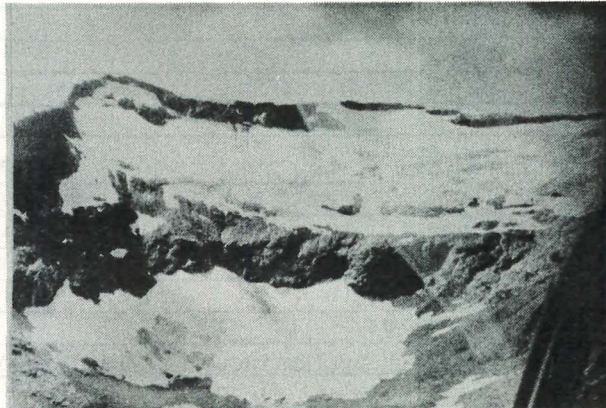
GENERAL REMARKS: Large glacial meandering stream up to 10.0 mi.; above 16.0 mi. stream bed entirely boulder; visible bars and riffles appear to be of good quality spawning gravel, free of glacial silt.
 - Water colour: glacial
 - Has eulachon run
 - important sport fishery
 - valley utilized by Kemano - Kitimat powerline



Mouth of Kildala River



Looking up Kildala River near mouth



Headwaters of Kildala River

KILTUISH RIVER

For map, refer to page 18

YEAR	SOCKETS	1. CHUCK	CHUM	FINN
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NAME OF STREAM KILTUISH RIVER
 CONSERVATION DISTRICT 7 STATISTICAL AREA 6
 LOCATION OF MOUTH Flows N. into Kiltuish Inlet, Rge. 4, Coast Dist.
 POSITION 53 128 SE.
 LENGTH 1.5 MI. WIDTH 100 FT. DRAINAGE 52.3 SQ. MI.
 COMPOSITION: BEDROCK _____ BOULDER 90 COARSE 5 FINE 5
 SILT & SAND _____ UNCLASSIFIED _____

GRADIENT:
 FALL IN FT/000

0.0 - 2.5	
2.5 - 5.0	
5.0 - 7.5	
7.5 - 10.0	0.0 - 1.0 mi.
> 10.0	

WETTED AREA 87000 SQ. YD. SPAWNING AREA 8700 SQ. YD.
 DISCHARGE 2100 cfs (est.), (semi-flood) 07/09/69
 TEMPERATURE 07/09/69 48.0°F

BARRIERS OR POINTS OF DIFFICULT ASCENT Impassable falls, 1.5 mi. 30-40 ft. vertical drop. Series of cascades immediately below falls.

SPAWNING DISTRIBUTION:

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

POTENTIAL OF INACCESSIBLE PORTION OF STREAM Good potential salmon production area appears to exist above falls for at least 5.0 mi.

GENERAL REMARKS:
- Water colour: clear - light tea.

NAME OF STREAM - KILTUISH RIVER

CONSERVATION DISTRICT

LOCATION OF MOUTH - flows N into Kiltuish Inlet, Reg. A, Coast Dist.

POSITION



LENGTH

COMPOSITION

CONSTANT

FALL IN FEET

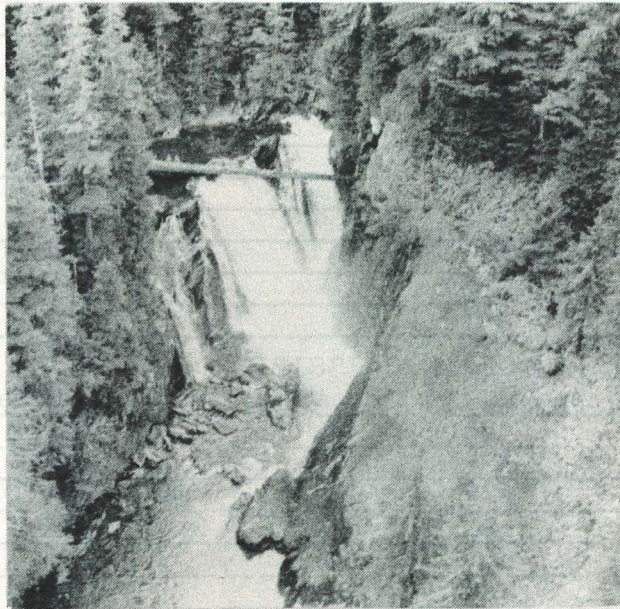
- 0.0 - 2.7
- 2.8 - 5.2
- 5.3 - 7.5
- 7.6 - 10.0
- > 10.0

WETTED AREA

DISCHARGE

TEMPERATURE

Mouth of Kiltuish River



Kiltuish River Falls

Looking up Kiltuish from falls

ESCAPEMENT RECORD FOR KILTUISH RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947			15000	100000	7500	
48			7500	35000	15000	
49			7500	75000	7500	
50			750	7500	3500	
51			7000	35000	8000	
52		75	3500	15000	3500	
53			3500	15000	3500	
54			3500	3500	1500	
55			3500	1500	1500	
56			1500	1500	1500	
57			400	7500	25	
58				750		
59		400	3500	750	75	
60				750	750	
61			1500	3500	1500	
62			3500	3500	1500	
63				15000	7500	
64			1500	7500	15000	
65			1500	7500	7500	
66				30000	50000	
67			3500	35000	3500	
68			3500	35000	15000	
69				7500	300	
70			750	3500	15000	
71						
72						
73						
74						
75						
76						
77						
78						
79						
80						
81						
82						
83						
84						
85						
Time						
Start			E. SEP	M. AUG	M. AUG	
Peak			L. SEP	L. AUG	L. AUG	
End			M. OCT	M. SEP	M. SEP	

REMARKS

KISKOSH RIVER

For map, refer to page 14

YEAR	SOOTHE	WIND	TEMP
1907	1000	1000	1000
1908	1000	1000	1000
1909	1000	1000	1000
1910	1000	1000	1000
1911	1000	1000	1000
1912	1000	1000	1000
1913	1000	1000	1000
1914	1000	1000	1000
1915	1000	1000	1000
1916	1000	1000	1000
1917	1000	1000	1000
1918	1000	1000	1000
1919	1000	1000	1000
1920	1000	1000	1000
1921	1000	1000	1000
1922	1000	1000	1000
1923	1000	1000	1000
1924	1000	1000	1000
1925	1000	1000	1000
1926	1000	1000	1000
1927	1000	1000	1000
1928	1000	1000	1000
1929	1000	1000	1000
1930	1000	1000	1000
1931	1000	1000	1000
1932	1000	1000	1000
1933	1000	1000	1000
1934	1000	1000	1000
1935	1000	1000	1000
1936	1000	1000	1000
1937	1000	1000	1000
1938	1000	1000	1000
1939	1000	1000	1000
1940	1000	1000	1000
1941	1000	1000	1000
1942	1000	1000	1000
1943	1000	1000	1000
1944	1000	1000	1000
1945	1000	1000	1000
1946	1000	1000	1000
1947	1000	1000	1000
1948	1000	1000	1000
1949	1000	1000	1000
1950	1000	1000	1000

NAME OF STREAM KISKOSH CREEK

CONSERVATION DISTRICT 7 STATISTICAL AREA 6

LOCATION OF MOUTH Flows S. into head of Kiskosh Inlet, Rge. 4, Coast Dist.

POSITION 53 129 NE.

LENGTH 1.0 MI. WIDTH 27 FT. DRAINAGE 7.0 SQ. MI.

COMPOSITION: BEDROCK 5 BOULDER _____ COARSE 45 FINE 45

SILT & SAND _____ UNCLASSIFIED Pool 5

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 15800 SQ. YD. SPAWNING AREA 14200 SQ. YD.

DISCHARGE _____ CFS MAX _____ MIN _____

TEMPERATURE 22/08/69 52.5°F.

BARRIERS OR POINTS OF DIFFICULT ASCENT Impassable falls, 1.0 mi., 50 ft. vertical.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	
PINK (ODD YR)	Majority lower 200 yds.
PINK (EVEN YR)	Majority lower 200 yds.
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS:

- Headwater lake: 2.0 mi x 0.5 mi, contained within rock walls and is approximately 2 miles from mouth.
- Potential flow control stream.

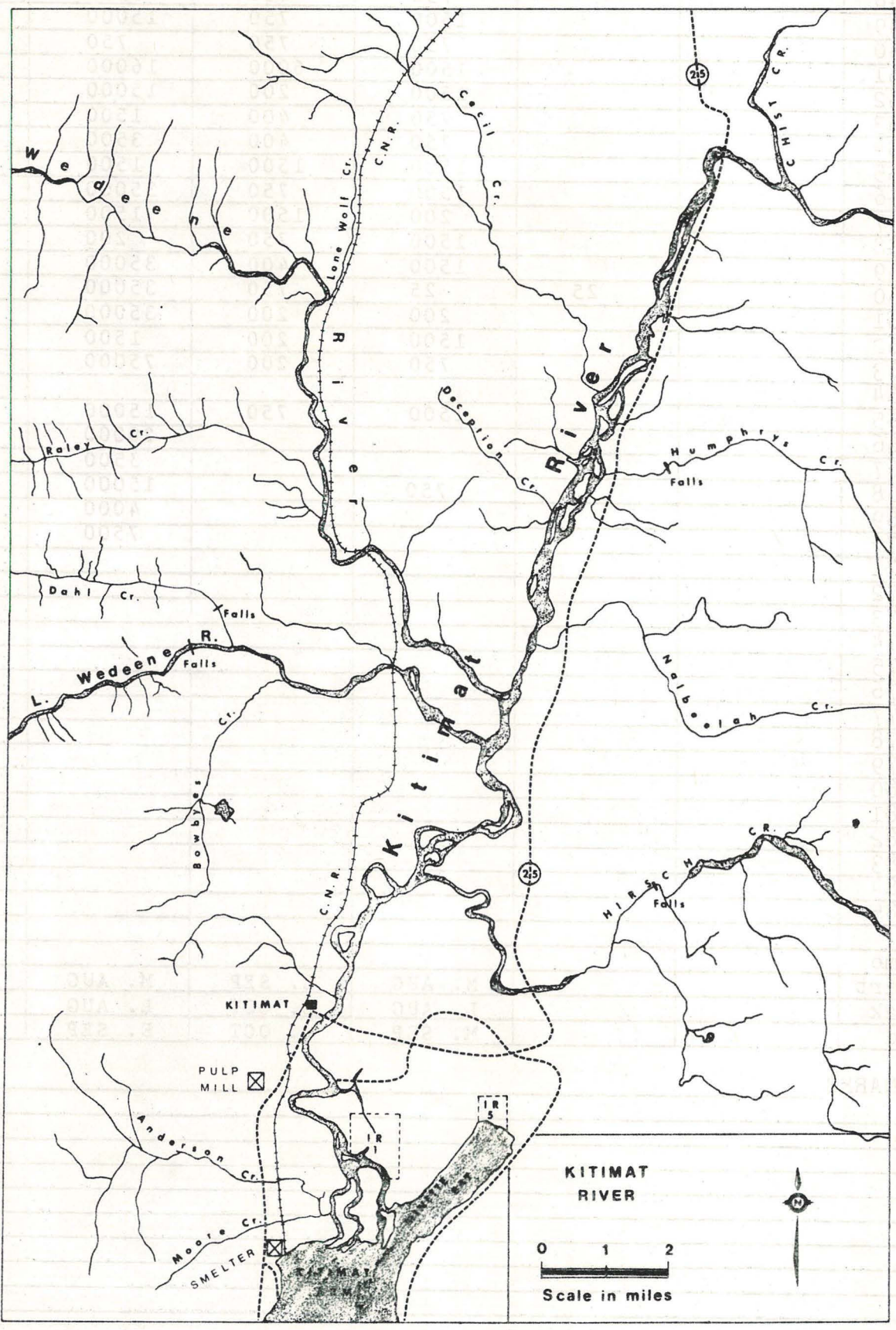


Kiskosh Creek estuary



Kiskosh Creek

DEPARTMENT RECORD FOR KISKOMI RIVER
YEAR / BOOKS / CHAIN / COORD / DATE



NAME OF STREAM KITIMAT RIVER
 CONSERVATION DISTRICT 7 STATISTICAL AREA 6
 LOCATION OF MOUTH Flows S. into Kitimat Arm, Rge. 5, Coast Dist.
 POSITION 54 128 SW.
 LENGTH 50.0 MI. WIDTH 100-400 FT. DRAINAGE 838.0 SQ. MI.
 COMPOSITION: BEDROCK _____ BOULDER _____ COARSE _____ FINE _____
 SILT & SAND _____ UNCLASSIFIED _____

GRADIENT:
 FALL IN FT/000

0.0 - 2.5	0.0-12.0 mi.
2.5 - 5.0	12.0-25.0 mi.
5.0 - 7.5	25.0-36.0 mi.
7.5 - 10.0	36.0-38.0 mi.
> 10.0	38.0-50.0 mi.

WETTED AREA _____ SQ. YD. SPAWNING AREA _____ SQ. YD.
 DISCHARGE * 5257 CFS MAX 24/10/66 59500 MIN 17/09/65 685
 TEMPERATURE 09/09/69 53.0°F.
 BARRIERS OR POINTS OF DIFFICULT ASCENT _____

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	Few Sockeye at 35 mi. (spawning in side slough).
CHINOOK	Throughout mainstem, majority below 20.0 mi.
COHO	Throughout mainstem and tributaries.
CHUM	Evenly distributed to 20.0 mi., chums observed at 35.0 mi.
PINK (ODD YR)	Up to Little Wedeene (10.5 mi)
PINK (EVEN YR)	Evenly distributed to 20.0 mi.
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

- GENERAL REMARKS: * 4 years data (64-68).
- Est. discharge: 10/09/69 2400 c.f.s. (21.0 mi.).
 - Water temperature: 10/09/69 47.0°F. (47.0 mi.), 52.0°F. (23.5 mi.), 53.0°F. (12 mi.).
 - Wide valley, numerous side channels up to 20 mi.
 - Extensively logged to 23.5 mi. (including tributaries).
 - Aluminum smelter established at mouth in 1954.
 - Pulp and paper mill established in 1970.
 - Very extensive sport fishery carried out.
 - Eulachon population inhabits estuarial region.

GENERAL REMARKS: (Cont'd)

- width: 400 ft. at 4.0 mi., 230 ft. at 21.0 mi., 100 ft. at 50.0 mi.; average width above 21.0 mi., 150 ft., average width below 21.0 mi., 300 ft. Measurements include side channels and sloughs.

- Accessible Tributaries

Goose Creek, 5.0 mi.; accessible for 2.0 mi.; small creek, silty in lower 1.0 mi.; pink, chum and coho spawn throughout but mainly in upper half.

Duck Creek, 7.0 mi.; accessible for 3.0 mi.; small creek, patches of interspersed gravel and silt throughout; pink and chum spawn in lower 1.0 mi., coho to 3.0 mi.

Hirsch Creek, 8.5 mi.; see separate report.

Little Wedeene, 11.5 mi.; see separate report.

Wedeene River, 12.0 mi.; see separate report.

Nalbeelah Creek, 1.0 mi.; see separate report.

Deception Creek, 15.5 mi.; accessible for 2.0 mi.; average width 15.0 ft.; good gravel content (50%); pink and chum lower 1.0 mi., coho throughout.

Humphrys Creek, 16.5 mi.; see separate report.

Cecil Creek, 17.5 mi.; accessible for 12.0 mi.; pink, chum and steelhead to 3.5 mi., coho throughout; average width 25 ft.; excellent spawning gravel (50%).

Chist Creek, 23.5 mi.; est. discharge 05/09/69; 350 cfs; water temperature 10/09/69 50.0°F.; accessible distance 9.0 mi. (impassable falls, aerial observation); average width 40 ft.; chum and coho spawn in the lower 4.0 mi., the latter peaking from October 15-30, chinook possibly to 9.0 mi.; estimated spawning area 47000 sq. yds. (mainly in lower 4 mi.), above 4.0 mi. stream has steep gradient, numerous rapids, and is composed of mostly boulder with some small pockets of gravel.

McKay Creek, 25.0 mi.; water temperature 09/09/69 47.0°F.; accessible for 8.5 mi.; one half boulder, one half gravel (coarse and fine); Boulton Creek junction at 2.0 mi.; accessible for 0.25 mi.

Hunter Creek, 36.0 mi.; water temperature 09/09/69 47.0°F.; accessible for 8.5 mi.; good gravel in lower 1.0 mi., gravel and boulder from 1.0 - 2.0 mi., boulders and cascades from 2.0 - 4.0 mi., boulders with some gravel above 4.0 mi.

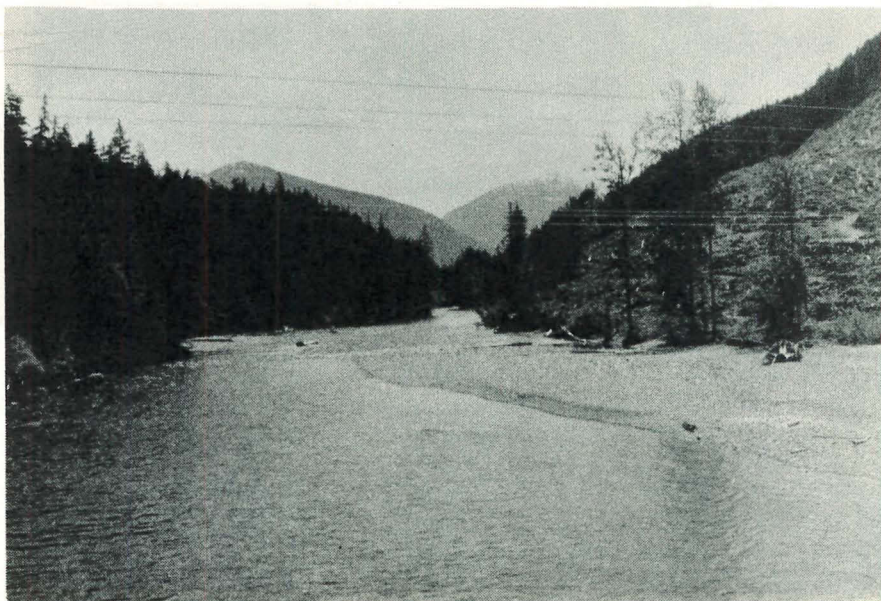
Davies Creek, 38.0 mi.; water temperature 09/09/69 47.0°F.; impassable falls 2 mi.; first $\frac{1}{2}$ mi. has spawning gravel, remaining distance bouldery; Holt Creek joins Davies at $\frac{1}{2}$ mi., impassable falls $\frac{1}{4}$ mi. above junction.

Part of Kitimat
Watershed



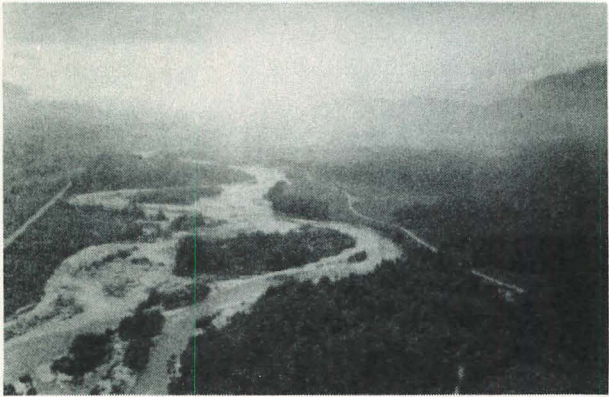
Kitimat River
looking downstream
from Highway 25

Kitimat River
looking upstream
from Highway 25





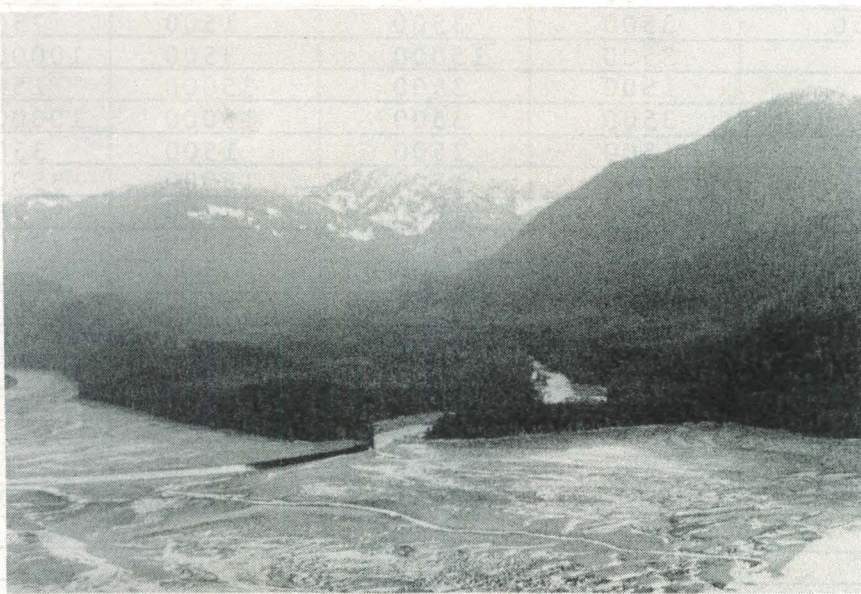
Highway bridge at
Kitimat Center



Kitimat River
at Cecil Creek.

KITKIATA CREEK

For map, refer to page 14



Mouth of Kitkiata Creek



Kitkiata Lake Outlet

NAME OF STREAM KITKIATA CREEK
 CONSERVATION DISTRICT 7 STATISTICAL AREA 6
 LOCATION OF MOUTH Flows S. into Kitkiata Inlet, W. of Douglas Chan.,
 Coast Dist. _____ POSITION 53 129 NE.
 LENGTH 5.0 MI. WIDTH 84 FT. DRAINAGE 24.0 SQ. MI.
 COMPOSITION: BEDROCK _____ BOULDER 28 COARSE 36 FINE 18
 SILT & SAND 6 UNCLASSIFIED Pools 12

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 246000 SQ. YD. SPAWNING AREA 134500 SQ. YD.
 DISCHARGE 75 cfs (est.) 14/09/69
 TEMPERATURE 22/08/69 50.5° F.; 14/09/69 50.5° F.
 BARRIERS OR POINTS OF DIFFICULT ASCENT _____

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	Beach near outlet of lake and tributaries
CHINOOK	
COHO	Throughout
CHUM	Mouth to lake
PINK (ODD YR)	Mouth to lake (5.0 mi.)
PINK (EVEN YR)	Mouth to lake (5.0 mi.)
STEELHEAD	

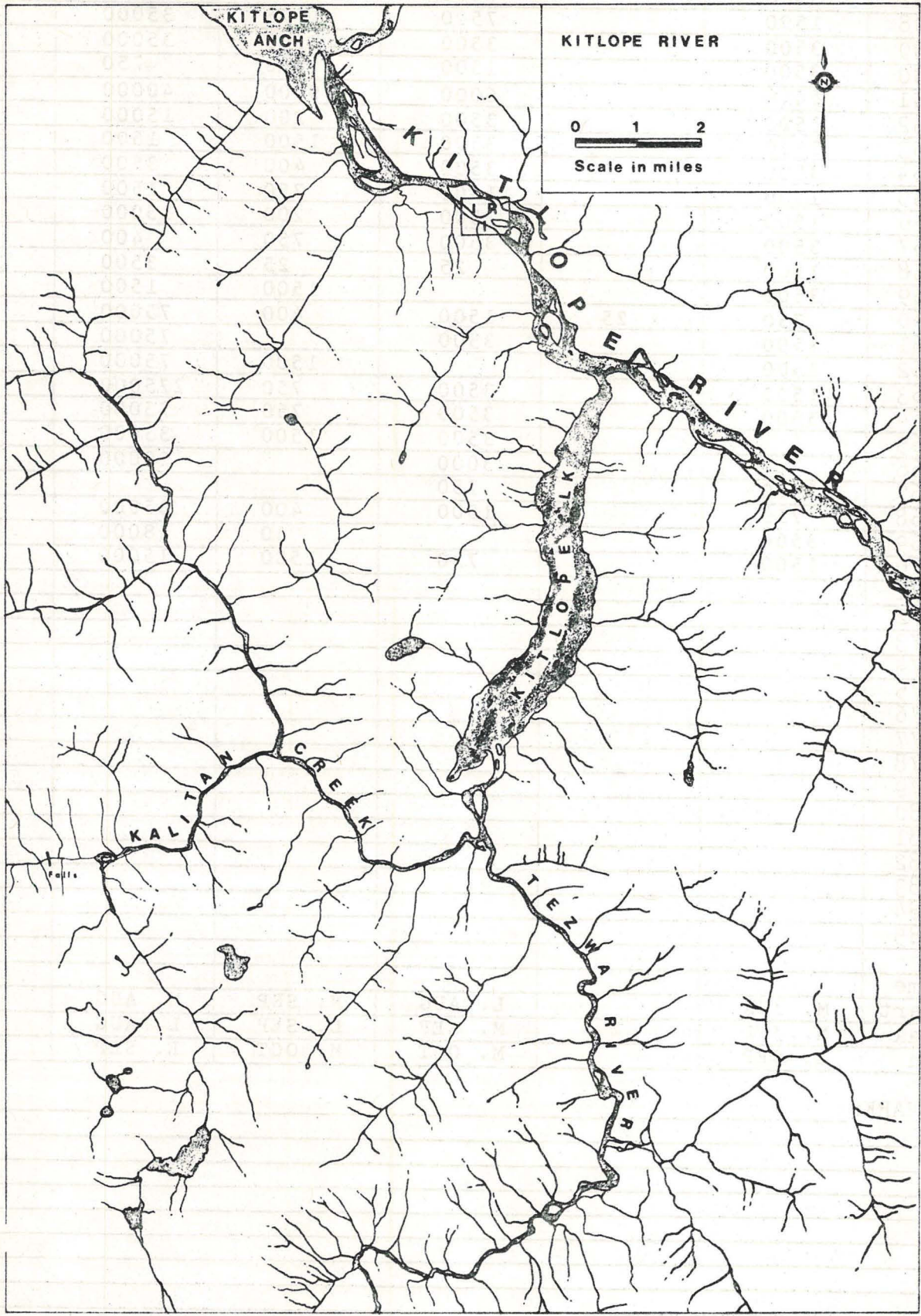
POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS:

- Water color: light tea.
- Fresh water mussels abundant in stream bed.
- "Mossy" stream.
- Trail exists in some lower sections on left side of stream.
- Heavy foliage over stream precludes aerial observation for estimating salmon abundance.
- Kitkiata Lake: 4.0 mi. long, 0.5 mi. wide; Seechi reading 03/09/70 16.0 ft.; Inlet stream, accessible for approximately 0.5 mi., small, meandering through swampy area, limited spawning area. No other accessible tributaries.

Tele-thermometer readings 03/09/70: Kitkiata Lake

Depth in ft.	Temperature °F.
0	60
3	60
6	59
9	58.5
12	55.5
15	53.0
18	51.5
21	48.5
24	48.0
27	47.5
30	45.5
45	40.0
51	39.0
60	39.0



NAME OF STREAM KITLOPE RIVER
 CONSERVATION DISTRICT 7 STATISTICAL AREA 6
 LOCATION OF MOUTH Flows N. into head of Gardner Canal, Rge. 4,
 Coast Dist. _____ POSITION 53 127 SW.
 LENGTH 42.0 MI. WIDTH 400 FT. DRAINAGE 1252.7 SQ. MI.
 COMPOSITION: BEDROCK _____ BOULDER _____ COARSE _____ FINE _____
 SILT & SAND _____ UNCLASSIFIED _____

GRADIENT:
 FALL IN FT/000

0.0 - 2.5	0.0-5.0 mi.
2.5 - 5.0	5.0-18.0 mi.
5.0 - 7.5	18.0-30.0 mi.
7.5 - 10.0	
> 10.0	Above 30.0 mi.

WETTED AREA _____ SQ. YD. SPAWNING AREA _____ SQ. YD.
 DISCHARGE 7500 cfs, 2550 cfs (est.), (30.0 mi.) 31/08/70
 TEMPERATURE 02/09/69 48.5°F.; 31/08/70 48.5°F.
 BARRIERS OR POINTS OF DIFFICULT ASCENT _____

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	Kitlope L., Tezwa R., Kalitan R., Ear L.
CHINOOK	Throughout; groups identified 4.0-7.5 mi. and at 26.0 mi.
COHO	Throughout. also tributaries.
CHUM	
PINK (ODD YR)	
PINK (EVEN YR)	Tezwa R., lower 1.0 mi.
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS: _____

 - Tidal for approximately 5.0 mi.
 - Water color: glacial.
 - Wilderness area, fishing and hunting lodge located at mouth.
 - Wide flood plain with numerous small islands, appears to have extreme ranges in discharge.
 - Streambed composition at and adjacent to Kitlope L. outlet is largely gravel.
 - Drainage area includes Tsaytis R.
 - Accessible by outboard jet to at least 25.0 mi. on mainstem and 5.0 mi. on Tezwa.

GENERAL REMARKS: (Cont'd)

- Accessible Tributaries

Tsaytis River, 0.0 mi.; see separate report.

Kitlope Lake, 7.5 mi.; see below.

Gamsby River, 18.0 mi.; 01/09/70 46.0°F.; mouth to canyon (6.0 mi.), stream has moderate gradient (7.5-10.0/000) on a wide flood plain; canyon, 6.0 mi. - 11.0 mi., very narrow, heavily wooded area, impossible to evaluate from boat or aircraft from standpoint of salmon passage; end of canyon (11.0 mi.) to 20.0 mi. (impassable high vertical falls), shallow U valley, good appearing area for salmon reproduction; est. discharge (above Tenaiko Cr.) 01/09/70 1500 cfs; drainage area 287.5 sq. mi.

Tributaries:- Tenaiko Cr., 5.0 mi.; accessible for 1 mi., raging stream in a wide flood plain, appears to be an obstruction at 1.0 mi.; Ear Cr. (Ear L.), 13.5 mi.; 2.0 mi. from junction with Gamsby to Lake; Lake 3 mi. x ½ mi., not evaluated, sockeye have been reported in Lake.

Kapella River, 23.0 mi.; wide flood plain from mouth to 2.5 mi., canyon 2.5-3.5 mi., appears to be block to salmon, (cascades); 02/09/69 46.0°F.; drainage area 110 square miles.

Kitlope Lake: 7 mi. x ¾ mi., joins Kitlope River 7.5 mi. from Gardner Canal; sockeye lake spawning areas - E. side 1.8 mi., W. side 3-5 mi. from outlet; outlet stream discharge 31/08/70 1500 cfs (275'w x 2'd x 3.25'/sec.); outlet stream temperature 31/08/70 53-56°F. (depending on location); lake transparency (secchi) 11.75' (31/08/70); sockeye spawning time Aug.-Sept.; chinook spawning time in outlet stream Aug. 20-Sept. 10.

Telethermometer readings, Kitlope Lake, 31/08/70

Depth (ft.)	Temperature °F	Depth (ft.)	Temperature °F
0	60	48	46
3	56	54	45.5
6	52	60	45.5
12	49	66	45.0
18	48	72	45
24	47	78	45
30	47	84	44.5
36	46	92	44.0
42	46	96	44.0

Accessible Tributaries, Kitlope Lake:

Tezwa River; drainage area 337 sq. mi.; 03/09/69 46.5°F.; accessible length 13.5 mi. (impassable falls, 20-30 ft. high); small canyon at 8.5 mi. appears to be passable to all species of salmon; average width 110'; from aerial observation favorable gravel conditions for spawning appear to exist to 8.5 mi., est. spawning gravel 329,000 sq. yds. (60%); sockeye, coho and

GENERAL REMARKS: (Cont'd)

chinook, spawn from mouth to canyon (8.5 mi.), pink in lower 1 mi.; peak sockeye spawning Aug. 10-Sept. 10.

Kalitan Creek, junction 1.5 mi. from mouth of Tezwa; accessible for 9.5 mi. (impassable 30' vertical falls); 31/08/67 48.0^oF.; average width 110 ft.; est. spawning area 31/08/70, 245,000 sq. yds.; sockeye observed to 1.2 mi.

Unnamed tributary entering at 4.0 mi.; mainly boulders; canyon and pools, falls at 1.0 mi. are passable; chinook observed to 4.0 mi.



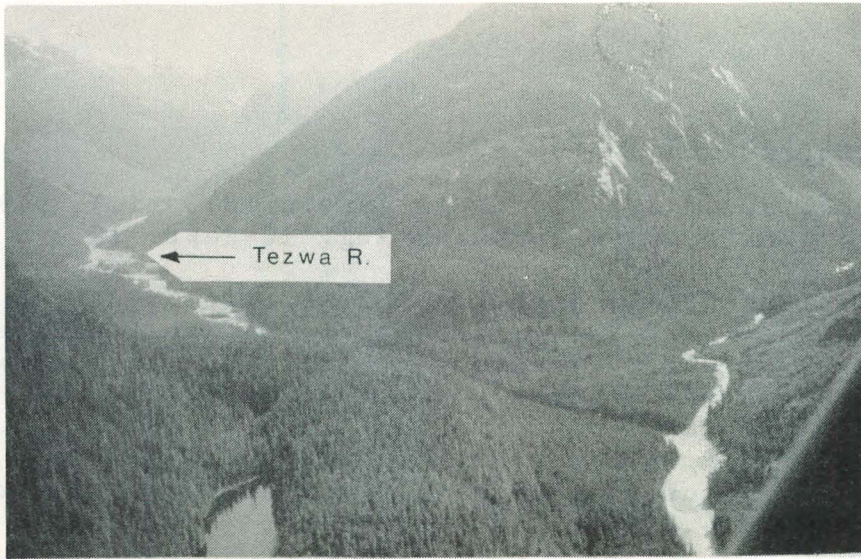
Kapella River
Junction with
Kitlope River in
background

Gamsby River and
Upper Kitlope
River

Gamsby R →



Tezwa River tributary



Falls on Kalitan River



Lower Tezwa River Valley



Upper Tezwa River Valley



Kitlope River
near mouth

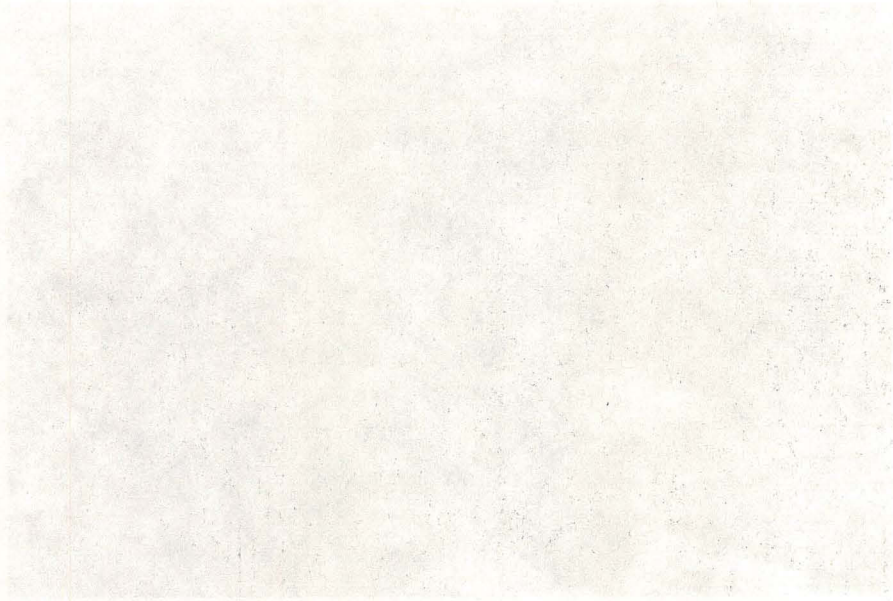


Looking down Kitlope Lake. Tezwa River in
foreground.



Kitlope River

Kitlope River
North Fork



Looking down Kitlope River
at the mouth

KOWESAS RIVER

For map, refer to page 18



Upper Kowesas River



Kowesas River above mouth

NAME OF STREAM KOWESAS RIVER Kwasee R.
 CONSERVATION DISTRICT 7 STATISTICAL AREA 6
 LOCATION OF MOUTH Flows NE. into Chief Mathews Bay, Rge. 4, Coast
 Dist. 53 128 SE. POSITION
 LENGTH 16.5 MI. WIDTH 130 FT. DRAINAGE 130.0 SQ. MI.
 COMPOSITION: BEDROCK _____ BOULDER 34 COARSE 33 FINE 33
 SILT & SAND _____ UNCLASSIFIED _____

GRADIENT:

FALL IN FT/000

0.0 - 2.5	
2.5 - 5.0	0.0-16.5 mi.
5.0 - 7.5	
7.5 - 10.0	
> 10.0	From 16.5 mi.

WETTED AREA 1258000 SQ. YD. SPAWNING AREA 827000 SQ. YD.DISCHARGE 1300 cfs (est.) 08/09/69TEMPERATURE 06/09/69 44.0°F.; 01/09/70 44.5°F.

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	Up to 16.0 mi.
COHO	Up to 16.0 mi.
CHUM	
PINK (ODD YR)	
PINK (EVEN YR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS: Canyon: 16.5-17.5 mi., may be passable under ideal conditions, no salmonids observed above canyon, 01/09/70 43.0°F., 0.5 mi. of good gravel immediately above canyon.

- Water colour: off clear.

- Rapids located approx. 4.0 mi., passable to salmon, prohibit further boat travel.

- Wide flood plain.

- Overburden of 4 ft. underlain by gravel; very large quantities of gravel throughout survey area (0.0-4.0 mi.).

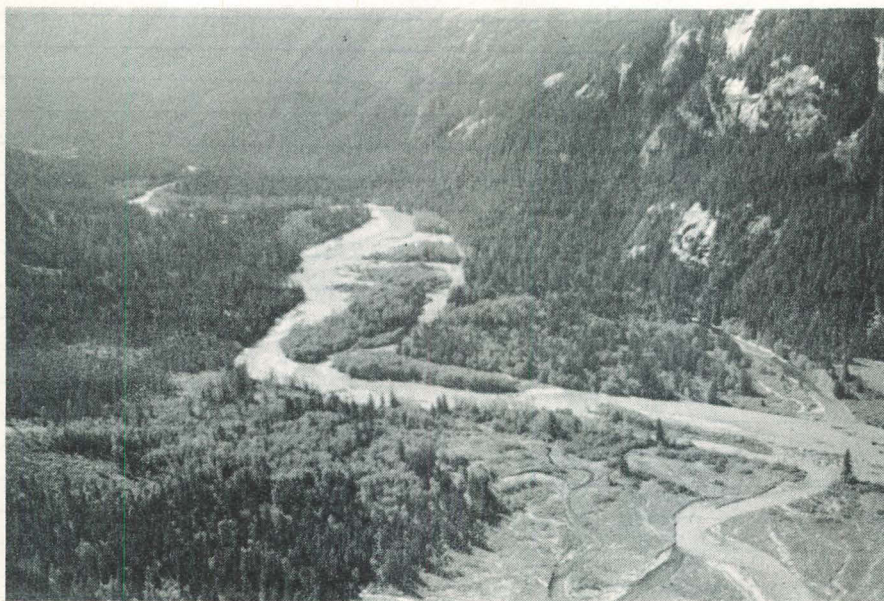
- Accessible tributaries: 0.5 mi., side channel, 30 c.f.s. utilized by chum and pink for spawning. Unnamed Creek, 4.0 mi.; impassable falls 1.75 mi., est. discharge: 06/09/69 500 c.f.s., glacial.



Mouth of Kowesas River
- upstream view



Mouth of Kowesas
River - downstream
view



Kowesas River

LITTLE WEDEENE RIVER

For map, refer to page 15



Little Wedeene River
near mouth

NAME OF STREAM LITTLE WEDEENE RIVER
 CONSERVATION DISTRICT 7 STATISTICAL AREA 6
 LOCATION OF MOUTH Flows E. into Kitimat R., N. of Minette Bay, Rge. 5,
Coast Dist. POSITION 54 128 SW.
 LENGTH 5.5 MI. WIDTH 80 FT. DRAINAGE 81.0 SQ. MI.
 COMPOSITION: BEDROCK _____ BOULDER 57 COARSE 12 FINE 11
 SILT & SAND _____ UNCLASSIFIED _____ Pools 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 258000 SQ. YD. SPAWNING AREA 59000 SQ. YD.
 DISCHARGE *615 CFS MAX 24/10/66 6120 MIN 01/04/67 52.5
 TEMPERATURE 29/08/70 51.5°F
 BARRIERS OR POINTS OF DIFFICULT ASCENT Falls, 5.5 mi., 20 ft. vertical.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	Scattered throughout
COHO	Throughout system
CHUM	mainly in lower 3.5 mi.
PINK (ODD YR)	
PINK (EVEN YR)	mainly in lower 3.5 mi, scattered in remainder of stream
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM Mountain stream, high gradient, 100% boulder

- GENERAL REMARKS:
- Est. discharge: 29/08/70 270 cfs.
 - 0.0-2.5 mi., good gravel, boulders dominate remaining 3.0 mi.
 - Much debris (logging slash) in stream below logging area
 - Water temperature 09/09/69 46.5°F (Headwaters)
 - Accessible tributaries: Dahl Creek, 5.0 mi.; impassable falls, 0.75 mi., 50 ft. vertical

* 2 yrs. data (1966-68)

NAME OF STREAM: LITTLE WEBBER RIVER
 CONSERVATION DISTRICT: STATISTICAL AREA 7
 LOCATION OF MOUTH: flows E. into Kilmist R., N. of Minner's Bay, Rge. 5, Coast Dist.
 POSITION: 24 129 SW
 LENGTH: 0.47 MI. WITH 50 FT. DRAINAGE: 81.0 SQ. MI.
 COMPOSITION: SAND & GRAVEL, COARSE 12, FINE 11
 UNCLASSIFIED: POOLS 20

GRADIENT:

FALL IN FEET/100
0.0 - 2.5
2.5 - 5.0
5.0 - 7.5
7.5 - 10.0
> 10.0

WETTED AREA: 288000 SQ. YD. SPAWNING AREA: 29000
 DISCHARGE: 101 CFS MAX. 1410 CFS MIN. 01/04/67 22.2
 TEMPERATURE: 20.0 - 22.0
 BARRIERS OR POINTS OF DIFFICULT ASCENT: falls, 0.3 mi., 20 ft. vertical.

SPAWNING DISTRIBUTION:
 SPECIES: SPOCKEYE, CHUM, PINK (EVEN YR), PINK (ODD YR), STEELHEAD
 SECTION OF STREAM USED: scattered throughout, spawning system, mainly in lower 2/3 mi., scattered in remainder of stream

POTENTIAL OF IMPASSIBLE PORTION OF STREAM: none
 gradient, 100% barrier

GENERAL REMARKS:
 - Fall discharge: 23708710 270 cfs.
 - 0.7-2.1 mi. of gravel/boulders remains remaining 3.0 mi.
 - Much debris (logging slash) in stream below logging area
 - Water temperature 09/09/69 44 F (headwaters)
 - Accessible or barrierless: 0.3 mi.; impassible falls
 - 0.75 mi., 20 ft. vertical

NAME OF STREAM NALBEELAH CREEK
 CONSERVATION DISTRICT 7 STATISTICAL AREA 6
 LOCATION OF MOUTH Flows W. into Kitimat R., N. of Hirsch Cr., Rge. 5,
Coast Dist. POSITION 54 128 SW.
 LENGTH 2.5 MI. WIDTH 36 FT. DRAINAGE 20.6 SQ. MI.
 COMPOSITION: BEDROCK _____ BOULDER _____ COARSE 70 FINE 5
 SILT & SAND 25 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 40000 SQ. YD.

DISCHARGE 60 cfs (est.) 08/09/69

TEMPERATURE 11/09/69 53.5°F.

BARRIERS OR POINTS OF DIFFICULT ASCENT _____

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	throughout
CHUM	1.0-2.5 mi. (mainly)
PINK (ODD YR)	
PINK (EVEN YR)	1.0-2.5 mi. (mainly)
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS:

- 100% boulder above 2.5 mi.
- Slide approx. 4.0 mi., occurred late 1968, causes considerable silting.
- Considerable channel changing in lower 1.0 mi., apparently caused by logging.

NAME OF STREAM: HAIRBUSH CREEK
 CONSERVATION DISTRICT: STATISTICAL AREA
 LOCATION OF MOUTH: North of Highway 10, 1/2 mi. S. of
 POSITION: 24 128 SW
 LENGTH: 20.8 FT. WIDTH: 10 FT. DRAINAGE: 20.8 SQ. MI.
 COMPLETION: COARSE TO FINE HOLDEN: UNCLASSIFIED

GRAVITY: 10.0
 FALL IN FEET: 10.0
 0.0 - 10.0
 2.5 - 7.5
 5.0 - 5.0
 7.5 - 2.5
 10.0 - 0.0
 WETTED AREA: 20.8 SQ. YD. SPAWNING AREA: 4000 SQ. YD.

DISCHARGE: 100 CFS (est.)
 TEMPERATURE: 12.5 F.
 BARRIERS OR OBSTACLES TO FISHING: ASCENT

SPAWNING DISTRIBUTION:
 SPECIES: SOCKEYE
 PERIOD: CHUM
 COPE: CHUM
 SECTION OF STREAM USED: UPPER

POTENTIAL OF THIS PORTION OF STREAM:
 (This section contains faint, illegible text and lines.)

GENERAL REMARKS:
 - 1957 population survey 1.5 mi.
 - 1958 survey of spawning sites 1958 census considerable
 - 1959 survey of spawning sites 1959 census considerable
 - 1960 survey of spawning sites 1960 census considerable

NAME OF STREAM PARIL RIVER
 CONSERVATION DISTRICT 7 STATISTICAL AREA 6
 LOCATION OF MOUTH Flows N. into Ochwe Bay, Gardner Canal, Rge. 4,
Coast Dist. POSITION 53 128 SW.
 LENGTH 0.75 MI. WIDTH 120 FT. DRAINAGE 21.9 SQ. MI.
 COMPOSITION: BEDROCK _____ BOULDER 10 COARSE 5 FINE 25
 SILT & SAND 60 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 52800 SQ. YD. SPAWNING AREA 15800 SQ. YD.

DISCHARGE 360 cfs (est.) 07/09/69

TEMPERATURE 07/09/69 49.5°F.

BARRIERS OR POINTS OF DIFFICULT ASCENT Impassable falls, 0.75 mi., 70 ft. drop over 100 ft. horizontal.

SPAWNING DISTRIBUTION:

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

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS:

- Entire accessible length within tidal influence.
- Water color: wine red.

YEAR | SOCIETY | GHTWOK | PIKE CREEK | CHUN | FINK | DISTRICT

YEAR	SOCIETY	GHTWOK	PIKE CREEK	CHUN	FINK	DISTRICT
1907				730	730	
1908				730	1200	
1909				730	730	
1910				730	730	
1911				730	800	
1912				730	1200	
1913				730	730	
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For map, refer to page 16

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NAME OF STREAM PIKE CREEK Alder Creek

CONSERVATION DISTRICT 7 STATISTICAL AREA 6

LOCATION OF MOUTH Flows NW. into Devastation Chan., S. of Kitimat Arm,
Rge. 4, Coast. Dist. POSITION 53 128 NW.

LENGTH 1.5 MI. WIDTH 48 FT. DRAINAGE 20.0 SQ. MI.

COMPOSITION: BEDROCK _____ BOULDER 83 COARSE 17 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 42000 SQ. YD. SPAWNING AREA 7000 SQ. YD.

DISCHARGE 250 cfs (est.) 08/09/69

TEMPERATURE 08/09/69 49.0°F.

BARRIERS OR POINTS OF DIFFICULT ASCENT Falls at 0.25 mi., may be impassable
at some levels.

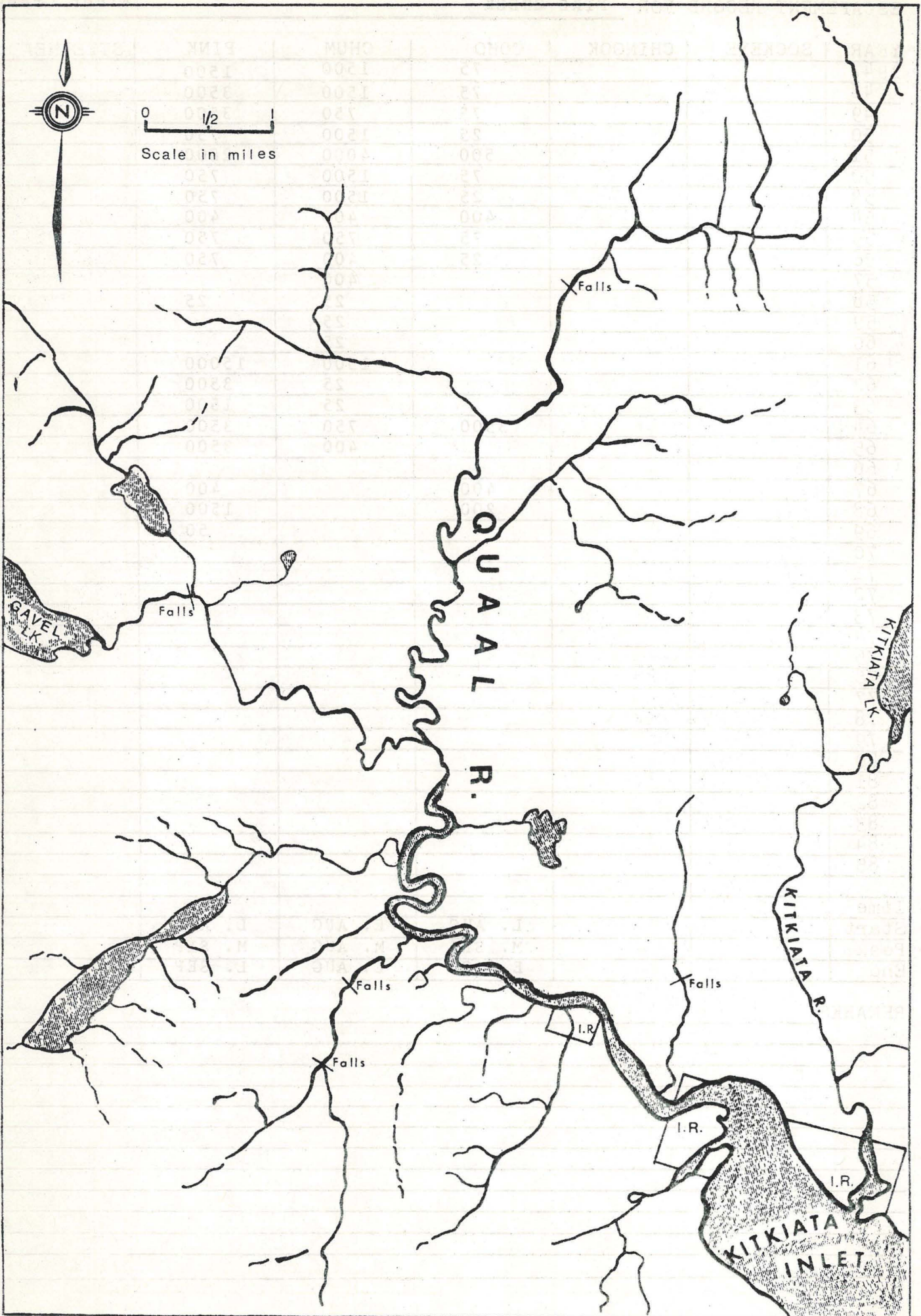
SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	0.7-1.5 mi.
CHUM	
PINK (ODD YR)	0.5-1.5 mi.
PINK (EVEN YR)	0.5-1.5 mi.
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS:

- Very little gravel above 0.5 mi.
- Canyon at 0.25 mi.
- Intertidal spawning.



NAME OF STREAM QUAAL RIVER
 CONSERVATION DISTRICT 7 STATISTICAL AREA 6
 LOCATION OF MOUTH Flows SE. into Kitkiata Inlet, Rge. 4, Coast Dist.
 POSITION 53 129 NE.
 LENGTH 12.0 MI. WIDTH 70-315 FT. DRAINAGE 71.0 SQ. MI.
 COMPOSITION: BEDROCK _____ BOULDER 4 COARSE 8 FINE 11
 SILT & SAND 38 UNCLASSIFIED Pools 39

GRADIENT:
 FALL IN FT/000

0.0 - 2.5	0.0 - 5.5 mi.
2.5 - 5.0	5.5 - 12.0 mi.
5.0 - 7.5	
7.5 - 10.0	
> 10.0	

WETTED AREA 1276000* SQ. YD. SPAWNING AREA 241000* SQ. YD.

DISCHARGE _____ CFS MAX _____ MIN _____

TEMPERATURE 25/08/69 49.0°F.; 14/09/69 50.5°F.; 27/08/70 50.5°F.

BARRIERS OR POINTS OF DIFFICULT ASCENT Impassable falls, 12.0 mi., 7 ft. vertical plus 7 ft. over 50 ft. Another set of falls at 12.25 mi. has a 5 ft. vertical drop plus 5 ft. over 20 ft. horizontal, may be impassable.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	Throughout system
CHUM	10.0 - 11.0 mi. (mainly)
PINK (ODD YR)	5.5 - 11.0 mi. and accessible tributaries
PINK (EVEN YR)	Throughout; intertidal spawning with heavy escapements
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS: * Does not include tributaries. (See page 159)
 - The estimates on spawning escapement for the Quaal River represent the abundance of spawners in the mainstem and six tributary streams (unnamed).
 - Extensive tidal flats (approx. 2.0 mi.) exist off the mouth.
 - In the lower 5.5 miles, the Quaal River meanders through a wide valley and lies in tidal influence. Stream width varies from 450 ft. at the mouth to approx. 100 ft. at the upper limits. The river banks are composed of mud, clay and some pebble. The vegetation is largely willow and elderberry. The stream is largely pool and contains sand, silt and waterlogged wood. Large boulders exist within the lower mile of stream and great care must be taken to navigate a skiff through the area. The few true riffle areas have a velocity of 1'/sec. during ebb tides and contain pea size gravel; the total gravel area within tidal influence is estimated at 46000 sq. yds.

GENERAL REMARKS: (Cont'd)

In years of large runs, pink salmon have been observed to utilize the intertidal areas for spawning. No more than 500 spawners were found in this area in 1969 and 1970, however. Above 5.5 miles the Quaal River appears as a typical small riffle stream. At 6.0 miles, stream measurements are 67 ft. wide and 9 in. deep and at 9.0 miles are 26 ft. wide, 1 ft. deep. Discharge and stream temperatures were 90 cfs, and 51.0°F on August 27, 1970. From 9.0 to 12.0 miles, the stream appears to have one of the better spawning areas. In 1969, the peak of pink spawning in this area occurred approx. 2 weeks prior to peak spawning taking place elsewhere in the Quaal system. Subsequent observations revealed that no further pink spawning occurred in this section. Reports indicate that early spawning occurred in the 9.0-12.0 mile area in other years. This may suggest that the pink salmon run to the Quaal River is of heterogeneous racial character. Above 11.0 miles, the stream bottom is mainly composed of boulders with some scattered patches of gravel.

- Accessible Tributaries

Unnamed, 0.5 mi., left side: Impassable falls, 1.0 mi.; average width 16 ft.; est. discharge; 27/08/70 6 cfs, water temperature 54.0°F.; est. spawning area 4000 sq. yds.

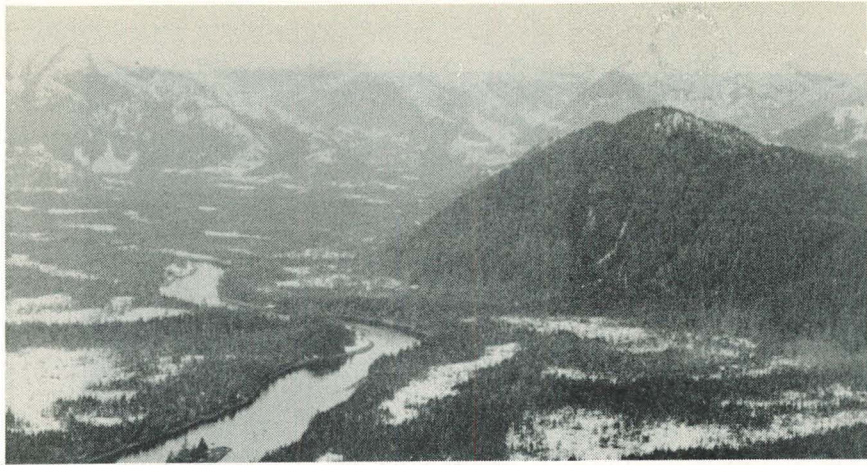
Unnamed, 1.8 mi., right side: Impassable falls, 1.5 mi.; est. spawning area 6000 sq. yds.; flow similar to unnamed creek at 0.5 mi.

Unnamed, 3.5 mi., right side: Slightly larger than unnamed creek at 0.5 mi.; est. spawning area 6000 sq. yds.

Unnamed, 5.0 mi., right side: Est. discharge 13/09/69 71 cfs, water temperature 56.0°F.; 27/08/70 61 cfs, 57.0°F.; average width 38 ft., accessible to 1.4 mi. (falls 16' vertical over 50') for pinks; coho fry allegedly observed in lake; 60% of stream to falls is coarse gravel, the remainder is mostly bedrock and gravel; est. spawning area 24000 sq. yds.

Unnamed, 6.0 mi., right side: Est. discharge 27/08/70 105 cfs; water temperature 25/08/69 53.5°F.; immediately above tidal influence, most important tributary in system; impassable falls, 3.4 mi., 350' drop in four major steps; average width 75 ft.; lower 2.2 mi., 80% spawning gravel and 20% pool, 2.2-3.4 mi., 10% bedrock and 90% boulder; est. spawning gravel 51000 sq. yds.; point of difficult ascent at 2.7 mi. consists of 5' vertical drop plus a second drop of 10 ft. (5' vertical and 5' shoot over 50'), 200 ft. upstream is a probable block to pink salmon, however, no pinks appear to attempt to spawn above 2.2 mi.; coho fry have been observed to 3.4 mi. (falls); from aerial observations a small tributary entering on the left side at 3.4 mi. appears accessible for 0.5 mi. to a small lake (½ mi. x ¼ mi.), stream feeding this lake appears to have good spawning gravel for approx. 1 mi., no fish observed.

Unnamed, 9.0 mi., left side: Est. discharge 27/08/70 15 cfs, 51.0°F.; accessible for approx. 0.75mi.; average width 15 ft.; est. spawning gravel 3000 sq. yds.



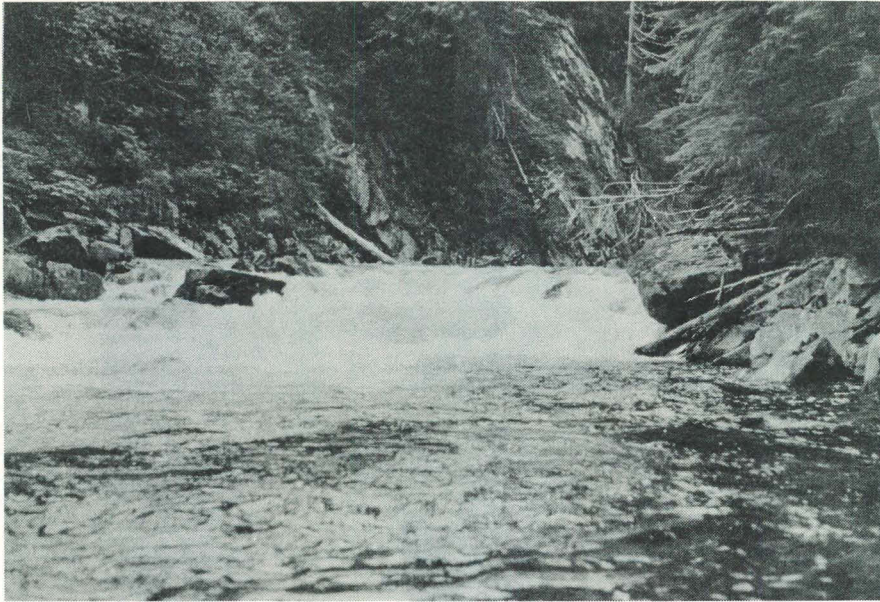
Quaal River
1-2 mi. above
mouth.



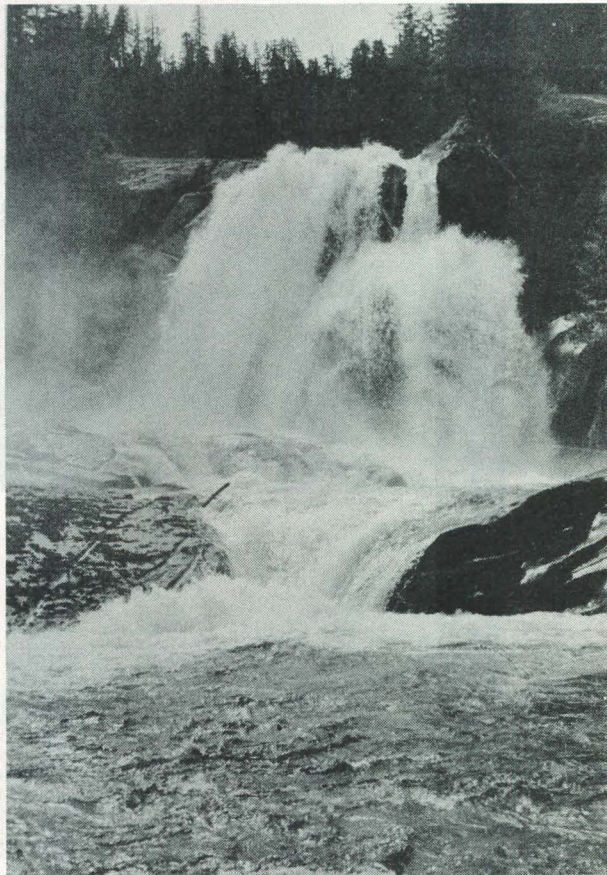
Quaal River
3-4 mi. above mouth.



Quaal River
mouth - flood-tide.



Quaal River Tributary (6.0 mi.)
Approx. 2.7 mi. above mouth, passable to coho.



Quaal River Tributary (6.0 mi.)
Obstruction 3.4 mi. above junction with Quaal. Lower part of falls shown only. Total drop is approx. 300 ft. Falls split at lower drop. Photo on left shows right bank; photo on right is left bank.

ESCAPEMENT RECORD FOR QUAAL RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947			7500	35000	35000	
48			7500	7500	7500	
49		400	7500	15000	75000	
50		400	750	3500	35000	
51		400	6000	35000	90000	
52		400	7500	3500	75000	
53		400	3500	3500	1500	
54		200	3500	1500	15000	
55		400	7500	1500	7500	
56		400	7500	1500	100000	
57	3500		1500	1500	3500	
58	400	400	1500	1500	75000	
59			3500	3500	75000	
60		400	750	3500	75000	
61	7500		7500	7500	200000	
62			7500	3500	1500000	
63			7500	7500	500000	
64			15000	7500	300000	
65			7500	3500	75000	
66	5000		25000	10000	300000	
67			200	1500	15000	
68			1500	15000	350000	
69			500	500	30000	
70			1500	750	180000	
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85						
Time						
Start	L. AUG	L. AUG	L. SEP	L. AUG	L. AUG *	
Peak	M. SEP	M. SEP	E. OCT	M. SEP	E. SEP *	
End	E. OCT	L. SEP	M. OCT	E. OCT	M. SEP *	

GENERAL REMARKS: (Cont'd)

- Estimated spawning area for Quaal system.

Distance	Avg. Width	Wetted Area	Gravel Area
0.0-4.5 mi.	315 ft.	831600 sq. yd.	41500 sq. yd.
4.5-6.0 mi.	225 ft.	198000 sq. yd.	138600 sq. yd.
6.0-9.0 mi.	70 ft.	123200 sq. yd.	17800 sq. yd.
9.0-12.0 mi.	70 ft.	123200 sq. yd.	43100 sq. yd.
Total - Mainstem		1276000 sq. yd.	241000 sq. yd.
- Tributaries			94000 sq. yd.
- System			335000 sq. yd.

* See general remarks pp 156.

NAME OF STREAM Riordan Creek
 CONSERVATION DISTRICT 7 STATISTICAL AREA 6
 LOCATION OF MOUTH Flows NE. into Ursula Chan. on E. side Gribbell I.,
Rge. 4, Coast Dist. POSITION 53 128 SW.
 LENGTH 2.0 MI. WIDTH 45 FT. DRAINAGE 5.9 SQ. MI.
 COMPOSITION: BEDROCK _____ BOULDER 68 COARSE 17 FINE 6
 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 52800 SQ. YD. SPAWNING AREA 11800 SQ. YD.DISCHARGE 230 cfs (est.) 16/09/69TEMPERATURE 16/09/69 50.0°F.BARRIERS OR POINTS OF DIFFICULT ASCENT Passable cascades, 0.75 mi.,
25 ft. vertical over 300 ft. horizontal.

SPAWNING DISTRIBUTION:

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	0.0-1.5 mi.
CHUM	
PINK (ODD YR)	0.75-1.5 mi.
PINK (EVEN YR)	0.75-1.5 mi.
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM _____

GENERAL REMARKS:

- In lower 0.75 mi., stream largely boulder, above cascades for 0.75 mi. stream gradient lower and bed is half gravel, above this section (1.5 mi.) streambed entirely boulders.
- This stream dries up during drought periods.

WATER OF RIVER

STATISTICAL AREA

LOCATION OF MOUTH

POSITION

LENGTH

WIDTH

DEPTH

COMPOSITION

BOULDER OR

GRAVEL

GRAVEL

GRAVEL

GRAVEL

GRAVEL

GRAVEL

GRAVEL

GRAVEL

WATER AREA

NO. YD.

DISCHARGE

TEMPERATURE

HARBOR OF REFUGE OR DEPOSIT AT MOUTH

25 ft. vertical depth 10 ft. horizontal

PLANNING DISTRIBUTION

REVIEW OF STREAM USE

PLANNING

PLANNING

PLANNING

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