ADF&G TECHNICAL DATA REPORT NO. 125
(Limited Distribution)

STATE OF ALASKA
Bill Sheffield, Governor

REVISED ANADROMOUS STREAM CATALOG OF SOUTHEASTERN ALASKA

District 108

Stikine River and its Tributaries

Volume I

By:
John Edgington
and
Brian Lynch

August 1984

ALASKA DEPARTMENT OF FISH AND GAME
P.O. Box 3-2000, Juneau, Alaska 99802

Don W. Collinsworth
Commissioner

ADF&G TECHNICAL DATA REPORTS

This series of reports is designed to facilitate prompt reporting of data from studies conducted by the Alaska Department of Fish and Game, especially studies which may be of direct and immediate interest to scientists of other agencies.

The primary purpose of these reports is presentation of data. Description of programs and data collection methods is included only to the extent required for interpretation of the data. Analysis is generally limited to that necessary for clarification of data collection methods and interpretation of the basic data. No attempt is made in these reports to present analysis of the data relative to its ultimate or intended use.

Data presented in these reports is intended to be final, however, some revisions may occasionally be necessary. Minor revision will be made via errata sheets. Major revisions will be made in the form of revised reports.

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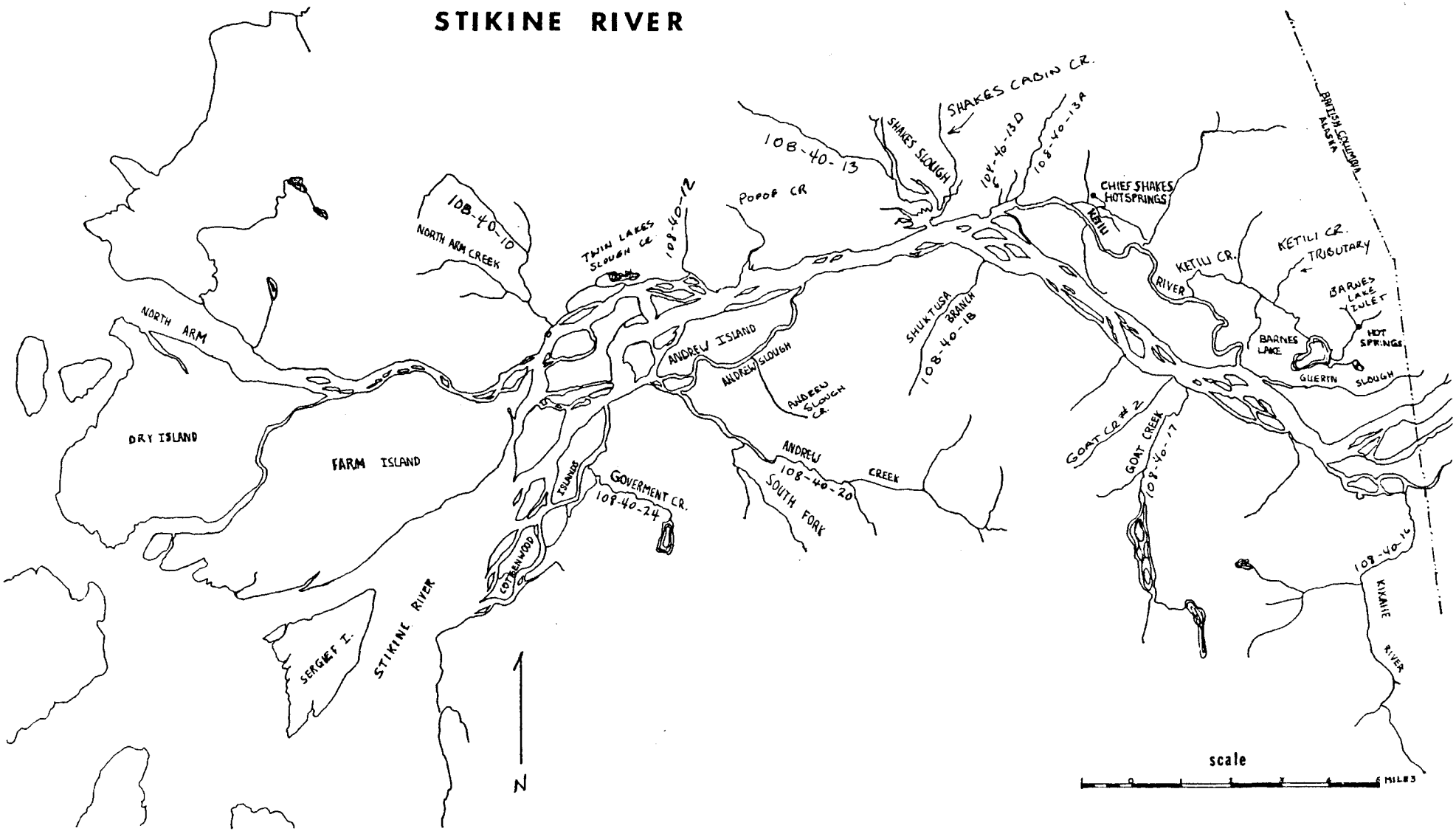
Explanation

This report contains no Table of Contents, Abstract, or any other means of determining what the content is. So I went through the report, and determined that it consists of a catalog of various streams. With this in mind, I set my bookmarks for the PDF file to the individual streams categorized in the report. I then organized the listings by the Bay/Drainage listed for each stream.

Mae Tanner
July 21, 2006

STIKINE RIVER



LEVEL THREE - HABITAT SURVEY FORM (Parts 1 and 2)

Part 1 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.41.

1. Survey Areas N 2. Equipment _____

3. Historical Fish Species _____ _____ _____ _____ _____

4. Section Length 100m

Part 2 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.42.

1. Stream Name a. North Arm Creek b. _____ Lat. 56°41'5"

2. ADF&G Catalog No. 108-40-10 3. Long. 132°10'20"

4. Agency Unit 02 5. Mgmt Area _____ 6. USGS Map No. Psg. C-1

7. Aerial Photo No. _____ _____ _____ _____ _____

8. Bay/Drainage Stikine R. 9. Access 4 5 10. Camping 4

11. Present Land Use a. Wilderness 11b. _____

12. Historical Land Use Recreation

13. Stream Origin 2 5 _____ _____ 14. Flow Stage 2

15. Flow _____, _____, _____, _____, _____, _____, _____, _____
method width depth length constant time grid flow

16. Temp. Sensitivity No

17. Beaver 5 18. Type aquatic Veg. 3 19. Density Aquatic Veg. 3

20. Adult Salmon Yes 21. Intertidal a. gradient _____

b. bottom type % fines _____% c. ASA _____

gravel small cobble _____% d. schooling _____

large cobble/boulders/bedrock _____% e. shellfish _____

f. _____

22. Comments

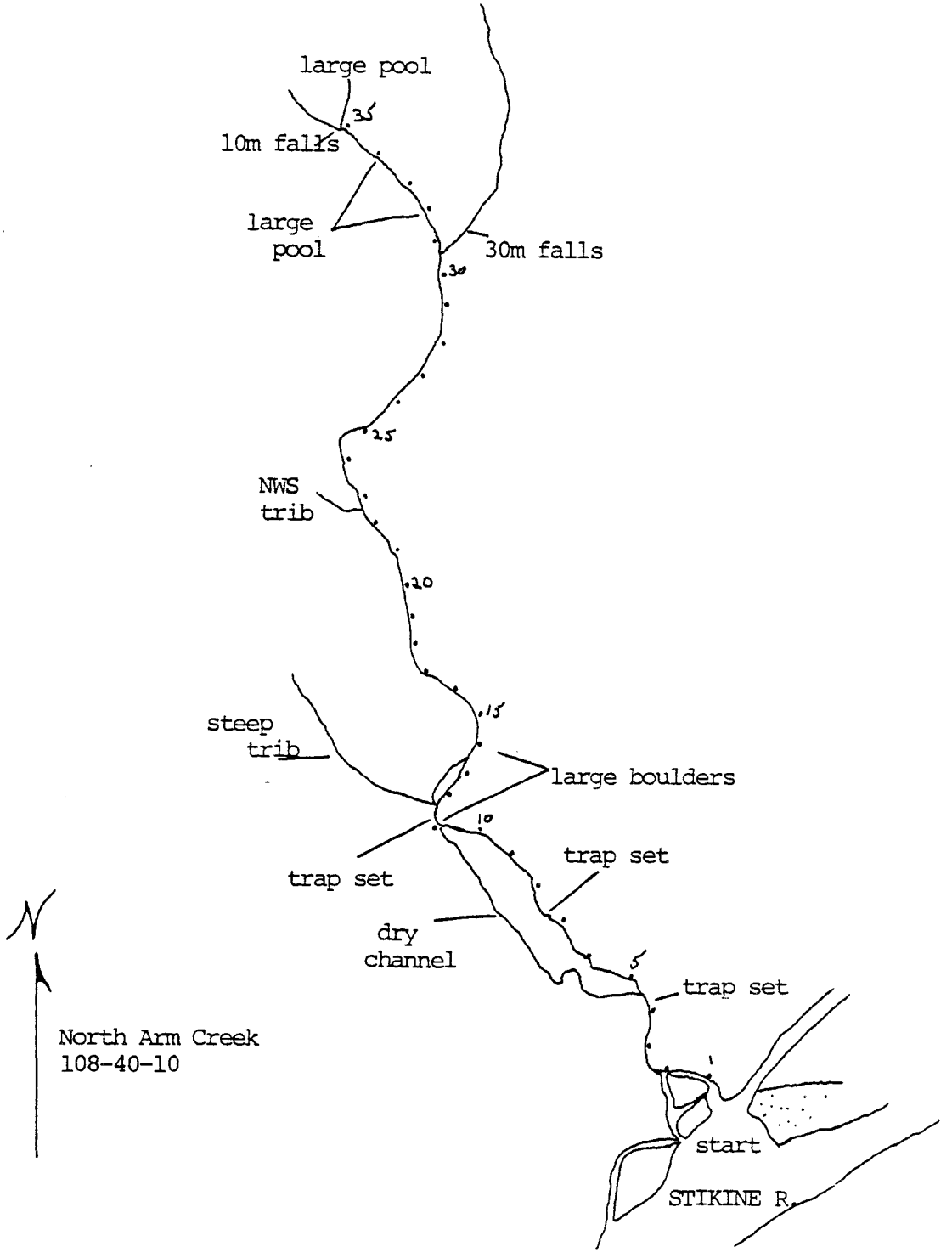
23. Investigators Lynch/Burns ADF&G

24. Date 8 / 16/ 81 25. Time 0930 (start) 1630 (end) 26. Weather Sunny

27. Photos _____

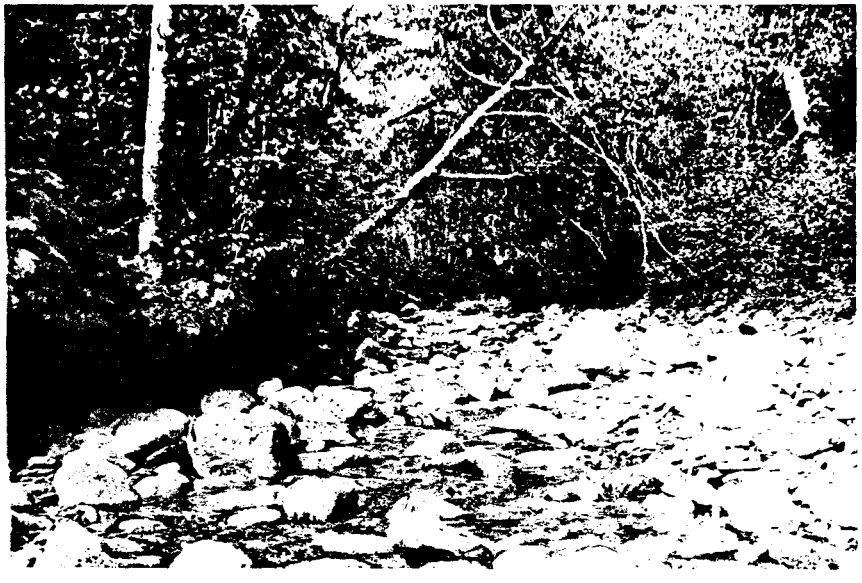
R-10 2600-3a (1/81)

GSA JUNEAU 1613


large pool
35
10m falls
large
pool
30m falls
30
25
NWS
trib
20
15
steep
trib
large boulders
10
trap set
trap set
dry
channel
5
trap set
1
start
STIKINE R.
N
North Arm Creek
108-40-10

108-40-10
North Arm Creek

1. View Upstream of Section 1.



2. Tributary in Section 12.

108-40-10
North Arm Creek

3. 10m Barrier Falls at End of Section 35.

North Arm Creek 108-40-10

Section	Length (m)	Width (m)	ASA %	ASA Total	Section	Length (m)	Width (m)	ASA &	ASA Total
1	100	8.4	35	294					
2	100	17	75	1,275					
3	100	14	50	700					
4	100	7.2	90	648					
5	100	11	65	715					
6	100	10.2	75	765					
7	100	9.7	60	582					
8	100	6	80	480					
9	100	10.2	90	918					
10	100	7.6	90	684					
11	100	8.6	80	688					
12	100	7.8	50	390					
13-L	100	10	50	500					
13-R	100	6	80	480					
14	100	13	70	910					
15	100	9.8	50	490					
16	100	6.2	10	62					
17	100	12	10	120					
18	100	11	10	110					
19	100	7.6	1	7.6					
20	100	14	5	70					
21	100	14	5	70					
22	100	12.5	8	100					
23	100	10.5	8	100					
24	100	9.2	30	276					
25	100	5	60	300					
26	100	11	40	440					
27	100	8.2	0	0					
28	100	7.8	1	7.8					
29	100	10.5	0	0					
30	100	14	1	14					
31	100	10	1	10					
32	100	5.5	0	0					
33	100	6.8	0	0					
34	100	7	1	7					
35	100	22	1	22					
TOTAL				12,235.4					

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name North Arm Creek ADF&G Catalog No. 108-40-10

1. Section no.		1	2	3	4	5	6	7	8	9	10
2. Compass bearing		265	280	325	285	260	270	270	305	270	265
3. Gradient		1	2	1.5	1.5	1.5	1.5	1.5	2	1.5	1.5
4. Temperature:	Air	11	11	11	11	11	11	11	11	11	11
	Water	9	9	9	9	9	9	9	9	9	9
5. Water qual:	a. color	1	1	1	1	1	1	1	1	1	1
	b. turbidity	1	1	1	1	1	1	1	1	1	1
	c. pH	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
6. ASA	a. percent	35	75	50	90	65	75	60	80	90	90
	b. quality	2	2	2	2	2	2	2	2	2	2
7. Water Width	a. channel	9.4	17	15	9.5	16.5	14.8	11	11	11.2	14.6
	b. water	8.4	17	14	7.2	11	10.2	9.7	6	10.2	7.6
	c. floodplain	2	2	2	2	2	2	2	1	1	1
8. Stream Pools	a. percent	0	0	10	8	3	2	0	0	0	0
	b. category	-	-	DS	DS	DS	DS,DF	-	-	-	-
9. Debris Loading		0	0	T	1	10	5	5	5	1	T
10. Potential Barriers		-	-	-	-	-	-	-	-	-	-
11. Enhancement/Rehab		-	-	-	-	-	-	-	-	-	-
12. Upper Bank	a. Left	0	0	0	0	20	10	10	10	10	10
	Right	15	0	0	5	10	10	0	35	55	70
	b. indic Left	N	N	N	N	N	N	N	N	N	N
	Right	N	N	N	N	N	N	N	Y	Y	N
	c. veg Left	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Right	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
13. Lower Bank	Left	GS	GS	GS	SS	SS	SS	GS	SS	U	GS
	Right	SS	GS	GS	GS	SS	SS	U	U	GS	U
14. Stab rating	Left	1(1)	1(1)	1(1)	2(1)	3(1)	2(1)	2(1)	2(1)	2(1)	1(1)
	Right	1(1)	1(1)	1(1)	2(1)	2(1)	2(1)	2(1)	2(1)	1(1)	2(1)

North Arm Creek 108-40-10	1	2	3	4	5	6	7	8	9	10
15. Streambank Veg.	2,3	2,3	2,3	2,3	2,3	1-3	1-3	1-3	1-3	1-3
16. Stream Canopy Cover	3	3	3	3	3	3	3	3	3	3
17. Rearing Area	60	20	50	15	15	15	10	10	15	15
18. Stream Bottom Substrate 1		T	5							
2	5	10	15	15	10					
3	40	40	35	50	45	40	35	40	35	35
4	35	35	30	30	40	50	50	50	55	55
5	20	15	15	5	5	10	15	10	10	10
6										
7										
19. Fish Species PS	1500	1000	1500	500	300	300	1000	100	300	500
KS			2	2	3				4	
20. Sampling										

21. Comments

1. Photo #13 upstream habitat.

4. Trap set 1015-1700. DV-94mm.

7. Trap set 1030-1615 - Ø.

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name North Arm Creek ADF&G Catalog No. 108-40-10

1. Section no.		11	12	13L	13R	14	15	16	17	18	19
2. Compass bearing		275	260	325	10	30	305	270	280	345	320
3. Gradient		2	2	1.5	2	1	2.5	1	5	2.5	3
4. Temperature:	Air	11	11	11	11	11	11	11	11	11	20.5
	Water	9	9	9	9	9	9	9	9	9	10.5
5. Water qual:	a. color	1	1	1	1	1	1	1	1	1	1
	b. turbidity	1	1	1	1	1	1	1	1	1	1
	c. pH	7	7	7	7	7	7	7	7	7	7
6. ASA	a. percent	80	50	50	80	70	50	10	10	10	1
	b. quality	2	2	2	2	2	2	2	2	2	2
7. Water Width	a. channel	12.6	18	14	11.5	15	19	9	13	18	10
	b. water	8.6	7.8	10	6	13	9.8	6.2	12	11	7.6
	c. floodplain	1	1	1	1	1	1	1	1	1	1
8. Stream Pools	a. percent	0	0	5	5	2	0	0	0	1	5
	b. category	-	-	DS	DS	DS	-	-	-	DF	DF
9. Debris Loading		3	0	T	T	0	0	0	0	0	1
10. Potential Barriers		-	-	-	-	-	-	-	-	-	-
11. Enhancement/Rehab		-	-	-	-	-	-	-	-	-	-
12. Upper Bank a.	Left	10	5	40	0	120	120	150	45	30	40
	Right	35	10	0	10	120	120	100	120	25	30
b. indic	Left	N	N	N	N	N	N	N	N	Y	Y
	Right	N	N	Y	N	Y	Y	Y	Y	Y	Y
c. veg	Left	Y	Y	Y	Y	N	N	N	Y	Y	Y
	Right	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
13. Lower Bank	Left	GS	GS	U	GS	SS	SS	SS	GS	GS	GS
	Right	SS	SS	GS	GS	SS	SS	GS	SS	GS	SS
14. Stab rating	Left	1(1)	1(1)	1(1)	1(1)	1(2)	1(2)	1(2)	1(1)	1(1)	1(2)
	Right	1(1)	1(1)	1(1)	1(1)	1(2)	1(1)	1(1)	1(1)	1(1)	1(2)

North Arm Creek 108-40-10	11	12	13L	13R	14	15	16	17	18	19
15. Streambank Veg.	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3
16. Stream Canopy Cover	3	3	3	3	3	3	3	3	3	3
17. Rearing Area	15	40	20	10	50	30	30	5	10	5
18. Stream Bottom Substrate 1	5	10	-	-	5	10	25	50	45	65
2	5	10	5	5	10	15	25	25	30	20
3	40	30	40	40	50	40	25	10	10	5
4	45	40	50	45	30	30	20	10	10	5
5	5	10	5	5	5	5	5	5	5	5
6										
7										
19. Fish Species PS	200	1000	500	100	500	200	500	100	100	15
KS	1	1	4		1	4		3		
20. Sampling										

21. Comments

11. Trap set 1105-1630. SS - 52, 58, 50, 50mm.

12. Tributary from left bank 80m into section. 10.5°C pH 7, gradient 4 increasing to 10. Photo #14 shows tributary at confluence with mainstream. Trace ASA present, no rearing fish observed.

13. Section splits into two channels. 13-L is 130m long.

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name North Arm Creek ADF&G Catalog No. 108-40-10

1. Section no.		20	21	22	23	24	25	26	27	28	29
2. Compass bearing		300	280	295	295	325	45	40	10	20	325
3. Gradient		5	2.5	2.5	3	4	3	2.5	3	4	3.5
4. Temperature:	Air	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5
	Water	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
5. Water qual:	a. color	1	1	1	1	1	1	1	1	1	1
	b. turbidity	1	1	1	1	1	1	1	1	1	1
	c. pH	7	7	7	7	7-7.5	7-7.5	7-7.5	7-7.5	7-7.5	7-7.5
6. ASA	a. percent	5	5	8	8	30	60	40	0	1	0
	b. quality	2	2	2	2	2	2	2	-	2	-
7. Water Width	a. channel	18	16	20.2	17	12	17	12	10.5	11.5	11
	b. water	14	14	12.5	10.5	9.2	5	11	8.2	7.8	10.5
	c. floodplain	1	1	1	1	1	1	1	1	1	1
8. Stream Pools	a. percent	15	10	1	5	0	5	0	0	2	0
	b. category	DF	DS,DF	DS	DS	-	SS,DS	-	-	SF,DF	-
9. Debris Loading		1	0	0	0	0	0	1	0	0	0
10. Potential Barriers		-	-	-	-	-	-	-	-	-	-
11. Enhancement/Rehab		-	-	-	-	-	-	-	-	-	-
12. Upper Bank a.	Left	40	80	100	60	10	20	10	10	20	40
	Right	35	30	35	25	5	17	40	10	20	15
b. indic	Left	Y	Y	Y	N	N	Y	N	N	Y	Y
	Right	Y	N	N	N	N	N	Y	N	Y	Y
c. veg	Left	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Right	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
13. Lower Bank	Left	GS	SS	SS	SS	GS	GS	SS	GS	GS	U
	Right	GS	GS	GS	GS	GS	GS	GS	SS	SS	GS
14. Stab rating	Left	1(1)	1(1)	1(1)	1(1)	1(1)	1(1)	1(1)	1(2)	2(2)	2(2)
	Right	1(1)	1(1)	1(1)	1(1)	1(1)	2(1)	1(1)	1(2)	2(1)	2(2)

North Arm Creek 108-40-10	20	21	22	23	24	25	26	27	28	29
15. Streambank Veg.	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3
16. Stream Canopy Cover	3	3	3	3	3	3	3	3	3	3
17. Rearing Area	20	10	10	20	15	25	15	10	10	10
18. Stream Bottom Substrate 1	55	55	55	50	30	30	25	25	25	30
2	25	25	25	30	40	30	35	35	35	35
3	10	10	10	10	20	25	25	25	25	25
4	10	10	10	10	10	15	15	15	15	10
5										
6										
7										
19. Fish Species PS	100	100	200	200	200	500	200	10		
20. Sampling										

21. Comments

23. Tributary from left bank goes to barrier in 100m pH 7.5.

24. Substrate getting bigger. ASA not too good for pink salmon.

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name North Arm Creek ADF&G Catalog No. 108-40-10

1. Section no.		30	31	32	33	34	35				
2. Compass bearing		330	335	280	280	285	270				
3. Gradient		3.5	10	.5	5	5	.5				
4. Temperature:	Air	20.5	20.5	20.5	20.5	20.5	20.5				
	Water	10.5	10.5	10.5	10.5	10.5	10.5				
5. Water qual:	a. color	1	1	1	1	1	1				
	b. turbidity	1	1	1	1	1	1				
	c. pH	7-7.5	7.5	7.5	7.5	7.5	7.5				
6. ASA	a. percent	1	1	0	0	1	2				
	b. quality	2.3	2	-	-	2	1				
7. Water Width	a. channel	14	12	6	6.8	8	22				
	b. water	14	10	5.5	6.8	7	22				
	c. floodplain	1	1	1	1	1	1				
8. Stream Pools	a. percent	2	0	50	1	1	0				
	b. category	DS	-	DS	DS	DS	-				
9. Debris Loading		0	0	0	0	0	0				
10. Potential Barriers		-	-	-	-	-	2				
11. Enhancement/Rehab		-	-	-	-	-	N				
12. Upper Bank	a. Left	65	60	110	105	100	150				
	Right	80	95	80	105	120	150				
	b. indic Left	Y	Y	Y	Y	Y	Y				
	Right	Y	Y	Y	Y	Y	Y				
	c. veg Left	Y	Y	N	Y	Y	Y				
	Right	Y	Y	Y	Y	Y	Y				
13. Lower Bank	Left	SS	SS	SS	SS	SS	SS				
	Right	GS	GS	SS	SS	SS	SS				
14. Stab rating	Left	1(2)	2(1)	1(2)	1(2)	1(2)	1(2)				
	Right	1(2)	2(1)	1(1)	1(2)	1(1)	1(2)				

North Arm Creek 108-40-10	30	31	32	33	34	35				
15. Streambank Veg.	1-3	1-3	1-3	2,3	2,3	2,3				
16. Stream Canopy Cover	3	3	3	3	3	3				
17. Rearing Area	10	40	90	25	40	90				
18. Stream Bottom Substrate 1	30	25	5	70	50					
2	35	25	5	25	30	10				
3	25	20	5	5	10	10				
4	10	15	5		5	5				
5		15	80		5	75				
6										
7										
19. Fish Species										
20. Sampling										

21. Comments

31. Tributary from right bank. pH 7.5 - ends in 100 ft. falls 100m upstream.

35. Photo #15 - 30-35 ft. barrier falls at end of section.

FISH SAMPLING FORM

Stream Name North Arm Creek ADF&G Catalog No. 108-40-10 Date 8/16/81

Identify Survey Area A Water Temp. 9°C Bait Used Liverwurst

Trap	Time In	Time Out	Species	Total Length	Comments
1	1015	1700	DV	94mm	Section 4
2	1030	1645	Ø		Section 7
3	1105	1630	SS	52,58,50,50mm	Section 11

This form is used to record fish caught during Level Three, Four, or Five Surveys.

PEAK ESCAPEMENT RECORD

North Arm Creek 108-40-10

DATE	PINK	CHUM	OTHER SPECIES	REMARKS
8/26/61	22,000			6-aerial
8/1/61		1,000	king - 150	foot, 6-aerial
7/30/62	4,000	3,000	king-850	2-aerial, 1 foot (3,000-4,000 at mouth)
8/17/63	5,000	3,000	king-200	1-aerial, 1-foot, 1-helicopter
8/30/64	30,000	9,500	king-500	2-aerial, 1-helicopter
8/5/65	2,000	15	king-20	3-aerial, 1-helicopter, 1-foot
8/30/66	20,000	6,000	king-20	4-aerial, 1-helicopter
8/2/67	1,500	1,500		2-aerial, 1-foot(2,000 at mouth)
8/6/68	37,000	1,500		2-aerial, 1-helicopter,1-foot
8/4/69	5,000		king-25	5-aerial
8/18/70	35,000			6-aerial
8/22/71	12,000	200		5-aerial(past peak)
8/6/72	4,000	3,000		3-aerial(high water, chums past peak, pinks schooled)
8/16/73	7,000	600		9-aerial, 1-foot, 1-helicopter
8/13/74	4,000			
8/16/74		1,000		2-aerial, 1 foot
8/12/75		250		9-aerial
8/14/75	510		king-3	9-aerial
8/13/76	350	750		5-aerial(inc. 100 carc.)
8/26/77	3,700			
8/10/77		440		2-aerial, 3-foot
11/8/77			coho-10	(inc. 80 chum carcasses, 3 coho carcasses)
7/31/78	980	630	king-24	2-aerial, 2-foot
8/14/79	8,320	835	king-16	3-aerial, 1-foot

LEVEL THREE - HABITAT SURVEY FORM (Parts 1 and 2)

Part 1 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.41.

1. Survey Areas _____ 2. Equipment _____

3. Historical Fish Species _____ _____ _____ _____ _____

4. Section Length 100m

Part 2 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.42.

1. Stream Name a. Twin Lakes Slough Cr. b. _____ Lat. 56°42'5"

2. ADF&G Catalog No. _____ 3. Long. 132°16'50"

4. Agency Unit 02 5. Mgmt Area _____ 6. USGS Map No. Psg. C-1

7. Aerial Photo No. _____ _____ _____ _____ _____

8. Bay/Drainage Stikine River 9. Access 4 _____ 10. Camping 3

11. Present Land Use a. Wilderness 11b. _____

12. Historical Land Use Hunting, fishing, recreation

13. Stream Origin 2 5 _____ _____ 14. Flow Stage 1

15. Flow Estimated at 2.0cfs. _____, _____, _____, _____, _____, _____, _____, _____
method, width, depth, length, constant, time, grid, flow

16. Temp. Sensitivity No

17. Beaver 3 18. Type aquatic Veg. 3,4 19. Density Aquatic Veg. 3

20. Adult Salmon _____ 21. Intertidal a. gradient _____

b. bottom type % fines _____%

gravel small cobble _____%

large cobble/boulders/bedrock _____%

c. ASA _____

d. schooling _____

e. shellfish _____

f. _____

22. Comments

A series of small streams flow on the western slopes of Mt. Basargin and form 2 main streams with coverage of approximately 25m above the mouth at Twin Lakes Slough. Total flow at the mouth was approx. 2.0cfs. The right fork has approx. 5% ASA with gravel and small cobble substrate. Rearing is poor in the upper stream but rearing fish probably utilize the slough and Twin Lakes. The left fork would have approx. 30% ASA if water level is higher. The stream was very shallow at the time of survey. The stream has several forks at 150m which flow underground. Bottom substrate of the left fork is 70% small cobble and 30% gravel. The lower end of the stream below the forks flow through beaver meadows and an old dam.

23. Investigators ADF&G Lynch/Burns

24. Date 8 / 27 /81 25. Time _____ (start) _____ (end) 26. Weather Rain

27. Photos _____

R-10 2600-3a (1/81)

GSA JUNEAU 1613

1. West of Twin Lakes; Along Slough; Left Fork.

FISH SAMPLING FORM

Stream Name Twin Lakes Slough ADF&G Catalog No. _____ Date 8/27/81

Identify Survey Area _____ Water Temp. _____ Bait Used Liverwurst

Trap	Time In	Time Out	Species	Fork Length (mm)	Comments
1	1015	1100	SS	78, 70	
2	1015	1100	SS	65, 72	
3	1015	1100	SS	88,65,72,53,67, 60,69,57,73,71, 66,65,70,53,71, 72.	

This form is used to record fish caught during Level Three, Four, or Five Surveys.

LEVEL THREE - HABITAT SURVEY FORM (Parts 1 and 2)

Part 1 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.41.

1. Survey Areas _____ 2. Equipment _____

3. Historical Fish Species _____ _____ _____ _____ _____

4. Section Length 100m

Part 2 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.42.

1. Stream Name a. Twin Lakes East b. _____ Lat. 56°42'5"

2. ADF&G Catalog No. _____ 3. Long. 132°15'30"

4. Agency Unit 02 5. Mgmt Area _____ 6. USGS Map No. _____

7. Aerial Photo No. _____ _____ _____ _____ _____

8. Bay/Drainage Stikine River 9. Access _____ _____ 10. Camping _____

11. Present Land Use a. Wilderness 11b. _____

12. Historical Land Use _____

13. Stream Origin _____ _____ _____ _____ 14. Flow Stage _____

15. Flow Estimated at 1.5-2cfs., _____, _____, _____, _____, _____, _____, _____
method width depth length constant time grid flow

16. Temp. Sensitivity _____

17. Beaver _____ 18. Type aquatic Veg. _____ 19. Density Aquatic Veg. _____

20. Adult Salmon _____ 21. Intertidal a. gradient _____

b. bottom type % fines _____%

gravel small cobble _____%

large cobble/boulders/bedrock _____%

c. ASA _____

d. schooling _____

e. shellfish _____

f. _____

22. Comments Temp-12°C, 6.5 pH. This stream comes off the western slopes of Mt. Basargin. It goes underground at present flows at approx. 30m but appears to be possible at higher flows. The lower stream has approx. 30% ASA then the gradient increases to a vertical fall at 200m. The bottom substrate consists of 15% boulder, 20% lg. cobble, 30% sm. cobble, 25% gravel, 10% sand. The water width at the mouth is 6.3m and decreases to less than 2m in upper part of stream. Rearing is poor but rearing fish would use Twin Lakes.

23. Investigators ADF&G Lynch/Burns

24. Date 8 / 27/ 81 25. Time _____ _____ 26. Weather _____
start end

27. Photos _____

R-10 2600-3a (1/81)

GSA JUNEAU 1613

1. NE End of Twin Lakes Inlet Streams; Shows Spawning Area.

LEVEL THREE - HABITAT SURVEY FORM (Parts 1 and 2)

Part 1 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.41.

1. Survey Areas _____ 2. Equipment _____

3. Historical Fish Species _____ _____ _____ _____ _____

4. Section Length 100m

Part 2 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.42.

1. Stream Name a. Twin Lakes West b. _____ Lat. 56°42'5"

2. ADF&G Catalog No. _____ 3. Long. 132°16'35"

4. Agency Unit 02 5. Mgmt Area _____ 6. USGS Map No. _____

7. Aerial Photo No. _____ _____ _____ _____ _____

8. Bay/Drainage Stikine River 9. Access 4 10. Camping 3

11. Present Land Use a. Wilderness 11b. _____

12. Historical Land Use _____

13. Stream Origin 3 5 6 _____ 14. Flow Stage 1

15. Flow _____, _____, _____, _____, _____, _____, _____, _____
method width depth length constant time grid flow

16. Temp. Sensitivity _____

17. Beaver 5 18. Type aquatic Veg. 3 19. Density Aquatic Veg. 3

20. Adult Salmon _____ 21. Intertidal a. gradient _____

b. bottom type % fines _____% c. ASA _____

gravel small cobble _____% d. schooling _____

large cobble/boulders/bedrock _____% e. shellfish _____

f. _____

22. Comments 11°C temp, 6.5 pH. This stream flows into the west end slough of Twin Lakes from the west bank, forming another slough in the lower 1/4 mile which is directly influenced by the Stikine River water levels. The stream width at the mouth is 4.7m and is significantly reduced upstream. The stream forks at approx. 70m and both forks go underground. The ASA is 30% and the bottom substrate is 10% lg. cobble, 20% sm. cobble, 60% gravel and 10% sand. This stream probably has coho spawning but no rearing fish were observed. Rearing fish probably utilize the slough end of Twin Lakes.

23. Investigators ADF&G Lynch/Burns

24. Date / / 25. Time _____ _____ 26. Weather _____
start end

27. Photos _____

R-10 2600-3a (1/81)

GSA JUNEAU 1613

1. West of Twin Lakes - Along Slough; Left Fork.

LEVEL THREE - HABITAT SURVEY FORM (Parts 1 and 2)

Part 1 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.41.

1. Survey Areas _____ 2. Equipment _____

3. Historical Fish Species _____ _____ _____ _____ _____

4. Section Length 100m

Part 2 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.42.

1. Stream Name Twin Lakes Slough Creek 3. Lat. 56°42'5"

2. ADF&G Catalog No. _____ 3. Long. 132°16'50"

4. Agency Unit 02 5. Mgmt Area _____ 6. USGS Map No. Ptbg (C-1)

7. Aerial Photo No. _____ _____ _____ _____ _____

8. Bay/Drainage Stikine River 9. Access 4 _____ 10. Camping 3

11. Present Land Use a. Wilderness 11b. _____

12. Historical Land Use Hunting, Fish & Recreation

13. Stream Origin 2 5 _____ _____ 14. Flow Stage 1

15. Flow _____, _____, _____, _____, _____, Estimated at, 2.0 cfs.
method width depth length constant time grid flow

16. Temp. Sensitivity No

17. Beaver 3 18. Type aquatic Veg. 3, 4 19. Density Aquatic Veg. 3

20. Adult Salmon _____ 21. Intertidal a. gradient _____

b. bottom type % fines _____%

gravel small cobble _____%

large cobble/boulders/bedrock _____%

c. ASA _____

d. schooling _____

e. shellfish _____

f. _____

22. Comments: A series of small streams flow on the western slopes of Mt. Basargin and form two main streams which converge at approximately 25m above the mouth at Twin Lakes Slough. Total flow at the mouth is approximately 2.0 cfs. The right fork has approximately 5% ASA with gravel and small cobble substrate. Rearing is poor in the upper stream, but rearing fish probably utilize the Slough and Twin Lakes.
The left fork would have approximately 30% ASA if water level is higher. The stream was very shallow at the time of survey. The stream has several forks at 150m which flow underground. The bottom substrate of the left fork is 70% small cobble and 30% gravel. The lower end of the stream below the forks flows through beaver meadows and an old dam.

23. Investigators Lynch/Burns

24. Date 8 / 27 / 81 25. Time _____ _____ 26. Weather Rain
start end

27. Photos _____

R-10 2600-3a (1/81)

1. Creek at West End of Twin Lakes Above Slough.

LEVEL THREE - HABITAT SURVEY FORM (Parts 1 and 2)

Part 1 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.41.

1. Survey Areas _____ 2. Equipment _____

3. Historical Fish Species _____ _____ _____ _____ _____

4. Section Length 100m

Part 2 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.42.

1. Stream Name a. Kakwan Slough b. _____ Lat. 56°42'00"

2. ADF&G Catalog No. 108-40-12 3. Long. 132°13'50"

4. Agency Unit 02 5. Mgmt Area _____ 6. USGS Map No. Psg. C-1

7. Aerial Photo No. _____ _____ _____ _____ _____

8. Bay/Drainage Stikine River 9. Access 4 _____ 10. Camping 1

11. Present Land Use a. Wilderness 11b. _____

12. Historical Land Use _____

13. Stream Origin 2 5 _____ _____ 14. Flow Stage 1

15. Flow Estimated at 2.5-3cfs. , _____, _____, _____, _____, _____
method width depth length constant time grid flow

16. Temp. Sensitivity _____

17. Beaver 1 18. Type aquatic Veg. 3 19. Density Aquatic Veg. 3

20. Adult Salmon No 21. Intertidal a. gradient _____

b. bottom type % fines _____% c. ASA _____

gravel small cobble _____% d. schooling _____

large cobble/boulders/bedrock _____% e. shellfish _____

f. _____

22. Comments The lower 1/2 mile is a slow slough directly influenced by Stikine River water levels. The bottom substrate of the slough consisted of sand, organic muck and mud. Above, the slough flows through a series of ruptured beaver dams. Some appeared to be recently built but destroyed during recent heavy rains. Many rearing salmonid fingerlings and stickleback were observed in this area. Rearing area excellent in the dams and slough. Above the dams the stream forks. The right fork forms a small alluvial fan where coho may spawn. Discharge of the right fork was est. at 1.5-2cfs. The bottom substrate consisted of 30% gravel, 30% sm. cobble, 30% lg.cobble and 10% boulder. The substrate size increased upstream. All ASA was located in the lower 25m. The right fork goes underground at approx. 50m above the alluvial fan at present low flows. Temp, 15.5°C, pH 6-6.5. Left fork goes underground at approx. 100m but appears to connect w/the right fork at higher flows.

23. Investigators ADF&G Lynch/Burns

24. Date 8 / 26 / 81 25. Time _____ start _____ end 26. Weather Sunny

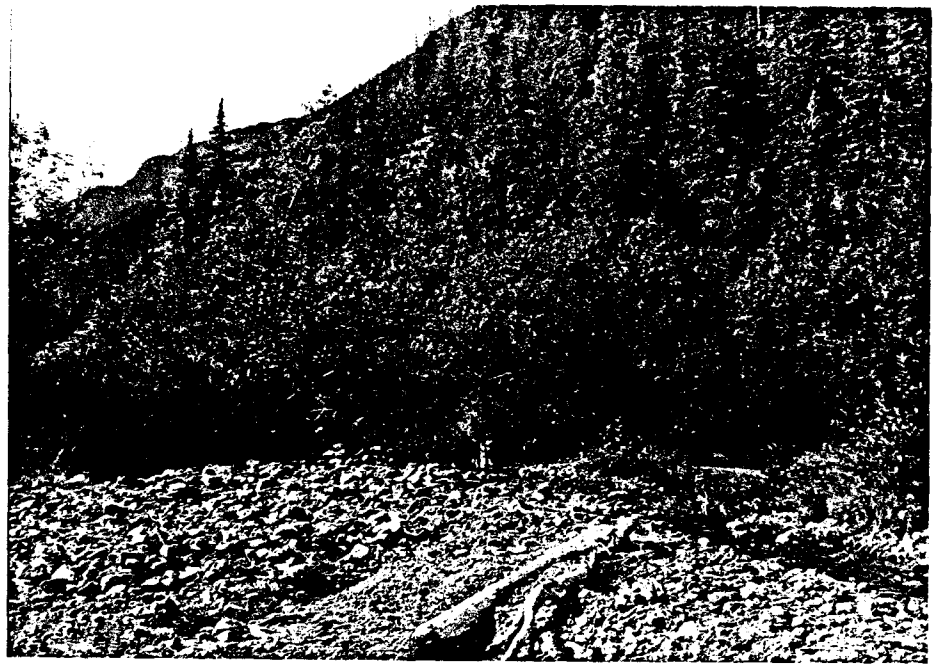
27. Photos _____

R-10 2600-3a (1/81)

CSA JUNEAU 1613

108-40-12
Kakwan Slough Creek

1. Slough Area of Creek (Clear Water).



2. Alluvial Fan Area (Mouth) of Stream Goes Underground Immediately.

FISH SAMPLING FORM

Stream Name Kakwan Slough ADF&G Catalog No. _____ Date 8/26/81

Identify Survey Area A Water Temp. 15.5°C Bait Used Liverwurst

Trap	Time In	Time Out	Species	Fork Length (mm)	Comments
1	1530	1630	SS	80,70,55,75,55	Set in area above slough in beaverdam area.
			SB	45	

This form is used to record fish caught during Level Three, Four, or Five Surveys.

LEVEL THREE - HABITAT SURVEY FORM (Parts 1 and 2)

Part 1 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.41.

1. Survey Areas No 2. Equipment _____

3. Historical Fish Species No _____ _____ _____ _____

4. Section Length --

Part 2 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.42.

1. Stream Name Popof Creek 3. Lat. 56°42'05"

2. ADF&G Catalog No. N/A 3. Long. 132°12'05"

4. Agency Unit 02 5. Mgmt Area _____ 6. USGS Map No. Ptbg (C-1)

7. Aerial Photo No. _____

8. Bay/Drainage Stikine River 9. Access 4 5 10. Camping 4

11. Present Land Use a. Recreation; Wilderness 11b. _____

12. Historical Land Use Recreation

13. Stream Origin 2 _____ _____ _____ 14. Flow Stage 3

15. Flow _____, _____, _____, _____, _____, _____, _____, _____
method width depth length constant time grid flow

16. Temp. Sensitivity No

17. Beaver 1 18. Type aquatic Veg. -- 19. Density Aquatic Veg. --

20. Adult Salmon _____ 21. Intertidal a. gradient _____

b. bottom type % fines 100%

gravel small cobble _____%

large cobble/boulders/bedrock _____%

c. ASA _____

d. schooling _____

e. shellfish _____

f. _____

22. Comments

This stream was at very high flow at the time of the survey. The bottom substrate of the lower 3/4 mile was composed of deep, unstable glacial silt. Walking was extremely difficult due to the depth (up to 2 feet) of the silt. Above 3/8 mile the stream was extensively braided, deep, swift and very difficult to walk. No accurate survey was attempted due to the turbidity and the braided nature of the system. Many active as well as inactive beaver dams were present along the course of the stream.

23. Investigators Lynch, Burns, Cariello, Rockne

24. Date 8/14/81 25. Time _____ _____ (start end) 26. Weather Overcast

27. Photos _____

R-10 2600-3a (1/81)

GSA FINAL 1613

Popof Creek
8/14/81

LEVEL THREE - HABITAT SURVEY FORM (Parts 1 and 2)

Part 1 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.41.

1. Survey Areas No 2. Equipment _____

3. Historical Fish Species PS RS CS KS _____

4. Section Length 100m

Part 2 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.42.

1. Stream Name a. Shakes Slough Creek b. 56°43'40"

2. ADF&G Catalog No. 108-40-13 3. Lat, Long. 132°7'35"

4. Agency Unit 02 5. Mgmt Area _____ 6. USGS Map No. Psg.(C-1)

7. Aerial Photo No. _____

8. Bay/Drainage Stikine River 9. Access 4 _____ 10. Camping 3

11. Present Land Use a. Wilderness 11b. _____

12. Historical Land Use Hunting, fishing

13. Stream Origin 2 5 _____ _____ 14. Flow Stage 2

15. Flow E (method), 11m (width), .2513 (depth), 10m (length), .8 (constant), 25 (time), _____ (grid), 1.18m³/sec. (flow)

16. Temp. Sensitivity No-glacial and snowmelt.

17. Beaver 5 18. Type aquatic Veg. None 19. Density Aquatic Veg. _____

20. Adult Salmon Yes 21. Intertidal a. gradient _____

b. bottom type % fines _____%

gravel small cobble _____%

large cobble/boulders/bedrock _____%

c. ASA _____

d. schooling _____

e. shellfish _____

f. Small boat can be tied along left bank of Shakes Slough.

22. Comments

23. Investigators ADF&G Cariello/Rockne

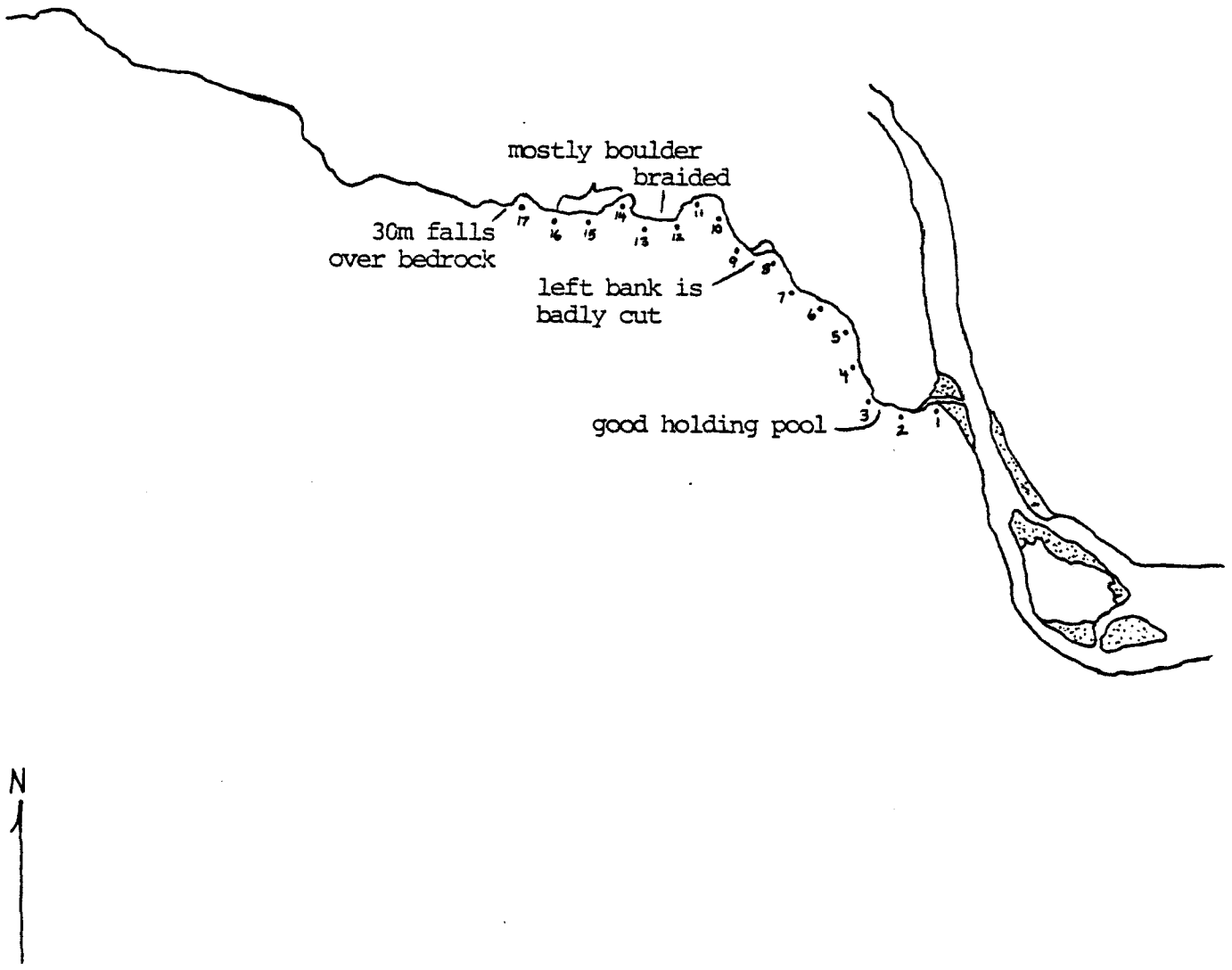
24. Date 8/13/81 25. Time 0900 (start) 1600 (end) 26. Weather Clear

27. Photos _____

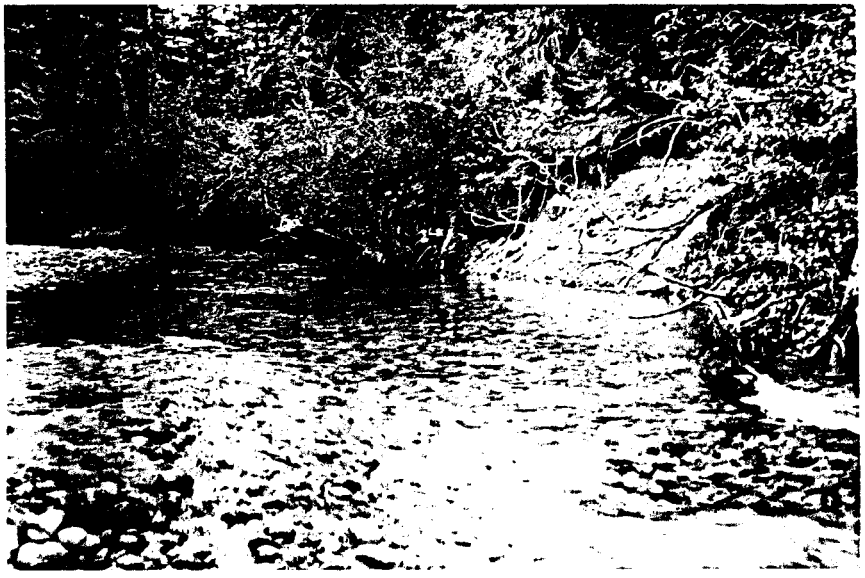
R-10 2600-3a (1/81)

GSA JUNEAU 1613

Shakes Slough Cr.
108-40-13



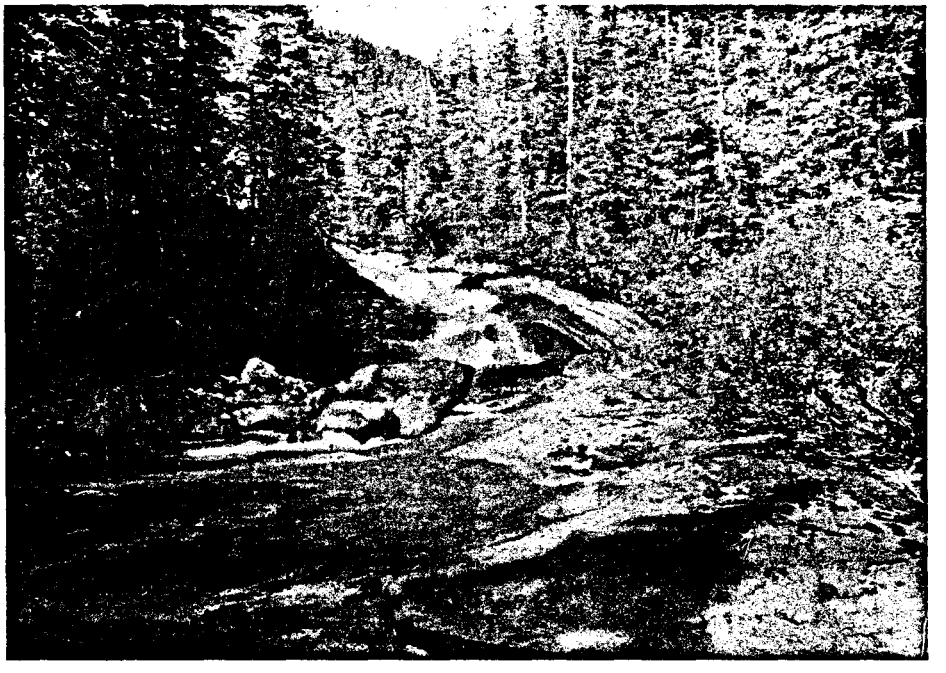
108-40-13
Shakes Creek



1. View Upstream of Section 4.

2. Section 10: Good ASA Where Red Salmon Were Seen Spawning.

108-40-13
Shakes Creek



3. Barrier Falls in Section 17.

Shakes Slough Cr. 108-40-13

Section	Length (m)	Width (m)	ASA %	ASA Total	Section	Length (m)	Width (m)	ASA &	ASA Total
1	100	21	5	105					
2	100	8	5	40					
3	100	12	15	180					
4	100	10	13	100					
5	100	8	10	80					
6	100	10	25	250					
7	100	16	20	320					
8	100	10	15	150					
9	100	11	20	220					
10	100	10	20	200					
11	100	5	20	100					
12	100	6	10	60					
13	100	10	5	50					
14	100	7	0	0					
15	100	6	0	0					
16	100	15	0	0					
17	100	22	0	0					
TOTAL				1,855					

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Shakes Slough Cr. ADF&G Catalog No. 108-40-13

1. Section no.		1	2	3	4	5	6	7	8	9	10
2. Compass bearing		218	276	299	320	288	295	303	207	310	318
3. Gradient		.5	1	1	2	1	2	1.5	1	2	1
4. Temperature:	Air	11	11	11	11	11	11	11	11	11	11
	Water	8	8	8	8	7.5	7.5	7.5	7.5	7.5	7.5
5. Water qual:	a. color	1	1	1	1	1	1	1	1	1	1
	b. turbidity	1	1	1	1	1	1	1	1	1	1
	c. pH	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
6. ASA	a. percent	5	5	15	10	10	25	20	15	20	20
	b. quality	1	1	2	2	2	2	2	2	2	2
7. Water Width	a. channel	21	11	13	19	12	12	21	14	12	25
	b. water	21	8	12	10	8	10	16	10	11	10
	c. floodplain	1	1	1	1	1	1	1	1	1	1
8. Stream Pools	a. percent	15	15	5	10	15	15	10	10	20	20
	b. category	DS	DS	SF	DF	SS	DF	DF	DF	SF	DF
9. Debris Loading		0	1	0	0	1	1	2	10	0	3
10. Potential Barriers		N	N	N	N	N	N	N	N	N	N
11. Enhancement/Rehab		N	N	N	N	N	N	N	N	N	N
12. Upper Bank a.	Left	0	0	0	0	0	0	0	0	0	0
	Right	0	0	0	0	0	0	0	0	0	0
b. indic	Left	PV	PV	PV	PV	PV	PV	PV	PV	PV	PV
	Right	PV	PV	PV	N	PV	PV	PV	PV	PV	PV
c. veg	Left	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Right	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
13. Lower Bank	Left	SS	SS	SS	SS	SS	GS	GS	GS	SS	SS
	Right	GS	GS	SS	SS	SS	GS	SS	SS	GS	U
14. Stab rating	Left	1(2)	1(2)	1(2)	1(1)	1(1)	1(2)	1(2)	1(2)	1(2)	1(2)
	Right	1(2)	1(2)	1(2)	2(2)	2(2)	1(2)	1(2)	1(2)	1(2)	1(2)

Shakes 108-40-13	1	2	3	4	5	6	7	8	9	10
15. Streambank Veg.	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4
16. Stream Canopy Cover	1	1	1	1	1	1	1	1	1	1
17. Rearing Area	20	20	10	20	25	25	25	20	10	20
18. Stream Bottom Substrate 1	10	20	20	30	30	30	30	30	20	20
2	20	30	30	30	30	20	20	20	30	30
3	20	15	30	20	20	30	30	30	30	30
4		5	10	10	10	10	10	10	10	10
5	50	30	10	10	10	10	10	10	10	10
6										
7										
19. Fish Species CS	3				4	4	2		2	
PS	5	5						2		
RS	3	5		1	13		2	7	15	4
20. Sampling										

21. Comments Seal seen at mouth.

1. Cobble heavily "cemented" by glacial silt and sand.

2. Good holding pool at end of sample. Some fry seen in slow moving waters.

3. One redd seen.

4. P- 1 taken of some ASA and cut right bank with sand and rock. Dead red salmon on bank.

6. Pair of chum working on redd.

7. A lot of fry along right bank. Traps set. Two mink seen.

8. Left bank has been badly cut exposing mostly boulder and large cobble with several trees fallen across stream. This is the beginning of the side channel.

9. Several redd being dug by RS at end of sample.

10. P- 2 taken of good ASA where RS are spawning in beginning of sample. Right bank is cut badly at end of sample. Sharp bend-all rock.

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Shakes ADF&G Catalog No. 108-40-13

1. Section no.		11	12	13	14	15	16	17			
2. Compass bearing		232	210	284	235	265	280	205			
3. Gradient		2	2	1	3	2	3	4			
4. Temperature:	Air	11	11	11	11	11	11	11			
	Water	7.5	7.5	7.5	7.5	7.5	7.5	7.5			
5. Water qual:	a. color	1	1	1	1	1	1	1			
	b. turbidity	1	1	1	1	1	1	1			
	c. pH	7.0	7.0	7.0	7.0	7.0	7.0	7.0			
6. ASA	a. percent	20	10	5	0	0	0	0			
	b. quality	2	2	2	-	-	-	-			
7. Water Width	a. channel	15	15	15	13	11	15	22			
	b. water	5	6	10	7	6	15	22			
	c. floodplain	1	1	1	1	1	1	1			
8. Stream Pools	a. percent	15	20	10	10	10	10				
	b. category	DS	DF	SF	SF	SF	SF				
9. Debris Loading		0	3	2	0	0	0				
10. Potential Barriers		N	N	N	N	N	N	N			
11. Enhancement/Rehab		N	N	N	N	N	N	N			
12. Upper Bank	a. Left	0	0	0	0	10	0	0			
	Right	0	0	0	0	5	0	15			
	b. indic Left	PV	PV	PV	PV	PV	PV	N			
	Right	PV	PV	PV	PV	PV	N	N			
	c. veg Left	Y	Y	Y	Y	Y	Y	Y			
	Right	Y	Y	Y	Y	Y	Y	Y			
13. Lower Bank	Left	U	GS	U	U	SS	GS	GS			
	Right	U	GS	U	GS	GS	U	SS			
14. Stab rating	Left	1(2)	1(2)	1(2)	1(2)	1(2)	1(2)	1(2)			
	Right	1(2)	1(2)	1(2)	1(2)	1(2)	1(2)	1(2)			

Shakes 108-40-13	11	12	13	14	15	16	17			
15. Streambank Veg.	2,4	2,4	2,4	2,4	2,4,1	2,4,1	2,4,1			
16. Stream Canopy Cover	1	1	1	1	1	1	1			
17. Rearing Area	20	10	10	10	10	0	0			
18. Stream Bottom Substrate 1	20	30	60	80	80	80	20			
2	30	30	20	10	10	10				
3	30	20	10	5	5	5				
4	10	10	10		5	5				
5	10	10		5						
6										
7							80			
19. Fish Species CS	6									
PS	2									
RS	6	9								
20. Sampling										

21. Comments

11. Several debris caused plunge pools.

12. Braided.

13. Braiding ends 50m up. Mostly rapids over large substrate.

14. Mostly boulder with rapids.

15. Large boulder.

16. Bedrock along right bank.

17. 30m falls over bedrock, P-3

FISH SAMPLING FORM

Stream Name Shakes ADF&G Catalog No. 108-40-13 Date

Identify Survey Area Sec. #7 Water Temp. 7.5°C Bait Used

Trap	Time In	Time Out	Species	Total Length (mm)	Comments
1	1100	1300	Coho	50, 55, 52, 46, 53, 49, 50, 54, 45, 47, 46, 49.	
			Dolly Vard.	79, 68, 63, 62, 69, 60.	
			King Salmon	57	
2	1100	1300	Coho	82, 56, 88, 46, 57, 55, 49, 51, 52, 54, 52, 45, 54, 50, 51.	
3	1100	1300	Coho	57, 76, 47, 58, 90, 50, 47, 51, 54, 49, 56, 51, 50, 52, 48, 56, 52, 47, 55, 50.	
			Dolly Vard.	67	

This form is used to record fish caught during Level Three, Four, or Five Surveys.

PEAK ESCAPEMENT RECORD

Shakes Slough Cr. 108-40-13

DATE	PINK	CHUM	OTHER SPECIES	REMARKS
1971			King - 100	1-aerial
8/22/79	39	1	Sockeye - 6	1-aerial, 1-foot

LEVEL THREE - HABITAT SURVEY FORM (Parts 1 and 2)

Part 1 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.41.

1. Survey Areas No 2. Equipment _____

3. Historical Fish Species _____ _____ _____ _____ _____

4. Section Length 100m

Part 2 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.42.

1. Stream Name a. Shakes Cabin Creek b. 56°43'30"

2. ADF&G Catalog No. _____ 3. Lat, Long. 132°5'45"

4. Agency Unit 02 5. Mgmt Area _____ 6. USGS Map No. _____

7. Aerial Photo No. _____ _____ _____ _____ _____

8. Bay/Drainage Stikine R. 9. Access 4 5 10. Camping 3

11. Present Land Use a. Wilderness 11b. _____

12. Historical Land Use Recreation

13. Stream Origin 2 5 _____ _____ 14. Flow Stage 2

15. Flow E (method), 3.1m (width), .23m (depth), 10m (length), .8 (constant), 17.5 (time), _____ (grid), .43m³/sec (flow)

16. Temp. Sensitivity No

17. Beaver 5 18. Type aquatic Veg. 3 19. Density Aquatic Veg. 3

20. Adult Salmon No 21. Intertidal a. gradient _____

b. bottom type % fines _____%

gravel small cobble _____%

large cobble/boulders/bedrock _____%

c. ASA _____

d. schooling _____

e. shellfish _____

f. _____

22. Comments

23. Investigators Lynch/Burns ADF&G

24. Date 8/27/81 25. Time 0930 (start) 1600 (end) 26. Weather Overcast/Rain

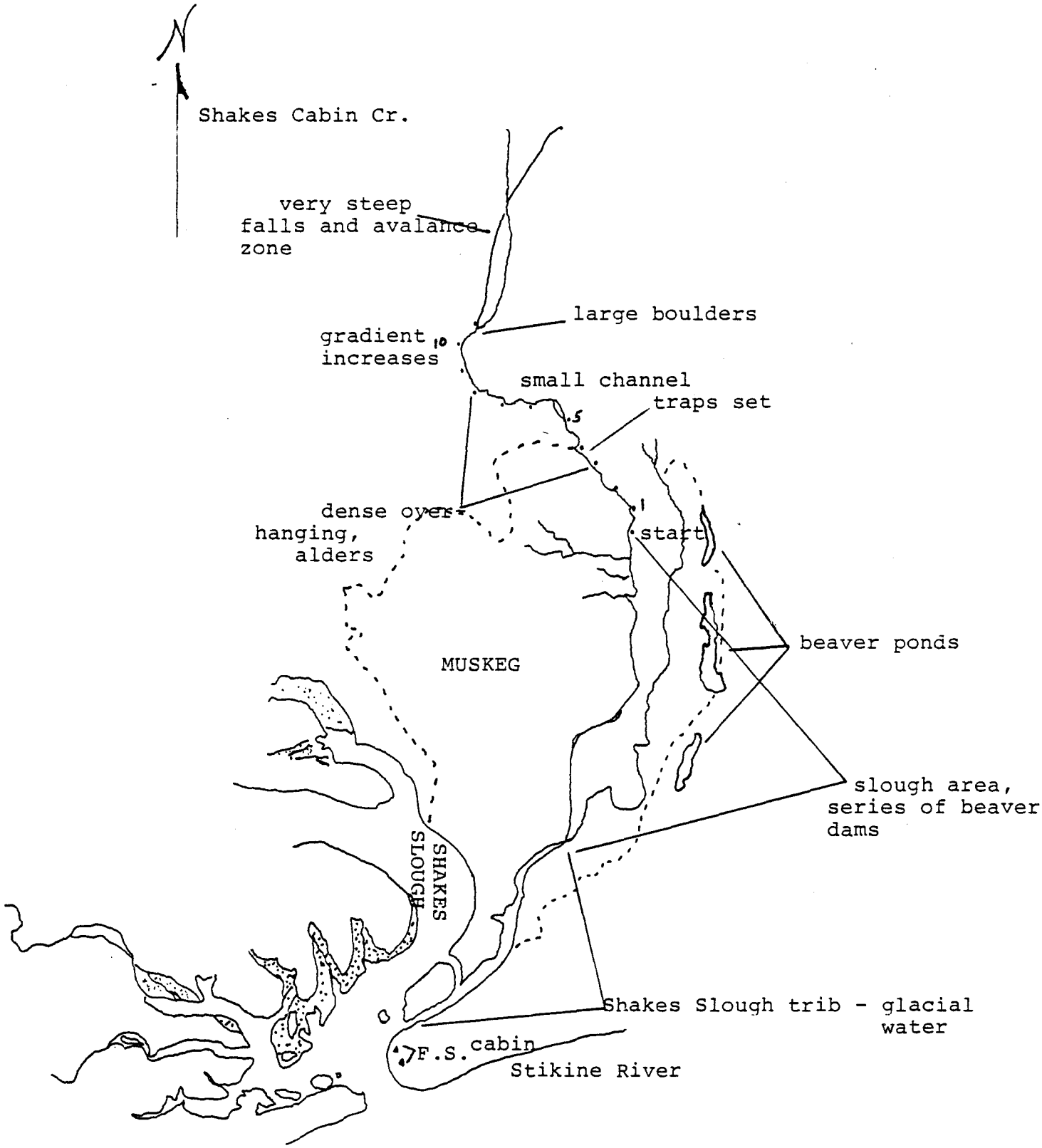
27. Photos _____

R-10 2600-3a (1/81)

GSA JUNEAU 1613

Shakes Cabin Creek

1. Upstream View in Section 3 shows "Typical" Habitat.


N
Shakes Cabin Cr.
very steep falls and avalanche zone
large boulders
gradient increases
10
small channel
traps set
5
dense overhanging, alders
1
start
beaver ponds
MUSKEG
slough area, series of beaver dams
SHAKES SLOUGH
Shakes Slough trib - glacial water
F.S. cabin
Stikine River

Shakes Cabin Creek

Section	Length (m)	Width (m)	ASA %	ASA Total	Section	Length (m)	Width (m)	ASA &	ASA Total
1	100	6.4	0	0					
2	100	4	10	40					
3	100	3.1	15	46.5					
4	100	4.2	35	147					
5	100	2.8	35	98					
6	100	2.3	60	138					
7	100	2.4	60	144					
8	100	3.5	45	157.5					
9	100	3.9	10	39					
10	100	3	1	3					
11	100	4.7	2	9.4					
Total				$822.4m^2$					

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Shakes Cabin Cr. ADF&G Catalog No. _____

1. Section no.		1	2	3	4	5	6	7	8	9	10
2. Compass bearing		290	285	270	255	290	235	280	275	320	355
3. Gradient		.5	.5	.5	1	1	.5	.5	1	5	5
4. Temperature: Air											
	Water	8.5									
5. Water qual:	a. color	1									
	b. turbidity	1									
	c. pH	6.5									
6. ASA	a. percent	0	10	15	35	35	60	60	45	10	1
	b. quality	-	2							3	3
7. Water Width	a. channel	7.5	6	3.1	6.2	5				3.9	21.5
	b. water	6.4	4	3.1	4.2	2.8	2.3	2.4	3.5	3.9	4.7
	c. floodplain	2									3
8. Stream Pools	a. percent	0	20	15	2	15	1	0	0	0	1
	b. category	-	DS	DS	DS	DS,SS	SS	-	-	-	DS
9. Debris Loading		0	2	5	1	2	1	1	1	5	1
10. Potential Barriers		-	-	-	-	-	-	-	-	-	-
11. Enhancement/Rehab		-	-	-	-	-	-	-	-	-	-
12. Upper Bank	a. Left	0									
	Right	10	5	10	10	0	10	10	5	10	10
	b. indic Left	N								Y	Y
	Right	N									N
	c. veg Left	Y									
	Right	Y									
13. Lower Bank	Left	SS	GS	U	U	GSU	U	GS	GS	U	GS
	Right	GS	U	U	GS	GSU	GS	GS	GS	GS	GS
14. Stab rating	Left	2(1)	3(1)	1(1)	1(1)	2(1)			1(1)	2(1)	2(1)
	Right	2(1)	1(1)	2(1)	1(1)	2(1)			1(1)	2(1)	2(1)

Shakes Cabin Cr.

	1	2	3	4	5	6	7	8	9	10
15. Streambank Veg.	2,3,5	----------	----	2,3	2,3,5	----------	----------	----------	1-5	1-5
16. Stream Canopy Cover	3	2	1	----------	----------	----------	----------	----------	----------	----------
17. Rearing Area	100	70	50	40	30	25	10	5	5	5
18. Stream Bottom Substrate 1		5							5	10
2		5							15	20
3		5				5	10	15	25	30
4	5	45	70	70	80	80	75	75	50	35
5	95	40	30	30	20	15	15	10	5	5
6										
7										
19. Fish Species										
20. Sampling			Y							

Trap set in slough behind cabins.

21. Comments 1. Clear water slough.
2. trib from right bank pH 6.5, 8°C.

3. 2 traps set here. P-7 typical upstream habitat.

4. Flow measured, L-10m, W-3.1m, D-.23m, A-.8, T-17.5 sec, flow=15.3cfs. ASA fairly sand

5. Stream forks at station 5. Continue survey on left fork that has most of the flow. Some exposed blue clay on left bank. Dense overhanging brush - alder does not apper to be pioneer. Braided area.

6. Braided area. Dense overhanging brush.

8. Dense overhanging brush.

9. Stream appears susceptible to flash flooding, wide area of exposed boulders.

10. Channel that left stream in section 5 is now running parrallel to stream 30m past the right bank. Stream heading into steep canyon - falls area. Left upper bank is 10 but increases to near vertical.

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Shakes Cabin Creek ADF&G Catalog No. _____

1. Section no.		11	12								
2. Compass bearing		355	0								
3. Gradient		8	6.5-11								
4. Temperature: Air											
	Water	8.5									
5. Water qual:	a. color	1									
	b. turbidity	1									
	c. pH	6.5									
6. ASA	a. percent	2									
	b. quality	2									
7. Water Width	a. channel	5									
	b. water	4.7									
	c. floodplain	1									
8. Stream Pools	a. percent	5									
	b. category	SF,DP									
9. Debris Loading		2									
10. Potential Barriers		-									
11. Enhancement/Rehab		-									
12. Upper Bank a.	Left	0									
	Right	10									
b. indic	Left	N									
	Right	N									
c. veg	Left	Y									
	Right	Y									
13. Lower Bank	Left	SS									
	Right	GS									
14. Stab rating	Left	2(2)									
	Right	2(2)									

Shakes Cabin Cr.

	11	12								
15. Streambank Veg.	1-5									
16. Stream Canopy Cover	1									
17. Rearing Area	5									
18. Stream Bottom Substrate 1	30									
2	30									
3	30									
4	10									
5										
6										
7										
19. Fish Species										
20. Sampling										

21. Comments

11. 1-3' boulders. Near vertical cliff on left. Evidence of recent heavy discharge. Debris piled up on banks and disturbed rock banks.

12. Gradient increases from 6.5 to 11. Stream becomes rapids and boulders.

FISH SAMPLING FORM

Stream Name Shakes Cabin ADF&G Catalog No. _____ Date 8-27-81

Identify Survey Area _____ Water Temp. 8.5°C Bait Used Liverwurst

Trap	Time In	Time Out	Species	Fork Length (mm)	Comments
1	1300	1620	SS	60,66,53,60	
Survey Area A					
1	1400	1515	SS	51	Both traps Section 3.
2	1400	1515	DV	55	

This form is used to record fish caught during Level Three, Four, or Five Surveys.

LEVEL THREE - HABITAT SURVEY FORM (Parts 1 and 2)

Part 1 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.41.

1. Survey Areas No 2. Equipment _____

3. Historical Fish Species _____ _____ _____ _____ _____

4. Section Length None

Part 2 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.42.

1. Stream Name a. _____ b. _____ Lat. 56°43'10"

2. ADF&G Catalog No. 108-40-13D 3. Long. 132°4'10"

4. Agency Unit 02 5. Mgmt Area _____ 6. USGS Map No. _____

7. Aerial Photo No. _____ _____ _____ _____ _____

8. Bay/Drainage Stikine R. 9. Access 4 _____ 10. Camping 4

11. Present Land Use a. _____ 11b. _____

12. Historical Land Use Hunting, Recreation

13. Stream Origin 4 5 _____ _____ 14. Flow Stage 1

15. Flow A trickle over beaver dams, _____, _____, _____, _____
method width depth length constant time grid flow

16. Temp. Sensitivity Yes-muskeg drainage, beaver ponds.

17. Beaver 1 18. Type aquatic Veg. 2-4 19. Density Aquatic Veg. 1

20. Adult Salmon No 21. Intertidal a. gradient _____

b. bottom type % fines _____% c. ASA _____

gravel small cobble _____% d. schooling _____

large cobble/boulders/bedrock _____% e. shellfish _____

f. _____

22. Comments

This stream had virtually no flow at the time of survey, was all beaver pond - no rearing fish were trapped above the dams. Lower part of stream may provide good rearing - no rearing fish observed or trapped.

23. Investigators ADF&G Lynch/Burns

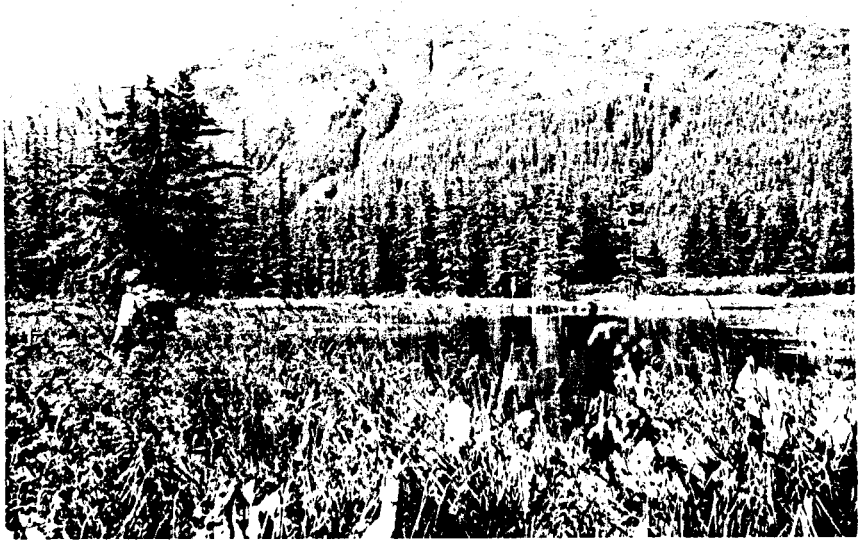
24. Date 8 /12 /81 25. Time _____ _____ 26. Weather Sunny
start end

27. Photos _____

R-10 2600-3a (1/81)

GSA JUNEAU 1613

108-40-13D



1. Beaver Dam.

FISH SAMPLING FORM

Stream Name_____ ADF&G Catalog No. 108-40-13D Date 8-12-81

Identify Survey Area A Water Temp._____ Bait Used Liverwurst

Trap	Time In	Time Out	Species	Fork Length (mm)	Comments
1	1545	1630	Ø		

This form is used to record fish caught during Level Three, Four, or Five Surveys.

LEVEL THREE - HABITAT SURVEY FORM (Parts 1 and 2)

Part 1 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.41.

1. Survey Areas _____ 2. Equipment X

3. Historical Fish Species _____ _____ _____ _____ _____

4. Section Length 100m

Part 2 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.42.

1. Stream Name a. _____ b. _____ Lat. 56°43'15"

2. ADF&G Catalog No. 108-40-13B 3. Long. 132°3'50"

4. Agency Unit 02 5. Mgmt Area _____ 6. USGS Map No. Psq. C-1

7. Aerial Photo No. _____ _____ _____ _____ _____

8. Bay/Drainage Stikine River 9. Access 4 _____ 10. Camping 4

11. Present Land Use a. Wilderness 11b. _____

12. Historical Land Use _____

13. Stream Origin _____ _____ _____ _____ 14. Flow Stage _____

15. Flow _____, _____, _____, _____, _____, _____, _____, _____
method width depth length constant time grid flow

16. Temp. Sensitivity Yes-muskeg drainage, beaver ponds.

17. Beaver 1 18. Type aquatic Veg. _____ 19. Density Aquatic Veg. _____

20. Adult Salmon No 21. Intertidal a. gradient _____

b. bottom type % fines _____% c. ASA _____

gravel small cobble _____% d. schooling _____

large cobble/boulders/bedrock _____% e. shellfish _____

f. _____

22. Comments

The lower 200m was too deep to walk and substrate consisted of muck and sand. A few fry were seen rearing but could not be identified. The upper 200m, to the beaver dam, was shallow but had very little usable gravel and high amounts of muck and sand. The beaver dam was 1.75m high and formed a complete block.

23. Investigators ADF&G Cariello/Rockne

24. Date / / 25. Time 1430 (start) 1530 (end) 26. Weather Clear

27. Photos _____

R-10 2600-3a (1/81)

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LEVEL THREE - HABITAT SURVEY FORM (Parts 1 and 2)

Part 1 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.41.

1. Survey Areas No 2. Equipment _____

3. Historical Fish Species PS CS KS _____ _____

4. Section Length 100m

Part 2 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.42.

1. Stream Name a. Ketili R. (clear trib.) b. 56°42'25"

2. ADF&G Catalog No. 108-40-13A 3. Lat, Long. 131°59'30"

4. Agency Unit 02 5. Mgmt Area _____ 6. USGS Map No. BradfieldC-6

7. Aerial Photo No. _____ _____ _____ _____ _____

8. Bay/Drainage Stikine R. 9. Access 4 5 10. Camping 4

11. Present Land Use a. Wilderness 11b. _____

12. Historical Land Use Recreation

13. Stream Origin 2 5 _____ _____ 14. Flow Stage 2

15. Flow Not taken-too deep-avg. velocity greater than .85m/sec
method, width, depth, length, constant, time, grid, flow

16. Temp. Sensitivity No

17. Beaver 5 18. Type aquatic Veg. 3 19. Density Aquatic Veg. 3

20. Adult Salmon Yes 21. Intertidal a. gradient _____

b. bottom type % fines _____%

gravel small cobble _____%

large cobble/boulders/bedrock _____%

c. ASA _____

d. schooling _____

e. shellfish _____

f. _____

22. Comments

23. Investigators ADF&G Cariello/Rockne

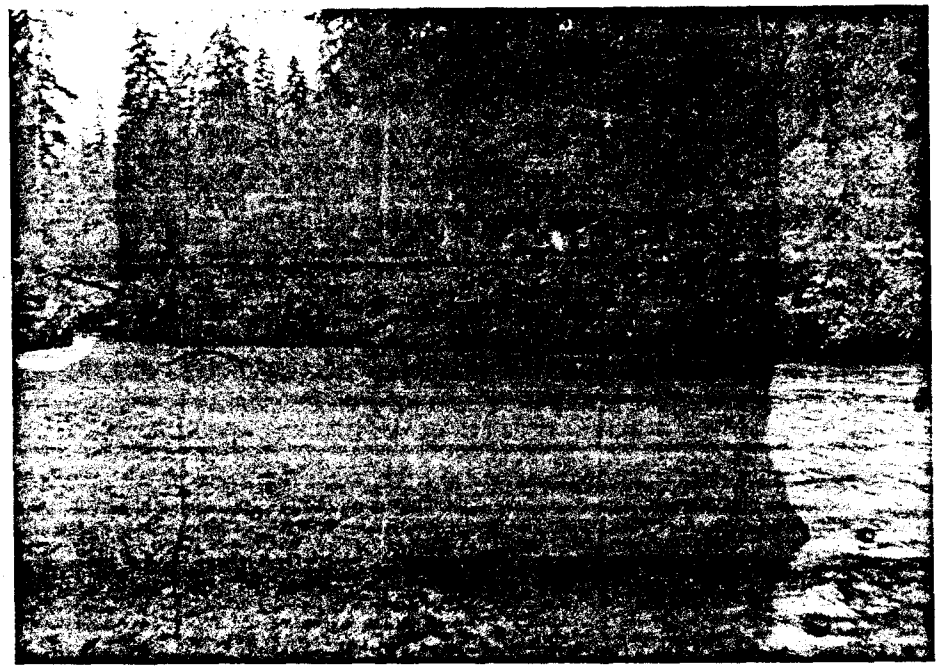
24. Date 8 /28 / 81 25. Time 0800 (start) 1520 (end) 26. Weather Rain

27. Photos _____

R-10 2600-3a (1/81)

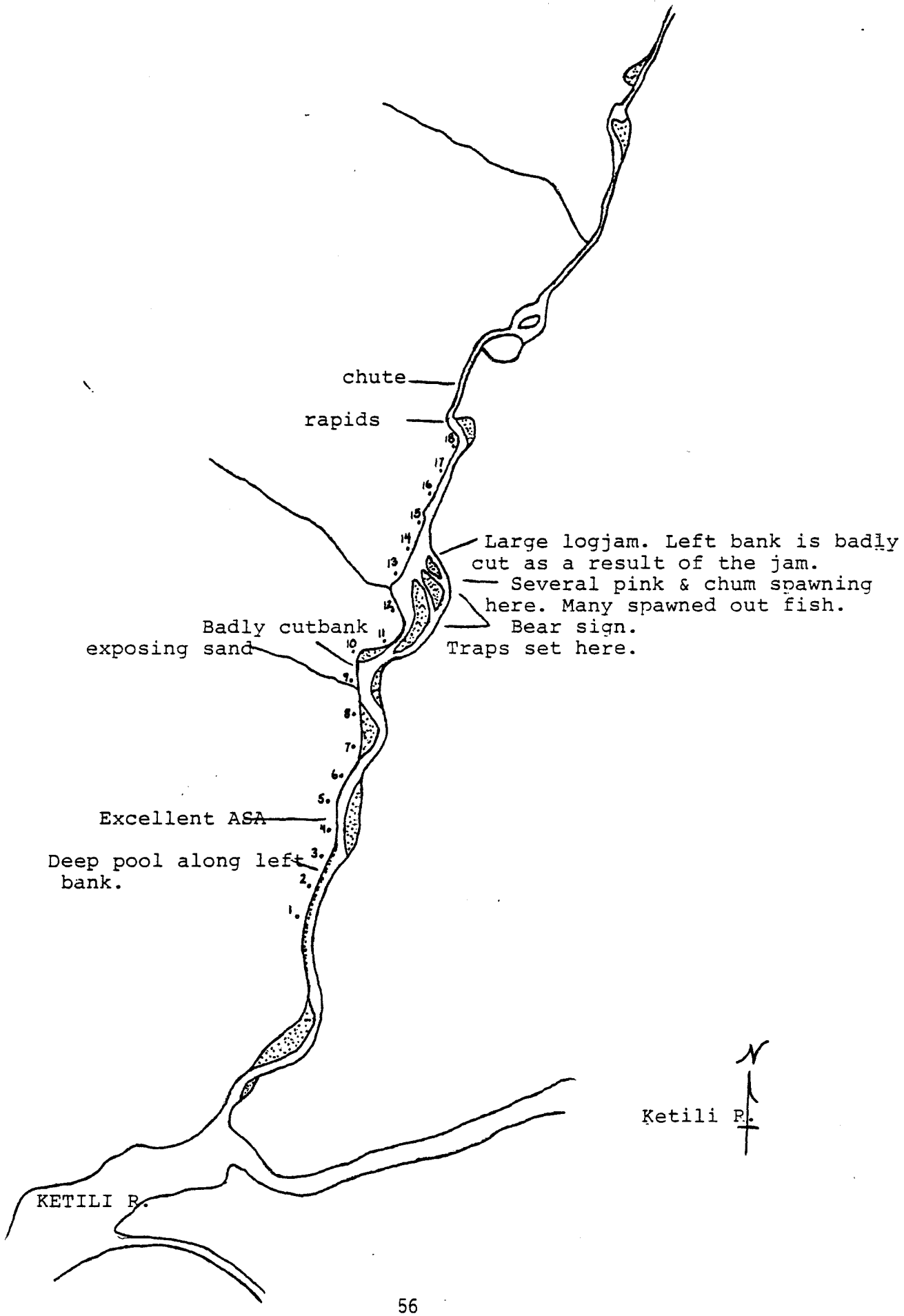
GSA JUNEAU 1613

108-40-13A
Ketili River



1. Taken Looking Down at the Logjam in Sample 13.

2. Taken in Sample 18 Looking up at the Beginning of a Canyon.


chute
rapids
Large logjam. Left bank is badly cut as a result of the jam.
Several pink & chum spawning here. Many spawned out fish.
Bear sign.
Traps set here.
Badly cutbank exposing sand
Excellent ASA
Deep pool along left bank.
KETILI R.
Ketili R.
N

Ketili R. 108-40-13A

Section	Length (m)	Width (m)	ASA %	ASA Total	Section	Length (m)	Width (m)	ASA &	ASA Total
1	100	28	30	840					
2	100	34	20	680					
3	100	32	10	320					
4	100	33	60	1980					
5	100	32	10	320					
6	100	27	50	1350					
7	100	25	30	750					
8	100	26	30	780					
9	100	20	35	700					
10	100	18	30	540					
11	100	22	40	880					
12	100	20	30	600					
13	100	20	20	400					
14	100	15	20	300					
15	100	33	40	1320					
16	100	42	40	1680					
17	100	36	30	1080					
18	100	36	10	360					
19	100	45	10	450					
Total				15,510					

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Ketili River ADF&G Catalog No. 108-40-13A

1. Section no.		1	2	3	4	5	6	7	8	9	10
2. Compass bearing		352	357	009	009	347	354	007	015	323	350
3. Gradient		.5								1	1
4. Temperature:	Air	13									
	Water	9									
5. Water qual:	a. color	1									
	b. turbidity	1									
	c. pH	7.0									
6. ASA	a. percent	30	20	10	60	10	50	30	30	35	30
	b. quality	2							3	3	2
7. Water Width	a. channel	33	34	32	33	32	54	52	58	48	40
	b. water	28	34	32	33	32	27	25	26	20	18
	c. floodplain	1									
8. Stream Pools	a. percent	5	30	30	10	60	30	40	30	40	20
	b. category	DS	DF	DF	SF	DF	DF	DF	DF	DF	DF
9. Debris Loading		1	0	0	0	2	0	1	0	0	0
10. Potential Barriers		N									
11. Enhancement/Rehab		N									
12. Upper Bank a.	Left	0	0	100	110	0					
	Right	0									
b. indic	Left	PV									
	Right	PV									
c. veg	Left	Y									
	Right	Y									
13. Lower Bank	Left	SS						U	GS	GS	SS
	Right	GS	SS	GS	U	GS	SS	GS	SS	SS	GS
14. Stab rating	Left	1(2)	1(2)	1(1)							3(2)
	Right	1(2)	1(2)	1(1)	1(1)	1(2)	1(2)	1(1)	3(2)	1(1)	

Ketili R. 108-40-13A

	1	2	3	4	5	6	7	8	9	10
15. Streambank Veg.	2,1									
16. Stream Canopy Cover	1									
17. Rearing Area	10									
18. Stream Bottom Substrate 1										10
2	10					10	10	10	10	20
3	30	30	20	30	20	40	30			
4	30	30	30	40	20	20	20	30	30	20
5	30	40	50	30	60	30	40	30	30	20
6										
7										
19. Fish Species CS	3			25	20			1	24	2
PS		4		25	10		4		20	8
20. Sampling										

21. Comments

1. Velocity through most of the sample was greater than .85m /sec. Pair of chums seen spawning along the bank.

2. Deep pool along left bank.

4. Several tagged pinks. Excellent ASA.

5. One dead tagged pink found on sandbar.

7. Several redds on dried up gravel bar - water dropped.

8. Right bank is badly cut exposing sand.

9. Left bank badly cut at end of sample (sand).

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Ketili River ADF&G Catalog No. 108-40-13A

1. Section no.		11	12	13	14	15	16	17	18	19
2. Compass bearing		020	356	355	001	358	004	004	004	015
3. Gradient		1	.5	1	1	1	1	.5	1	2
4. Temperature:	Air	13								
	Water	9								
5. Water qual:	a. color	1								
	b. turbidity	1								
	c. pH	7.0								
6. ASA	a. percent	40	30	20	20	40	40	30	10	10
	b. quality	2								3
7. Water Width	a. channel	54	52	52	32	34	42	36	36	46
	b. water	22	26	20	15	33	42	36	36	45
	c. floodplain	3				1				
8. Stream Pools	a. percent	20	20	40	20	10	10	10	30	
	b. category	DF								
9. Debris Loading		1	0	25	2	0	0	0	0	
10. Potential Barriers		N								
11. Enhancement/Rehab		N								
12. Upper Bank a.	Left	0	0	0	40	45	45	80	80	0
	Right	0						45	45	15
b. indic	Left	PV								
	Right	PV								
c. veg	Left	Y								
	Right	Y								
13. Lower Bank	Left	GS	U	SS	SS	U	GS	GS	U	GS
	Right	U	U	GS	GS	GS	U	U	U	U
14. Stab rating	Left	1(2)	1(2)	3(2)	3(2)	1(2)	1(1)			
	Right	1(2)	1(2)	2(2)	1(2)	1(2)	1(1)			

Ketili R. 108-40-13A

		11	12	13	14	15	16	17	18	19	
15. Streambank Veg.		2,1	2,4							2,4,1	
16. Stream Canopy Cover		1									
17. Rearing Area		20	20	20	20	10					
18. Stream Bottom Substrate	1	10	10	10	10	20	10	10	20	30	
	2	20	20	30					40	40	
	3	30	30	30	20	20	30	30	20	20	
	4	20	20	10	20	20	20	20	10	10	
	5	20	20	20	20	10					
	6										
	7										
19. Fish Species	PS	30		6		30	30	20			
	CS	30		6	6	33	30	20			
	KS							4			
20. Sampling											

21. Comments

11. Side channel ends along right bank at end of sample.

12. Traps set in side channel.

13. Recent blowdown due to cut left bank. Sand and gravel exposed. A logjam has formed here. P-1 taken looking down at logjam. 1 tagged pink seen.

14. Side channel starts at end of sample along right bank.

16. Tagged pink seen.

18. Rapids at the end of the sample and beginning of a canyon. Sharp log by bend. P-2 taken here.

FISH SAMPLING FORM

Stream Name Ketili R. ADF&G Catalog No. 108-40-13A Date 8-28-81

Identify Survey Area _____ Water Temp. 9°C Bait Used Liverwurst

Trap	Time In	Time Out	Species	Fork Length (mm)	Comments
1	1200	1500	Coho	71, 48	Traps set in Sample 12.
2	1200	1500	Coho Dolly	50,58,49,47,43, 48,49. 47	
Ketili Slough Trib Survey Area A, 7°C					
1	1615	1650	SS	50,52,50,50,50, 60	
2	1615	1650	Ø		

This form is used to record fish caught during Level Three, Four, or Five Surveys.

PEAK ESCAPEMENT RECORD

Ketili River 108-40-13A

DATE	PINK	CHUM	OTHER SPECIES	REMARKS
NO ESCAPEMENT DATA				
Ketili Creek				
1971			Coho 300	1 aerial
8/18/75			Sockeye 1	1 aerial, 1 foot

LEVEL THREE - HABITAT SURVEY FORM (Parts 1 and 2)

Part 1 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.41.

1. Survey Areas No 2. Equipment _____

3. Historical Fish Species _____ _____ _____ _____ _____

4. Section Length 100m

Part 2 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.42.

1. Stream Name Ketili Creek (Tributary) 3. Lat. 56°41'30"

2. ADF&G Catalog No. _____ 3. Long. 131°55'25"

4. Agency Unit 02 5. Mgmt Area _____ 6. USGS Map No. Bradfield (C-6)

7. Aerial Photo No. _____ _____ _____ _____ _____

8. Bay/Drainage Stikine River 9. Access 4 _____ 10. Camping 4

11. Present Land Use a. Wilderness 11b. _____

12. Historical Land Use Hunting, Fishing

13. Stream Origin _____ _____ _____ 14. Flow Stage _____

15. Flow Estimated at .20 cfs = .57m^3/sec
_____ (method), _____ (width), _____ (depth), _____ (length), _____ (constant), _____ (time), _____ (grid), _____ (flow)

16. Temp. Sensitivity No

17. Beaver 5 18. Type aquatic Veg. 3 19. Density Aquatic Veg. 3

20. Adult Salmon No 21. Intertidal a. gradient _____

b. bottom type % fines _____%

gravel small cobble _____%

large cobble/boulders/bedrock _____%

c. ASA _____

d. schooling _____

e. shellfish _____

f. _____

22. Comments: Temperature: 10°C; pH: 7-7.5; Water clear; Banks U/U; Vegetation: 1-3. Barrier at approximately 150m. Stream comes directly off cliff on north side of Ketili Creek in a vertical falls. ASA in lower 50m and good only in lower 20m of alluvial fan. Good rearing exists in Ketili Creek and Barnes Lake. Bottom substrate lower 100m.
1 - 40 water with approximately 3.5m.
2 - 40
3 - 30
4 - 20

23. Investigators Lynch/Burns

24. Date 8 / 28 / 81 25. Time _____ (start) _____ (end) 26. Weather Cloudy/Rain

27. Photos _____

R-10 2600-3a (1/81)

GSA JUNEAU 1613

1. Clearwater Tributary to Ketili Creek; Below Barnes Lake; Shows Only ASA.

LEVEL THREE - HABITAT SURVEY FORM (Parts 1 and 2)

Part 1 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.41.

1. Survey Areas _____ 2. Equipment _____

3. Historical Fish Species _____ _____ _____ _____ _____

4. Section Length 100m

Part 2 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.42.

1. Stream Name a. Barnes Lake Creek b. _____ Lat. 56°40'38"

2. ADF&G Catalog No. _____ 3. Long. 131°53'40"

4. Agency Unit 02 5. Mgmt Area _____ 6. USGS Map No. Bradfield C-6

7. Aerial Photo No. _____ _____ _____ _____ _____

8. Bay/Drainage Stikine River 9. Access _____ _____ 10. Camping _____

11. Present Land Use a. Wilderness 11b. _____

12. Historical Land Use _____

13. Stream Origin _____ _____ _____ _____ 14. Flow Stage _____

15. Flow _____, _____, _____, _____, _____, _____, _____, _____
method, width, depth, length, constant, time, grid, flow

16. Temp. Sensitivity _____

17. Beaver _____ 18. Type aquatic Veg. _____ 19. Density Aquatic Veg. _____

20. Adult Salmon _____ 21. Intertidal a. gradient _____

b. bottom type % fines _____%

gravel small cobble _____%

large cobble/boulders/bedrock _____%

c. ASA _____

d. schooling _____

e. shellfish _____

f. _____

22. Comments

23. Investigators ADF&G Burns/Lynch

24. Date 8 / 28/ 81 25. Time _____ _____ 26. Weather _____
start end

27. Photos _____

R-10 2600-3a (1/81)

GSA JUNEAU 1613

Barnes Lake Inlet Creek

FISH SAMPLING FORM

Stream Name Barnes Lake Cr. ADF&G Catalog No. _____ Date 8/28/81

Identify Survey Area A Water Temp. 9°C Bait Used Liverwurst

Trap	Time In	Time Out	Species	Fork Length (mm)	Comments
1	1100	1330	SS	47,69,50,86,77, 70,53	
			CT	83	
2	1120	1320	SS	90,57,54,69,72	
3	1135	1305	SS	89,49,42	

This form is used to record fish caught during Level Three, Four, or Five Surveys.

LEVEL THREE - HABITAT SURVEY FORM (Parts 1 and 2)

Part 1 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.41.

1. Survey Areas No 2. Equipment _____

3. Historical Fish Species PS KS RS SS _____

4. Section Length 100m

Part 2 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.42.

1. Stream Name a. Kikahe River b. 56°38'20"

2. ADF&G Catalog No. 108-40-16 3. Lat, Long. 131°51'10"

4. Agency Unit 02 5. Mgmt Area _____ 6. USGS Map No. BradfieldC-6

7. Aerial Photo No. _____

8. Bay/Drainage Stikine R. 9. Access 4 5 10. Camping 4

11. Present Land Use a. Wilderness 11b. _____

12. Historical Land Use Recreation

13. Stream Origin 2 5 14. Flow Stage 2

15. Flow E (method), 30m (width), .5m (depth), 10m (length), .8 (constant), 9.8 (time), _____ (grid), 16.29m3/sec (flow)

16. Temp. Sensitivity No

17. Beaver 5 18. Type aquatic Veg. 3 19. Density Aquatic Veg. 3

20. Adult Salmon Yes 21. Intertidal a. gradient _____

b. bottom type % fines _____%

gravel small cobble _____%

large cobble/boulders/bedrock _____%

c. ASA _____

d. schooling _____

e. shellfish _____

f. _____

22. Comments

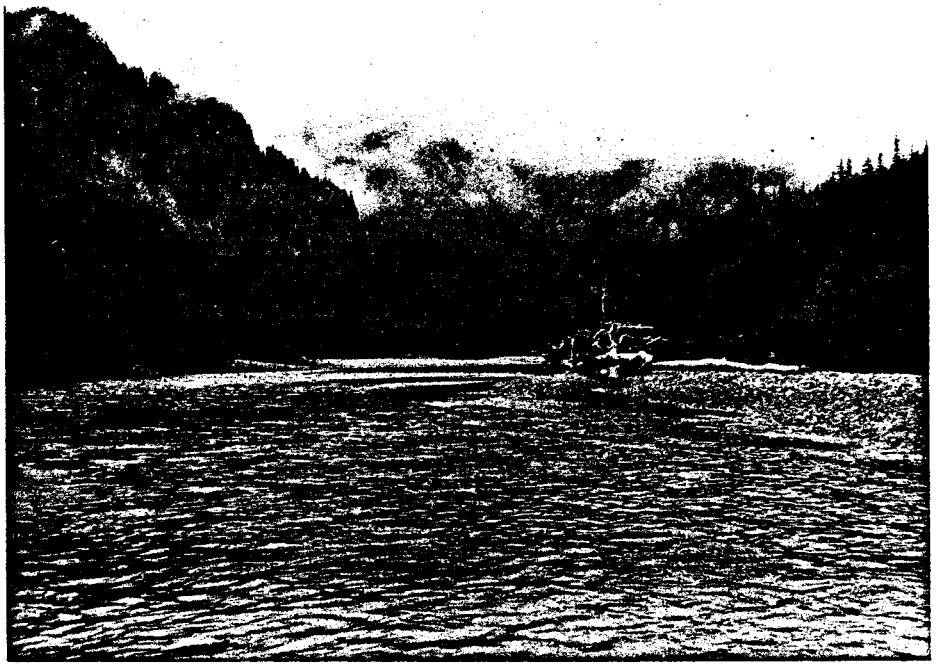
23. Investigators Lynch/Burns ADF&G

24. Date 8 /29/ 81 25. Time 0900 (start) 1800 (end) 26. Weather Sunny

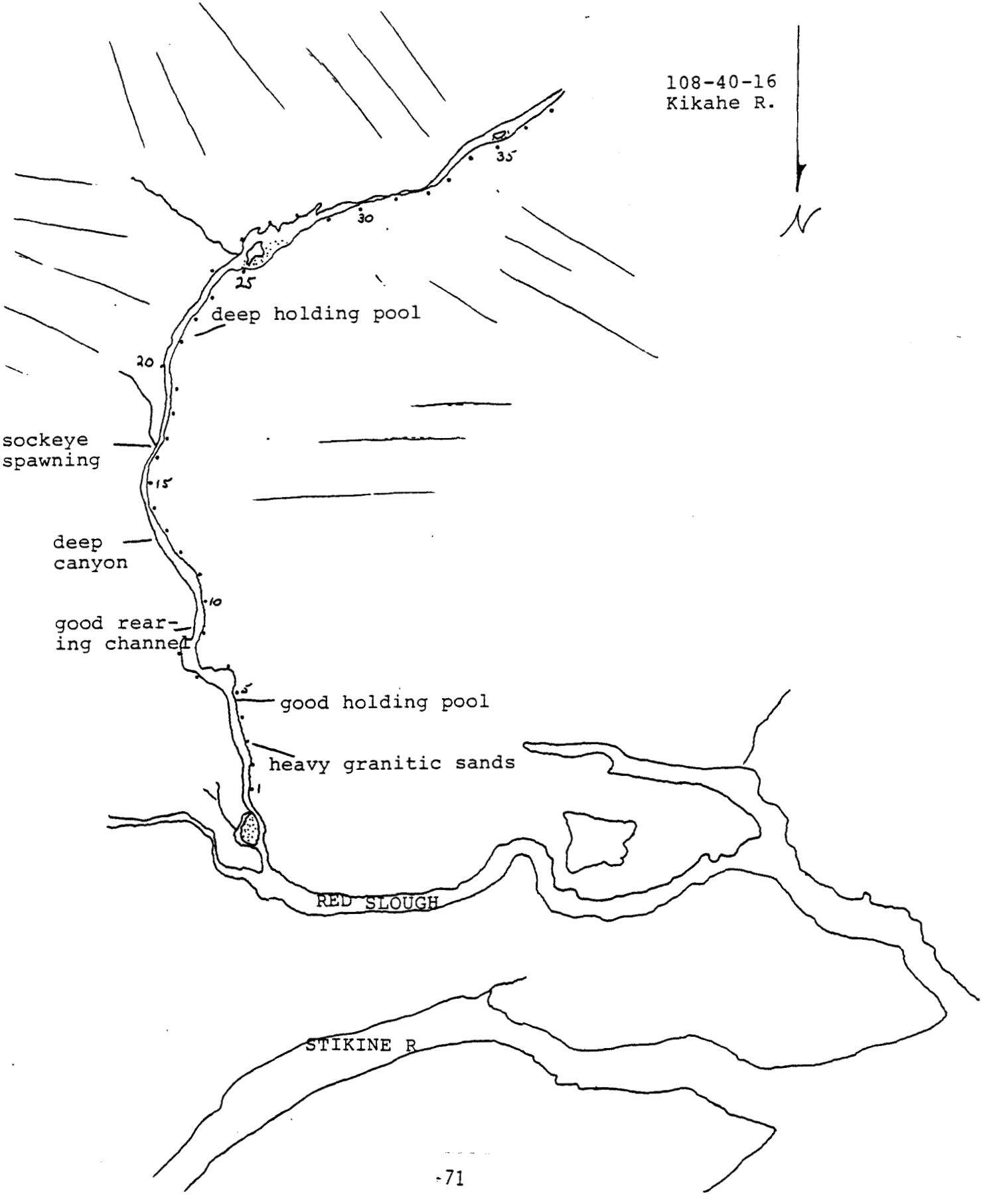
27. Photos _____

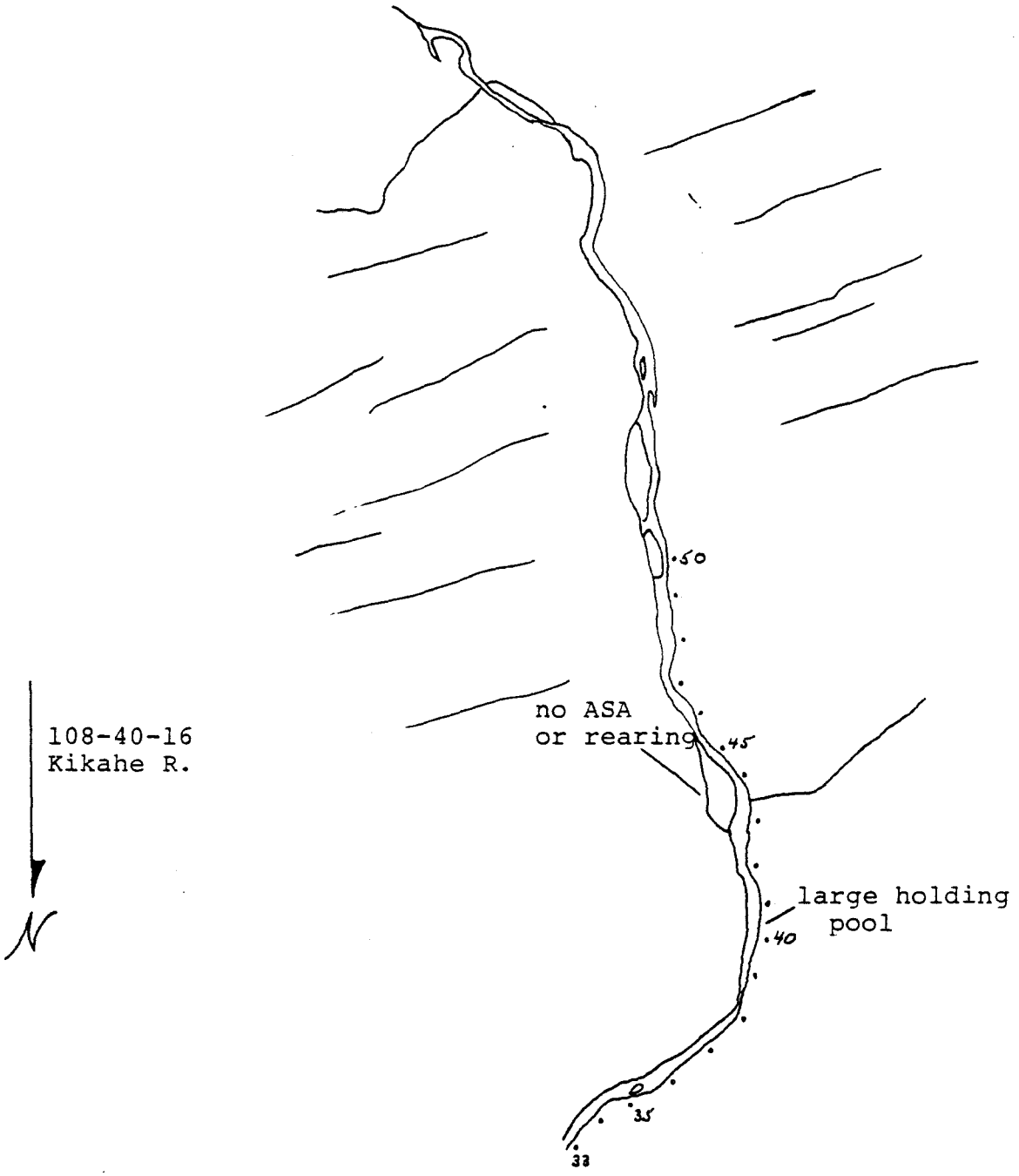
R-10 2600-3a (1/81)

108-40-16
Kikahe River



1. Upstream View of Section 1.


108-40-16
Kikahe R.
N
35
30
25
20
15
10
5
1
deep holding pool
sockeye
spawning
deep
canyon
good rear-
ing channel
good holding pool
heavy granitic sands
RED SLOUGH
STIKINE R


108-40-16
Kikahe R.
N
.50
no ASA
or rearing
.45
large holding
pool
.40
.35
.33

N

Kikahe R. 108-40-16

Section	Length (m)	Width (m)	ASA %	ASA Total	Section	Length (m)	Width (m)	ASA &	ASA Total
1	100	26	60	1560					
2	100	32	50	1600					
3	100	18.5	5	92.5					
4	100	17	20	340					
5	100	21	35	735					
6	100	24	15	360					
7	100	18	75	1350					
8	100	30	60	1800					
9	100	30	50	1500					
10	100	35	50	1750					
11	100	32	50	1600					
12	100	41	70	2870					
13	100	42	85	3570					
14	100	35	70	2450					
15	100	22	50	1100					
16	100	17	10	170					
17	100	30	35	1050					
18	100	35	30	1050					
19	100	35	30	1050					
20	100	31	50	1550					
21	100	24	50	1200					
22	100	33	10	330					
23	100	33	10	330					
24	100	26	20	520					
25	100	24	10	240					
26	100	32	1	32					
27	100	32	30	960					
28	100	44.5	15	667.5					
29L	100	15	10	150					
29R	100	34.5	25	862.5					
30	100	20	30	600					
31	100	27.5	20	550					
32	100	30	50	1500					
33	100	36	20	720					
34	100	41	10	410					
35	100	39	0	0					
36	100	22	0	0					
37	100	54	0	0					
38	100	22	1	22					
39	100	38	0	0					
40	100	25	1	25					
41	100	16	1	16					
42	100	30	0	0					
43	100	18	0	0					
44	100	19	0	0					
45	100	14	0	0					
46	100	18.5	1	18.5					
47	100	18.5	0	0					
48	100	13.5	0	0					
49	100	23	1	23					
50	100	13.5	20	270					
Total				36,994m^2					

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Kikahe River ADF&G Catalog No. 108-40-16

1. Section no.		1	2	3	4	5	6	7	8	9	10
2. Compass bearing		140						80	115	135	175
3. Gradient		.5						1	1	.5	1
4. Temperature:	Air	12.5									
	Water	6									
5. Water qual:	a. color	1									
	b. turbidity	1									
	c. pH	7-7.5									
6. ASA	a. percent	60	50	6	20	35	15	75	60	50	50
	b. quality	2									
7. Water Width	a. channel	46	50	65	53	34.5	70	65	65	60	44
	b. water	26	32	18.5	17	21	24	18	30	30	35
	c. floodplain	2					3				2
8. Stream Pools	a. percent	0	0	10	2	30	25	10	0	2	0
	b. category	-	-	DS,DF	DF	DS	DF	DF	-	DF	-
9. Debris Loading		T	0	T	T	T	0	1	0	1	0
10. Potential Barriers		-	-	-	-	-	-	-	-	-	-
11. Enhancement/Rehab		-	-	-	-	-	-	-	-	-	-
12. Upper Bank	a. Left	0							10	0	5
	Right	0	0	0	5	70	70	0	0	0	5
	b. indic Left	N									
	Right	N									
	c. veg Left	Y									
	Right	Y									
13. Lower Bank	Left	GS	GS	SS	U	GS	SS	SS	SS	U	SS
	Right	SS	SS	GS	SS	SS	SS	GS	GS	GS	GS
14. Stab rating	Left	1(1)	1(1)	2(1)	2(1)	1(1)	2(1)				
	Right	2(1)	2(1)	1(1)	1(1)	2(1)	2(1)	2(1)	1(1)	1(1)	2(1)

Kikahe River
108-40-16

	1	2	3	4	5	6	7	8	9	10
15. Streambank Veg.	2,3	2,3	1-3	2,3	1-3	1-3	1-3	2,3	---	---
16. Stream Canopy Cover	3	---	---	---	---	---	---	---	---	---
17. Rearing Area	5	0	5	1	25	25	10	5	10	
18. Stream Bottom Substrate 1										
2	10	5	5	10	15	10	10	35	35	30
3	20	5	5	40	40	45	25	35	35	30
4	20	20	5	25	15	15	40	25	30	25
5	50	70	85	25	30	30	25	5	T	15
6										
7										
19. Fish Species PS				8	14		1	7	2	8
RS							2	6		
20. Sampling	Y								Y	

21. Comments

1. Trap set 0915-1740. P-11 upstream view at start of survey. Flow measured; L-10m, W-50m, T-9.8sec. A-.8 = 575cfs. High % sand intermixed with gravel and also on survace of substrate. Heavy granitic sands. This ASA is a large percentage of the ASA throughout the survey, is in rather deep swift water and contains large substrate interspersed with sand.

2. Heavy granitic sands.

3. Glacial sand less than 10% granite.

4. All ASA in right channel. 3/4 flow in left channel.

5. Deep pool at end of section.

7. Small channel on far right of rocky island. Well established alder and brush on island.

9. Small channel from left bank at 60m. Good rearing. Trap set here.

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Kikahe River ADF&G Catalog No. 108-40-16

1. Section no.		11	12	13	14	15	16	17	18	19	20
2. Compass bearing		150	120	120	120	140	160	175	170	155	140
3. Gradient		.5	----	----	----	----	1	1	1	1.5	1.5
4. Temperature: Air		14	----	----	----	----	----	----	----	----	----
	Water	6	----	----	----	----	----	----	----	----	----
5. Water qual:	a. color	1	----	----	----	----	----	----	----	----	----
	b. turbidity	1	----	----	----	----	----	----	----	----	----
	c. pH	7-7.5	----	----	----	----	----	----	----	----	----
6. ASA	a. percent	50	70	85	70	50	10	35	30	30	50
	b. quality	2	----	----	----	----	----	----	----	2,3	2,3
7. Water Width	a. channel	46.5	45.5	42	38	24	19	30	35	35	32
	b. water	32	41	42	35	22	17	30	35	35	31
	c. floodplain	2	----	----	----	----	----	----	----	----	----
8. Stream Pools	a. percent	10	0	----	----	----	----	----	5	0	0
	b. category	DF	-	-	-	-	-	-	DS	-	-
9. Debris Loading		0	----	----	----	----	----	----	----	----	----
10. Potential Barriers		-	-	-	-	-	-	-	-	-	-
11. Enhancement/Rehab		-	-	-	-	-	-	-	-	-	-
12. Upper Bank	a. Left	0	0	0	30	80	75	0	0	0	15
	Right	25	10	0	0	0	0	10	70	85	25
	b. indic Left	N	N	N	N	Y	Y	N	N	N	Y
	Right	N	N	N	N	N	N	N	Y	Y	Y
	c. veg Left	Y	----	----	----	----	----	----	----	----	----
	Right	Y	----	----	----	----	----	----	----	----	----
13. Lower Bank	Left	SS	U	SS	SS	SS	SS	GS	SS	GS	GS
	Right	SS/U	GS	U	GS	GS	U	SS	SS	SS	GS
14. Stab rating	Left	2(1)	----	----	1(2)	3(1)	1(1)	2(1)	2(1)	1(2)	1(1)
	Right	2(1)	1(1)	2(1)	----	----	----	----	1(2)	1(1)	2(1)

Kikahe River
108-40-16

	11	12	13	14	15	16	17	18	19	20
15. Streambank Veg.	1-3					2,3				
16. Stream Canopy Cover	3									
17. Rearing Area	20	5	5	10	15	10	10	20	10	5
18. Stream Bottom Substrate 1		5	5	10	5	10				
2	30	35	30	30	35	35	35	35	35	40
3	30	35	35	30	30	30	30	35	35	35
4	20							15	15	10
5	20	5	10	10	10	5				
6										
7										
19. Fish Species PS									2	
RS					1	15				2
20. Sampling										

21. Comments

11. Deep pool at 60m 2 dead kings on beach.

13. Entering deep canyon.

15. Steep canyon. May be avalanche zone. Unstable left band at end of section.

17. Trib from left bank. pH 7.5, 6°C. 15-20 sockeye spawning at confluence with main stem.

18. Deep pool at 70m. Possible avalanche zone.

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Kikahe River ADF&G Catalog No. 108-40-16

1. Section no.		21	22	23	24	25	26	27	28	29	30
2. Compass bearing		170	185	175	205	220	195	225	220	225	230
3. Gradient		1	1	1	1	1.5	1	2	2	2	1.5
4. Temperature:	Air	14									
	Water	6						7	7	7	8
5. Water qual:	a. color	1									
	b. turbidity	1									
	c. pH	7-7.5									
6. ASA	a. percent	50	10	10	20	10	1	30	15	25	30
	b. quality	2.3	2	2	2	2	2	2.3	2.3	2.3	2.3
7. Water Width	a. channel	35	33	33	33	50	56	40	44.5	34.5	29.4
	b. water	24	33	33	26	24	32	32	44.5	34.5	20
	c. floodplain	2						3	2		
8. Stream Pools	a. percent	0	2	0	0	1	1	0	0	1	1
	b. category	-	DF	-	-	DF	DS	-	-	DS	DS,DF
9. Debris Loading		0									
10. Potential Barriers		-	-	-	-	-	-	-	-	-	-
11. Enhancement/Rehab		-	-	-	-	-	-	-	-	-	-
12. Upper Bank	a. Left	15	15	35	35	10	10	0	0	0	0
	Right	40	20	10	10	0	0	0	15	50	25
	b. indic Left	Y	Y	N	N	Y	Y	N	N	N	N
	Right	Y	Y	N	N	Y	Y	N	N	Y	Y
	c. veg Left	Y									
	Right	Y									
13. Lower Bank	Left	GS						U	GS		
	Right	GS	GS	SS	GS	SS	GS	GS	GS	SS	GS
14. Stab rating	Left	2(1)	1(2)	2(1)							
	Right	1(1)	1(2)	1(1)	1(1)	1(1)	2(1)	1(1)	2(1)	1(1)	1(1)

Kikahe R. 108-40-16	21	22	23	24	25	26	27	28	29	30
15. Streambank Veg.	2,3									
16. Stream Canopy Cover	3									
17. Rearing Area	5	5	10	10	5	5	5	5	10	10
18. Stream Bottom Substrate 1	10	15	45	45	45	45	5	5	10	15
2	40	40	35	35	35	35	45	45	45	40
3	35	35	10	10	10	10	35	35	20	25
4	10						15	15	15	20
5	5								T	T
6										
7										
19. Fish Species										
20. Sampling						Y				

21. Comments

21. Avalanche zone.

22. Deep pool on right bank at end of section.

26. Trib from left bank. Gradient 15, pH 7.5, 9.5°C. Trap set here.

27. ASA is lowering in quality as bottom substrate in the stream is getting bigger. Small and large cobble predominate, with sand interspersed.

29. Channel to left about 100m long, 15m wide. 10%ASA. 30% gravel, 25% small cobble, 45% large cobble, lower banks L-U, R-GS.

25-3. Right upper bank increases to vertical.

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Kikahe River ADF&G Catalog No. 108-40-16

1. Section no.		31	32	33	34	35	36	37	38	39	40
2. Compass bearing		230	230	230	200	205	215	215	210	210	205
3. Gradient		1.5	1	.5	1	2	1.5	2	1.5	2	1.5
4. Temperature:	Air	14									
	Water	8									
5. Water qual:	a. color	1									
	b. turbidity	1									
	c. pH	7									
6. ASA	a. percent	20	50	20	10	0	0	0	1	0	1
	b. quality	2	2.3	2.3	2.3	-	-	-	2	-	2
7. Water Width	a. channel	38	30	40	42	39	53	54	38.5	41	26
	b. water	27.5	30	36	41	39	22	54	22	38	25
	c. floodplain	2									
8. Stream Pools	a. percent	10	1	15	0	0	0	0	1	0	0
	b. category	DS	DS	DSDF	-	-	-	-	DS	-	-
9. Debris Loading		0									
10. Potential Barriers		-	-	-	-	-	-	-	-	-	-
11. Enhancement/Rehab		-	-	-	-	-	-	-	-	-	-
12. Upper Bank a.	Left	0									25
	Right	75	65	65	65	0	5	0	45	45	45
b. indic	Left	N									
	Right	Y						N	Y		
c. veg	Left	Y									
	Right	Y									
13. Lower Bank	Left	GS	SS	SS	SS	U	U	U	GS	GS	SS
	Right	SS	SS	GS	GS	GS	GS	GS	U	SS	SS
14. Stab rating	Left	2(1)	1(2)	1(2)	1(1)	1(1)	2(1)				1(2)
	Right	2(1)	2(2)	2(2)	2(1)	2(1)	1(1)	1(1)	2(1)	1(1)	1(2)

Kikahe R. 108-40-16

	31	32	33	34	35	36	37	38	39	40
15. Streambank Veg.	2,3	2,3	1-3	2,3						
16. Stream Canopy Cover	3									
17. Rearing Area	30	25	30	5	0	5	5	10	10	15
18. Stream Bottom Substrate 1	15	10	15	10	10	15	20	20	20	20
2	40	45	40	45	45	40	40	40	40	35
3	25	25	25	25	35	35	30	30	30	30
4	20	20	20	20	10	10	10	10	10	15
5	T	T	T	T						
6										
7										
19. Fish Species KS	1									
20. Sampling										

21. Comments

31. 1 KS in right channel.

35-39. Right upper bank increases to vertical.

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Kikahe River ADF&G Catalog No. 108-40-16

1. Section no.		41	42	43	44	45	46	47	48	49	50
2. Compass bearing		185	175	175	145	160	180	130	115	125	130
3. Gradient		1.5	1.5	1	1	2	1	1	1.5	2.5	1.5
4. Temperature:	Air	14									
	Water	8									
5. Water qual:	a. color	1									
	b. turbidity	1									
	c. pH	7									
6. ASA	a. percent	1	0	0	0	0	1	0	0	1	20
	b. quality	2	-	-	-	-	2	-	-	2	2
7. Water Width	a. channel	50	60	44	40	34	88	45	33	41	40
	b. water	16	30	18	19	14	18.5	18.5	13.5	23	13-13.5
	c. floodplain	2									
8. Stream Pools	a. percent	20	0	0	0	1	0	0	0	0	0
	b. category	DSDF	-	-	-	DF	-	-	-	-	-
9. Debris Loading		0	0	0	0	1	0	0	0	0	0
10. Potential Barriers		-	-	-	-	-	-	-	-	-	-
11. Enhancement/Rehab		-	-	-	-	-	-	-	-	-	-
12. Upper Bank	a. Left	75	80	75	60	50	50	0	10	0	0
	Right	0	15	0	5	5	5	5	5	0	0
	b. indic Left	N	N	N	Y						
	Right	Y	Y	Y	Y	N					
	c. veg Left	Y									
	Right	Y									
13. Lower Bank	Left	SS								U	SS
	Right	GS	GS	SS	GS	SS	SS	GS	GS	SS	SS
14. Stab rating	Left	1(2)	1(2)	1(1)	1(2)	1(2)	1(1)	1(1)	2(1)	2(1)	1(1)
	Right	1(1)	1(1)	2(1)				2(2)	1(1)	2(1)	2(1)

Kikahe R. 108-40-16

	41	42	43	44	45	46	47	48	49	50
15. Streambank Veg.	1-3	----	----	----	2,3					
16. Stream Canopy Cover	3	----	----	----	----	----	----	----	----	----
17. Rearing Area	20	25	10	10	5	----	----	----	10	10
18. Stream Bottom Substrate 1	20	20	30	40	35	15	25	30	25	15
2	35	----	----	----	----	40	----	----	----	----
3	30	30	25	----	----	----	----	----	30	30
4	15	15	15	5	5	10	10	5	5	15
5					5	10	T		T	
6										
7										
19. Fish Species										
20. Sampling										

21. Comments

41. Large pool at beginning of section below rapids.

36-44. Upper right bank shoulder of cliff is all avalanche zone.

44. Tributary from right bank pH 7.5, 9°C.

48. Channel enters from right bank, 6m across, very swift, no ASA or rearing.

FISH SAMPLING FORM

Stream Name Kikahe R. ADF&G Catalog No. 108-40-16 Date 8-29-81

Identify Survey Area A Water Temp. 6°C Bait Used Liverwurst

Trap	Time In	Time Out	Species	Fork Length (mm)	Comments
1	0915	1740	SS	42,59,54,61,44, 45	Section 1
2	1030	1720	SS KS	44,60,67 65	Section 9
3	1245	1630	SS	62	Section 26

This form is used to record fish caught during Level Three, Four, or Five Surveys.

PEAK ESCAPEMENT RECORD

Kikahe R. 108-40-16

DATE	PINK	CHUM	OTHER SPECIES	REMARKS
1971			Coho 500	1 aerial
1973	500	300	King 1	1 aerial, 1 helicopter
11/13/75			Coho 450	2 aerial, 1 foot (200coho 2mi. W of border)
11/18/76			Coho 50	
8/25/76			King 3 Red 4	3 aerial
1976			King 3 Coho 50 Red 4	3 aerial, 8/25, 9/2, 11/18
1977				2 aerial, 8/17, 11/18
1978				1 aerial 7/21
1979				1 aerial 7/25

LEVEL THREE - HABITAT SURVEY FORM (Parts 1 and 2)

Part 1 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.41.

1. Survey Areas No 2. Equipment _____

3. Historical Fish Species PS KS CS _____ _____

4. Section Length 100m

Part 2 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.42.

1. Stream Name a. Goat Creek b. _____

2. ADF&G Catalog No. 108-40-17 3. Lat, Long. 56°40'00" ~~131°58'18"~~

4. Agency Unit 02 5. Mgmt Area _____ 6. USGS Map No. Bradfield (C-6)

7. Aerial Photo No. _____ _____ _____ _____ _____

8. Bay/Drainage Stikine River 9. Access 4 5 10. Camping 4

11. Present Land Use a. Wilderness 11b. _____

12. Historical Land Use Recreation

13. Stream Origin 1 2 5 _____ 14. Flow Stage 2

15. Flow E (method), 30m (width), .4m (depth), 10m (length), .8 (constant), 19 (time), _____ (grid), 6.72m^3/sec (flow)

16. Temp. Sensitivity Yes-lake source

17. Beaver 5 18. Type aquatic Veg. 3 19. Density Aquatic Veg. 2

20. Adult Salmon Yes 21. Intertidal a. gradient _____

b. bottom type % fines _____%

gravel small cobble _____%

large cobble/boulders/bedrock _____%

c. ASA _____

d. schooling _____

e. shellfish _____

f. _____

22. Comments

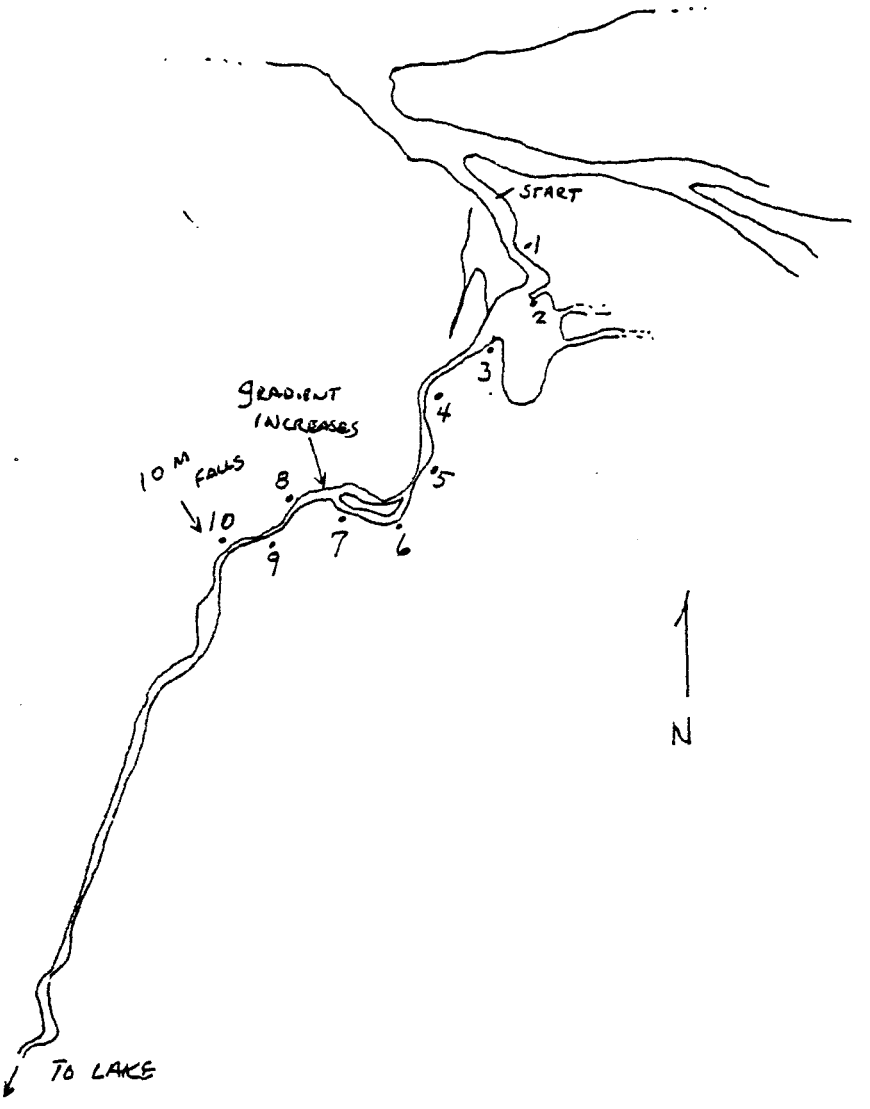
23. Investigators _____

24. Date 8 / 14/81 25. Time 1130 (start) 1430 (end) 26. Weather 1

27. Photos _____

R-10 2600-3a (1/81)

CSA JUNEAU 1613



Goat Creek
108-40-17

108-40-17
Goat Creek

1. Upstream View of Section 1.

2. 10m Barrier at End of Section 10.

Goat Creek (108-40-17)

Section	Length (m)	Width (m)	ASA %	ASA Total	Section	Length (m)	Width (m)	ASA %	ASA Total
1	100	17.5	20	350					
2	100	15	10	150					
3	100	23	1	23					
4	100	18	10	180					
5	100	28	1	28					
6	100	15	2	30					
7	100	25	5	125					
8	100	15	30	450					
9	100	13.5	0	0					
10	100	10	1	10					
TOTAL				1,346m^2					

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Goat Creek ADF&G Catalog No. 108-40-17

1. Section no.		1	2	3	4	5	6	7	8	9	10
2. Compass bearing		195	210	160	155	175	180	235	260	185	195
3. Gradient		1	1	2	1.5	2.5	2	1	3	4	6
4. Temperature:	Air	15	15	15	15	15	15	15	15	15	15
	Water	12	12	12	12	12	12	12	12	12	12
5. Water qual:	a. color	1	1	1	1	1	1	1	1	1	1
	b. turbidity	2	2	2	2	2	2	2	2	2	2
	c. pH	7	7	7	7	7	7	7	7	7	7
6. ASA	a. percent	20	10	1	10	1	2	5	30	0	1
	b. quality	2	2	2	2	2	2	2	2	-	2
7. Water Width	a. channel	28.5	20.7	27.3	25.2	32	35.5	26	22.3	14.5	25
	b. water	17.5	15	23	18	28	15	25	15	13.5	10
	c. floodplain	1	1	1	1	1	1	1	1	1	1
8. Stream Pools	a. percent	0	2	0	0	0	0	0	5	5	0
	b. category	-	DF	-	-	-	-	-	DS	DF	-
9. Debris Loading		0	0	0	0	0	0	0	0	0	0
10. Potential Barriers		-	-	-	-	-	-	-	-	-	-
11. Enhancement/Rehab		-	-	-	-	-	-	-	-	-	-
12. Upper Bank a.	Left	0	0	55	55	50	35	5	10	50	55
	Right	30	72	0	5	15	35	25	0	15	150
b. indic	Left	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Right	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
c. veg	Left	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Right	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
13. Lower Bank	Left	GS	GS	SS	SS	GS	SS	GS	GS	SS	SS
	Right	GS	SS	GS	GS	GS	GS	SS	GS	GS	SS
14. Stab rating	Left	1(1)	1(2)	1(1)	1(1)	1(1)	1(1)	1(1)	2(1)	2(1)	3(1)
	Right	1(1)	1(1)	1(1)	1(1)	2(1)	1(1)	1(1)	2(1)	2(1)	3(1)

1. Photo #4 upstream view at start of survey. Good rearing below mouth of stream in Stikine River floodplain. Swift current on left bank, difficult to see bottom substrate.

Goat Creek 108-40-17	1	2	3	4	5	6	7	8	9	10
15. Streambank Veg.	2,3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3
16. Stream Canopy Cover	3	3	3	3	3	3	3	3	3	3
17. Rearing Area	15	15	10	10	10	15	15	15	5	5
18. Stream Bottom Substrate 1	10	15	20	20	25	30	25	20	50	50
2	50	50	45	45	40	40	45	40	40	40
3	25	25	25	25	25	20	20	25	5	5
4	10	10	10	10	10	10	10	15	5	5
5	5	T	T	T	T			T		
6										
7										
19. Fish Species PS	13			2		3	5			
KS	3		1	7		6				2
20. Sampling										

21. Comments

2. Trap set 1200-1400 SS-51, 59, 52mm; KS-65, 62mm.

4. Trat set 1215-1400. SS-67,63,65,52,52,52mm; KS-57,64,58,58,55,65mm.

6. Channel enters from right bank-braided area.

6&7. Surveyed left channel - right channel very swift with boulders as main substrate.

9. Deep pools and heavy rapids, 3-6' boulders.

10. Heavy rapids, 3-6' boulders. Unstable banks at end of sect. Thirty foot barrier falls 30m past station 10. Photo #5.

FISH SAMPLING FORM

Stream Name Goat Creek ADF&G Catalog No. 108-40-17 Date 8-14-81

Identify Survey Area A Water Temp. 12°C Bait Used Liverwurst

Trap	Time In	Time Out	Species	Total Length	Comments
1	1200	1400	SS	51,59,52mm	Section 2
			KS	65, 62mm	
2	1215	1400	SS	67,63,65, 52, 52,52mm	Section 4
			KS	57, 64, 58, 58, 55, 65mm.	

This form is used to record fish caught during Level Three, Four, or Five Surveys.

PEAK ESCAPEMENT RECORD

Goat Creek (108-40-17)

DATE	PINK	CHUM	OTHER SPECIES	REMARKS
1979	1,000	0		Foot 8/22
1975	50	2	King - 25	Foot 8/18
1977	0	25		Aerial 8/17
1979	202	1	King - 13	Aerial & Foot 8/22

LEVEL THREE - HABITAT SURVEY FORM (Parts 1 and 2)

Part 1 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.41.

1. Survey Areas No 2. Equipment _____

3. Historical Fish Species _____ _____ _____ _____ _____

4. Section Length 100m

Part 2 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.42.

1. Stream Name a. Goat Creek #2 b. _____ Lat. 56°40'10"

2. ADF&G Catalog No. _____ 3. Long. 131°58'35"

4. Agency Unit 02 5. Mgmt Area _____ 6. USGS Map No. Bradfield C-6

7. Aerial Photo No. _____ _____ _____ _____ _____

8. Bay/Drainage Stikine River 9. Access 4 5 10. Camping 4

11. Present Land Use a. Wilderness 11b. _____

12. Historical Land Use Recreation

13. Stream Origin 2 5 _____ _____ 14. Flow Stage 2

15. Flow _____, _____, _____, _____, _____, _____, _____, _____
method, width, depth, length, constant, time, grid, flow

16. Temp. Sensitivity _____

17. Beaver 5 18. Type aquatic Veg. None 19. Density Aquatic Veg. _____

20. Adult Salmon No 21. Intertidal a. gradient _____

b. bottom type % fines _____%

gravel small cobble _____%

large cobble/boulders/bedrock _____%

c. ASA _____

d. schooling _____

e. shellfish _____

f. _____

22. Comments

Stream small and glacial. Two minnow traps were set with no fish captured. One unidentified juvenile salmonid observed near the mouth, may have been of main river origin rather than this stream. This creek probably has very poor production.

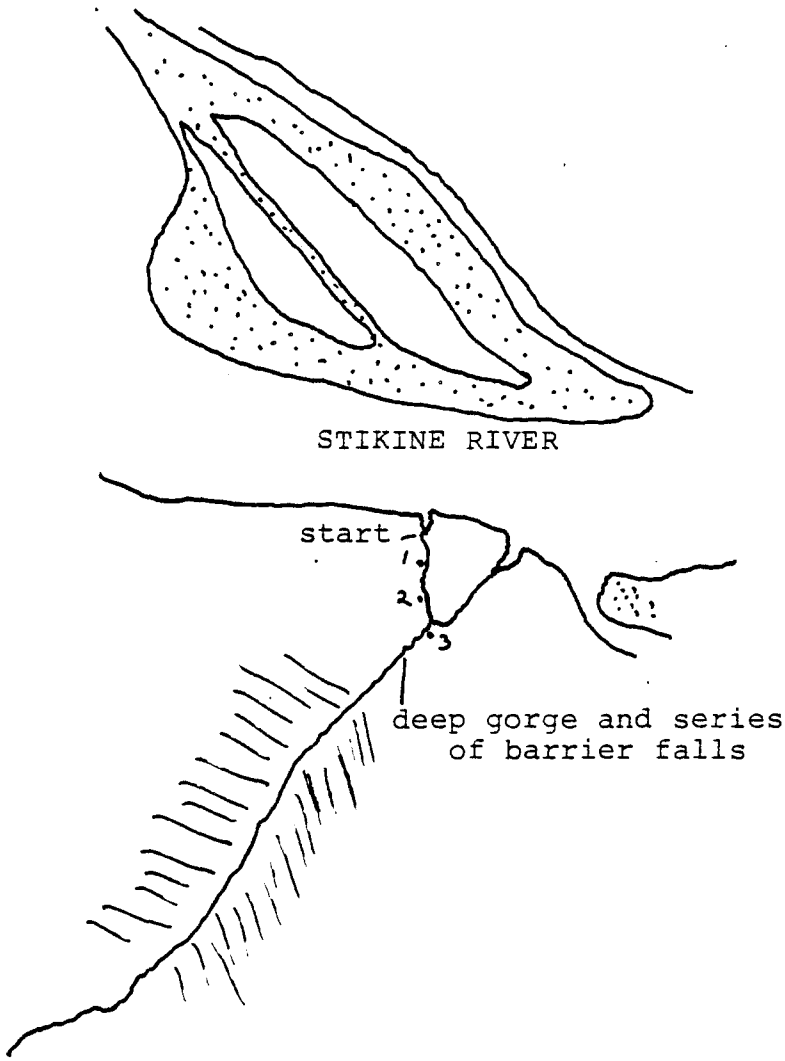
23. Investigators ADF&G Lynch/Burns

24. Date 8 / 14 / 81 25. Time 1400 (start) 1500 (end) 26. Weather Rain

27. Photos _____

R-10 2600-3a (1/81)

GSA JUNEAU 1613


STIKINE RIVER
start
1
2
3
deep gorge and series
of barrier falls

Goat Cr. #2

Goat Creek #2

1. Goat Creek #2 Mouth 8/14/82.

2. Goat Creek #2 View Upstream Into Canyon at Barrier Falls.

Goat Creek #2

Section	Length (m)	Width (m)	ASA %	ASA Total	Section	Length (m)	Width (m)	ASA &	ASA Total
1	100	6.8	1	6.8					
2	100	5.8	1	5.8					
3	100	7.6	0	0					
Total				$12.6m^2$					

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Goat Creek #2 ADF&G Catalog No. _____

1. Section no.		1	2	3							
2. Compass bearing		150	180	150							
3. Gradient		3	8.5	10							
4. Temperature: Air											
	Water	6	6	6							
5. Water qual:	a. color	1	1	1							
	b. turbidity	3	3	3							
	c. pH	7	7	7							
6. ASA	a. percent	1	1	0							
	b. quality	3	3	-							
7. Water Width	a. channel	13.2	8.5	16.9							
	b. water	6.8	5.8	7.6							
	c. floodplain	2	2	1							
8. Stream Pools	a. percent	0	0	2							
	b. category	-	-	DF							
9. Debris Loading		0	1	0							
10. Potential Barriers		-	-	-							
11. Enhancement/Rehab		-	-	-							
12. Upper Bank	a. Left	10	0	150							
	Right	5	25	150							
	b. indic Left	Y	Y	N							
	Right	Y	Y	N							
	c. veg Left	Y	Y	N							
	Right	Y	Y	N							
13. Lower Bank	Left	U	GS	SS							
	Right	GS	SS	SS							
14. Stab rating	Left	1(1)	2(1)	1(2)							
	Right	1(1)	2(2)	1(2)							

Goat Cr. #2	1	2	3							
15. Streambank Veg.	1-3----------									
16. Stream Canopy Cover	3----------									
17. Rearing Area	3	3	5							
18. Stream Bottom Substrate 1	5	30	50							
2	45	25	35							
3	30	20	5							
4	10	15	5							
5	10	10	5							
6										
7										
19. Fish Species										
20. Sampling										

21. Comments

1. P-6 view upstream at start of survey. Heavy glacial silt in stream and along banks. Grey glacial water-difficult to see substrate.

2. Trap set 1440-1500-Ø. Stream braided ASA is present only in compact pockets in rapids.

3. Channel to left more boulders and swift water - 2 separate outlets to the Stikine River. P-7 upstream at station 3 showing upstream habitat and large barrier falls.

FISH SAMPLING FORM

Stream Name Goat Cr. #2 ADF&G Catalog No. _____ Date 8-14-81

Identify Survey Area A Water Temp. 6°C Bait Used Liverwurst

Trap	Time In	Time Out	Species	Fork Length (mm)	Comments
1	1440	1500	Ø		Section 2
2	1445	1500	Ø		Section 3

This form is used to record fish caught during Level Three, Four, or Five Surveys.

PEAK ESCAPEMENT RECORD

Goat Creek #2

DATE	PINK	CHUM	OTHER SPECIES	REMARKS
No Escapement Data				

LEVEL THREE - HABITAT SURVEY FORM (Parts 1 and 2)

Part 1 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.41.

1. Survey Areas N 2. Equipment _____

3. Historical Fish Species PS KS CS _____ _____

4. Section Length 100m

Part 2 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.42.

1. Stream Name a. Shuktusa Branch b. _____ Lat. 56°42'12" 132°4'38"

2. ADF&G Catalog No. 108-40-18 3. Long. _____

4. Agency Unit 02 5. Mgmt Area _____ 6. USGS Map No. Psg.C-1

7. Aerial Photo No. _____ _____ _____ _____ _____

8. Bay/Drainage Stikine River 9. Access 4 5 10. Camping 4

11. Present Land Use a. Wilderness 11b. _____

12. Historical Land Use _____

13. Stream Origin 2 5 _____ _____ 14. Flow Stage 2

15. Flow E (method), 15m (width), .2m (depth), 10m (length), .8 (constant), 40.5 (time), _____ (grid), .79m³/sec. (flow)

16. Temp. Sensitivity No

17. Beaver 6 18. Type aquatic Veg. 3 19. Density Aquatic Veg. 3

20. Adult Salmon Yes 21. Intertidal a. gradient _____

b. bottom type % fines _____%

gravel small cobble _____%

large cobble/boulders/bedrock _____%

c. ASA _____

d. schooling _____

e. shellfish _____

f. _____

22. Comments

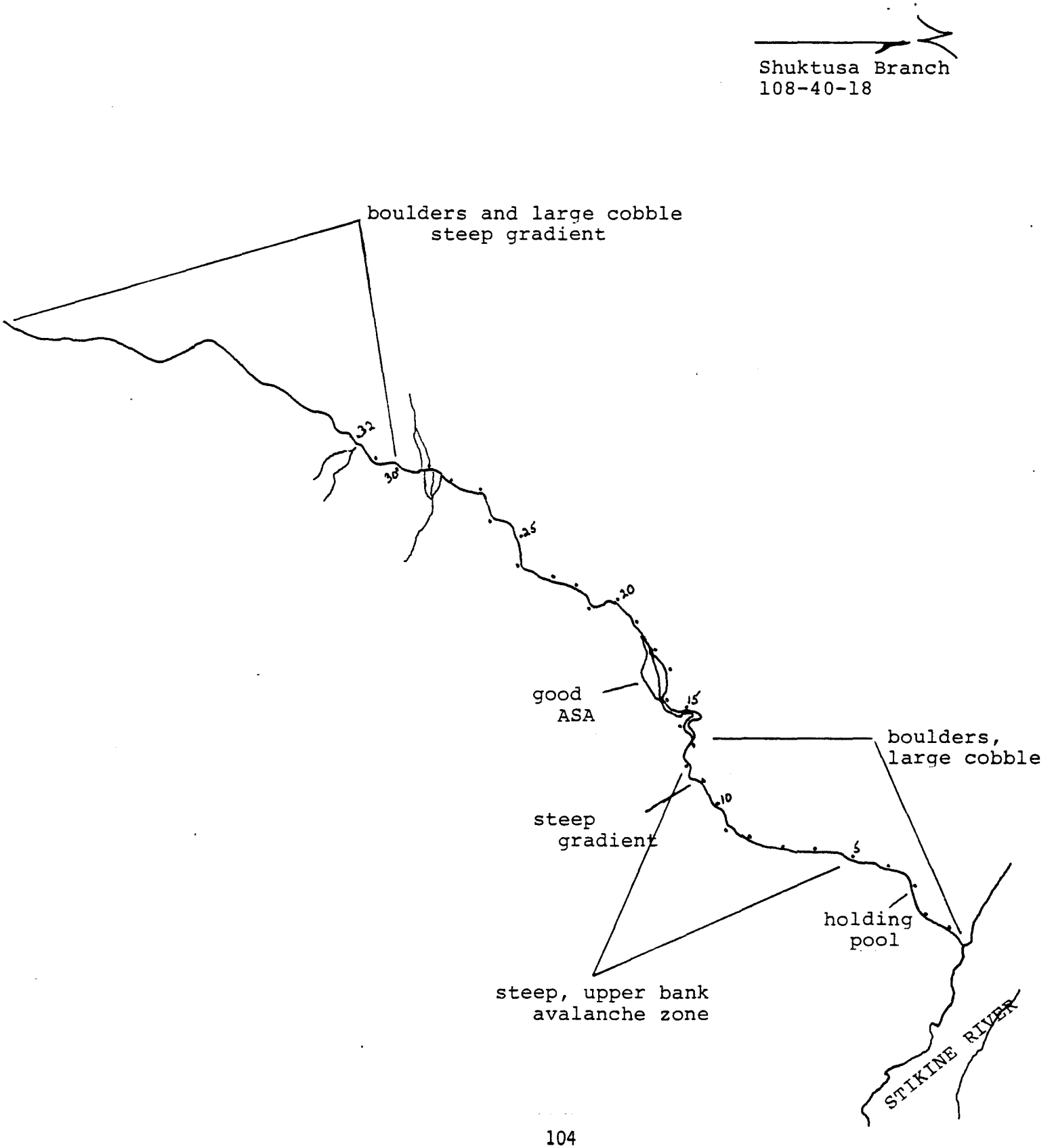
23. Investigators ADF&G Lynch/Burns

24. Date 8 / 13 / 81 25. Time 0945 (start) 1630 (end) 26. Weather Sunny

27. Photos _____

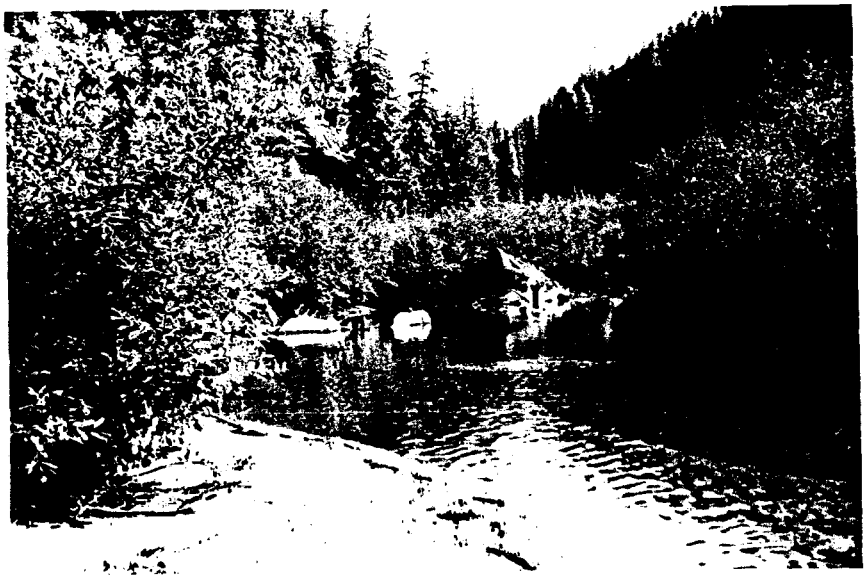
R-10 2600-3a (1/81)

GSA JUNEAU 1613


Shuktusa Branch
108-40-18
boulders and large cobble
steep gradient
32
30
25
20
15
10
5
good
ASA
boulders,
large cobble
steep
gradient
holding
pool
steep, upper bank
avalanche zone
STIKINE RIVER

108-40-18
Shuktusa Branch

1. Upstream View of Section 1.



2. Upstream View of Section 13; Sandy Substrate; Beginning of Spawning Area.

Shuktusa Branch 108-40-18

Section	Length (m)	Width (m)	ASA %	ASA Total	Section	Length (m)	Width (m)	ASA &	ASA Total
1	100	7.5	0	0					
2	100	10	0	0					
3	100	8.4	1	8.4					
4	100	7.8	.5	3.9					
5	100	10	0	0					
6	100	7.5	5	3.8					
7	100	7	1	7					
8	100	7.6	1	7.6					
9	100	11	0	0					
10	100	7.4	1	7.4					
11	100	7.4	0	0					
12	100	7.5	0	0					
13	100	12.5	1	12.5					
14	100	13.5	10	135					
15	100	7	10	70					
16	100	9	30	270					
17R	100	9.4	40	376					
17L	80	8	15	96					
18R	100	10.5	25	262.5					
18L	100	7.8	25	195					
19R	100	3.8	15	57					
19L	100	2.7	15	40.5					
20	100	9	25	225					
21	100	7	2	14					
22	100	4.6	1	4.6					
23	100	10	5	50					
24	100	3.3	1	3.3					
25	100	3.3	0	0					
26	100	5.8	0	0					
27	100	6.1	0	0					
28	100	6.4	1	6.4					
29	100	13.5	0	0					
30	100	8	0	0					
31	100	7.8	0	0					
32	100	8.8	1	8.8					
TOTAL				1,864.7m^2					

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Shuktusa Branch ADF&G Catalog No. 108-40-18

1. Section no.		1	2	3	4	5	6	7	8	9	10
2. Compass bearing		180	185	215	195	175	170	195	150	160	165
3. Gradient		1	3	1.5	5	2.5	3	3.5	5	3	5
4. Temperature:	Air	14									
	Water	8									
5. Water qual:	a. color	1									
	b. turbidity	1									
	c. pH	7.5									
6. ASA	a. percent	0	0	1	.5	0	.5	1	1	0	1
	b. quality	-	-	2	2	-	2	2	2	-	2
7. Water Width	a. channel	10	11	10.5	9	12	8.5	9	7.6	12	13
	b. water	7.5	10	8.4	7.8	10	7.5	7	7.6	11	7.4
	c. floodplain	1									
8. Stream Pools	a. percent	1	1	10	10	5	5	10	10	5	5
	b. category	DF	DF,SS	DS,DF	DS	DS	DF	DF,SF	DF	DF	DF
9. Debris Loading		0									
10. Potential Barriers		-	-	-	-	-	-	-	-	-	-
11. Enhancement/Rehab		-	-	-	-	-	-	-	-	-	-
12. Upper Bank a.	Left	80	25	150	60	60	90	150	150	20-150	45
	Right	0	0	150	150	20	150	150	150	90	55
b. indic	Left	Y	Y	N	Y			N	Y		
	Right	Y	Y	N	N	Y	N	Y	N	Y	Y
c. veg	Left	Y	Y	N	N	Y	Y	N			
	Right	Y	Y	N	N	Y	N				
13. Lower Bank	Left	SS								GS	GS
	Right	SS	GS	SS							
14. Stab rating	Left	1(2)				1(1)			1(2)		
	Right	1(2)									

Shuktusa Branch 108-40-18

	1	2	3	4	5	6	7	8	9	10
15. Streambank Veg.	1-3	2,3	1-3							
16. Stream Canopy Cover	3									
17. Rearing Area	10	15	20	15	10	15	20	25	15	15
18. Stream Bottom Substrate 1	40	50	45				50			
2	35						40			
3	15	10								5
4	5						T			
5	5	T	5				T			5
6										
7										
19. Fish Species PS	2	7	6	2	11	12	12	12	2	0
CS		1								
KS										
20. Sampling	Y									

21. Comments

1. Fresh glacial silt in stream and along banks. Stream appears to be very susceptible to flash flooding. P-2 upstream at start of survey.

3&4. Good holding pools at end of 3 and 25m into 4. Vertical walled canyon.

5. Much scrub alder along both banks - appears to be avalanche zone.

10. 2m falls at approximately 90m. Good holding pool below stairstep falls to section 11. Enters a series of rapids and small boulder falls.

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Shuktusa Branch ADF&G Catalog No. 108-40-18

1. Section no.		11	12	13	14	15	16	17R	17L	18R	18L
2. Compass bearing		190	205	210	220	255	305	190	175	225	205
3. Gradient		8.5	9	10	1				.5	1	.5
4. Temperature:	Air	14						22			
	Water	8						10			
5. Water qual:	a. color	1									
	b. turbidity	1									
	c. pH	7.5			7						
6. ASA	a. percent	0	0	1	10	10	30	40	15	25	25
	b. quality	-	-	2	1	2					
7. Water Width	a. channel	11.5	9	12.5	14.5	11.5	21	9.4	11	10.5	10.3
	b. water	7.4	7.5	12.5	13.5	7	9	9.4	8	10.5	7.8
	c. floodplain	1	1	1	2						
8. Stream Pools	a. percent	0	0	1	0	0	0	25	1	0	0
	b. category	-	-	DS	-	-	-	DS	SS	-	-
9. Debris Loading		0	0	0	1	0					
10. Potential Barriers		-	-	-	-	-	-	-	-	-	-
11. Enhancement/Rehab		-	-	-	-	-	-	-	-	-	-
12. Upper Bank	a. Left	20-150	50	10	10	0	10	0			
	Right	70	40	25	25	0	5	5	0	10	0
	b. indic Left	Y									
	Right	Y									
	c. veg Left	N	N	N	Y						
	Right	N	N	N	Y						
13. Lower Bank	Left	GS	SS	SS	GS						
	Right	SS			GS						
14. Stab rating	Left	1(2)			1(1)	2(1)	2(1)	1(1)			
	Right	1(2)			1(1)	2(1)	2(1)	1(1)			

Shuktusa Branch 108-40-18

		11	12	13	14	15	16	17R	17L	18R	18L
15. Streambank Veg.		1-3	2,3							2-4	2,3
16. Stream Canopy Cover		3							2	2	3
17. Rearing Area		10	5	5	100	90	60	40	60	30	50
18. Stream Bottom Substrate	1	60	70	70	10	5					
	2	40	30	30					20	15	20
	3	T						20	25	30	25
	4	T			10	15	80	40			
	5	T			80	80	20	40	15		
	6										
	7										
19. Fish Species	PS	1		2	8	1	3	8			
	CS						1				
	KS						1	9		7	
	DV				14						
	CT						2				
20. Sampling							Y				

21. Comments

11. 12-15' stairstep falls for 3/4 of section. 3-6 boulders.

12. 1-6' boulders-stairstep falls entire section. Laid down scrub alder - avalanche zone.

13. End of falls area - entering sandy shallow gradient area.

14. Much loose sand.

16. Excellent spawning area. Trap set.

17. Braided area , two channels.

17L. The left channel is only 80m long, 10m L, 15m W, T-40.9 sec. D-$\bar{x}$ 22.23cm, flow = .87m^3/sec.

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Shuktusa Branch ADF&G Catalog No. 108-40-18

1. Section no.		19R	19L	20	21	22	23	24	25	26	27
2. Compass bearing		205	275	205	215	165	195	160	185	220	245
3. Gradient		2	1	.5	1	2.5	2.5	2.5	3	4	4
4. Temperature: Air		22									
	Water	10									
5. Water qual:	a. color	1									
	b. turbidity	1									
	c. pH	7									
6. ASA	a. percent	15	15	25	2	1	5	1	0		
	b. quality	2							-	-	-
7. Water Width	a. channel	3.8	11.4	10	9	17	19	10.5	8	14	13
	b. water	3.8	2.7	9	7	4.6	10	3.3	3.3	5.8	6.1
	c. floodplain	2				1					
8. Stream Pools	a. percent	5	0	3	15	5	0				
	b. category	DS	-	DS	DS	DS	-	-	-	-	-
9. Debris Loading		1	0								
10. Potential Barriers		-	-	-	-	-	-	-	-	-	-
11. Enhancement/Rehab		-	-	-	-	-	-	-	-	-	-
12. Upper Bank	a. Left	0	10	0				10	70	40	5
	Right	20	0	40	40	0					
	b. indic Left	Y									
	Right	Y									
	c. veg Left	Y									
	Right	Y									
13. Lower Bank	Left	GS							SS		
	Right	GS	GS	SS	GS						
14. Stab rating	Left	1(1)	1(1)	2(1)	2(1)	2(1)	1(1)	2(1)	3(1)	3(1)	2(2)
	Right	1(1)				2(1)			1(1)	2(1)	2(1)

Shuktusa Branch 108-40-18

	19R	19L	20	21	22	23	24	25	26	27
15. Streambank Veg.	2-4	2,3	1-3	1-3	2,3			1-3		
16. Stream Canopy Cover	2	2	3							
17. Rearing Area	20	15	25	30	50	30	10	30	10	15
18. Stream Bottom Substrate 1	5		5	10	10	5	15	20	15	20
2	20	25	30	40	40	35			40	35
3	30					35	35	30		
4	35	35	25	15	15	20	15			
5	10			5			T			
6										
7										
19. Fish Species										
20. Sampling										

21. Comments

22. Entering braided area. Left channel was surveyed. Right channel had extremely dense overhanging brush. Steep gradient, with boulder substrate - extremely difficult to walk.

25. Unstable left bank at end of section.

26. Unstable left bank at 80m. Upper end of right channel at end of section.

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Shuktusa Branch ADF&G Catalog No. 108-40-18

1. Section no.		28	29	30	31	32					
2. Compass bearing		175	210	190	155	175					
3. Gradient		4	5	3.5	6	6					
4. Temperature:	Air	22									
	Water	8									
5. Water qual:	a. color	1									
	b. turbidity	1									
	c. pH	7				6.5					
6. ASA	a. percent	1	0	0	0	1					
	b. quality	2	-	-	-	2					
7. Water Width	a. channel	7	13.5	13.3	8	12					
	b. water	6.4	13.5	8	7.8	8.8					
	c. floodplain	1									
8. Stream Pools	a. percent	0									
	b. category	-	-	-	-	-					
9. Debris Loading		0									
10. Potential Barriers		-	-	-	-	-					
11. Enhancement/Rehab		-	-	-	-	-					
12. Upper Bank	a. Left	5	35	10	10	30					
	Right	30	0	10	10	20					
	b. indic Left	Y									
	Right	Y									
	c. veg Left	Y									
	Right	Y									
13. Lower Bank	Left	GS	SS	GS							
	Right	SS	GS			SS					
14. Stab rating	Left	2(1)	1(2)	1(1)							
	Right	1(1)	2(1)	1(1)							

Shuktusa Branch 108-40-10

	28	29	30	31	32					
15. Streambank Veg.	1-3	----	----	2,3	2,3					
16. Stream Canopy Cover	3	----	----	----	----					
17. Rearing Area	15	10	5	10	10					
18. Stream Bottom Substrate 1	25	30	50	50	60					
2	35	30	----	----	----					
3	30	30	15	15	10					
4	10	10	5	----						
5			T							
6										
7										
19. Fish Species										
20. Sampling										

21. Comments

FISH SAMPLING FORM

Stream Name Shuktusa Branch ADF&G Catalog No. 108-40-18 Date 8/13/81

Identify Survey Area A Water Temp. 8°C Bait Used Liverwurst

Trap	Time In	Time Out	Species	Fork Length (mm)	Comments
1	1215	1315	SS	84,80,89,50,50	Section 16
				Five unmeasured approx. 50mm.	
			DV	Four unmeasured approx. 70mm.	

This form is used to record fish caught during Level Three, Four, or Five Surveys.

PEAK ESCAPEMENT RECORD

Shuktusa Branch 108-40-18

DATE	PINK	CHUM	OTHER SPECIES	REMARKS
8/22/79	530	2		

LEVEL THREE - HABITAT SURVEY FORM (Parts 1 and 2)

Part 1 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.41.

1. Survey Areas No 2. Equipment _____

3. Historical Fish Species _____ _____ _____ _____ _____

4. Section Length 100m

Part 2 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.42.

1. Stream Name a. Andrews Slough Cr. b. 56°40'25"

2. ADF&G Catalog No. _____ 3. Lat, Long. 132°12'30"

4. Agency Unit 02 5. Mgmt Area _____ 6. USGS Map No. Psg.C-1

7. Aerial Photo No. _____ _____ _____ _____ _____

8. Bay/Drainage Stikine R. 9. Access 4 5 10. Camping 3

11. Present Land Use a. Wilderness 11b. _____

12. Historical Land Use Recreation

13. Stream Origin 2 5 _____ _____ 14. Flow Stage _____

15. Flow _____, _____, _____, _____, _____, _____, _____, _____
method, width, depth, length, constant, time, grid, flow

16. Temp. Sensitivity No

17. Beaver 5 18. Type aquatic Veg. 3 19. Density Aquatic Veg. 3

20. Adult Salmon Yes 21. Intertidal a. gradient _____

b. bottom type % fines _____%

gravel small cobble _____%

large cobble/boulders/bedrock _____%

c. ASA _____

d. schooling _____

e. shellfish _____

f. _____

22. Comments

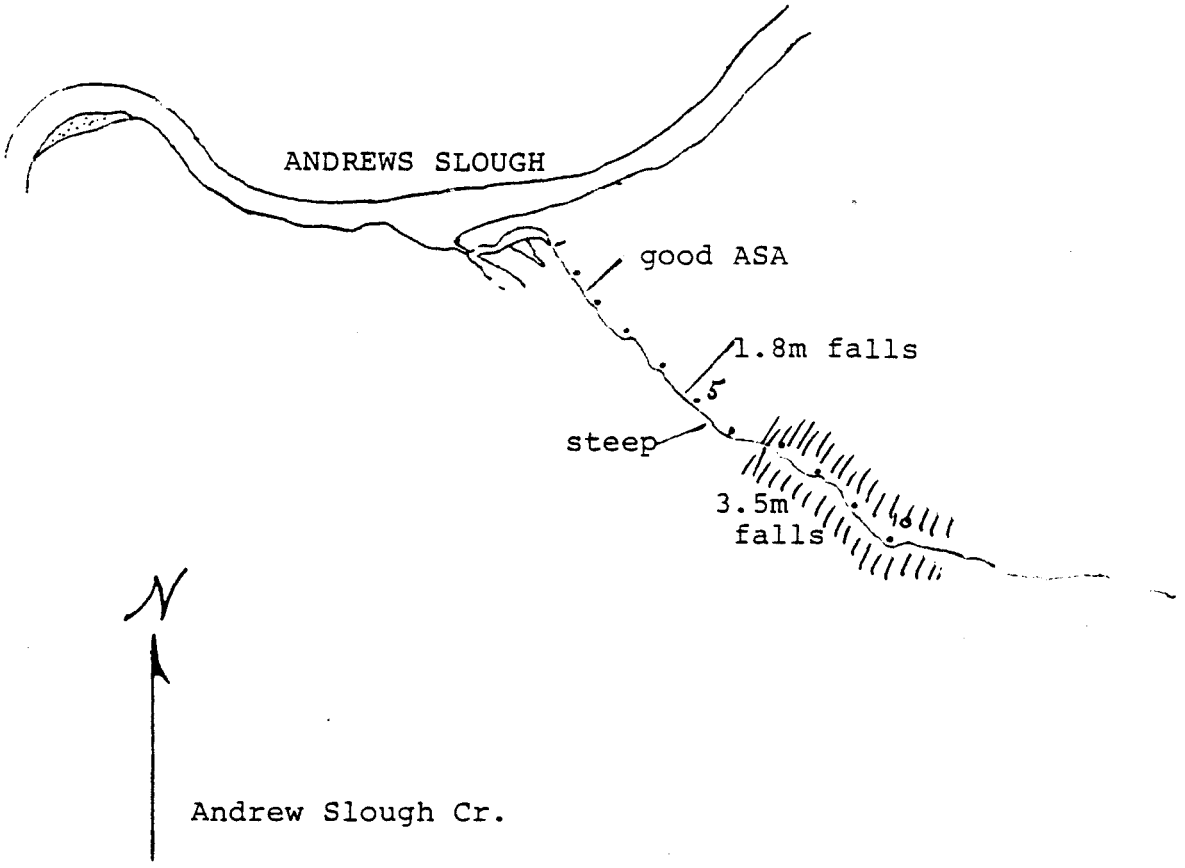
23. Investigators ADF&G Lynch/Burns

24. Date 8 /15 /81 25. Time 0900 (start) 1200 (end) 26. Weather Sunny

27. Photos _____

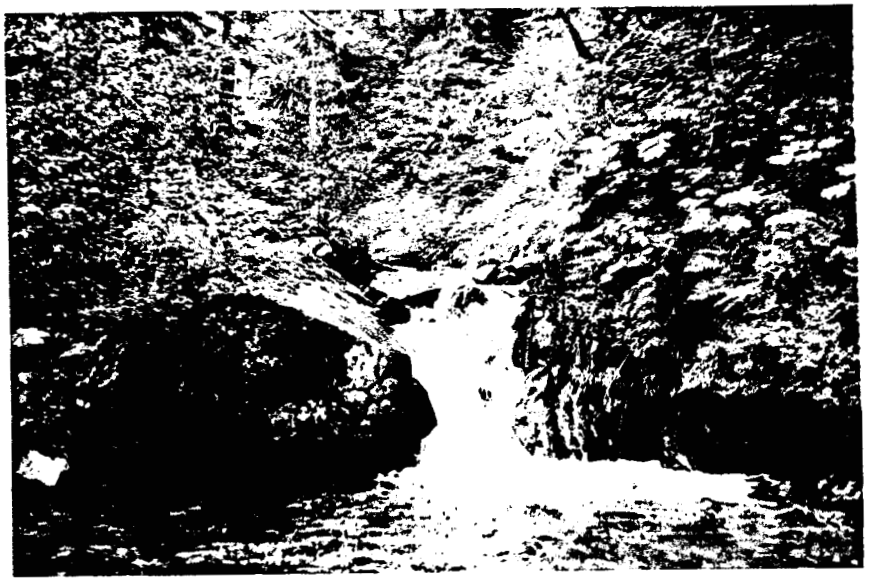
R-10 2600-3a (1/81)

GSA JUNEAU 1613


ANDREWS SLOUGH
good ASA
1.8m falls
steep
3.5m
falls
N
Andrew Slough Cr.

Andrews Slough Creek

1. Downstream View of Spawning Area in Section 2.



2. 1.8m Falls in Section 5.

Andrews Slough Creek

3. 3.5m Falls in Section 7.

Andrews Slough Cr.

Section	Length (m)	Width (m)	ASA %	ASA Total	Section	Length (m)	Width (m)	ASA &	ASA Total
1	100	3.3	40	132					
2	100	3	60	180					
3	100	3.7	10	37					
4	100	4.3	1	4.3					
5	100	4.6	0	0					
6	100	4.5	0	0					
7	100	7	0	0					
8	100	5.6	0	0					
9	100	6	0	0					
Total				$353.3m^2$					

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Andrews Slough Cr. ADF&G Catalog No. _____

1. Section no.		1	2	3	4	5	6	7	8	9
2. Compass bearing		90	100	150	100	95	90	110	120	60
3. Gradient		.5	1	3	3	6	12	16	14	12
4. Temperature:	Air	12.5								
	Water	9								
5. Water qual:	a. color	1								
	b. turbidity	1								
	c. pH	7.5								
6. ASA	a. percent	40	60	10	1	0				
	b. quality	2	2	2	2	-	-	-	-	-
7. Water Width	a. channel	6.2	9.7	9.5	9.3	7.6	11.5	7	6	12
	b. water	3.3	3	3.7	4.3	4.6	4.5	7	5.6	6
	c. floodplain	2	2	1						
8. Stream Pools	a. percent	0	0	0	0	5	20	20	20	25
	b. category	-	-	-	-	DS	DF,SF	DS,SF	DS,DF	DS,SF
9. Debris Loading		0	3	0	0	0	T	0	0	0
10. Potential Barriers		-	-	-	-	2	-	2	2	
11. Enhancement/Rehab		-	-	-	-	N	-	N	N	
12. Upper Bank a.	Left	5			50+	60	110	90	40	60
	Right	0	0	0	15	90	110	90	100	60
b. indic	Left	N	Y							
	Right	N	Y							
c. veg	Left	Y					N	N	N	Y
	Right	Y					N	N	Y	Y
13. Lower Bank	Left	GS	U	U	GS	SS	SS	SS	GS	GS
	Right	U	GS	GS	U	SS	SS	SS	SS	SS
14. Stab rating	Left	1(1)			2(1)	2(2)	1(2)			1(1)
	Right	1(1)			2(1)		1(2)			1(1)

Andrews Slough Cr.	1	2	3	4	5	6	7	8	9	
15. Streambank Veg.	1-3									
16. Stream Canopy Cover	3									
17. Rearing Area	60	10	10	10	15	20	10	10	10	
18. Stream Bottom Substrate 1	T	5	20	25	50	70	70	70	80	
2	10	20	25	30	30	20	20	20	10	
3	35	30	30	30	15	5				
4	30	40	25	15	5					
5	15	5								
6										
7										
19. Fish Species PS	6	12	20	7						
CS	6									
20. Sampling										

21. Comments

1. 300-500 pinks in slack water of lower creek. Trap set here.

2. P-10 downstream view of spawning habitat.

5. P-8 view of 1.8m falls. Trap set below falls.

6. Trap set here.

7. P-9 view of 3.5-4m falls.

FISH SAMPLING FORM

Stream Name Andrews Slough CrADF&G Catalog No. _____ Date 8-15-81

Identify Survey Area A Water Temp. 7.5°C Bait Used Liverwurst

Trap	Time In	Time Out	Species	Fork Length (mm)	Comments
1	0930	1130	Ø		Section 1
2	1015	1115	Ø		Section 5
3	1030	1115	DV	110	Section 6

This form is used to record fish caught during Level Three, Four, or Five Surveys.

LEVEL THREE - HABITAT SURVEY FORM (Parts 1 and 2)

Part 1 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.41.

1. Survey Areas Yes 2. Equipment _____

3. Historical Fish Species _____ _____ _____ _____ _____

4. Section Length 100m

Part 2 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.42.

1. Stream Name a. Andrew Creek b. _____ Lat. 56°40'10"

2. ADF&G Catalog No. 108-40-20 3. Long. 132°15'10"

4. Agency Unit 02 5. Mgmt Area _____ 6. USGS Map No. Psg. C-1

7. Aerial Photo No. _____ _____ _____ _____ _____

8. Bay/Drainage Stikine River 9. Access 4 _____ 10. Camping 3

11. Present Land Use a. Wilderness 11b. _____

12. Historical Land Use Recreation

13. Stream Origin 1 2 5 _____ 14. Flow Stage 2

15. Flow _____, _____, _____, _____, _____, _____, _____, _____
method width depth length constant time grid flow

16. Temp. Sensitivity No

17. Beaver 1 18. Type aquatic Veg. 3 19. Density Aquatic Veg. 3

20. Adult Salmon Yes 21. Intertidal a. gradient _____

b. bottom type % fines _____% c. ASA _____

gravel small cobble _____% d. schooling _____

large cobble/boulders/bedrock _____% e. shellfish _____

f. _____

22. Comments

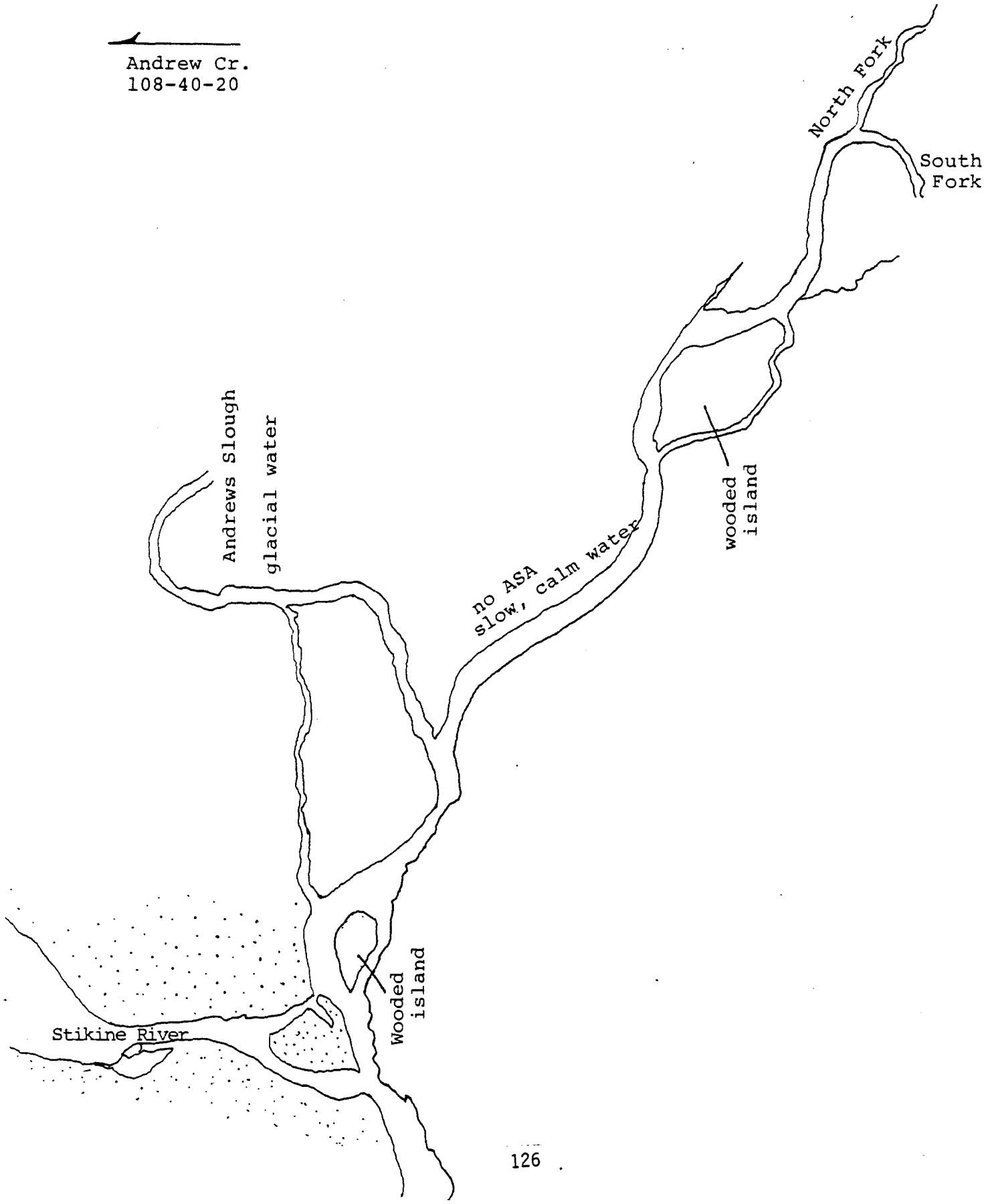
23. Investigators ADF&G Cariello, Rockne, Burns, Lynch

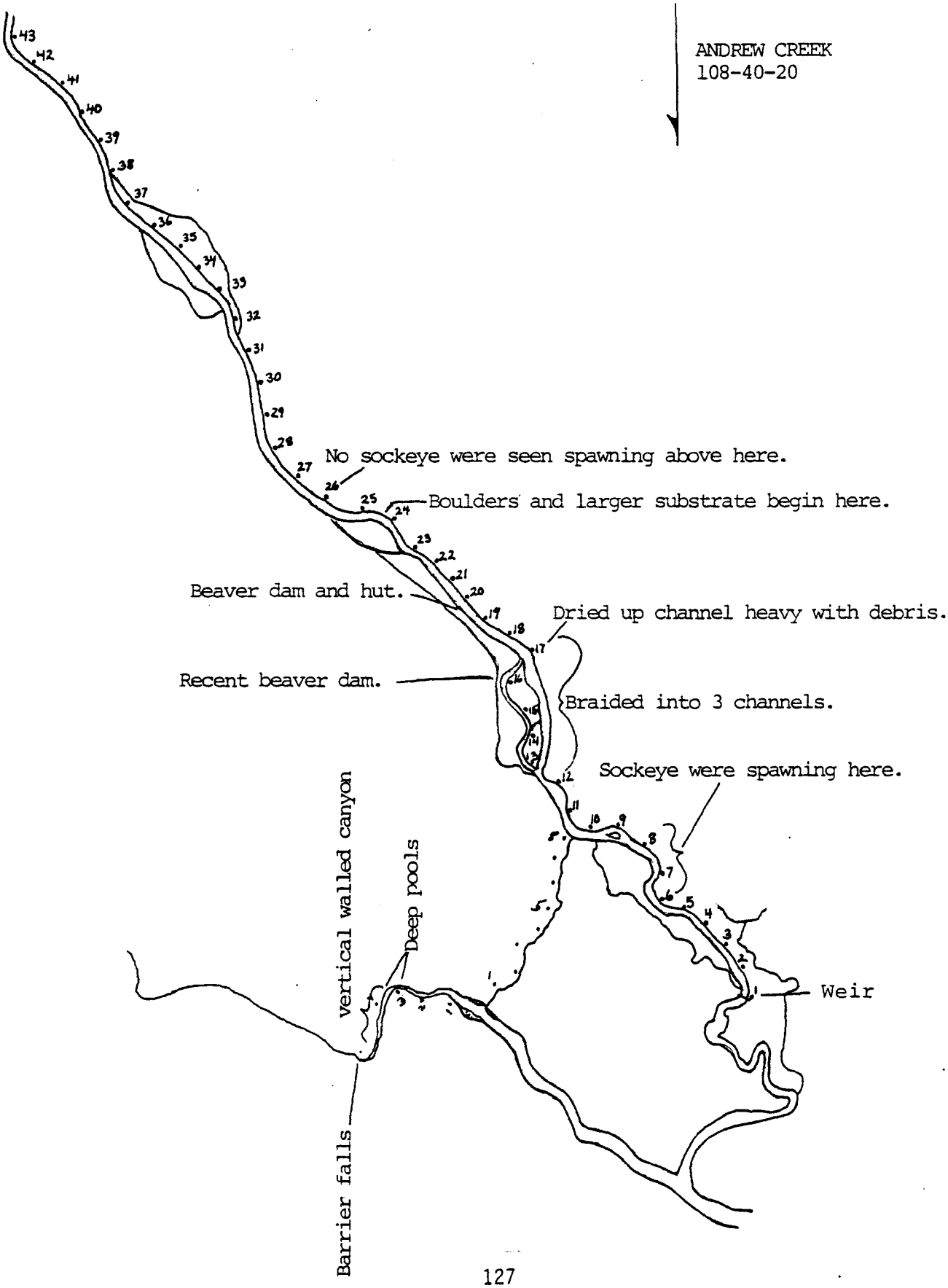
24. Date 8 /15 /81 25. Time 0900 1700 26. Weather 2,1
8/19/81 0900-1430 start end
8/30/81 1430-1600

27. Photos _____

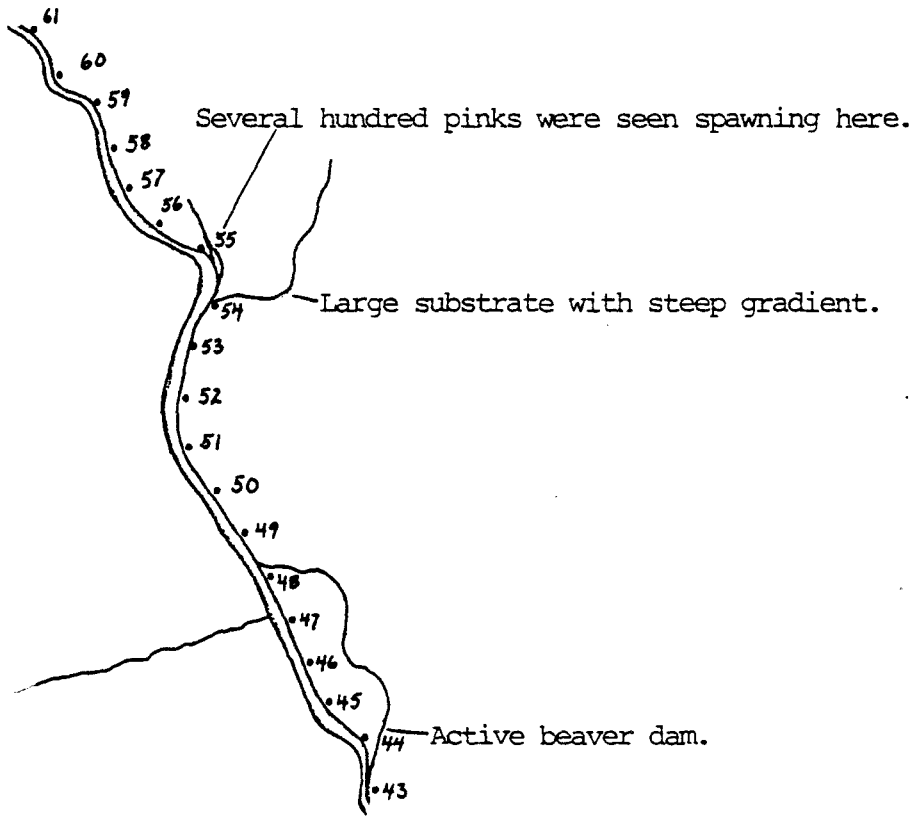
R-10 2600-3a (1/81)

CSA JUNEAU 1613

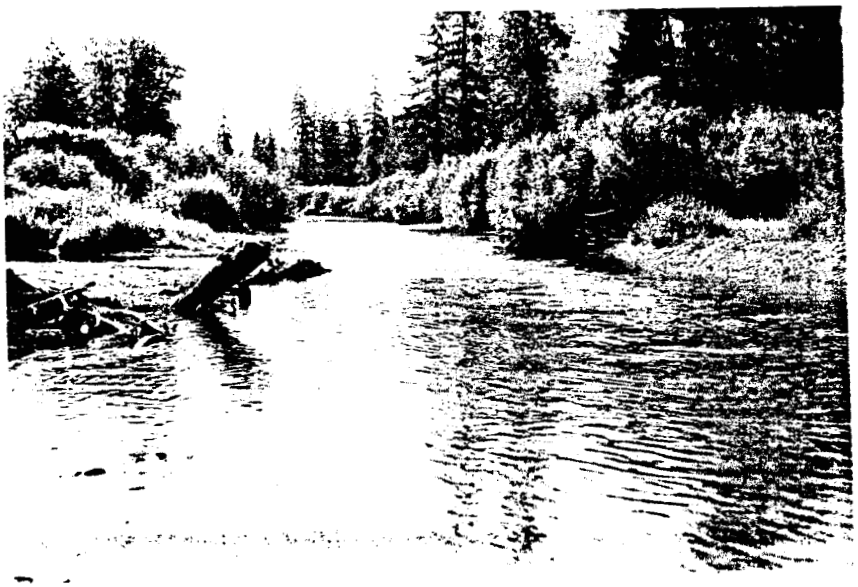

Andrew Cr.
108-40-20
North Fork
South Fork
Andrews Slough
glacial water
no ASA
slow, calm water
wooded island
wooded island
Stikine River


ANDREW CREEK
108-40-20
No sockeye were seen spawning above here.
Boulders and larger substrate begin here.
Beaver dam and hut.
Dried up channel heavy with debris.
Recent beaver dam.
Braided into 3 channels.
Sockeye were spawning here.
vertical walled canyon
Deep pools
Weir
Barrier falls

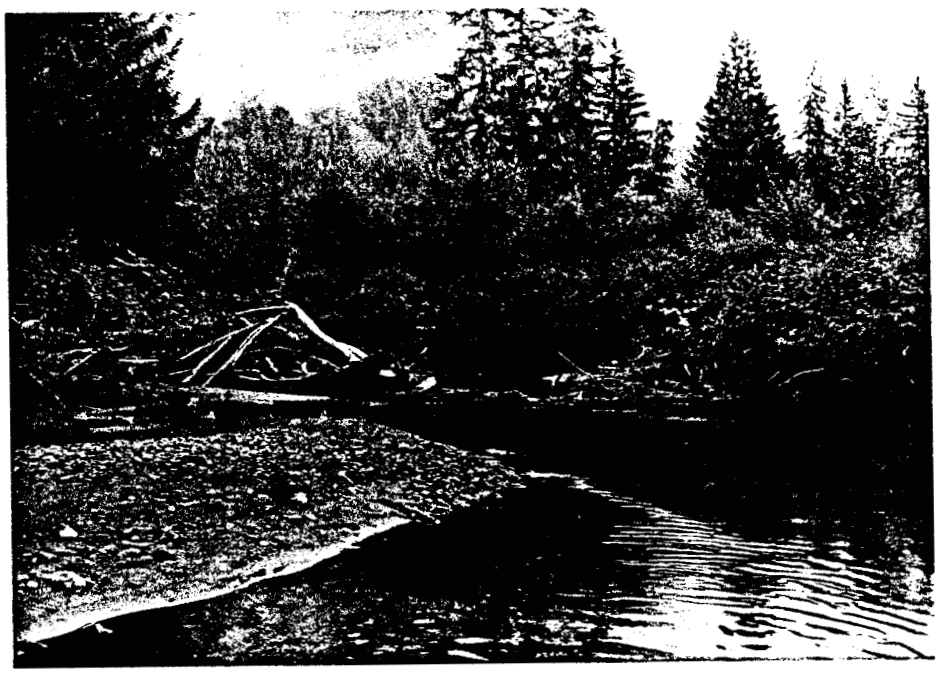
ANDREW CREEK
108-40-20



108-40-20
Andrews Creek

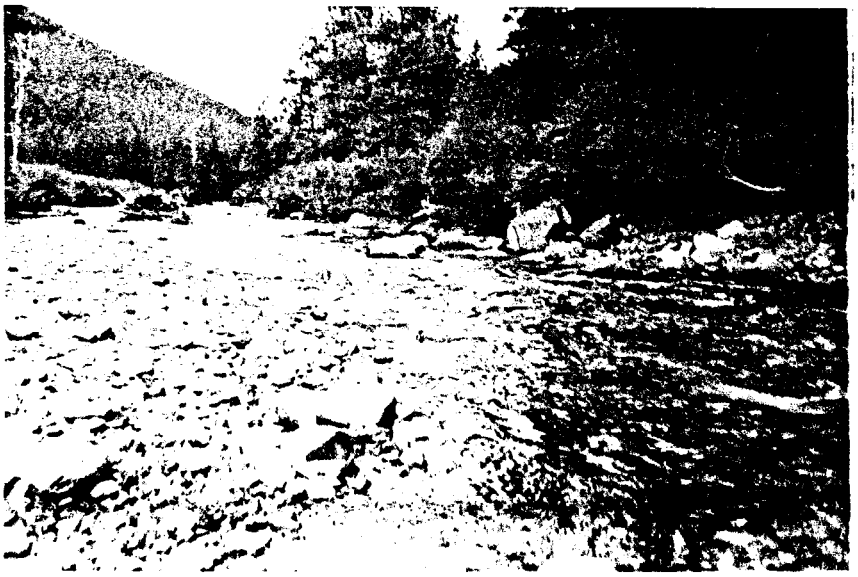


1. View Upstream of Section 1.



2. Outlet of Channel on Left Bank of South Fork, Section 1.

108-40-20
Andrews Creek



3. View Upstream of Section 41.

4. Beaver Dam on Channel in Section 43.

108-40-20
Andrews Creek

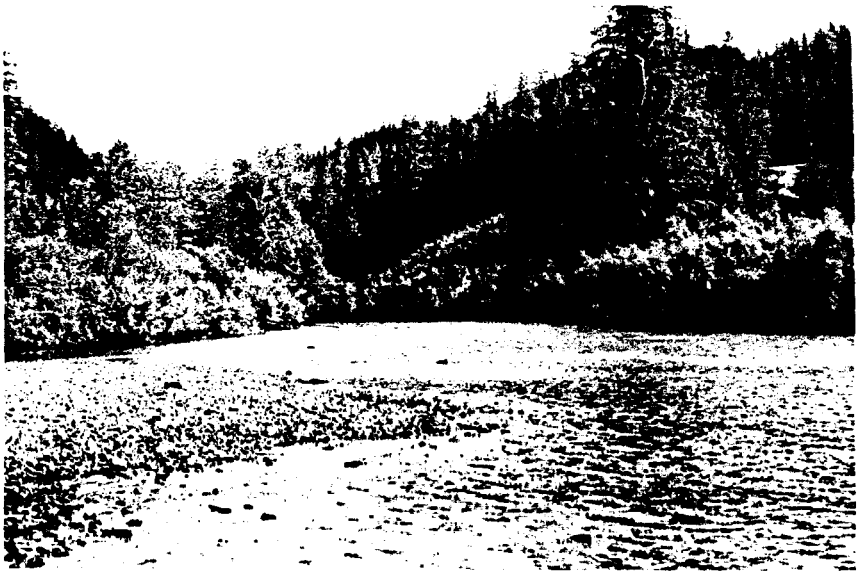
5. View Upstream of Section 5.

6. Upstream View of Tributary in Section 54.

108-40-20
Andrews Creek

7. View Upstream of Section 55.

108-40-20
Andrews Creek
North Fork

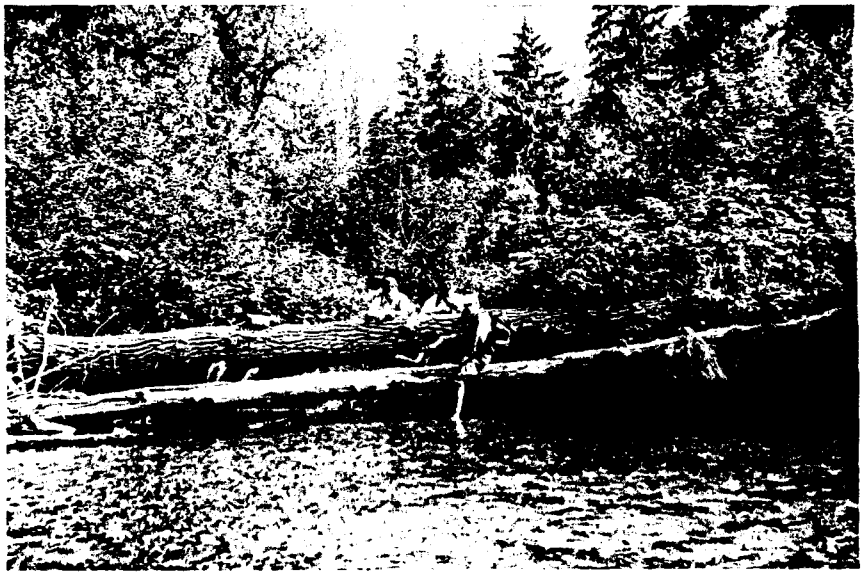


8. Upstream View of Section 1. Good Spawning Area.

9. View of Barrier Falls and Vertical Walled Canyon Above Section 3.

108-40-20
Andrews Creek

10. Mouth of Connecting Channel Between N/S Fork.



11. View of Upper End of N/S Fork. Connecting Channel Between N/S Fork.

South Fork Andrew Cr. 108-40-20

Section	Length (m)	Width (m)	ASA %	ASA Total	Section	Length (m)	Width (m)	ASA %	ASA Total
1	100	33	60	1980	34	100	15	50	750
2	100	10	80	800	35	100	15	40	600
3	100	19	80	1520	36	100	14	30	420
4	100	17	75	1190	37	100	11	40	440
5	100	10	90	900	38	100	10	30	300
6	100	11	50	550	39	100	8	30	240
7	100	12	70	840	40	100	13	30	390
8	100	11	60	660	41	100	14	25	350
9	100	11	40	440	42	100	14	35	490
10	100	23	75	1610	43	100	18	30	540
11	100	14	60	840	44	100	10	20	200
12	100	11	60	660	45	100	8	15	120
13	100	13	60	780	46	100	8	40	320
14	100	11	60	660	47	100	13	10	330
15	100	7	75	525	48	100	11	10	110
16	100	12	70	840	49	100	32	10	320
17	100	11	90	990	50	100	15	5	75
18	100	14	95	1330	51	100	17	5	85
19	100	18	90	1620	52	100	12	5	60
20	100	18	95	1710	53	100	15	10	150
21	100	15	80	1200	54	100	13	10	130
22	100	14	50	700	55	100	31	5	155
23	100	18	60	1080	56	100	22	5	110
24	100	11	50	550	57	100	22	5	110
25	100	14	60	840	58	100	11	1	11
26	100	15	60	900	59	100	21	2	42
27	100	14	80	1120	60	100	9	0	0
28	100	12	80	960	61	100	9	5	45
29	100	13	70	910	62	100	8	0	0
30	100	16	40	640	63	100	9	0	0
31	100	19	30	570					
32	100	16	30	480	TOTAL				38,168m^2
33	100	15	40	600					

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Andrews Creek S.Fork ADF&G Catalog No. 108-40-020

1. Section no.		1	2	3	4	5	6	7	8	9	10
2. Compass bearing		121	118	109	112	103	151	101	112	040	031
3. Gradient		1	.5	1	.5	1.5	1	1.5	1	1	.5
4. Temperature:	Air	14									
	Water	13									
5. Water qual:	a. color	1									
	b. turbidity	1									
	c. pH	7.0									
6. ASA	a. percent	60	80	80	70	90	50	70	60	40	70
	b. quality	2									
7. Water Width	a. channel	37	13	20	17	17	23	14	12	12	24
	b. water	33	10	19	17	10	11	12	11	11	23
	c. floodplain	1						2	2	1	1
8. Stream Pools	a. percent	10			15	5	30	20	30	40	20
	b. category	SS					DS	SS	SS	DS	SS
9. Debris Loading		1	0				3	2	5	25	20
10. Potential Barriers		N									
11. Enhancement/Rehab		N									
12. Upper Bank a.	Left	0									
	Right	0									
b. indic	Left	PV									
	Right	PV									
c. veg	Left	Y									
	Right	Y									
13. Lower Bank	Left	SS	SS	GS	GS	SS	SS	GS			
	Right	SS	GS	U					GS	U	U
14. Stab rating	Left	3(2)	1(2)					2(2)	1(2)	2(2)	3(2)
	Right	2(2)	1(2)	1(2)	2(2)	1(2)	1(2)	2(2)	1(2)	3(2)	3(2)

Andrews Cr. S. Fork
108-40-020

	1	2	3	4	5	6	7	8	9	10
15. Streambank Veg.	2/4									
16. Stream Canopy Cover	1									
17. Rearing Area	30	50				70	50	50	70	50
18. Stream Bottom Substrate 1										
2	10			20	5	10	35	30	20	25
3	50	60	60	50	60	45	35	40	30	40
4	20				30	30	20			25
5	20	10			5	15	10	10	30	10
6										
7										
19. Fish Species										
20. Sampling								Y		

21. Comments

1. Station was at the weir. P-1 taken looking upstream. There is good rearing in a slough behind the left bank.

6. A lot of deep pools.

8. Braided. A side channel enters from the left bank 20m upstream. A dozen sockeye were seen spawning in the first 20m of the side channel. There is a logjam with a lot of debris behind it. Good rearing was present. Two traps were set here. One trap was set along the right bank.

9. Braided with deep pools and a lot of debris.

10. Small fork leaving main stream from the left bank, 75m into the sample. Probably connects with the North Fork.

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Andrews Cr. S. Fork ADF&G Catalog No. 108-40-020

1. Section no.		11	12	13	14	15	16	17	18	19	20
2. Compass bearing		145	107	140	150	087	163	111	108	112	097
3. Gradient		.5	1	1.5	2	1	1.5	.5			
4. Temperature: Air		14									
	Water	13									
5. Water qual:	a. color	1									
	b. turbidity	1									
	c. pH	7.0									
6. ASA	a. percent	60				75	70	90	95	90	95
	b. quality	2									
7. Water Width	a. channel	25			20	14	12	38	18	18	19
	b. water	14	11	13	11	7	12	11	14	18	18
	c. floodplain	1	2	2	3	1	2	2	3	3	2
8. Stream Pools	a. percent	20						10	0	10	0
	b. category	SS				DS	DS	DS	-	DS	-
9. Debris Loading		1	2	15	2	0	10	2	0		
10. Potential Barriers		N									
11. Enhancement/Rehab		N									
12. Upper Bank a.	Left	0									
	Right	0								10	30
b. indic	Left	PV									
	Right	PV									
c. veg	Left	Y									
	Right	Y									
13. Lower Bank	Left	U				GS	U	GS	GS	U	GS
	Right	GS	U						GS	SS	SS
14. Stab rating	Left	2(2)						1(2)			
	Right	2(2)			3(2)	3(2)	2(2)	1(2)			

Andrews Cr. S. Fork
108-40-020

	11	12	13	14	15	16	17	18	19	20
15. Streambank Veg.	2/4/1	----	----	----	----	----	2/4	----	----	----
16. Stream Canopy Cover	1	----	----	----	----	----	----	----	----	----
17. Rearing Area	50	50	80	60	50	60	60	80	70	30
18. Stream Bottom Substrate 1										
2	25	35	30	25	15	15	10	10	15	15
3	40	30	30	40	50	45	60	50	----	----
4	20	25	----	----	20	20	25	35	30	30
5	15	10	15	10	10	15	5	----	----	----
6										
7										
19. Fish Species										
20. Sampling										

21. Comments

12. 75m upstream braiding begins with three channels.

13. The old channel behind the right bank was heavily loaded with debris and had some good rearing area in the pools. No ASA in this channel which was 400m long.

14. Braided.

15. Braided.

16. Braiding ends at the end of the sample. Banks are heavily cut in the braided area. The old channel along the right bank enters the main here. The upper end of the old channel is dried up - no pools. There is a partial constructed beaver dam across the center channel at the station.

18. Real nice riffle with the depth rarely exceeding 0.33m.

19. Beaver dam and hut in good repair behind the left bank. Fry were seen in the pond. It is possible that this was an old braided channel.

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Andrews Creek ADF&G Catalog No. 108-40-020

1. Section no.		21	22	23	24	25	26	27	28	29	30
2. Compass bearing		120	068	086	110	115	121	137	125	131	135
3. Gradient		.5	.5	1	.5	1	.5	.5	1	1	.5
4. Temperature: Air		14.0									
	Water	14.5						10			
5. Water qual:	a. color	1									
	b. turbidity	1									
	c. pH	7.0									
6. ASA	a. percent	80	50	60	50	60	60	80	80	70	40
	b. quality	2									
7. Water Width	a. channel	44	19	20	36	26	21	23	23	26	18
	b. water	15	14	18	11	14	15	14	12	13	16
	c. floodplain	1									
8. Stream Pools	a. percent	10	10	15	0	15	5	0	0	5	10
	b. category	SS	SS	DS	-	DS	SS	-	-	SF	SF
9. Debris Loading		1	5	5	0						
10. Potential Barriers		N									
11. Enhancement/Rehab		N									
12. Upper Bank	a. Left	0			65	45	80	0			
	Right	35	45	0							
	b. indic Left	PV									
	Right	PV									
	c. veg Left	Y									
	Right	Y									
13. Lower Bank	Left	GS			SS			GS	GS	SS	U
	Right	GS	SS	U	GS	U	GS	GS	U	SS	U
14. Stab rating	Left	1(2)	1(2)	2(2)	1(2)	1(2)	2(2)	1(2)			
	Right	1(2)	1(2)	2(2)	1(2)	1(2)	2(2)			1(2)	2(2)

Andrews Cr. So. Fork
108-40-020

	21	22	23	24	25	26	27	28	29	30
15. Streambank Veg.	2/4									
16. Stream Canopy Cover	1									
17. Rearing Area	60	40	60	50	50	40	15	30	20	30
18. Stream Bottom Substrate 1				5					5	10
2	20	35	30	40	35	35	15	20	25	35
3	50	40	40	35	40	40	50			40
4	25	20					30	25	20	15
5	5	5	10					5		
6										
7										
19. Fish Species										
20. Sampling										

21. Comments

21. Braided into two channels, the right channel being the larger.

23. A side channel leaves the main channel 50m into the sample. A large debris pile is present but it is not a block.

24. Boulders begin appearing here.

26. Large alders along the right bank are being undercut.

27. Right bank is being cut by high flows but there is a high proportion of rock. Good fast riffle. Only kings and pinks were seen from here up. Larger substrate begins here.

29. High right bank is cut away by high flows exposing rock and soil.

30. Right bank is cut.

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Andrews Cr. S. Fork ADF&G Catalog No. 108-40-020

1. Section no.		31	32	33	34	35	36	37	38	39	40
2. Compass bearing		085	119	105	094	118	135	117	118	098	099
3. Gradient		.5	1	.5	.5	.5	1	1	1	1.5	1
4. Temperature:	Air	14.0									
	Water	10									
5. Water qual:	a. color	1									
	b. turbidity	1									
	c. pH	7.0									
6. ASA	a. percent	30	60	40	50	40	30	40	30		
	b. quality	2							1	2	2
7. Water Width	a. channel	32	31	33	28	28	29	28	23	24	23
	b. water	19	16	15	15	15	14	11	10	8	13
	c. floodplain	1	2	1					2		
8. Stream Pools	a. percent	30	0	10			30	5	5	0	5
	b. category	DS	-	DS	DF	SF	DF	SF	SF	-	SF
9. Debris Loading		15	0	5	2	0	1	0			
10. Potential Barriers		N									
11. Enhancement/Rehab		N									
12. Upper Bank a.	Left	0				35	35	0			
	Right	0									
b. indic	Left	PV									
	Right	PV									
c. veg	Left	Y									
	Right	Y									
13. Lower Bank	Left	GS				U	GS	GS	U	U	SS
	Right	U	GS	GS	U	GS	GS	U	GS	U	U
14. Stab rating	Left	1(2)	2(2)	1(2)	1(2)	2(2)	1(2)				
	Right	2(2)	1(2)	2(2)	2(2)	1(2)	1(2)	2(2)			1(2)

Andrews Cr. S.Fork
108-40-020

	31	32	33	34	35	36	37	38	39	40
15. Streambank Veg.	2/4									
16. Stream Canopy Cover	1									
17. Rearing Area	50	20	25			30	25			
18. Stream Bottom Substrate 1	15	5				10	5	40	35	35
2	40	25	35	30	40			35		
3	30	40	35	40	40	30	35	20	25	25
4	15	25	20	20	15	20	20	5		
5		5								
6										
7										
19. Fish Species				SS						
20. Sampling				Y						

21. Comments

31. Braided. Flood channel enters along the right bank. The main channel is along the left bank.

32. Left bank is cut,exposing rock.

34. Left bank is cut.

39. A lot of large substrate. Only king were seen in this sample.

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Andrew Cr. S. Fork ADF&G Catalog No. 108-40-020

1. Section no.		41	42	43	44	45	46	47	48	49	50
2. Compass bearing		102	151	115	119	131	121	119	114	114	124
3. Gradient		2	2	2.5	1.5	2	1	1	1.5	1	2
4. Temperature:	Air	14.0									
	Water	10									
5. Water qual:	a. color	1									
	b. turbidity	1									
	c. pH	7.0									
6. ASA	a. percent	25	35	30	20	15	40	10			5
	b. quality	2									
7. Water Width	a. channel	25	20	20	20	25	16	32	28	34	17
	b. water	14	14	18	10	8	8	13	11	32	15
	c. floodplain	1	1	2	2	1	2	1			
8. Stream Pools	a. percent	10	15			10	0	10	5	5	10
	b. category	DF	SF	DS	DS	DS	-	SF	SF	SS	SS
9. Debris Loading		0	0	3	2	0					
10. Potential Barriers		N									
11. Enhancement/Rehab		N									
12. Upper Bank a.	Left	20	0			20	0	10	0	10	35
	Right	0									
b. indic	Left	PV									N
	Right	PV									
c. veg	Left	Y									
	Right	Y									
13. Lower Bank	Left	SS	U	U	GS	U	GS			U	U
	Right	U	GS	U	GS	GS	U	GS	U		
14. Stab rating	Left	1(2)			2(2)				1(2)	1(2)	1(3)
	Right	1(2)							2(2)	1(2)	1(2)

Andrews Cr. S. Fork
108-40-020

	41	42	43	44	45	46	47	48	49	50
15. Streambank Veg.	2/4								2/4/1	2/4/1
16. Stream Canopy Cover	1									
17. Rearing Area	25				60	10	25	25	30	30
18. Stream Bottom Substrate 1	40	25	35	40	25	40	50	50	40	30
2	35				10	40	30	30	45	50
3	20	30	20	20	5	10	15	15	10	10
4	5	10	10	5			5	5	5	10
5										
6										
7										
19. Fish Species										
20. Sampling										

21. Comments

41. P-2 taken looking downstream at typical habitat.

42. Slough begins behind left bank.

43. Possible trib or slough enters from the right bank. 100m upstream there is a 2.7m beaver dam. P-3.

45. Right bank is badly cut in places.

47. Small trib enters from the left bank at the station from a waterfall on the steep upper left bank.

48. Right bank is cut.

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Andrews Cr. ADF&G Catalog No. 108-40-020

1. Section no.		51	52	53	54	55	56	57	58	59	60
2. Compass bearing		164	157	178	165	099	098	120	137	125	100
3. Gradient		1.5	2.5	2	3	1	3.5	3.5	3	2	2.5
4. Temperature:	Air	14									
	Water	10									
5. Water qual:	a. color	1									
	b. turbidity	1									
	c. pH	7.0									
6. ASA	a. percent	5	5	10	10	5			1	2	0
	b. quality	2									-
7. Water Width	a. channel	24	21	32	21	34	24	22	20	22	15
	b. water	17	12	15	13	31	22	22	11	21	9
	c. floodplain	1			3					1	1
8. Stream Pools	a. percent	5	5	10			5	0	5	10	5
	b. category	SF				DS	SF	-	SF	DF	DF
9. Debris Loading		1	0								
10. Potential Barriers		N									
11. Enhancement/Rehab		N									
12. Upper Bank a.	Left	45	0	0	0	40	35	0	10	10	0
	Right	5	0						25	80	20
b. indic	Left	PV				N					
	Right	PV						N			
c. veg	Left	Y									
	Right	Y									
13. Lower Bank	Left	U	GS	U				GS	GS	SS	U
	Right	GS	U	GS	U	U	SS	SS	GS	GS	SS
14. Stab rating	Left	1(2)						1(1)			
	Right	1(2)	2(2)	1(2)			1(3)	1(2)	1(1)		

Andrews Cr. S. Fork
108-40-020

	51	52	53	54	55	56	57	58	59	60
15. Streambank Veg.	2/4/1									
16. Stream Canopy Cover	1									
17. Rearing Area	30				20					
18. Stream Bottom Substrate 1	50	50	40			45	70			
2	40			35	40	45	25	20	20	15
3	5	5	15	15	10	5				
4	5							5		
5										
6										
7				5	5					5
19. Fish Species										
20. Sampling										

21. Comments

51. A few spawned out pinks were seen. P-4 taken here.

52. Right bank is cut by high flows exposing large cobble.

53. Several pinks were seen.

54. Braided. A side channel begins here along the right bank for 150m. Good gravel with over 100 pinks spawning here. Trib also enters here. P-5.

55. Bedrock along the right bank and along the left bank for 30m. P-6 taken looking upstream.

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Andrews Cr. S. Fork ADF&G Catalog No. 108-40-020

1. Section no.		61	62	63							
2. Compass bearing		144	101	105							
3. Gradient		4	4	3							
4. Temperature: Air		14									
	Water	10									
5. Water qual:	a. color	1									
	b. turbidity	1									
	c. pH	7.0									
6. ASA	a. percent	5	0	0							
	b. quality	2	-	-							
7. Water Width	a. channel	32	12	20							
	b. water	9	8	9							
	c. floodplain	1									
8. Stream Pools	a. percent	10	5	5							
	b. category	DS	SF	SF							
9. Debris Loading		0									
10. Potential Barriers		N									
11. Enhancement/Rehab		N									
12. Upper Bank	a. Left	35	5	0							
	Right	10	15	20							
	b. indic Left	N									
	Right	N									
	c. veg Left	Y									
	Right	Y									
13. Lower Bank	Left	U									
	Right	SS									
14. Stab rating	Left	1(1)	1(2)	1(2)							
	Right	1(3)	1(3)	1(2)							

Andrews Cr. S. Fork
108-40-020

	61	62	63							
15. Streambank Veg.	2/4/1									
16. Stream Canopy Cover	1									
17. Rearing Area	20									
18. Stream Bottom Substrate 1	70									
2	20	25	25							
3	5									
4	5									
5										
6										
7										
19. Fish Species										
20. Sampling										

21. Comments

61. One pink seen.

62. Bedrock along the right bank.

FISH SAMPLING FORM

Stream Name Andrews Cr. ADF&G Catalog No. 108-40-020 Date 8/15/81

Identify Survey Area S. Fork Water Temp. 12°C Bait Used Liverwurst

Trap	Time In	Time Out	Species	Fork Length (mm)	Comments
1	1230	1630	SS	51, 44, 58	Traps set in side channel, sample 8.
2	1230	1630	SS	84,52,78,77,51, 54,45,52,53,45, 90,47,72,45,44, 54,89,46,77,53, 56,56,55,56,50, 48,78,52,87,47, 54,50,54,48,48, 50,52.	
			DV	51	
3	1230	1630	SS	80,53,88,50,58, 47,49.	Trap set on main channel, sample 8.

This form is used to record fish caught during Level Three, Four, or Five Surveys.

FISH SAMPLING FORM

Stream Name Andrews Cr. ADF&G Catalog No. 108-40-020 Date 8/16/81

Identify Survey Area S. Fork Water Temp. 14.0°C Bait Used Liverwurst

Trap	Time In	Time Out	Species	Fork Length (mm)	Comments
1	1200	1500	SS	94,52,65,55	Sample 34.

This form is used to record fish caught during Level Three, Four, or Five Surveys.

PEAK ESCAPEMENT RECORD

Andrews Cr. 108-40-020

DATE	PINK	CHUM	OTHER SPECIES	REMARKS
8/1/61			14 sockeye,103 king	
8/2/61	13,400			
8/9/61		2,000		
7/30/62			300 king	
8/30/62	900			
7/29/63	30,500			
8/16/63			500 king	
8/17/63		8	551 sockeye	
8/3/64	575			
8/30/64			200 sockeye,400 king	
7/29/65		420	100 king	
8/5/65	2,000			
8/2/67	3,000			
8/16/67		100	10 coho,30 sockeye	
7/30/68	800			
7/31/68		200	50 coho	
7/29/69		2,000		
8/20/69	2,500			
8/18/70	1,100			
8/6/71			305 king	
8/22/71	2,000			
7/17/73			40 king	
7/24/73	2,000	1,000	2 sockeye	
8/13/74	50	50	129 king	
8/5/75	4,000	600		
8/19/75			260 king,400 sockeye	
11/13/75			40 coho	
weir/76	35		436 king, 43 sockeye	
8/3/76		300		
8/18/77	11,500	300		
weir/77			448 king, 100 sockeye	
8/2/78	260			
weir/78		79	430 king, 59 sockeye	
8/21/79	48,800		382 sockeye	
weir/79		86	433 king	

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Andrews Cr. N Fork ADF&G Catalog No. 108-40-020

1. Section no.		1	2	3	4						
2. Compass bearing		95	45	85	35						
3. Gradient		2.5	2	3	1						
4. Temperature: Air		18.5									
	Water	13									
5. Water qual:	a. color	1									
	b. turbidity	1									
	c. pH	7									
6. ASA	a. percent	60	35	0							
	b. quality	2	2	-							
7. Water Width	a. channel	22.6	18	25							
	b. water	16	18	20							
	c. floodplain	1									
8. Stream Pools	a. percent	0	20	0							
	b. category	-	DS	-							
9. Debris Loading		0									
10. Potential Barriers		-	-	-							
11. Enhancement/Rehab		-	-	-							
12. Upper Bank a.	Left	10	10	25							
	Right	10	15	10							
b. indic	Left	N									
	Right	N									
c. veg	Left	Y									
	Right	Y									
13. Lower Bank	Left	GS									
	Right	SS	U	GS							
14. Stab rating	Left	1(1)	2(1)	1(1)							
	Right	1(2)	1(1)	1(1)							

SURVEY TO UNABLE

Andrews Cr. N. Fork
108-40-020

	1	2	3							
15. Streambank Veg.	1-3--------									
16. Stream Canopy Cover	3----------									
17. Rearing Area	10	25	10							
18. Stream Bottom Substrate 1	5	T	30							
2	30	25	25							
3	30	25	25							
4	25	25	10							
5	10	25	10							
6										
7										
19. Fish Species										
20. Sampling										

21. Comments

1. P-11 upstream at start of survey. Survey started at first riffle above flat water of Stikine floodplain.

2. Deep, good holding pool at end of section.

3. Deep pool at 20m. Enters straight walled canyon, unable to survey.

4. P-12 view of chute and barrier falls, unable to survey. Flow = 6.84m3/sec-241cfs, 10m L, 26m W, T=9.3, .23m D.

North Fork Andrews Cr. 108-40-020

Section	Length (m)	Width (m)	ASA %	ASA Total	Section	Length (m)	Width (m)	ASA &	ASA Total
1	100	16	60	960					
2	100	18	35	630					
3	100	20	0	0					
Total				$1590m^2$					

Channel on S. Fork Andrews Cr. 108-40-020

Section	Length (m)	Width (m)	ASA %	ASA Total	Section	Length (m)	Width (m)	ASA &	ASA Total
1	100	7.2	10	72					
2	100	7.1	30	213					
3	100	7.5	60	450					
4	100	12	65	780					
5	100	10	75	750					
6	100	8.3	55	456.5					
7	100	8	70	560					
8	100	7.4	50	370					
9	100	6.8	70	476					
10	100	7.2	70	504					
Total				4,631.5m^2					

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Channel on S. Fork Andrews Creek ADF&G Catalog No. _____

1. Section no.		1	2	3	4	5	6	7	8	9	10
2. Compass bearing		25	125	80	180	60	100	110	15	90	130
3. Gradient		.5						1.5	1		
4. Temperature:	Air	13									
	Water	10.5									
5. Water qual:	a. color	1									
	b. turbidity	1									
	c. pH	7.5									
6. ASA	a. percent	10	30	60	65	75	55	70	50	70	70
	b. quality	2									
7. Water Width	a. channel	8.2	8	9	13	10	12	14.4	14	19	16.7
	b. water	7.2	7.1	7.5	12	10	8.3	8	7.4	6.8	7.2
	c. floodplain	2									
8. Stream Pools	a. percent	40	40	0	8	5	0	5	25	10	15
	b. category	DS	DS	-	DS	DS	-	DS			
9. Debris Loading		2	2	0			T	T	3	5	5
10. Potential Barriers		-	-	-	-	-	-	-	-	-	-
11. Enhancement/Rehab		-	-	-	-	-	-	-	-	-	-
12. Upper Bank a.	Left	0									
	Right	0									
b. indic	Left	N									
	Right	N									
c. veg	Left	Y									
	Right	Y									
13. Lower Bank	Left	U	GS	SS	GS	U	SS	GS	GS	U	U
	Right	GS	SS	U						GS	U
14. Stab rating	Left	2(1)									
	Right	2(1)									

Andrews Cr. Channel on S. Fork

	1	2	3	4	5	6	7	8	9	10
15. Streambank Veg.	2,3	1-3	----	----	----	----	----	----	1-5	1-5
16. Stream Canopy Cover	3	----	----	----	----	----	----	----	----	----
17. Rearing Area	40	30	40	25	----	----	----	----	----	40
18. Stream Bottom Substrate 1										
2										
3		10	T	T	20	30	45	30	25	30
4	50	65	70	90	60	60	50	----	----	----
5	50	25	30	10	20	10	5	20	25	20
6										
7										
19. Fish Species										
20. Sampling										

21. Comments

1. P-12 view of channel at entrance to mainstream of weir site.

Channel between South and North Fork Andrews Creek

Section	Length (m)	Width (m)	ASA %	ASA Total	Section	Length (m)	Width (m)	ASA &	ASA Total
1	100	3.7	5	18.5					
2	100	5	1	5					
3	100	4.5	1	4.5					
4	100	5.2	20	104					
5	100	4.2	15	63					
6	100	4	5	20					
7	100	6.6	8	52.8					
8	100	2.7	40	108					
Total				$375.8m^2$					

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Channel between S. & N. Fork Andrews Cr. ADF&G Catalog No. _____

1. Section no.		1	2	3	4	5	6	7	8		
2. Compass bearing		170	165	150	180	150	250	175	130		
3. Gradient		1	.8	.5	.5	1	.5	1	.5		
4. Temperature: Air											
	Water	9									
5. Water qual:	a. color	1									
	b. turbidity	1									
	c. pH	7									
6. ASA	a. percent	5	1	1	20	15	5	8	40		
	b. quality	2									
7. Water Width	a. channel	5.7	6	10	6.2	6.7	5	12.4	2.7		
	b. water	3.7	5	4.5	5.2	4.2	4	6.6	2.7		
	c. floodplain	1									
8. Stream Pools	a. percent	10	3	10	5	20	10	30	30		
	b. category	DS			SS	DS			DS,SS		
9. Debris Loading		3	2	1	0	3	1	3	8		
10. Potential Barriers											
11. Enhancement/Rehab											
12. Upper Bank a.	Left	10	5	0	5	5	15	10	10		
	Right	5	5	0	5	5	0	0	0		
b. indic	Left	N									
	Right	N									
c. veg	Left	Y									
	Right	Y									
13. Lower Bank	Left	U									
	Right	U	GS	U							
14. Stab rating	Left	2(1)									
	Right	2(1)									

Andrews Cr.
Channel between N&S Fork

	1	2	3	4	5	6	7	8		
15. Streambank Veg.	1-3----------									
16. Stream Canopy Cover	3----------									
17. Rearing Area										
18. Stream Bottom Substrate 1										
2						5	5	5		
3		10	15	20	15	20	20	15		
4	85	80	80	80	80	70	70	70		
5	15	10	5		5	5	5	10		
6										
7										
19. Fish Species										
20. Sampling										

21. Comments Comments for channel between North and South Fork, Andrews Creek

1. P-17 channel entrance to North Fork Andrews Creek.

4. Poor quality ASA, shallow substrate and silty.

5. Poor quality ASA, does not look like presently utilized.

6. Could be more ASA with a higher flow. Water flow presently too slow for suitable ASA.

7. Forty adult PS observed in pool.

8. P-16 shows channel exit from South Fork Andrews Creek.

LEVEL THREE - HABITAT SURVEY FORM (Parts 1 and 2)

Part 1 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.41.

1. Survey Areas _____ 2. Equipment _____

3. Historical Fish Species _____ _____ _____ _____ _____

4. Section Length 100m

Part 2 - Instructions for completing this part are found in FSH 2609.23 R-10 Section 330.42.

1. Stream Name a. Government Creek b. _____ Lat. 56°38'30"

2. ADF&G Catalog No. 108-40-24 3. Long. 132°16'50"

4. Agency Unit 02 5. Mgmt Area _____ 6. USGS Map No. Psbg. (C-1)

7. Aerial Photo No. _____ _____ _____ _____ _____

8. Bay/Drainage Stikine River 9. Access 4 5 10. Camping 4

11. Present Land Use a. Wilderness 11b. _____

12. Historical Land Use Recreation

13. Stream Origin 1 5 _____ _____ 14. Flow Stage 2

15. Flow E (method), 9.2 (width), .39m (depth), 10m (length), .8 (constant), 56.25 (time), _____ (grid), .68m3/sec (flow)

16. Temp. Sensitivity Yes-Lake source

17. Beaver _____ 18. Type aquatic Veg. 1,2,3 19. Density Aquatic Veg. 1

20. Adult Salmon Yes 21. Intertidal a. gradient _____

b. bottom type % fines _____%

gravel small cobble _____%

large cobble/boulders/bedrock _____%

c. ASA _____

d. schooling _____

e. shellfish _____

f. _____

22. Comments

23. Investigators Lynch/Burns ADF&G

24. Date 8 / 19/ 81 25. Time 0930 (start) 1130 (end) 26. Weather Rain

27. Photos _____

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GSA JUNEAU 1613

N

Government Creek
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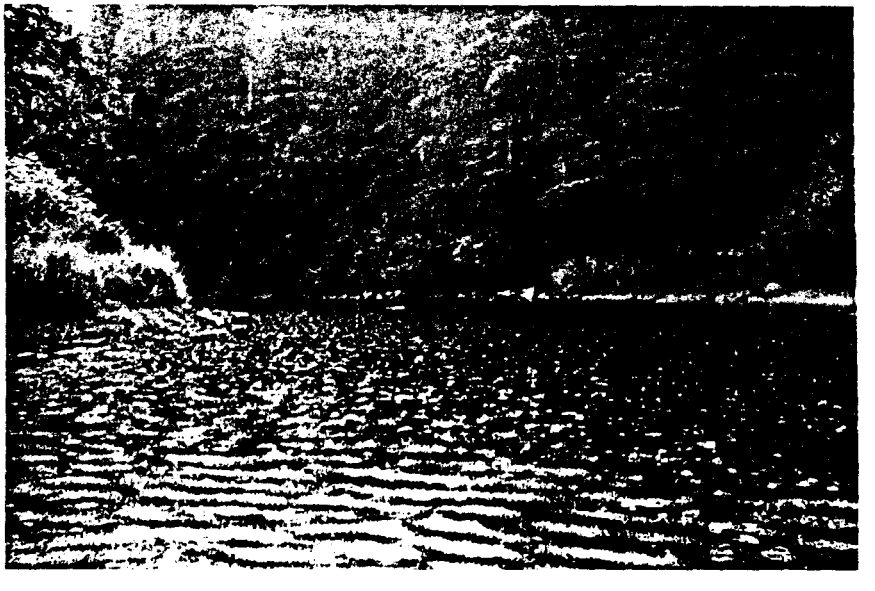
1. Barrier Falls Below Lake.



2. View Downstream at Section 1.

Government Creek 108-40-24

Section	Length (m)	Width (m)	ASA %	ASA Total	Section	Length (m)	Width (m)	ASA &	ASA Total
1	100	20	0	0					
2	100	26	0	0					
3	100	24	0	0					
4	100	26	0	0					
5	100	24	0	0					
6	100	24	1	24					
7	100	22	1	22					
8	100	18	1	18					
9	100	24	1	24					
10	100	22	0	0					
11	100	17	1	17					
12	100	23	0	0					
13	100	22	1	22					
14	100	24	15	360					
15	100	22	10	220					
16	100	8.8	1	8.8					
17	100	8.8	1	8.8					
18	100	11	0	0					
Total				$724.6m^2$					

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Government Cr. ADF&G Catalog No. 108-40-24

1. Section no.		1	2	3	4	5	6	7	8	9	10
2. Compass bearing		85	105	180	180	85	70	30	60	115	125
3. Gradient		.5									
4. Temperature:	Air	14									
	Water	14									
5. Water qual:	a. color	1									
	b. turbidity	1									
	c. pH	7.5									
6. ASA	a. percent	0					1				0
	b. quality	-	-	-	-	-	2	2	2	2	-
7. Water Width	a. channel	24	27	25	28	26	29	30	22	26	25
	b. water	20	26	24	26	24	24	22	18	24	22
	c. floodplain	1									
8. Stream Pools	a. percent	0	70	0	0	50	0	0	10	30	30
	b. category	-	DS	-	-	DS	-	-	DS	DS	DSSS
9. Debris Loading		5	2	0	0	0	0	T	1	1	0
10. Potential Barriers		-	-	-	-	-	-	-	-	-	-
11. Enhancement/Rehab		-	-	-	-	-	-	-	-	-	-
12. Upper Bank a.	Left	90	0	5	0	0	0	25	5	10	0
	Right	0	0	0	0	60	40	10	5	25	60
b. indic	Left	N									
	Right	N				Y	Y	N	N	N	Y
c. veg	Left	Y									
	Right	Y									
13. Lower Bank	Left	SS	U	U	U	U	GS	GS	U	U	U
	Right	GS	U	U	U	SS	SS	U	U	U	U
14. Stab rating	Left	3(1)			2(1)			3(1)	3(1)	2(1)	2(1)
	Right	2(1)	3(1)	3(1)	2(1)				3(1)	3(1)	3(1)

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	1	2	3	4	5	6	7	8	9	10
15. Streambank Veg.	1-5									
16. Stream Canopy Cover	3									
17. Rearing Area	100									
18. Stream Bottom Substrate 1						25		T		
2						25		5		5
3						20		25		5
4						5	5	25	5	5
5						10	15	30	50	40
6	100	90	100	100	100	5	80	15	45	45
7		5(a,c)				10(c)				
19. Fish Species KS						2				
PS						12				
20. Sampling										

21. Comments

1. 1/2 of section is glacial water - Government slough back waters, unable to see bottom.

3. Trap set here.

8. Exposed mud/blue clay right bank at end of section.

7&8. Poor quality ASA. Water velocity is slow and bottom substrate contains much fine material.

9. P-20&21 taken upstream of typical habitat in lower part of river.

10. Exposed blue clay banks-clay underlying other substrate for entire section length.

LEVEL THREE - HABITAT SURVEY FORM (Part 3)

Stream Name Government Cr. ADF&G Catalog No. 108-40-24

1. Section no.		11	12	13	14	15	16	17	18		
2. Compass bearing		105	55	10	60	110	50	315	80		
3. Gradient		1	.8	.5	1	1	4	2	6		
4. Temperature:	Air	14									
	Water	14									
5. Water qual:	a. color	1									
	b. turbidity	1									
	c. pH	7.5									
6. ASA	a. percent	1	0	1	15	10	1	1	0		
	b. quality	2	-	2	2	2	3	2	-		
7. Water Width	a. channel	19	25	28	24	23	10	14	17.5		
	b. water	17	23	22	24	22	8.8	8.8	11		
	c. floodplain	1									
8. Stream Pools	a. percent	10	30	0	25	80	5	10	1		
	b. category	DS	DS	-	SS	SS	DS	SS DS	SS		
9. Debris Loading		0	T	0	T	0	0	0	0		
10. Potential Barriers		-	-	-	-	-	-	-	-		
11. Enhancement/Rehab		-	-	-	-	-	-	-	-		
12. Upper Bank	a. Left	0	15	25	10	20	20	45	35		
	Right	40	0	10	40	15	10	10	15		
b. indic	Left	N						Y	Y		
	Right	Y	N	N	Y	Y	N	N	N		
c. veg	Left	Y									
	Right	Y									
13. Lower Bank	Left	U	U	U	GS	GS	SS	SS	SS		
	Right	U	GS	GS	SS	SS	SS	SS	GS		
14. Stab rating	Left	2(1)	2(1)	2(1)	1(2)						
	Right	2(1)			1(2)				2(1)		

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	11	12	13	14	15	16	17	18		
15. Streambank Veg.	1-5	1-5	1-5	1-3	----	----	----	----		
16. Stream Canopy Cover	3	----	----	----	----	----	----	----		
17. Rearing Area	95	100	100	85	100	35	30	25		
18. Stream Bottom Substrate 1	5	5				80	85	90		
2	5	5				10	5	5		
3	10	5			30	5	5	T		
4	10	25	35	70	60	5	5	T		
5	45	50	60	30	10					
6	30	10								
7	5d									
19. Fish Species KS	3		1	5	13	9	1			
PS			2				3			
20. Sampling										

21. Comments

12. Right bank is deep mud/blue clay mix. King and coho fry observed. Two seeps from right bank.

13. King and coho fry observed.

15. Entire section is large shallow pool w/flow on right bank.

17. Good holding pool at end of section - several kings in pool.

18. Moss covered boulders, very slick w/heavy coverage of periphyton. NWS trib enters from left bank at station. Stream above here enters two barrier waterfalls. P-14 of upper barrier falls.

FISH SAMPLING FORM

Stream Name Government Cr. ADF&G Catalog No. 108-40-24 Date 8-19-81

Identify Survey Area A Water Temp. 14°C Bait Used Liverwurst

Trap	Time In	Time Out	Species	Fork Length (mm)	Comments
1	1015	1030	SS	90,90,87,89,88, 83,82,82,89,78, 50.	Section 3

This form is used to record fish caught during Level Three, Four, or Five Surveys.

APPENDIX A

Level III Stream Survey Method

330 - Level Three is a field survey. It is designed to provide adequate baseline and summary information for managment of unmanipulated habitats. It provides both measured and estimated information of individual parameters, as well as judgmental summaries on certain aspects of the stream environment. The emphasis is on efficient use of time so the fish habitat in areas where we anticipate low levels of land use, such as those of wilderness status or equivalent to land use designations I or II can be surveyed in a timely manner.

330.1 - Objective of Level Three is to meet management needs for streams not proposed for manipulation by major land use activities or where time factors and priorities do not allow more intensive surveys. The survey is designed to be accomplished quickly and efficiently with a minimum of equipment and field time yet still provide baseline information about the fisheries habitat, potential high-risk areas to development and identification of possible enhancement sites.

330.2 - Standards of Level Three are at a minimum for quantitative data and a maximum for qualitative data.

Specific standards for the procedure to accomplish Level Three are listed below. These standards should be interpreted to mean that at the minimum, data collected in the survey shall be at least as accurate as specified, and at least all the parameters listed should be included.

1. Major types of streamside vegetation and fish species in the stream will be collected and identified visually to species by a knowledgeable observer.

2. Volume of streamflow will be measured with a method at least as reliable as the Embody Method.

3. Quantity of aquatic vegetation in the stream will be estimated visually.

4. The source of water, bank stability along the stream, stream bottom material, water turbidity, streamflow stage, water color, barriers to upstream migration, water impoundments, will be subjectively determined.

5. Quality and area of salmonid spawning gravel will be estimated subjectively.

6. Juvenile salmon rearing area, pool riffle ratio, and stream cover will be included.

7. Date and climatic conditions at time of survey will be included.

8. Water and air temperature will be measured to nearest degree C.

9. pH will be measured to the nearest half unit.

10. Stream gradient will be measured to the nearest 1/2 percent.

11. Water width will be measured to the nearest 1/2 meter with a range finder or tape measure.

12. A system of photographs will be established for the stream.

13. A schematic map will be drawn for the stream.

14. A narrative describing sport fish potential, wildlife observations, land use influences, accessibility and enhancement potentials will be written.

330.3 - Equipment Needed

Level Three Survey Forms 2600-3a, 3b and 2600-5b
Section 330.4 of the handbook reproduced on waterproof paper
Field notebook
Mechanical pencils
Maps, USGS quads and aerial photographs
50 Meters tape measure
Abney level or clinometer
Centigrade Thermometer
Camera with film
Compass
Minnow traps (6) and bait
Tricaine methanesulfanate
Dip net
Fish measuring ruler (metric)
Range finder
Pocket altimeter
pH meter
Scientific sampling permit

330.4 - Procedure. There are several phases of data collection for Level Three survey: preplanning before starting field work; field work broken down into data that is entered once for each survey area and date that is entered once at least every 100 meters along the stream; and office work to be done after the field work.

330.41 - Preplanning and data collection before starting field work includes the following: Make required entries once for every survey area on the first part of form 2600-3a (1/81).

1. Survey Areas — If a stream system has major tributaries entering the main stream, the survey can be divided into survey areas (at the discretion of the biologist conducting the survey). The main stream is designated as "A" and major tributaries as "B", "C", "D", etc., going upstream as tributaries enter the main stream. Before starting, the survey areas should be specified. Record yes or no if survey areas are used. If yes, specify by sketching a map on back of form and labeling areas.

2. Equipment — The field crew should double-check equipment to make sure everything is there and in working order. Date when check is made.

3. Historical Fish Species — If a Level Two survey hasn't been done for the stream, it will be necessary to check ADF&G escapement records to determine which species are known to occur in the stream. Enter appropriate code from the key. Other information relative to Level Two survey should be accumulated whenever you come across it.

KS - king salmon	DV - Dolly Varden
SS - silver salmon	RT - rainbow trout
RS - red salmon	CT - cutthroat trout
CS - chum salmon	SM - smelt
PS - pink salmon	ST - steelhead
NP - northern pike	BT - brook trout
CO - cottids	GR - grayling
LT - lake trout	WH - whitefish
SB - stickleback	BU - burbot
	OT - other

4. Section Length — Various items of data are collected at 100 meter intervals or less (at the discretion of the biologist conducting the survey) along the entire survey area. Record here the length of sections used in the survey.

330.42 - Data entered once per survey area. The following items should be recorded on the second part of form 2600-3a (1/81) while at the stream once for each survey area.

Item	Explanation
1. Stream Name	a. Record the stream name as listed on the map or as commonly known. b. Identify survey area if designated.
2. ADF&G Catalog No.	Enter appropriate State Fish and Game Catalog number for stream surveyed.
3. Latitude and Longitude	Record the latitude and longitude to the nearest five seconds for the lower end of the survey area. Use appropriate geodetic scale to interpolate precise latitude and longitude off a USGS quad.
4. Agency Unit	Enter the appropriate land area code as assigned to each agency. 02 Stikine 10-19 BLM 03 Chatham 20-29 National Park 04 Chugach 30-39 State Park System 05 Ketchikan 40-49 F&WS 50-69 Native Corporations
5. Management Area	Enter the appropraite agency subunit code. (List of management area codes to be developed and distributed by each agency).
6. USGS Map Number	Identify number of USGS Quadrangle containing the system.
7. Aerial Photo Number	If an aerial photo is used, record the flight line, roll, photo, year and grid.
8. Bay/Drainage	Include complete name of drainage system or bay containing the stream.

9.	Access	Enter up to two codes from this list: 1-satisfactory for modern car 2-appropriate for pick-up 3-appropriate for 4-wheel drive 4-available by boat 5-available by air 6-trail for horse or foot 7-no trail to area (undeveloped).
10.	Camping Facilities	Enter appropriate code which may influence use on this part of the stream. "Private Organization" would include both those provided by State and Federal organizations. 1-private organization (lodge or motel) 2-government campground 3-public cabin (Gov't owned cabins rented to public) 4-undeveloped.
11.	Present Land Use	a. Note any activities associated with man's present use or planned use such as logging, mining, roads, dumpsites, etc. b. Note any game or human trails and the amount of brush interference while surveying.
12.	Historical Land Use	Note any evidence of historical land use such as logging (and approximate year), mining, abandoned cannery sites, etc.
13.	Stream Origin	Enter appropriate codes describing source of water at that point on the stream. If other is specified note source in comments. 1-lake 4-muskeg 2-glacial 5-surface runoff 3-groundwater 6-subsurface runoff 7-other
14.	Flow Stage	Enter best estimate as to flow at time of survey. (See glossary for diagram of terms). 1-low 2-normal 3-high.

15.	Flow Measurement	Measure with flow meter or Embody Method. (See glossary for explanation of Embody Method). Take measurement where physical conditions are appropriate somewhere within one survey area. If the Embody is used, record "E", water width, depth, length, constant, time, and location where measurement is taken by using the aerial photo grid number (form 2600-5a). If a flow meter is used, record "Y" and the amount to the nearest 1/10 cubic meter. If stream is too large to physically measure (i.e., you cannot stand in the stream) then estimate flow or get it from hydrological records. Indicate on the form if estimated or cite the records.
16.	Temperature Sensitivity	Comment briefly as to whether the stream appears temperature sensitive based on whether it is an east-west oriented stream, influenced by muskeg or lake source, bedrock stream bottom, shallow water depth or low velocity.
17.	Beaver	Enter appropriate code from key: 1-active beaver dam 2-inactive beaver dam, good repair 3-inactive beaver dam, poor repair 4-old dam, little effect on stream 5-no beaver activity 6-beaver activity but no dams
18.	Type of Aquatic Vegetation	Enter appropriate code from key: 1-mosses 2-filamentous algae 3-periphyton 4-vascular plants
19.	Density of Aquatic Vegetation	Enter appropriate code from key: 1-dense (abundant vegetation on rocks or over the entire area) 2-medium (1/2 of all rocks with vegetation 3-sparse (vegetation seldom observed).

20. Adult Salmonids

Mature salmon and trout are counted when in schools or when dispersed on the spawning gravels. Tabulate numbers by stream section in 330.43 No. 19. The presence of fish bones are very important where noted during the survey, especially for those streams with no past escapement record. Record yes or no if there were adult salmon.

21. Intertidal Zone

If there is an intertidal zone within the survey area take following data:

a. Gradient in the intertidal zone measured with a clinometer or abney level. Record to nearest 1/2 percent.

b. Bottom type: estimate;
% fines (2mm or smaller)
% gravel/small cobble (2-128mm or up to 5 1/2")
% large cobble/boulders/bedrock (128mm+ or 5 1/2"+)
sum should equal 100%

c. Available spawning area: estimate quality as poor, fair, good or excellent.

d. Note yes or no whether schooling areas are present in the estuary or lower sections of the stream; if yes, describe in comments.

e. If survey coincides with low tide, note yes or no shellfish potential and if yes, describe in comments.

f. Describe known anchorages or ones used during the survey and their exposure.

22. Comments

Add any comments that are important to the aquatic resources, or required to answer other items on the list.

23. Investigators

Enter names of people doing the field work.

24. Date

Enter numerical designation for Month/Day/Year.

25. Time

Record military times of when field parts of survey start and end.

26. Weather Conditions — Enter the appropriate code from the key. If there is an unusual situation, enter in comments.

1-rain	2-clear	3-overcast
4-snowing	5-fog	6-partly cloudy

27. Photos — At least one black and white print photo is required for every survey area and at every readily identifiable change in habitat type, unique situation, barrier falls, and the intertidal area. Photos should be taken facing upstream unless specifically noted in the photo records.

Since it is impossible to look back at several rolls of film and properly lable them, prior identification is needed. Make a label with the date, stream name, survey area, and section number written on it and photograph it in the frame immediately proceeding the frames of the stream. In addition record each photo in a notebook. Number each roll with a number on the film canister before use. As an example, the first roll of film being used by Jim Boyle in 1979 would be labeled JD-79-1, the second JD-79-2, etc. Under this number in his notebook he would list each photo as it's being taken and identify date, stream name, survey area, and section number.

Record the roll number and how many photos were taken in the space on the form.

330.43 - Data Entered Once Every 100 Meters. The following items should be recorded on form R-10 2600-3b (1/81) while at the stream once for at least every 100 meter section of stream in the survey area. The form is designed to have one column filled in for each successive 100 meter section, identified by item 1, section number.

1. Section Number — The stream is divided into sequential samples at least every 100 meters. Numbering should start at the furthest downstream point and increase consecutively upstream. Sections in the intertidal zone should be labeled with the code "I".

2.	Compass Bearing	Take magnetic compass reading of general direction of stream channel, shoot upstream, record to the nearest degree taking into consideration declination.
3.	Gradient	Measure gradient over the section being surveyed with a clinometer or abney level. Record to nearest 1/2 percent.
4.	Temperature	Record both air and water temperatures to the nearest degree centigrade at time of survey. Record tempertature of tributaries entering this section under comments.
5.	Water Quality	Enter appropriate codes from key: a. color: 1-clear 2-glacial 3-light tan 4-tan b. turbidity, record how deep you can see: 1-clear (no noticeable suspended material) 2-slight (noticeable suspended materials, bottom features are easily discernable) 3-turbid (suspended materials are not noticeable, bottom features are difficult or impossible to discern) c. pH, record to nearest .5 increment using a universal wide-range color wheel or electronic pH meter. The pH should be taken above the intertidal zone.
6.	Available Spawning	a. Percent ASA: record ASA as an estimated % of the stream area being surveyed. b. Spawning Gravel Compactness: By feeling the gravel with your foot pressure estimate: 1-compact 2-moderate 3-loose
7.	Water Width	a. Record active channel width to the nearest 1/10 meter. Active channel width is defined as to the edge of streamside vegetation. b. Record water width (bankfull stage) to the nearest 1/10 meter. Width of multiple channels should be recorded separately.

c. Indicate whether a floodplain exists according to the key.

1 - no floodplain, stream always flows within channel banks
2 - small floodplain occurs, it is less than 5 X the active channel width
3 - large floodplain occurs, it is greater 5 X the active channel width

8. Stream Pools

a. Estimate percent of stream containing pools. Pools are distinguishable areas of the stream where water velocities are less than 30 cm/sec.

b. Categorize majority of pools according to key as:

SS - shallow (less than 50 cm deep), slow (less than 30cm/sec)
SF - shallow (less than 50 cm deep), fast (greater than 30cm/sec)
DS - deep (greater than 50 cm deep), slow (less than 30cm/sec)
DF - deep (greater than 50 cm deep), fast (greater than 30cm/sec)

9. Debris Loading

Estimate percent area covered by debris. Picture all the debris for that section piled up in one place and compute the % area it would cover.

10. Potential Barriers

Enter yes or no if a fish migration barrier is present. If yes, record the type of barrier.

1-velocity	4-beaver dam
2-falls	5-manmade
3-debris jam	6-other

Photograph the barrier.

11.	Enhancement/ Rehabilitation Opportunity	If there is enhancement or rehabilitation potential in the sample being surveyed, complete an Enhancement/Rehabilitation Survey form. Enter yes or no whether one was done.
12.	Upper Bank	a. Record percent slope for left and right banks (facing upstream). Stand on outside edge of lower bank and shoot at least 30 meters up the upper bank. If you cannot cross the stream then estimate percent slope and indicate it is an estimation on the form. b. Indicate yes or no whether potential soil movement is indicated by pioneer vegetation, a V-notch or thin soil. c. Use codes yes or no to indicate whether vegetation is the primary factor contributing to stability.
13.	Lower Bank Type	Record lower bank type for left and right banks using key: GS-gently sloping (100%) SS-steeply sloping (100%-200%) U-undercut
14.	Lower Bank	Rating. Enter appropriate code from key left and right banks: 1-good stability--banks consist almost entirely (90%) of (1) soil with well-developed vegetation cover/root masses and/or (2) exposed soil with high proportion (65%) of rock material and/or (3) bedrock. No evidence of active erosion. 2-fair stability--banks consist of (1) 50% of bank cover with well-developed vegetation cover/root masses and/or (2) exposed soil with moderate proportion (40-65%) of rock and/or (3) 50% of the banks consist of bedrock. Evidence of some erosion within the last year exists.

3-poor stability--banks consist of (1) 50% of bank area with well-developed vegetation cover/root masses or (2) exposed soil with small proportion (40%) of rock and (3) virtually no bedrock. Evidence of major erosion within the last year exists.

15. Streambank Vegetation

Qualitatively describe the upland or upper streambank vegetation, other than the canopy, according the following:

1-conifers (spruce/hemlock)
2-hardwoods (alders)
3-shrubs (salmonberry, blueberry, etc.)
4-forbs (skunk cabbage)
5-grasses/sedges (muskeg)

16. Stream Canopy Cover

Qualitatively describe the stream canopy by standing midstream looking up and noting the canopy as:

1-complete (66-100%) coverage of stream
2-moderate (33-66%) coverage of stream
3-open (0-33%) coverage of stream

17. Rearing Areas

Estimate percent of the sample section which is good salmonid rearing area. Describe qualitatively the rearing habitat under comments.

18. Streambottom Substrate

Record quantity (in percent) of all substrate sizes according to the following types.

1-boulder (greater than 256 mm, 10")
2-large cobble (129-255 mm, 5"-10")
3-small cobble (65-128 mm, 2 1/2-5")
4-gravel (2-64 mm)
5-sand/silt (2mm)
6-organic muck
7-other, coded as:
  a-bedrock
  b-sunken log
  c-decaying vegetable matter
  d-other

19. Fish Species Identification

Collect and identify fish species and determine their general distribution and relative abundance. The surveyor has the option to use a fine-meshed dip net, stream seine, or electro-fishing unit, but minnow traps, baited with preserved pink salmon eggs, are recommended. As a hint, when using a dip net squirt some pureed pink salmon eggs into a pool, then scoop up the fish. Enter the appropriate code from key into item 19 and write notes under comments about general distribution and relative abundance.

KS - king salmon	DV - Dolly Varden
SS - silver salmon	RT - rainbow trout
RS - red salmon	CT - cutthroat trout
CS - chum salmon	SM - smelt
PS - pink salmon	ST - steelhead
NP - northern pike	BT - brook trout
CO - cottids	GR - grayling
LT - lake trout	WH - whitefish
SB - stickleback	BU - burbot
	OT - other

20. Fish Sampling

Fill out a fish sampling form R-10 2600-5 (1/81) if fish are captured during the survey. Enter yes or no if a form is completed.

21. Comments

Note such things as:
--past logging signs
--icing scars on bark of trees or banks
--vegetation (moss, grass) growing in streambed
--blue clay deposits along banks or streambed
--beaver or other haulouts along banks
--bird psecies sited
--bear sign and trails
--windfalls in vicinity of the stream and direction of fall
--bedrock and substrate types such as shale, sandstone, granite, etc.

330.44 - Office Work Done After Fieldwork. After completing field work, the following things should be done to data in office setting.

1. Diagrammatic Map

Draw a single line schematic map on gridded paper using the information from the survey. The scale should be 4" to the mile at a minimum. One way to do it is trace the streamcourse over an aerial photo. Then include on the map:

1-notations marking boundaries of the 100 meter (or less) sections.
2-mark upper limits of spawning area if known.
3-mark barriers.
4-mark upper limits of anadromous habitat if known.
5-mark obvious soil hazard conditions such as V-notches, slumps, mass wasting, blue clay, braided stream channels and windthrow areas as they relate to the stream.
6-mark water flow direction.
7-mark elevation of each sample site. Use topo map as data source and record to the nearest 100 feet.

2. Narrative

Write a general narrative highlighting:

1-special entries on the diagrammatic map.
2-summarizing anything unusual from the comments sections.
3-generalize about the quality of spawning and rearing habitat.
4-explain any deviations from the prescribed survey procedure.

3. Photos

Mount photos on paper and type a clear legend under each one. Include in the legend:
1-date
2-survey area
3-section number
Establish a filing system for negatives.

4. Forms	Copy or type forms over if necessary for clarity or ease in further duplicaiton.
5. Binding	Arrange forms and photos for an entire stream or survey area into a booklet. Put narrative first, then schematic map(s), then forms following each form with its accompanying photos. If the stream is divided into survey areas, arrange all forms relating to section A first, followed by B, etc.
6. Duplication and Distribution	Duplicate and distribute the booklet as directed by the Area/Forest Program Manager.

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