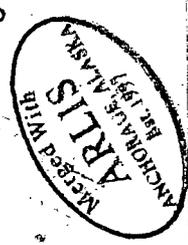


FWLB
1040



COOK INLET LAKE AND STREAM RECORDS, 1927 - 1952

WITH ACCOMPANYING DESCRIPTIVE AND GEOGRAPHIC MATERIAL.

The following catalog was compiled by the research staffs of the Fish and Wildlife Service and the Fisheries Research Institute to serve as a ready source of information on all available records of Cook Inlet salmon escapements with primary emphasis on red salmon spawning areas. In addition we have included descriptive accounts and geographic material which are designed to provide helpful background information for use in the direction of future parties assigned to investigational duties in this area. We, of course, are aware that this work is not all-inclusive and will welcome any suggestions, additions, or corrections. It is our desire to enlarge upon this volume from time to time, so that it may be kept current with the history and development of the Inlet.

Most of the escapement records have been taken from the District Agents' Annual Reports of the Fish and Wildlife Service. The 1952 counts and the descriptive and geographic material are the result of observations made by members of our field party during the past season. As several of our visits were rather cursory, the accompanying descriptions should be considered only as very preliminary statements which will be followed by more complete and accurate accounts as each succeeding year of observation enlarges our knowledge of the area.

The U. S. Geological Survey has kindly granted us permission to use their Alaska topographic map series for reproduction in this volume. The indexing of the various geographical points mentioned in the report has been based on these maps. Reference points on the margins are included to assist in the ready location of points on the maps. No attempt has been made to number the pages in this volume, but for the benefit of the reader

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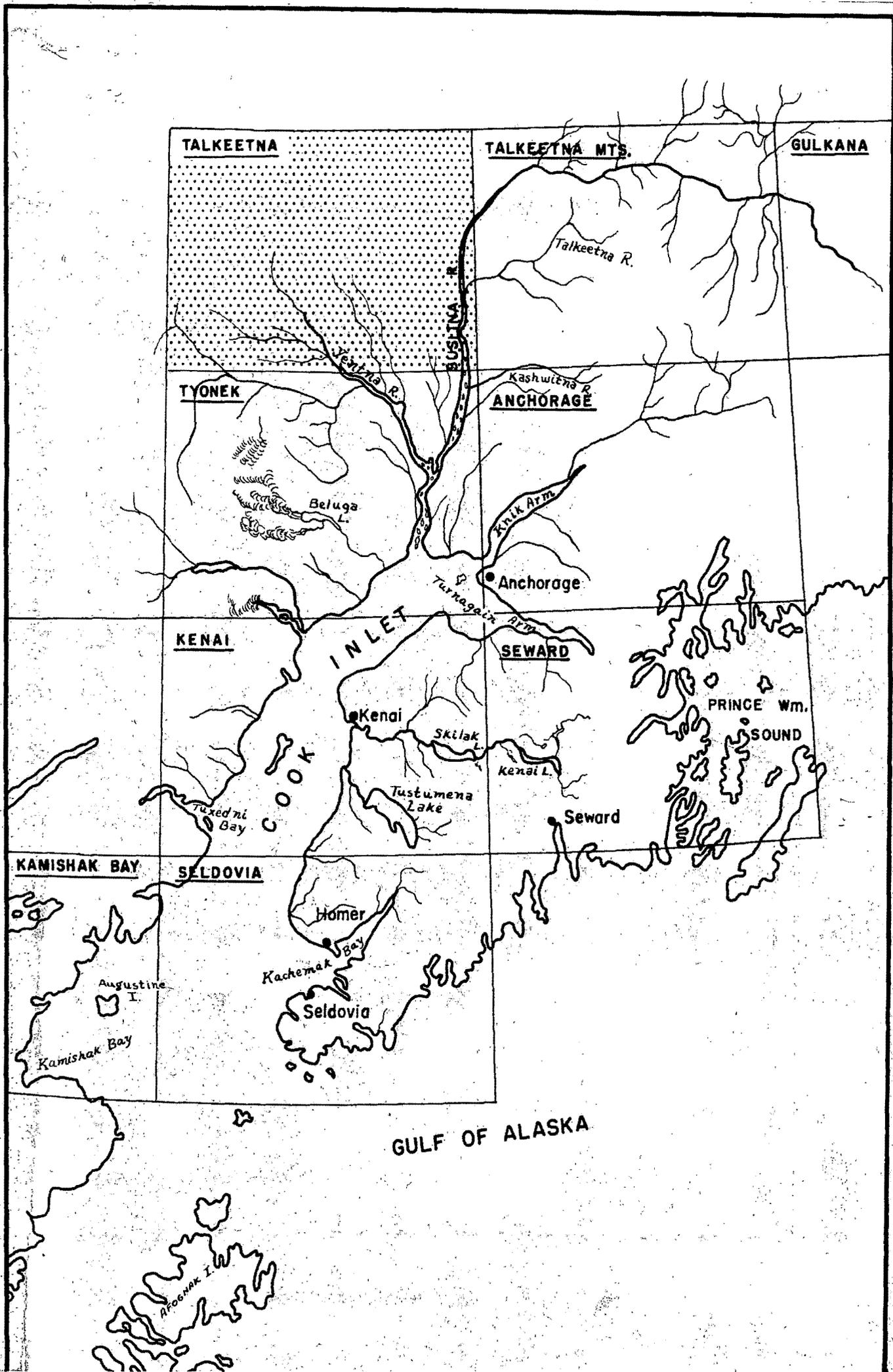
⁰Topographic map not yet available

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TALKEETNA

TALKEETNA MTS.

GULKANA

TYONEK

ANCHORAGE

KENAI

SEWARD

KAMISHAK BAY

SELDovia

GULF OF ALASKA

AFognak I.

PRINCE Wm. SOUND

Homer

Seldovia

Anchorage

Seward

Kenai

Augustine I.

Kamishak Bay

Kachemak Bay

Turnagain Arm

Knik Arm

Beluga L.

Skilak

Tustumena Lake

Kenai L.

Talkeetna R.

Kashwitna R.

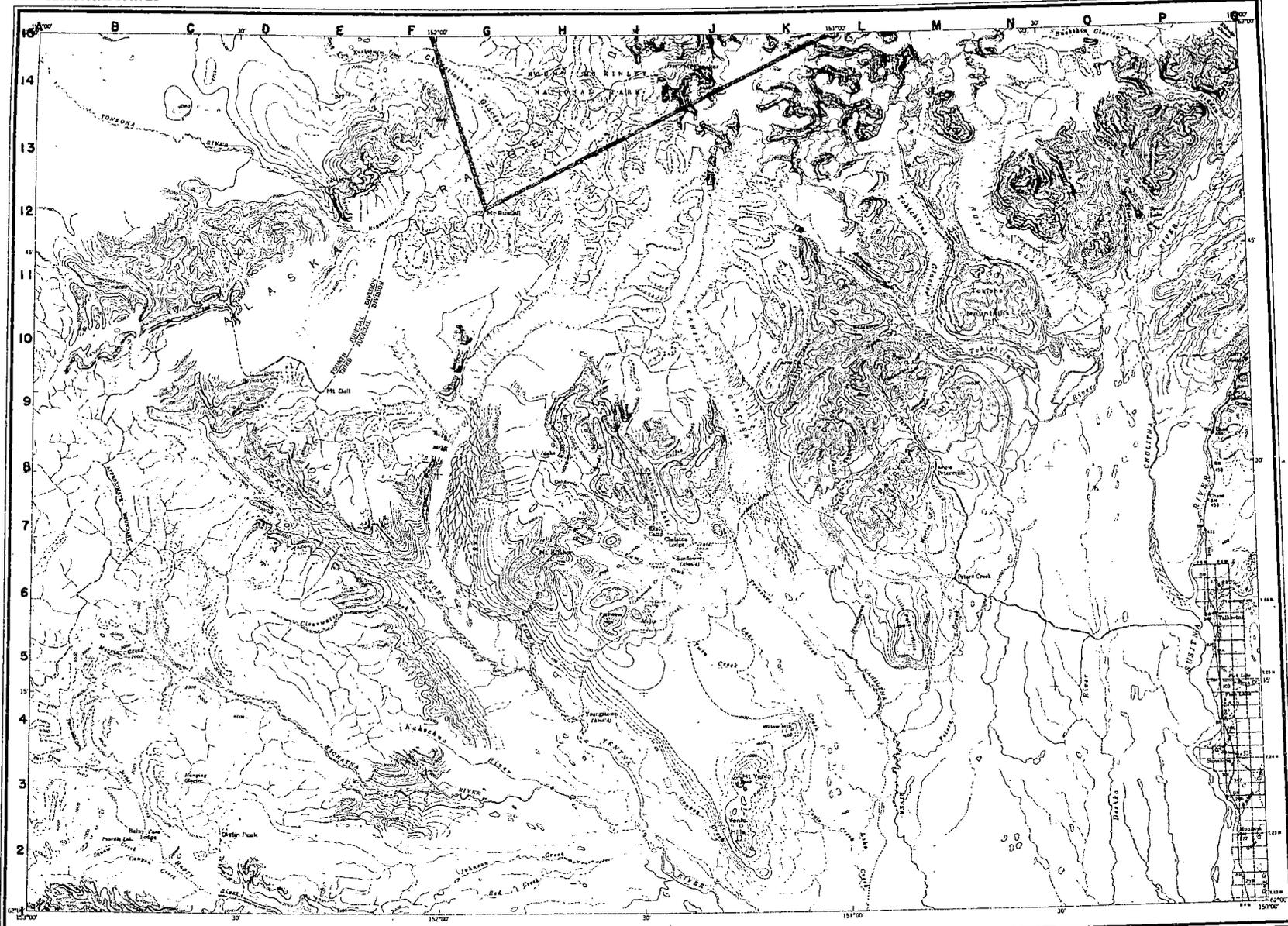
Kenai R.

BUSINA R.

Tuxedni Bay

Kachemak Bay

COOK INLET



MAPPED, EDITED, AND PUBLISHED BY THE GEOLOGICAL SURVEY

COMPILED BY VOGA AND LESAGE

CONTOUR LINES AND PLACES ON MAP DERIVED FROM PHOTOGRAMMETRIC PHOTOGRAPHY, 1942-1948. TOPOGRAPHY COMPILED FROM ORIGINAL SURVEYS OF THE GEOLOGICAL SURVEY AND OTHER SOURCES. BOUNDARIES FROM 1938 SUPPLEMENTED BY PHOTOGRAMMETRIC PHOTOGRAPHY AND MULTIPLE CORRELATIONS, 1943-1948. AERIAL PHOTOGRAPHY TAKEN 1942-1948.

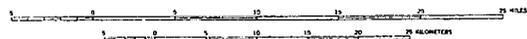
UNIVERSAL TRANSVERSE MERCATOR PROJECTION, ZONE 5

DASHED LINES INDICATE APPROXIMATE LOCATION



1. Contour interval 200 feet
2. Contour interval 1000 feet
3. Contour interval 2000 feet
4. Contour interval 5000 feet
5. Contour interval 10000 feet
6. Contour interval 20000 feet
7. Contour interval 50000 feet
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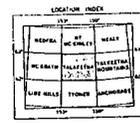
SCALE 1:250,000



CONTOUR INTERVALS 200 AND 1000 FEET
AREAS NOT SURVEYED IN DETAIL INDICATED BY BROKEN LINES
DASHED IN SEA LEVEL

1900 MAGNETIC DECLINATION AT SOUTH EDGE OF SHEET VARIES FROM 27° TO 22° EAST

FOR SALE BY U. S. GEOLOGICAL SURVEY, FEDERAL CENTER, DENVER, COLORADO OR WASHINGTON 25, D. C.
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

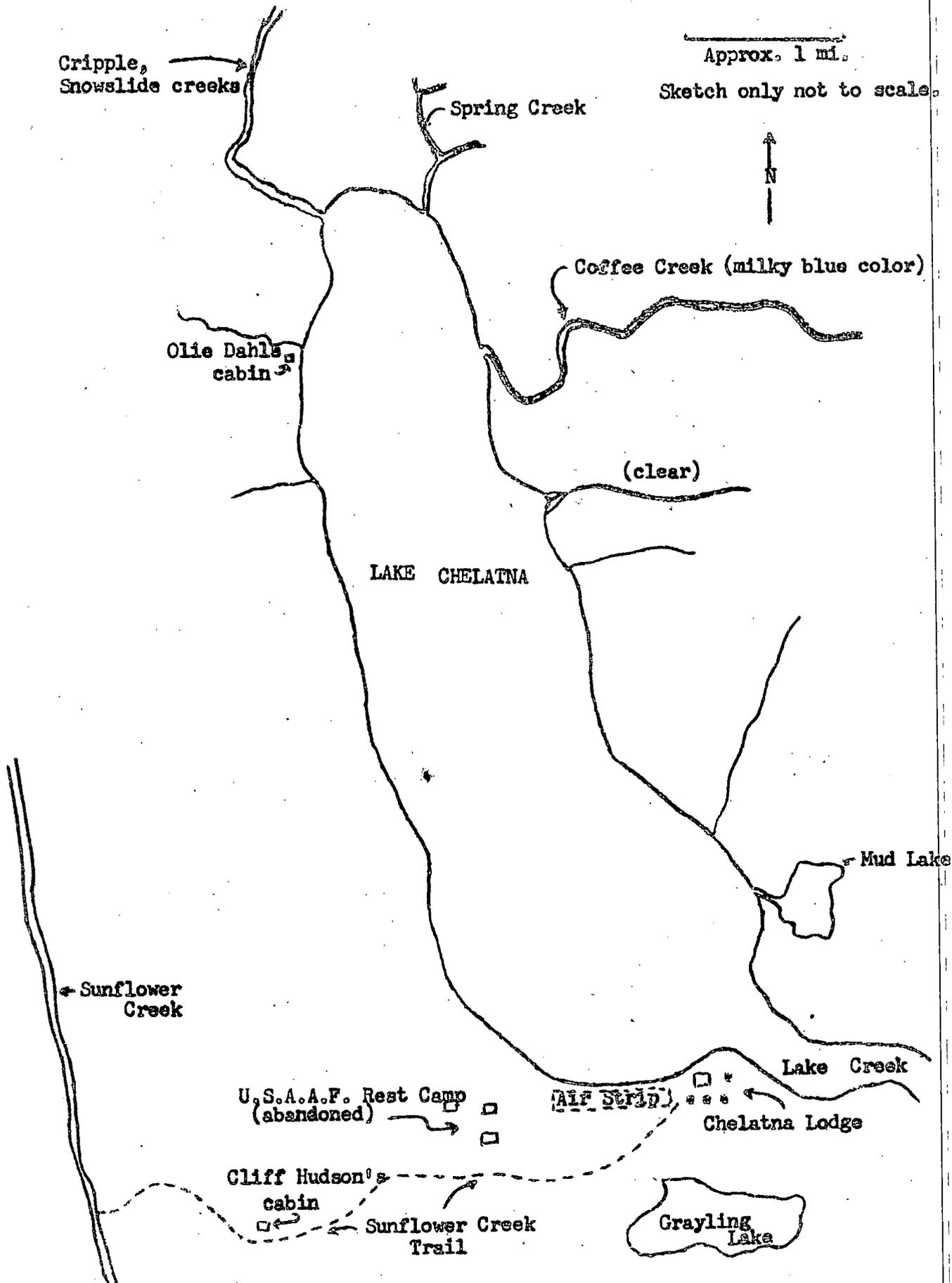


ROAD CLASSIFICATION
ALL WEATHER ROADS - NEW WEATHER ROADS
HARD SURFACE - UNIMPROVED DIRT
OTHER - UNIMPROVED DIRT - NONE
RAIL - NONE

TALKEETNA, ALASKA
SCALE 1:250,000

EDITION OF 1951

REFERENCE MAP, LAKE CHELATNA



COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

LAKE CHELATNA	SUSITNA RIVER
Name of Lake or Stream	Drainage
Location <u>South of McKinley Nat'l Park, head of Lake Creek</u>	
Map reference <u>TALKEETNA</u>	<u>I, 8</u>
Quadrangle	Reference Points
Length accessible <u>7</u> mi. Average width <u>6000</u> ft. Average depth <u>?</u> in.	
Spawning facilities <u>Good</u>	Peak of Spawning <u>Latter part of Aug.</u>
Gradient _____	Bottom _____
Counting Area(s) <u>Lake shore, specific counting area not established</u>	

Description and Comments

This lake is blue glacial in color and is fed predominantly by glacial streams. It is approximately 7 miles long and averages about 1 mile in width. Major tributaries are found at the north end of the lake. The outlet (Lake Creek) is at the south end. Most of lake bordered by hilly and mountainous terrain, however southern end opens into muskeg country along outlet. Vegetation consists primarily of spruce, cottonwood, arctic willow, alder, and grasses. Of the four main tributaries to Lake Chelatna, two small streams are clear and the two larger glacial. Lake temperatures run in the high forties and low fifties. Area quite brushy. Lake Chelatna and outlet stream joins the Yentna River.

Lake spawning facilities are good. The more favorable area are concentrated in the northeast section of the lake. The bulk of salmon spawning appears to take place in the lake, the tributaries being of little importance. Peak of spawning occurs in latter part of August.

A trapper's cabin is located at east end of lake. At the south end there are several buildings, an abandoned 10th Air Rescue camp which is being used as a base by stream survey crews, and a lodge where boats can be obtained. This area best for camp and has a good plane landing area. A trail runs westerly from lodge to Sunflower Creek but is indistinct in some spots. Amphib. planes should land toward middle of lake and approach lodgeto right of buoys marking rocky area.

Black and brown bear predation moderate. Beaver observed in lake. Species of fish noted: red salmon, pink salmon, king salmon, grayling, lake trout, sculpins, rainbow trout, and whitefish.

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

CRIPPLE CREEK - SNOWSLIDE CREEK

SUSITNA RIVER

Location North end of Lake Chelatna

Map reference TALKEETNA I, 8
Quadrangle Reference Points

Length accessible 5 mi. Average width 40 ft. Average depth 16 in.

Spawning facilities Poor Peak of Spawning _____

Gradient Steep Bottom Gravel - rock

Counting Area(s) Mouth to 1 1/4 miles upstream.

Description and Comments

A fairly large glacial stream with steep gradient. This stream is composed of Cripple Creek and Snowslide creek which converge about 2½ miles upstream from lake. Cripple Creek may be a clear stream and if so may be the destination of migrating salmon in this stream. The main stream is glacial and is fairly difficult to follow because of brush and rough stream bed. Stream flows through fairly rough canyon. The principle vegetation is cottonwood, alder, and arctic willow. Stream fluctuates to lower levels as summer progresses.

Brown and black bear prevalent.

USFWS AND F.R.I.

COFFEE CREEK	SUSITNA RIVER
Name of Lake or Stream	Drainage
Location <u>Northeast shore of Lake Chelatna</u>	
Map reference <u>TALKEETNA</u> Quadrangle	<u>I, 8</u> Reference Points
Length accessible <u>3½</u> mi., Average width <u>35</u> ft., Average depth <u>18</u> in.	
Spawning facilities <u>Poor</u>	Peak of Spawning _____
Gradient <u>Steep</u>	Bottom <u>Gravel - Boulder</u>
Counting Area(s) <u>From Mouth to 1 3/8 miles upstream.</u>	

Description and Comments

A glacial stream accessible approximately 3½ miles upstream where it then flows from higher altitudes at very steep gradient. The lower 3½ mile section is also quite steep making the stream very turbulent. No redds observed in stream. Topography similar to Cripple Creek - Snowslide Creek area. Temperature around 45 degrees F.. Abundance of insects on this stream.

Stream situated on northeast side of lake, about 3/4 uplake on east shore. Banks brushy. Stream provides little suitable spawning area.

STREAM RECORD

COFFEE CREEK

TRIBUTARY TO LAKE CHELATNA

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated number of Salmon	Remarks
21/48	Mouth	20 Reds	Roily
'6/52	1 3/8 mi.	0	
'28/52	1 mile	0	

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

SPRING CREEK

SUSITNA RIVER

Name of Lake or Stream	Drainage
Location <u>Northeast end of Lake Chelatna</u>	
Map reference <u>TALKEETNA</u>	<u>I, 8</u>
Quadrangle	Reference Points
Length accessible <u>3/4</u> mi. Average width <u> </u> ft. Average depth <u>8</u> in.	
Spawning facilities <u>Poor</u>	Peak of Spawning <u> </u>
Gradient <u>Moderate</u>	Bottom <u> </u>
Counting Area(s) <u>From mouth to point 3/4 miles upstream.</u>	

Description and Comments

A glacial stream of moderate size and gradient. Four complete beaver dams in first 3/4 mile of stream. Temperature 44° F. Whitefish, grayling, rainbow trout, observed in this stream, along with a few red salmon.

Stream is situated to the right of Cripple - Snowslide creek.

Bear sign prevalent along stream. Stream section where no dams occur runs close to 8" in depth but dams have backed up deep pools and have slowed down flow of water. Banks of stream are brushy.

COOK INLET STREAM AND LAKE SURVEYS

USFEW AND F.R.I.

LAKE CREEK

SUSITNA RIVER

Name of Lake or Stream			Drainage
Location	South end of Lake Chelatna		
Map reference	TALKEETNA	I, 7	
	Quadrangle	Reference Points	
Length accessible	40 mi.	Average width	100 ft. Average depth 30 in.
Spawning facilities	Excellent	Peak of Spawning	
Gradient	Steep	Bottom	Gravel
Counting Area(s)	Four miles downstream from Lake Chelatna		

Description and Comments

Lake creek is a large semi glacial stream draining Lake Chelatna, flowing about 40 miles before joining the Yentna River approximately seven miles above the Yentna - Kahlitna Rivers junction. The intensity of the glacial coloration varies and at times the stream becomes quite clear. Aside from shallow bars near outlet, it is deep and swift, but has good to excellent spawning gravel in four miles surveyed. Stream difficult to check because of glacial coloration, size, and muskeg along banks. Temperatures taken, recorded close to 50°F. There is beaver activity along stream and black bear have been observed. Surveyed downstream from lake for a distance of one mile to a cable crossing. Beyond this point, stream becomes dangerous for navigation. The rest of survey, 3 miles, completed on foot. Upper area not used extensively by reds as majority move up into lake. Pinks and Chums reported to use lower stream. Kings also known to enter stream.

STREAM RECORD

LAKE CREEK

LAKE CHELATNA - YENTNA RIVER

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated number of Salmon	Remarks
1940		Many pinks & chums	Lower Portion
8/13/49		Light conc. of Pinks & chums 100 Cohos	Lower Portion
8/14/50	3 miles	3000 pinks 3000 chums	Air Survey
8/18/51	Entire	none	Air Survey
7/17/52	Entire	none	Air Survey
7/22/52	Entire	12 reds	Air survey
7/30/52		30 reds	8 hour watch at lake outlet.
8/31/52	2 3/4 mi.	7 reds	From Lake outlet downstream.

COOL BRIDGE STREAM AND LAKE SUNFLOWS

USFWS AND F.R.I.

SUNFLOWER CREEK

SUSITNA RIVER

Name of Lake or Stream	Drainage
Location <u>West of Lake Chelatna (Tributary of Lake Creek)</u>	
Map reference <u>TALKEETNA</u>	<u>I, 6</u>
Quadrangle	Reference Points
Length accessible <u>15</u> mi. Average width <u>40</u> ft. Average depth <u>12</u> in.	
Spawning facilities <u>Good</u>	Peak of Spawning
Gradient <u>Moderate to Steep</u>	Bottom <u>Gravel</u>
Counting Area(s) <u>1/4 mile north and south of trail.</u>	

Description and Comments

A fairly large stream with a moderate to steep gradient. Sunflower Creek lies west of Lake Chelatna and is reached by a $3\frac{1}{2}$ mile trail which leaves Lake Chelatna near the lodge. Trail fairly well defined most of way. Contains no red salmon but is a good King salmon stream. Beaver present.

The creek flows into Lake Creek several miles below Lake Chelatna.

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

QUESTION AND ANSWER LAKES	SUSITNA RIVER
Name of Lake or Stream	Drainage
Location <u>Just North of Sunshine.</u>	
Map reference <u>TALKEETNA</u> Quadrangle	<u>Q, 4</u> Reference Points
Length accessible _____ mi. Average width _____ ft. Average depth _____ in.	
Spawning facilities _____ Peak of Spawning _____	
Gradient _____ Bottom _____	
Counting Area(s) _____	

Description and Comments

Small lakes lying between Fish Lake and Sunshine. Question creek drains the northern lake and Answer creek drains the two smaller lakes to the south. Streams converge near common mouth on Susitna River.

Have contained fair run of redds but beaver said to be serious pest on this system.

STREAM RECORD

QUESTION AND ANSWER LAKES

SUSITNA RIVER (South of Fish Lake)

Name of Stream or Lake			Drainage
Date	Distance Surveyed	Estimated number of Salmon	Remarks
8/7/50			Possible block, Beaver dams
7/9/51	8 miles	none	Question creek, air survey
8/9/51	7 miles	1800 redds	Question creek, foot survey
7/9/51	9 miles	none	Answer creek and Lake, air survey
7/30/51	2½ miles	120 redds	Answer creek and Lake, foot survey
8/9/51	6½ miles	3300 redds	Answer creek and Lake, foot survey
1952		none	Brief air survey.

USFWS W-1-7-51

FISH LAKE

SUSITNA RIVER

Name of Lake or Stream	FISH LAKE			Drainage	SUSITNA RIVER			
Location	About 1 mi. north of Fish Lake station on A.R.R.							
Map reference	TALKEETNA Quadren		Q, 5 Reference Points					
Length accessible	1	mi.	Average width	1000	ft.	Average depth	?	in.
Spawning facilities	Unknown		Peak of Spawning					
Gradient			Bottom					
Counting Area(s)								

Description and Comments

Fish lake is a small clear body of water approximately 1 mile by 1/4 mile. Birch creek, its principal tributary, enters east end of lake and has its source near the head of Larsen Lake (Swanson Lake). The outlet stream drains in a southwesterly direction entering the Susitna river about 2 miles from lake. Another small tributary appears to enter lake about midway on north shore. Considerable beaver activity has been reported in past. Reds have been noted in lake.

Lake is probably long enough for Widgeon landing.

STREAM RECORD

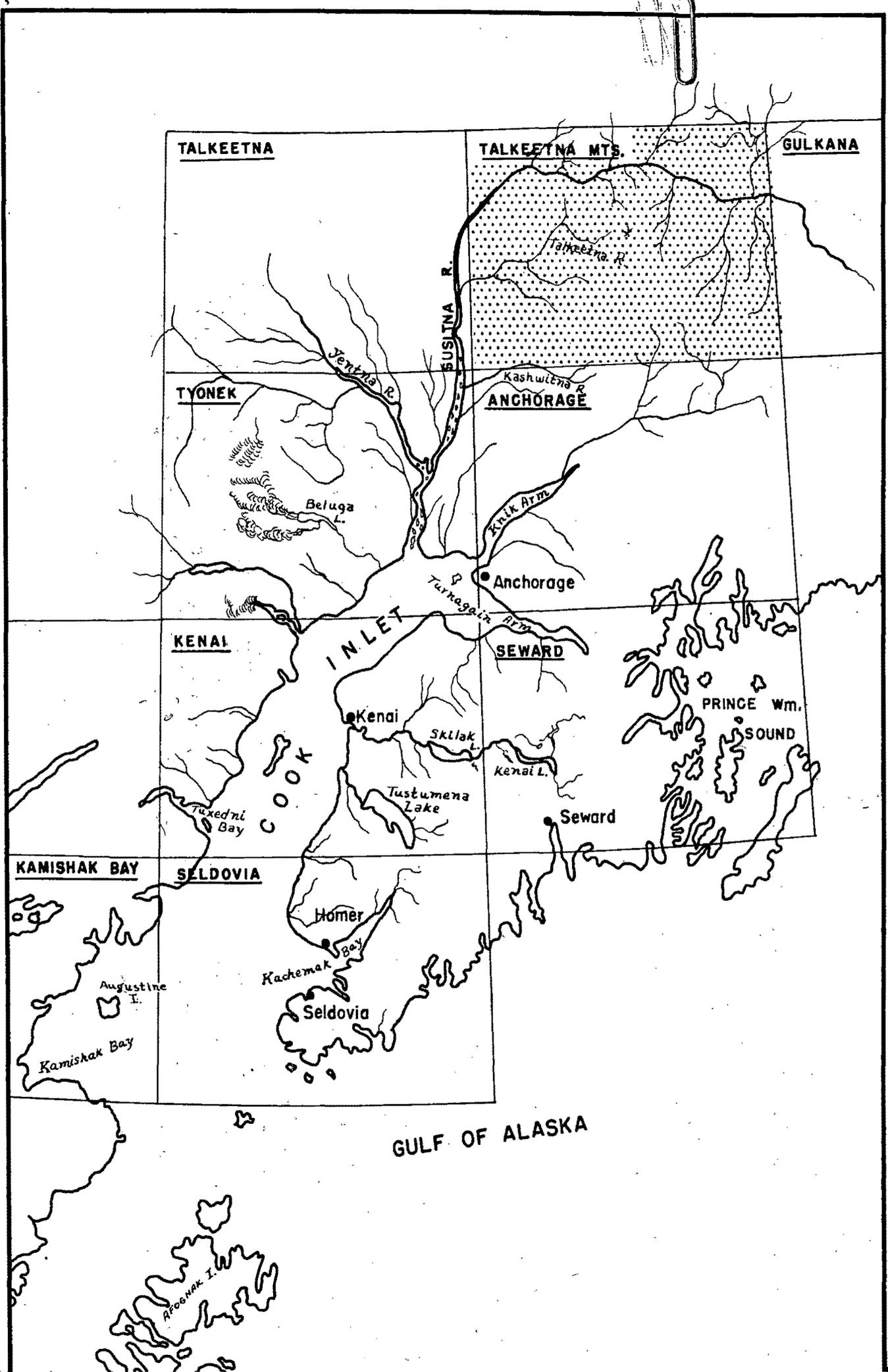
FISH LAKE

SUSITNA RIVER (6 mi. south Tal-
keetna)

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated number of Salmon	Remarks
8/7/50	2 mi.	100 reds	Air survey
9/11 /52	Entire	None	Air survey, poor lighting



COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

UPPER SUSITNA RIVER

SUSITNA RIVER

Name of Lake or Stream		Drainage	
Location <u>Above Curry Station (Deadhorse creek)</u>			
Map reference <u>TALKEETNA MOUNTAINS</u>		A-0, 9-13	
Quadrangle		Reference Points	
Length accessible <u> </u> mi.	Average width <u> </u> ft.	Average depth <u> </u> in.	
Spawning facilities <u>Limited</u>	Peak of Spawning <u> </u>		
Gradient <u>Steep</u>	Bottom <u>Gravel, rock, & boulder</u>		
Counting Area(s) <u> </u>			

Description and Comments

Above Curry Station on Alaska R.R., the topography of the Susitna drainage changes abruptly from a broad, flat valley terrain to a steep mountain and canyon area. The stream becomes swifter and in some stretches, particularly in the Devil's Canyon area above mouth of Portage creek, there is reason to believe that a hydraulic block exists. There is no reliable evidence to support the fact that salmon migrate beyond the mouth of Portage creek on the Susitna. Several extensive aerial surveys were made of the upper drainage in 1952. No salmon were seen in any of the following lakes and streams: Tsusena creek, Deadman creek, Watana creek, Kosine creek, and Clarence Lake, Oshentna river and Black lake, Tyone River & lake, Lake Susitna and Lake Louise. In addition plane landings were made on the Susitna at Watana creek, Lake Louise, and Tyone lake. A gill net was set in the Susitna on August 16th and checked on August 27th. Heavy silting prevented complete withdrawal of the net, but it was fairly evident that no salmon had been taken. Beach seine hauls in Tyone and Louise lake failed to produce fry of any species.

The Susitna River is extremely glacial and apparently remains so for most of the year. The smaller tributary streams are predominantly clear.

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

TALKEETNA RIVER

SUSITNA RIVER

Name of Lake or Stream	Drainage
Location <u>Enters Susitna River approx. 80 miles upriver at town of Talkeetna</u>	
Map reference <u>TALKEETNA MOUNTAINS</u> <u>TALKEETNA</u> <u>Quadrangle</u>	<u>A-1, 5-9</u> <u>P, 6</u> <u>Reference Points</u>
Length accessible <u>60</u> mi. Average width <u>100</u> ft. Average depth <u>40</u> in.	
Spawning facilities <u>Good</u>	Peak of Spawning _____
Gradient <u>Moderate to steep</u>	Bottom <u>Gravel, rock, & boulder</u>
Counting Area(s) _____	

Description and Comments

Talkeetna River enters Susitna from east at town of Talkeetna. It is a large glacial stream during early summer months but clears to a beautiful green in September. During the latter period its stream flow diminishes considerably. The lower stream bed has an abundance of medium gravels, providing good spawning area for pinks and chums which are know to utilize this area in good numbers. Reds, cohos, and kings also enter this stream. Principal tributaries are Chunilna Creek, Sheep River, Iron Creek, Disappointment Creek and Prairie Creek.

Above the mouth of Sheep River the Talkeetna flows through a precipitous area and becomes quite turbulent. Beyond Prairie Creek the gradient becomes less steep. Residents report reds spawn in slough areas of the upper Talkeetna river.

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

CHUNILNA CREEK

SUSITNA RIVER

Name of Lake or Stream	Drainage
Location <u>Enters Talkeetna River from north about 5 mi. above town of Talkeetna.</u>	
Map reference <u>TALKEETNA</u> <u>TALKEETNA MOUNTAINS</u> Quadrangle	<u>Q, 7</u> <u>B, 8</u> Reference Points
Length accessible _____ mi. Average width _____ ft. Average depth _____ in.	
Spawning facilities _____	Peak of Spawning _____
Gradient _____	Bottom _____
Counting Area(s) _____	

Description and Comments

Limited air surveys only. A clear stream, reported to contain pinks, chums, cohos, and reds. May be silty during early summer.

STREAM RECORD

CHUNIILNA CREEK

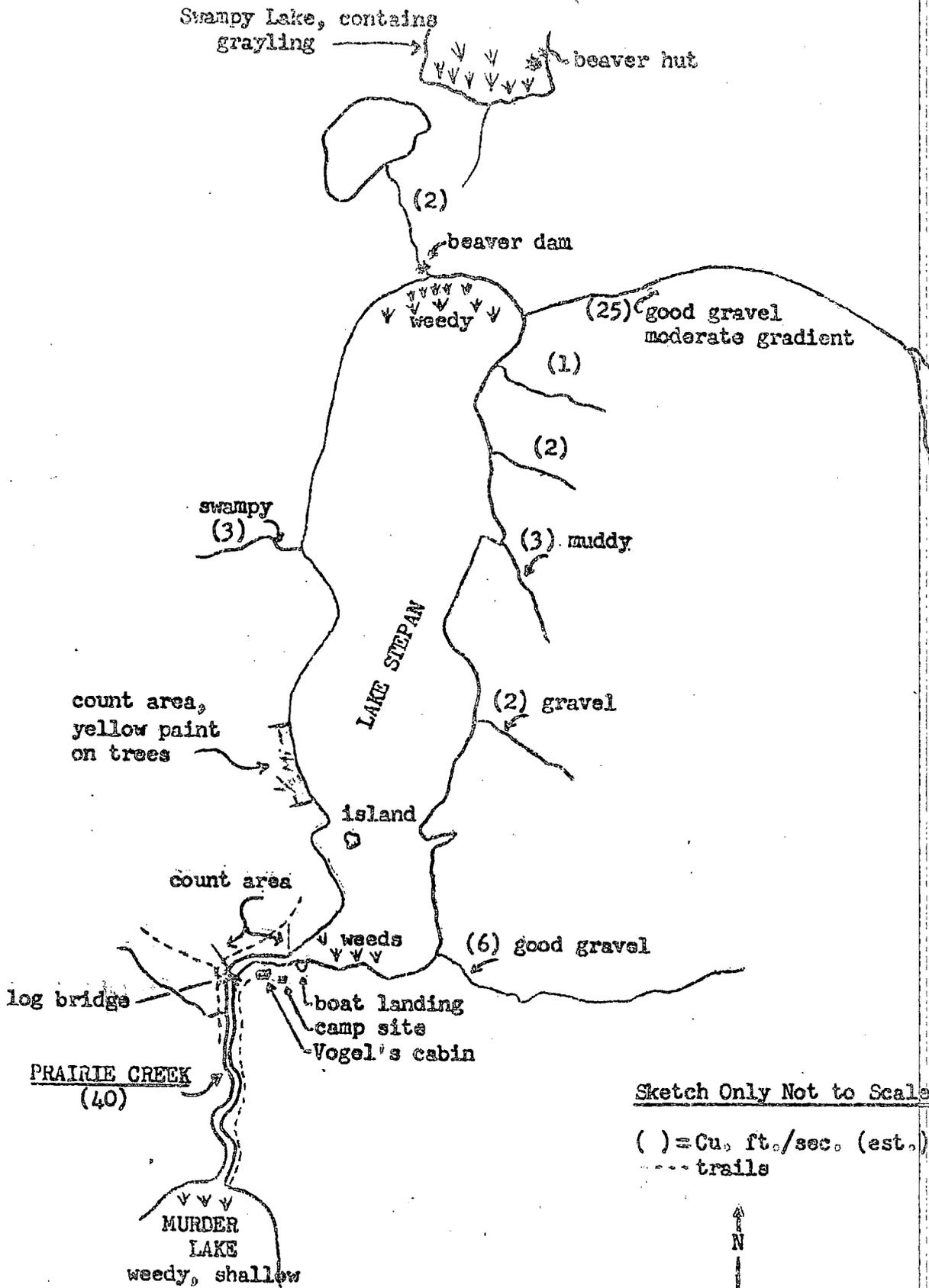
TALKEETNA RIVER

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated number of Salmon	Remarks
8/7/50	4 miles	4000 pinks	Air survey
8/15/50	6 miles	8000 pinks	Air survey
		Few chums	
		Few Cohos	
8/11/52	Brief	None	Air survey, no fish seen

LAKE STEPAN



COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

LAKE SHEPAN	SUSITNA RIVER	
Names of Lake or Stream	Basin(s)	
Location	Origin of Pacific Creek - Tributary to Talkeetna River	
Map reference	G, 11	
Quadrangle	Reference Points	
Length accessible <u>4</u> mi.	Average width <u>2000</u> ft.	Average depth <u>?</u> in.
Spawning facilities <u>Limited</u>	Peak of Spawning <u>Later part of Aug.</u>	
Gradient	Bottom	
Counting Area(s)	Lake shore, see map	

Description and Comments

A clear lake about 4 miles long, marshy shore line predominating. Limited spawning around shore. Easy to survey and easy walking along shore and up streams. Main tributary has good gravel. This stream located at extreme north-east corner of lake. Despite its appearance as an ideal spawning area it apparently does not support a run of salmon. There is a cabin at southwest end of the lake with a boat landing, also good plane landing. Water temperature around 57°F. in mid August.

Few bear and beaver observed. Species of fish observed include red and coho salmon, rainbow trout, grayling, and whitefish. Resident of area states that during dog team days, several thousand salmon were trapped each year for dog food.

Spawning area check section marked with yellow paint on trees on southwest shore.

STREAM RECORD

STEPAN LAKE

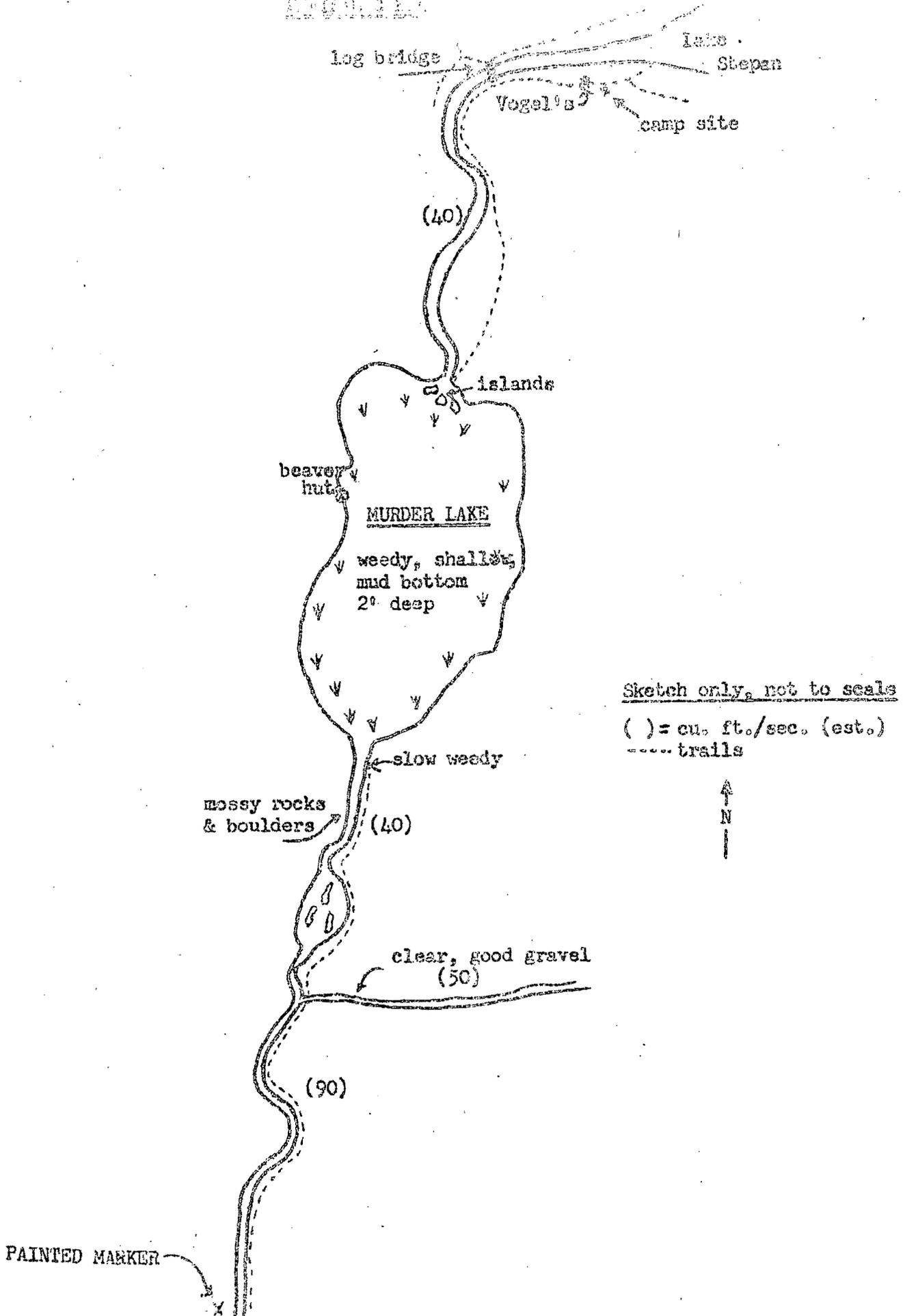
TALKEETNA RIVER - PRARIE CREEK

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated number of Salmon	Remarks
8/20/49		3000 redds	Several hundred dead redds
8/7/50	3 miles	900 redds	Air survey
8/15/50	3 miles	80 redds	Air survey
8/18/51		None	Air survey, poor light
8/21/51		6500 redds	Reported by resident
8/12/52	1/2 mile	149 redds	Estimate a total of 500 in lake.
9/7/52	1/2 mile	61 redds	No new fish

ALBERTA



COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

PRAIRIE CREEK

SUSITNA RIVER

Name of Lake or Stream	Drainage
Location	Tributary to Talkeetna River, Outlet of Stepan Lake
Map reference	TALKEETNA MOUNTAINS Quadrangle
	F, 9.5 Reference Points
Length accessible	7 mi. Average width 30 ft. Average depth 12 in.
Spawning facilities	Excellent Peak of Spawning Approx. 15th of Aug.
Gradient	Moderate Bottom
Counting Area(s)	Outlet of Stepan Lake to 2½ miles downstream.

Descriptions and Comments

A clear stream draining Lake Stepan and flowing into the Talkeetna River. Prairie Creek is a medium sized stream with a moderate flow and excellent spawning facilities. There is a small, shallow, weedy lake a short distance downstream from the outlet of Lake Stepan. The bottom of this lake is predominantly mud but some spawning does take place. Survey of the stream is comparatively easy. There is a good camp site at the outlet of Stepan Lake near Vogel's cabin. There is a trail from the cabin to the small afore-mentioned Murder Lake.

The temperature of Prairie Creek in mid Aug. was found to be 59° F. and that of the main tributary to Prairie Creek was 48° F. Survey of stream extended 2½ miles from outlet at Lake Stepan and was marked with red paint at termination.

Chum, king, and red salmon were observed. Coho fry seined from stream, along with sculpins and grayling. Rainbow trout were also observed. Kings were noted to spawn earlier than reds.

Bear numerous with evidence of predation. Predation by eagle also observed.

STREAM RECORD

PRAIRIE CREEK

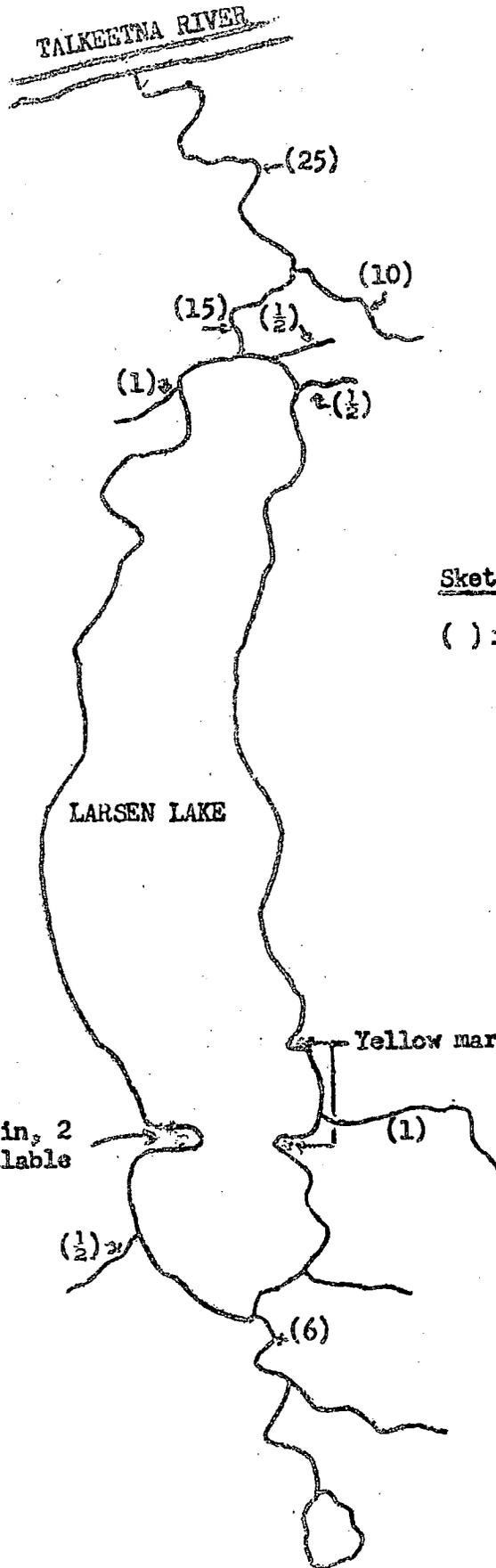
SUSITNA RIVER

Name of Stream or Lake

Drainage

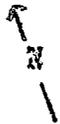
Date	Distance Surveyed	Estimated number of Salmon	Remarks
8/13/52	2 miles	971 reds 1 king 1 chum	From outlet of Lake Stepan downstream to large tributary on east.
9/7/52	50 yds.	95 reds	From outlet to foot bridge, same area had 148 reds on 8/13.
9/11/52	50 yds.	19 reds	From outlet to foot bridge.

LARSEN LAKE (Swanson Lake)



Sketch only, not to scale

() = Cu. ft./sec. (est.)



COCK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

<u>LARSEN LAKE (SWANSON LAKE)</u>	<u>SUSITNA RIVER</u>
<u>Name of Lake or Stream</u>	<u>Drainage</u>
<u>Location</u> Outlet stream enters Talkeetna River 2 miles below mouth of Sheep River.	
<u>Map reference</u>	<u>Reference Points</u>
<u>TALKEETNA MOUNTAINS</u> Quadrangle	<u>B. 5.5</u>
<u>Length accessible</u> <u>3</u> mi. <u>Average width</u> <u>1000</u> ft. <u>Average depth</u> _____ in.	
<u>Spawning facilities</u> <u>Good but limited</u>	<u>Peak of spawning</u> <u>latter part of Aug.</u>
<u>Gradient</u> _____	<u>Bottom</u> <u>Gravel and sand.</u>
<u>Counting area(s)</u> <u>Lake shore (see map)</u>	

Description and Comments

A narrow, deep, clear, lake tributary to the Talkeetna River. Shore consists mostly of rocky and sandy beaches, the south end being predominantly weedy and marshy. Majority of spawning occurs in the lake as the principal tributary is blocked by beaver dams and does not provide a likely spawning area. Count area marked with yellow paint on trees on southeast shore.

Outlet stream swift and shallow, bedrock showing in areas. Some spawning ground available. Surrounding country heavily forested with spruce. Alder, birch, willow, and ash are also present.

Campsite at north end of lake near outlet. There is a cabin and dock at the southwest end of lake, cabin is open. Lake temperature in Aug. around 59°F. Bear in evidence around outlet stream.

Species of fish observed: red, coho, chum, and pink salmon, cottids, sticklebacks.

STREAM RECORD

LARSEN LAKE (SWANSON LAKE)

TALKEETNA RIVER

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/14/49		500 redds	Lake Spawners
8/15/50	4 miles	None	
8/17/52	1/2 mile	149 redds	Count area, estimate a total of 1000 redds in entire lake
9/12/52	1/2 mile	17 redds	Count area, no new fish.

COOK INLET STREAM AND LAKE SURVEYS

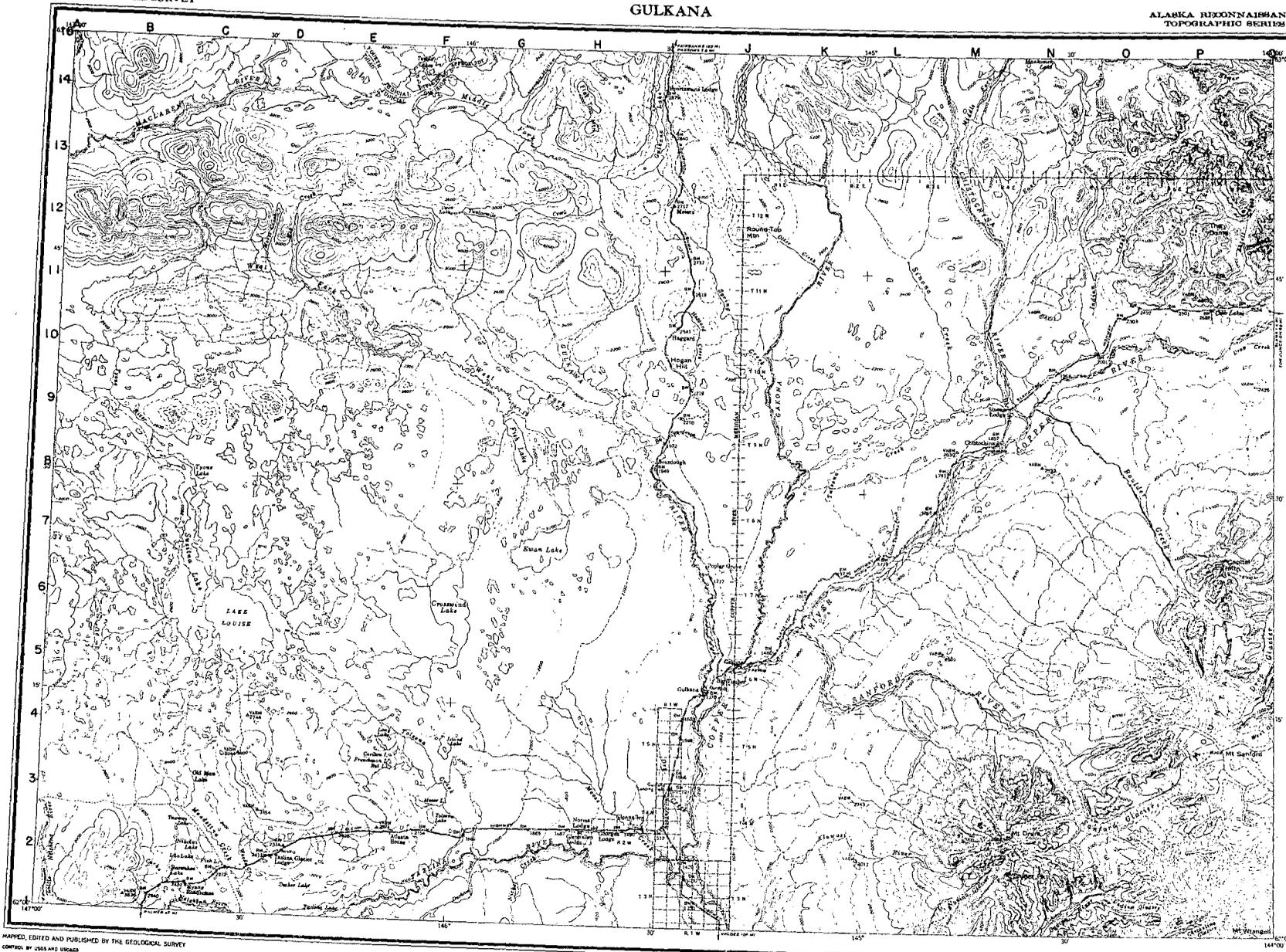
USFWS AND F.R.I.

RAINBOW LAKE		SUSITNA RIVER	
Name of Lake or Stream		Drainage	
Location	Outlet stream enters Sheep River about 12 miles above its mouth on Talkeetna river.		
Map reference	TALKEETNA MOUNTAINS	E, 6	
	Quadrangle	Reference Points	
Length accessible	_____ mi.	Average width	_____ ft. Average depth _____ in.
Spawning facilities	_____	Peak of spawning	_____
Gradient	_____	Bottom	_____
Counting area(s)	_____		

Description and Comments

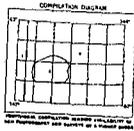
A small lake approximately 1 mile long, draining into Sheep River, (tributary of the Talkeetna River). Reports of red salmon entering lake were not substantiated by 1952 survey. Lake appears to be void of a salmon population.

GULKANA



MAPPED, EDITED AND PUBLISHED BY THE GEOLOGICAL SURVEY
CONTROLLED BY USGS AND USGAS

CONTOUR AND TRAFFIC IN PART DERIVED FROM TRIMESTRIAL PHOTOGRAMMETRIC SURVEY PROGRAM CONDUCTED FROM 1946 TO 1950 BY THE GEOLOGICAL SURVEY, 1946-1948, SUPPLEMENTED BY TERRAIN PHOTOGRAMMETRIC INVESTIGATIONS, 1942-1944
UNIVERSAL TRANSVERSE MERCATOR PROJECTION, ZONE 6
BORDERED LAND LINES INDICATE APPROXIMATE LOCATION



CONTOUR INTERVAL 200 FEET
AREAS NOT SURVEYED IN DETAIL INDICATED BY BROKEN LINES
DATUM IS MEAN SEA LEVEL



1951 MAGNETIC DECLINATION AT SOUTH EDGE OF SHEET VARIES FROM 80° 30' TO 80° EAST
THIS MAP IS AVAILABLE IN BOTH BROWN RELIEF AND CONTOUR EDITIONS
FOR SALE BY U.S. GEOLOGICAL SURVEY, FEDERAL CENTER, LOWERY, COLORADO OR WASHINGTON 25, D. C.
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST



ROAD CLASSIFICATION
ALL WEATHER ROADS DRY WEATHER ROADS
ROAD SURFACE NONE IMPROVED PAV NONE
ELEV. UNIMPROVED PAV NONE
TRAIL

GULKANA, ALASKA
MAP NO. 61420/250187
EDITION OF 1951

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

TYONE, SUSITNA, AND LOUISE LAKES		SUSITNA RIVER
Name of Lake or Stream		Drainage
Location	Headwaters of Tyone River	
Map reference	Gulkana Quadrangle	C. 6; G. 6.5; D. 5.5 Reference Points
Length accessible	mi.	Average width ft. Average depth in.
Spawning facilities		Peak of spawning
Gradient		Bottom 75 percent gravel - some mud and silt areas
Counting area(s)		

Description and Comments

A chain of clear water lakes approximately 20 miles long and 5 miles wide at broadest point. They lie at the head of the Tyone River in open generally flat country at about 2500 feet elevation. These waters comprise the largest lake system on the Susitna drainage. Many smaller lakes and potholes dot the surrounding plateau.

A small Indian village (possibly deserted) is located at the outlet of Tyone Lake, and a dilapidated foot bridge crosses the river a short distance below the settlement. The natives are reported to set out nets for lake trout, but no salmon have ever been noted in the system.

Beach seine hauls made at several points on these lakes in 1952 produced no evidence of fish life of any kind. Past accounts also refer to large suckers spawning near the outlet of Tyone Lake. Observers are said to have occasionally mistaken these fish for spawning salmon because of their somewhat reddish coloration during the spawning period.

In the summer of 1952 the U. S. Army began construction of a road which joins the Alaska highway a few miles east of Tazlina Glacier Lodge. It will give Army personnel access to Lake Louise where a rest camp and recreation area are to be established.

At one point, less than a mile from the southern limits of this drainage, a chain of smaller lakes drain to the south into tributaries of the Copper River system. Old Man Lake, one of this series, was observed to contain good numbers of red salmon in 1952.

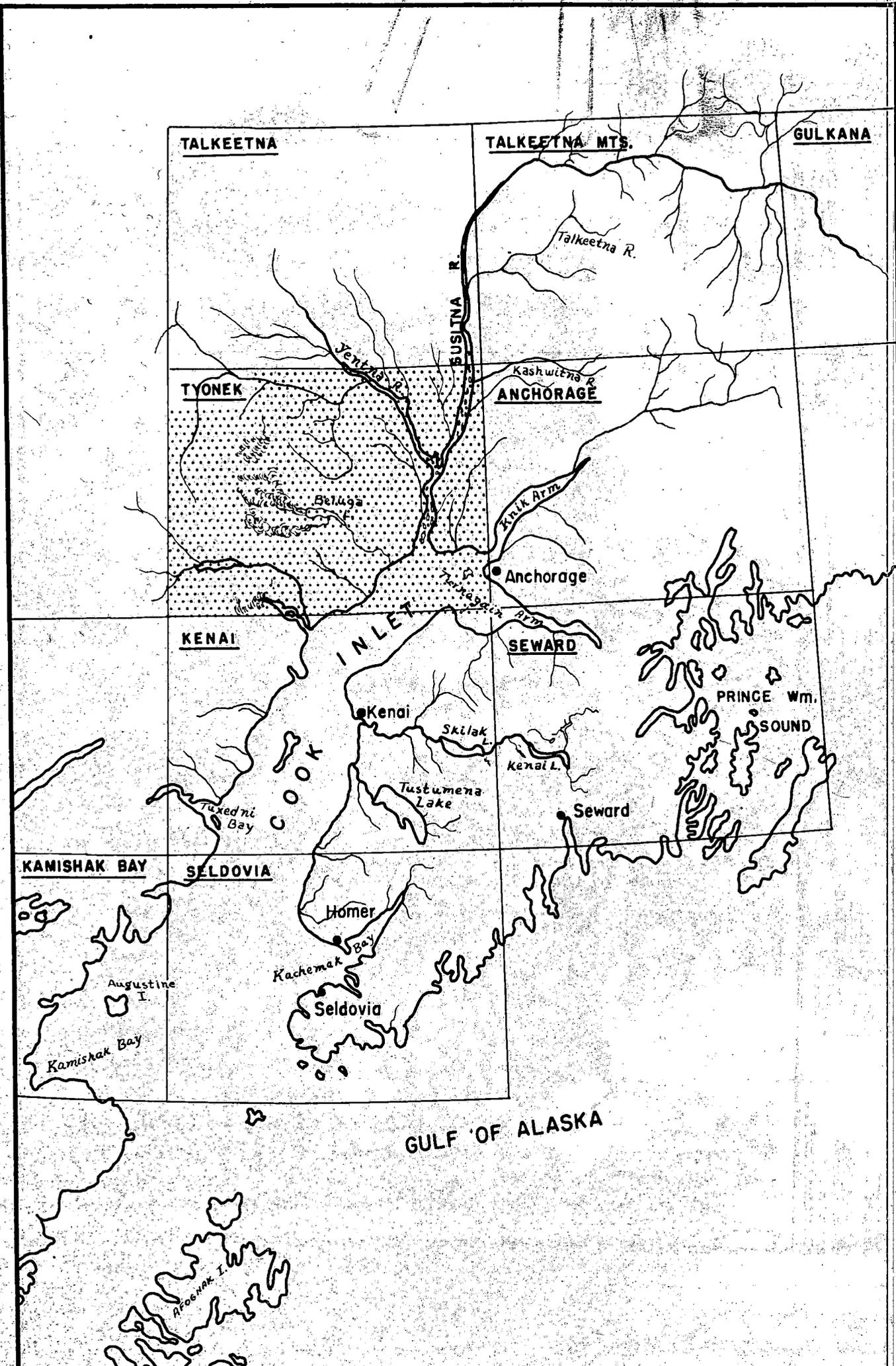
USFWS AND F.R.I.

TYONS RIVER		SUSITNA RIVER	
Name of Lake or Stream		Drainage	
Location	Joins Susitna River on east, 20 miles northwest of Tyons Lake		
Map reference	GULKANA TALKEETNA MTS. Quadrangle	B. 9 P. 10	Reference Points
Length accessible	mi.	Average width	ft. Average depth in.
Spawning facilities	Good	Peak of spawning	
Gradient		Bottom	Medium to small gravels
Counting area(s)			

Description and Comments

A winding stream, slightly coppery in color, approximately 60 to 80 feet wide in its lower reaches and 40 to 60 feet wide near its source at Tyons Lake. From the air the stream bed appears to be composed of an abundance of medium to small gravels, with intervening meadow areas. It meanders considerably near its confluence with the Susitna River and has a very gentle gradient in this area. The upper reaches of the stream are of gentle to moderate gradient. Surrounding terrain is generally flat with some rolling hills. Patches of scrub alder along banks interspersed with grassy stretches.

No known records of salmon entering this stream.

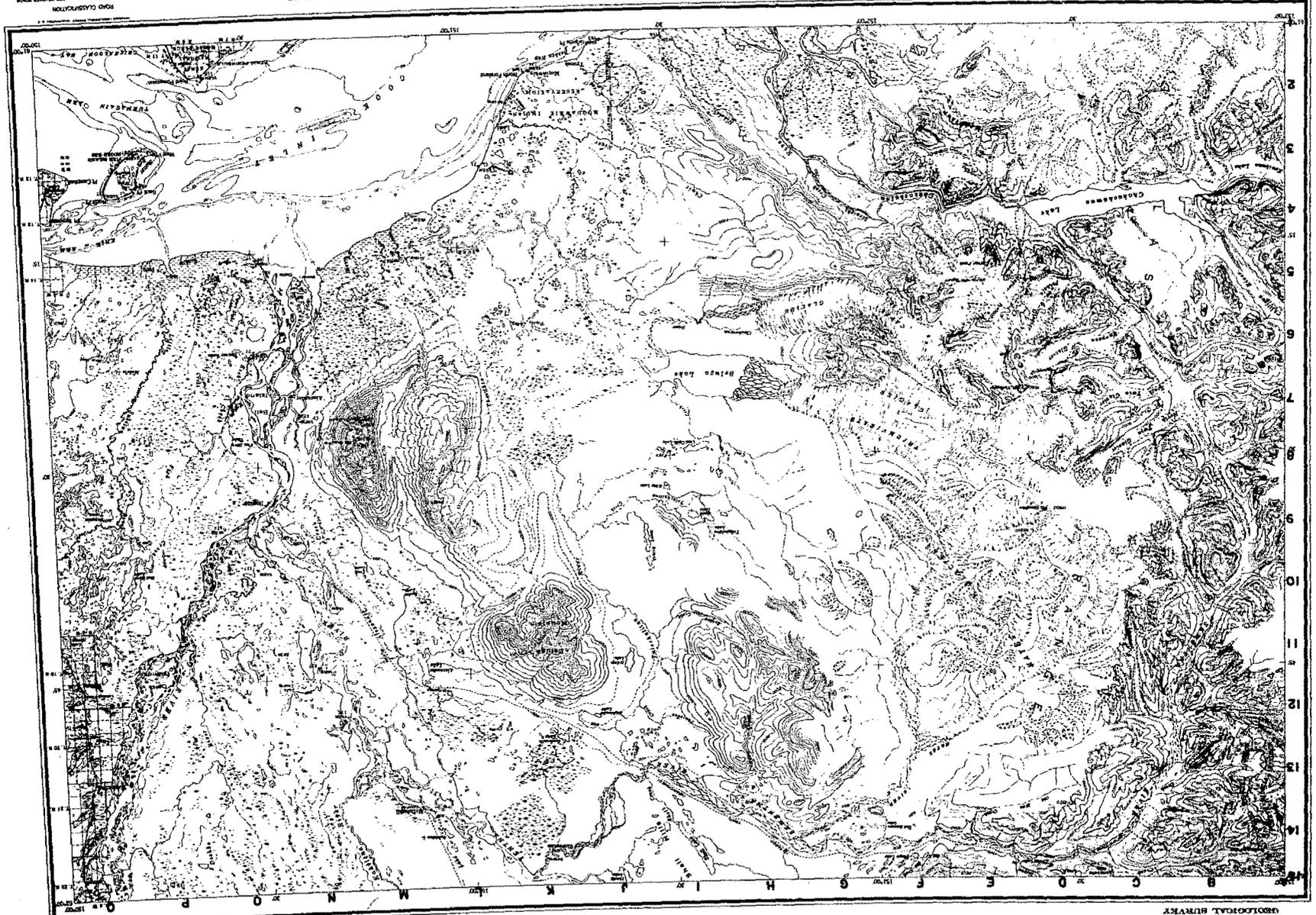


TYONEK, ALASKA
1:25,000
1961

IGNITION CLASSIFICATION
ALL UNLIT AREAS ARE UNLIT
UNLIT AREAS ARE UNLIT
UNLIT AREAS ARE UNLIT



UNLIT AREAS ARE UNLIT
UNLIT AREAS ARE UNLIT
UNLIT AREAS ARE UNLIT

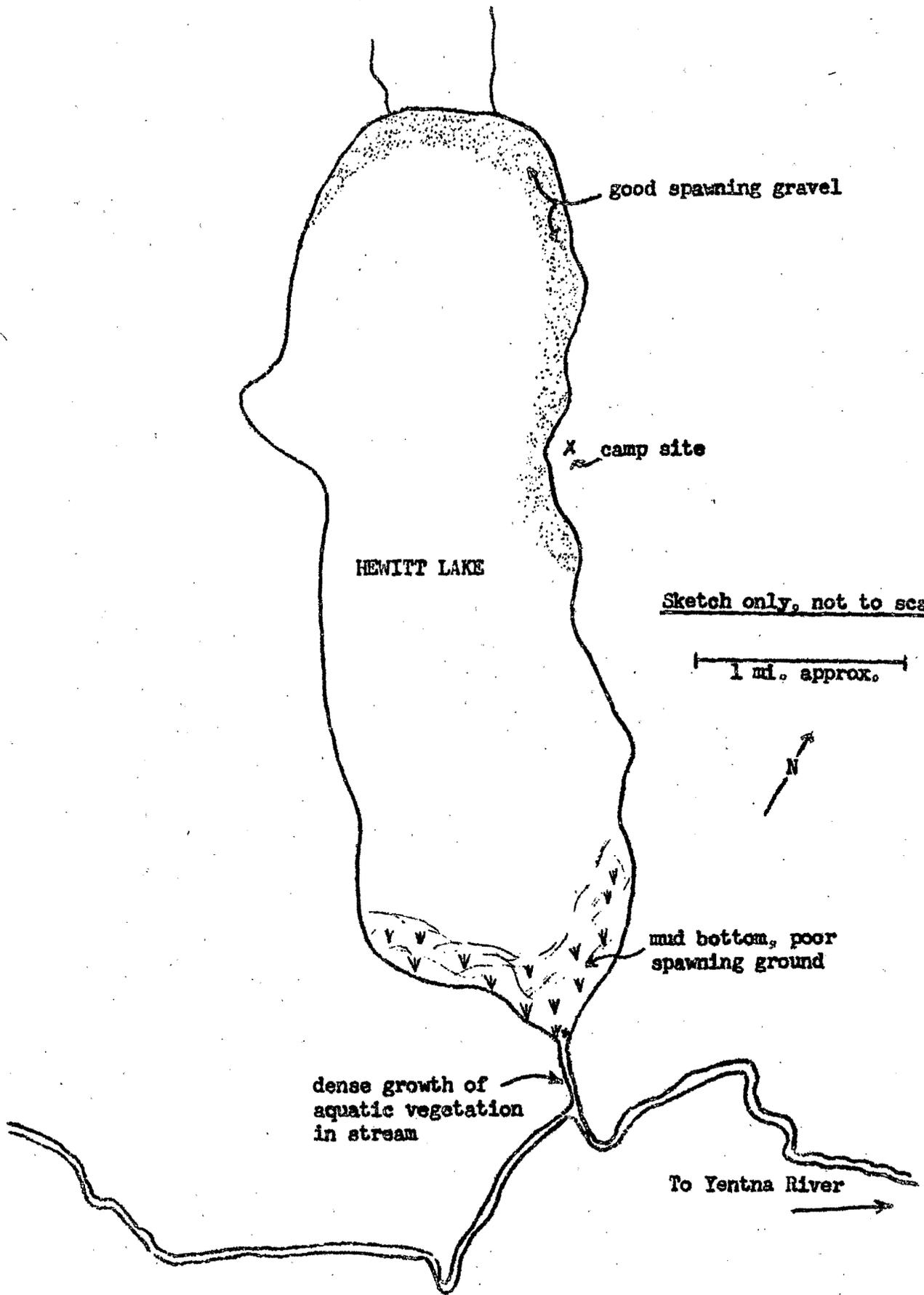


ALASKA HOONAHMANGAK
TOMOHAPHEO SEAMEN

TYONEK

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

HEWITT LAKE



good spawning gravel

X camp site

HEWITT LAKE

Sketch only, not to scale

1 mi. approx.



mud bottom, poor spawning ground

dense growth of aquatic vegetation in stream

To Yentna River

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

HEWITT LAKE		SUSITNA RIVER	
Name of Lake or Stream		Drainage	
Location	Tributary to Yentna River		
Map reference	TYONEK	J. 15	
	Quadrangle	Reference Points	
Length accessible	4 mi.	Average width	3000 ft. Average depth ? in.
Spawning facilities	Excellent	Peak of spawning	Late August to mid September.
Gradient		Bottom	
Counting area(s)	Lake Shore		

Description and Comments

A clear lake about 4 miles long and $\frac{1}{2}$ to 1 mile wide. Predominantly spring fed with no major tributaries. Outlet at south end of lake, stream joins Yentna River approximately 6 miles above junction of Yentna and Skwentna Rivers. Shore areas other than south end of lake provide excellent spawning facilities for red salmon which were only species observed in lake. South end has mud bottom and dense aquatic vegetation. This vegetation continues down outlet stream for at least $\frac{1}{4}$ of a mile. Water lillies abundant in areas along shore. Terrestrial vegetation mainly spruce, cottonwood, willow, and alder, very dense around entire lake shore. Water temperature around 45°F . in early September.

STREAM RECORD

HEWITT LAKE

SUSITNA RIVER

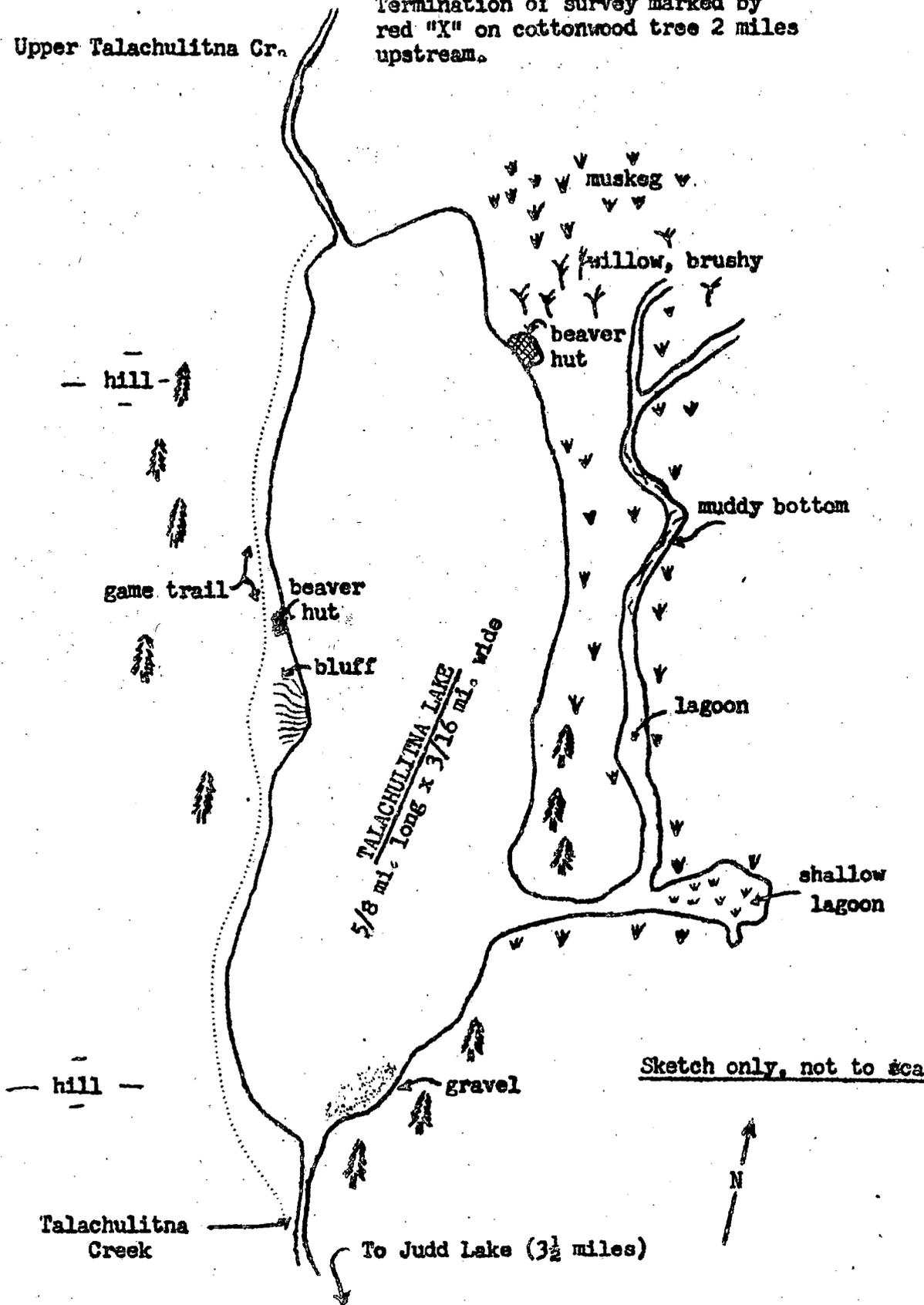
Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
9/11-13/52		1047 rebs	Entire lake shore covered

TALACHULITNA LAKE

Upper Talachulitna Cr.
Termination of survey marked by red "X" on cottonwood tree 2 miles upstream.



COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

TALACHULITNA LAKE	SUSITNA RIVER
Name of Lake or Stream	Drainage
Location <u>Headwaters of Talachulitna River.</u>	
Map reference <u>TYONEK</u>	<u>I, 9</u>
<u>Quadrangle</u>	<u>Reference Points</u>
Length accessible <u> </u> mi. Average width <u> </u> ft. Average depth <u> </u> in.	
Spawning facilities <u>Limited</u>	Peak of spawning <u>Latter part of Aug.</u>
Gradient <u> </u>	Bottom <u> </u>
Counting area (s) <u>Lake Shore</u>	

Description and Comments

A small clear lake 5/8 mile long, 3/16 miles wide. Spawning very limited. East side of lake practically all marsh, bog, and deep sloughs. West side very rocky and steep, best side to travel when going to Upper Talachulitna Creek. Vegetation in area consists of: birch, alder, spruce, cottonwood and willow. There is limited spawning area at the south end of the lake.

STREAM RECORD

TALACHULITNA LAKE

SUSITNA RIVER

Name of Stream or Lake

Drainage

NEVLA ANKIDLO

NEVLA ANKIDLO

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/1/52	Entire	3 reds	Reds just entering lake. Entire shore covered.
9/1/52	Entire	11 reds	Entire shore covered, little lake spawning observed.

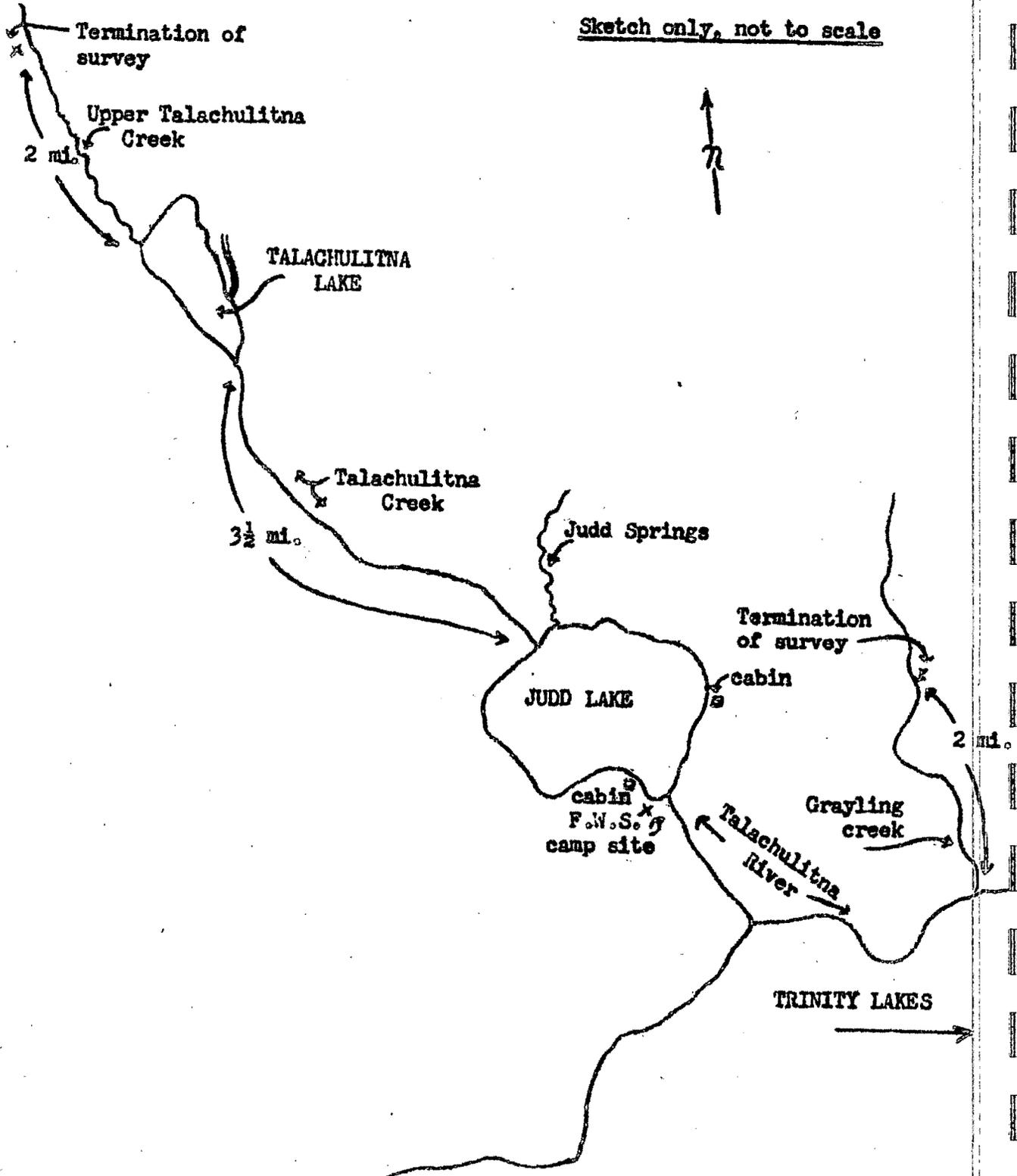
UPPER TALACHULITNA CREEK		SUSITNA RIVER	
Name of Lake or Stream		Drainage	
Location	Enters Talachulitna Lake from the Northwest.		
Map reference	TYONEK	I, 9	
	Quadrangle	Reference Points	
Length accessible	mi.	Average width	25 ft. Average depth 9 in.
Spawning facilities	Excellent	Peak of spawning	Around 18th of Aug.
Gradient	Moderate	Bottom	Gravel - Rock
Counting area(s)	From Lake Talachulitna to 2 miles upstream.		

Description and Comments

A clear, moderate sized stream with a moderate gradient. Deep pools near the mouth. Stream offers excellent spawning facilities. Survey area continues two miles upstream from Talachulitna Lake, termination point is marked by a red "X" on a cottonwood tree. Stream is primarily a red salmon spawning area however a few pink salmon were observed.

Throughout the survey bear predation and beaver activity were in evidence.

TALACHULITNA - JUDD LAKE AREA



COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

TALACHULITNA CREEK	SUSITNA RIVER
Name of Lake or Stream	Drainage
Location <u>Between Talachulitna and Judd Lakes.</u>	
Map reference <u>TYONEK</u>	<u>I, 9</u>
<u>Quadrangle</u>	<u>Reference Points</u>
Length accessible <u>3½</u> mi. Average width <u>39</u> ft. Average depth <u>10</u> in.	
Spawning facilities <u>Excellent</u>	Peak of spawning <u>Around 18th of Aug.</u>
Gradient <u>Moderate</u>	Bottom <u>Medium to small gravel, sand</u>
Counting area(s) <u>Judd lake to Talachulitna Lake</u>	

Description and Comments

This section of stream flows from Talachulitna Lake to Judd Lake and is similar to Upper Talachulitna in most respects. Stream affords excellent spawning facilities throughout, and is easy to survey. Species of fish noted include red, pink, and chum salmon, a few rainbow trout, grayling, and dolly varden. Bears were numerous in the area and evidence of predation was observed. Vegetation consists of cottonwood, alder, and spruce.

STREAM RECORD

TALACHULITNA CREEK

SUSITNA RIVER

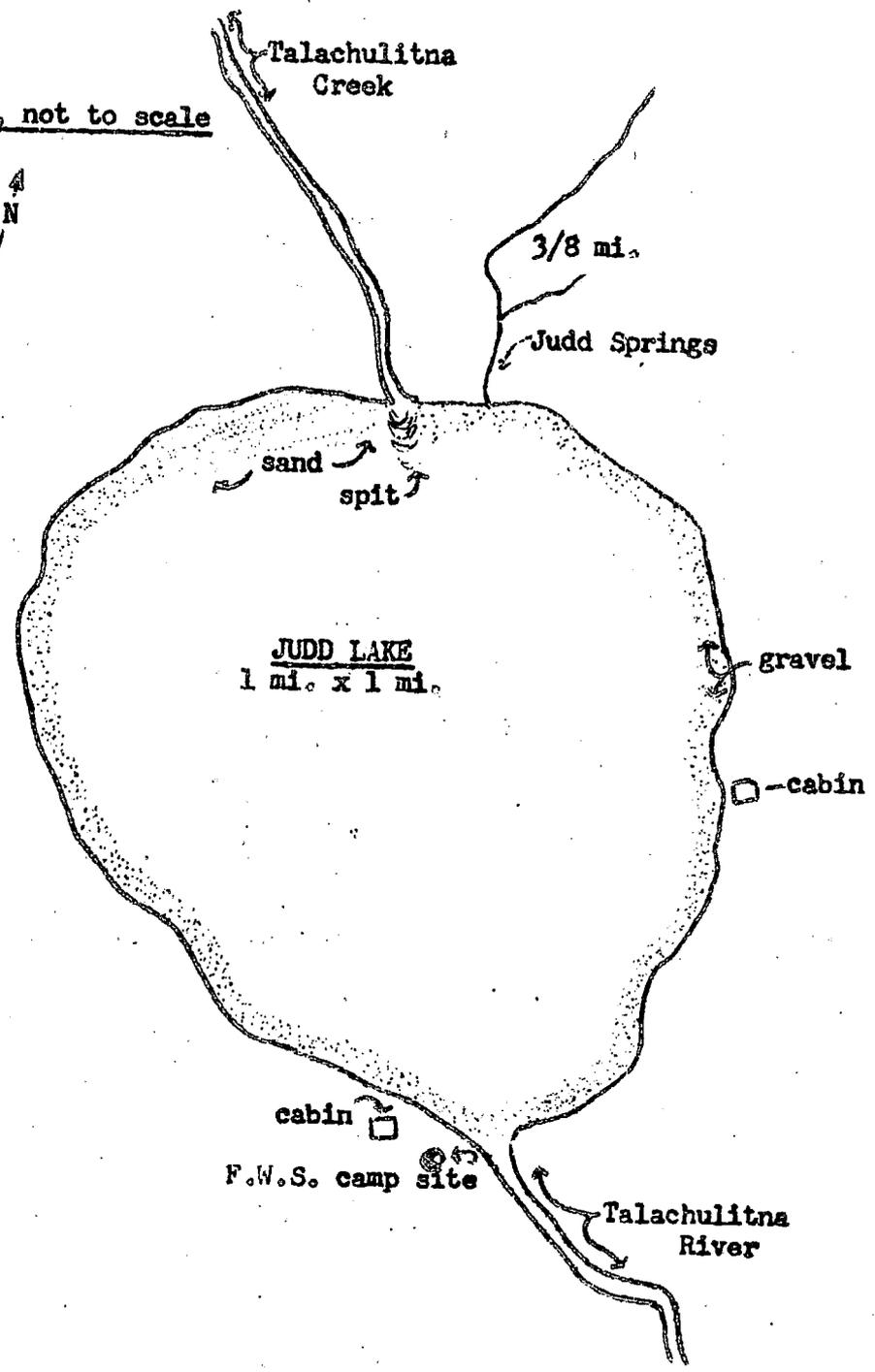
Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
1940		Many reds Few pinks Few chums Many cohos ✓	Short ground survey
1942		Fair reds Fair cohos	
8/13/49		6500 reds	Estimate
8/4/50	2 mi.	3000 reds	Air survey
8/14/50	2 mi.	800 reds	Air survey
8/1/52	Entire	1351 reds 6 pinks	Ground survey, 300 reds at mouth of stream.
8/18/52	Entire	2650 reds 927 pinks 11 chums	Ground survey, 250 reds at mouth of stream.
9/4/52	Entire	Few reds (alive) Many pinks (dead)	Spawning just about over, 136 dead reds observed, 250 reds at mouth of stream.

JUDD LAKE

Sketch only, not to scale



Talachulitna
Creek

3/8 mi.

Judd Springs

sand
spit

JUDD LAKE
1 mi. x 1 mi.

gravel

□ -cabin

cabin □

F.W.S. camp site

Talachulitna
River

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

JUDD LAKE (ROUND LAKE)

SUSITNA RIVER

Name of Lake or Stream	Judd Lake (Round Lake)			Drainage	Susitna River
Location	Headwaters of Talachulitna River				
Map reference	TYONEK		I, 9		
	Quadrangle		Reference Points		
Length accessible	mi.	Average width	ft.	Average depth	in.
Spawning facilities	Limited	Peak of spawning	Latter part of Aug.		
Gradient		Bottom	Gravel - sand		
Counting area(s)	Lake shore				

Description and Comments

A clear lake about one mile long by one mile wide. Situated in rolling hill country three miles south of Talachulitna Lake. Spawning in lake is limited and most of the spawning occurs in streams. Gravel beach encircles lake making survey easy. Lake is almost round in shape. Alder, spruce, willow and grass are predominant foliage.

Two cabins on Judd Lake. One on east shore the other is on the south shore near the outlet. Campsite and good plane approach between south cabin and lake outlet. Suggest circular takeoff around lake if heavily loaded.

Both brown and black bear prevalent. Mosquitoes and other insect pests very prevalent.

A trail runs from near campsite to 1 1/2 miles downstream.

STREAM RECORD

JUDD LAKE (ROUND LAKE)

SUSITNA RIVER

Name of Stream or Lake

Drainage

REVIS (1980)

(WIAJ CIRCU) (1980)

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
1940		Many reds, & cohos Few pinks & chums	Ground survey
1942		Fair reds & cohos	
8/13/49		Fair	6500 reds reported for lake and tributaries with notation that most of fish were in the feeder stream
8/1/52		2000 reds Few pinks	Reds milling in lake
9/2/52		361 reds	Lake spawners

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

JUDD SPRINGS

SUSITMA RIVER

Name of Lake or Stream	Drainage
Location	North end Judd Lake just east of Talachulitna Creek
Map reference	TYONEK
Quadrangle	I, 9
Length accessible	3/8 mi.
Average width	8 ft.
Average depth	6 in.
Spawning facilities	Good but limited
Peak of spawning	Around 18th of Aug.
Gradient	Gentle
Bottom	Gravel
Counting area(s)	3/8 mile upstream from Judd Lake.

Description and Comments

This is a small, clear, spring-fed stream with good spawning facilities available for its short length, however it is only 3/8 mile long and therefore cannot accomodate many spawners. Bear activity was noted along entire length of stream. Water temp. Sept 6, 1952 39.6°F.

SURVIVAL RECORD

JUDD SPRINGS

SUSITNA RIVER

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/3/52	1/4 mi.	51 redds	150 off mouth of stream.
9/6/52	3/8 mi.	38 redds	27 of total were dead, 15 redds observed off mouth.

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

TALACHULITNA RIVER		SUSITNA RIVER	
Name of Lake or Stream		Drainage	
Location <u>Outlet of Judd Lake to Skwentna River</u>			
Map reference <u>TYONEK</u>		I-J, 9-13	
Quadrangle		Reference Points	
Length accessible <u>35</u> mi.	Average width <u>80</u> ft.	Average depth <u>20</u> in.	
Spawning facilities <u>Good</u>	Peak of spawning <u>Middle of Aug.</u>		
Gradient <u>Moderate</u>	Bottom <u>gravel to boulders</u>		
Counting area(s) <u>From outlet at Judd Lake to a point 3 1/2 miles downstream,</u>			

Description and Comments

A fairly large, clear stream with a moderate gradient. It is the outlet of Judd Lake and the main river draining this system. From Judd Lake to 2 1/8 miles downstream, river bed is quite rough and strewn with boulders. From this point to termination of survey, stream bed changes. Few large boulders to be found, gravel bars are numerous, and in general survey conditions are much improved. This lower portion of the survey area provides excellent spawning facilities and is utilized by reds, chums, pinks, kings, and cohos. The river supports a large pink run on even year cycle. Grayling, rainbow trout and dolly varden have been observed. Water temperature around 52° F. 8/2/52.

Both black and brown bear predation in evidence. Beavers have constructed a large dam approx 2 1/8 miles downstream from Judd Lake, however at the time of the "52" survey did not seem to be a barrier to migrating salmon.

TALACHULITNA RIVER

SUSITNA RIVER

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
1940	Entire	Excellent showing of Pinks & chums	Air survey, many dead fish
1942	Entire	Few pinks	Air survey
1949		100 cohos	
8/4/50			Air check, large schools moving in.
8/11/50	35 mi.	300,000 pinks 80,000 chums 20,000 cohos	Air survey
8/18/51	Entire	2,100 cohos	Air survey
7/22/52	Entire	200 reds 75 pinks	Air survey
8/16/52	20 mi.	350,000 pinks 30,000 chums	Air survey, estimate of live and dead
8/2/52	3½ mi.	670 reds 2071 pinks 220 chums 29 kings	Ground survey from Judd Lake downstream
8/19/52	3½ mi.	176 reds 10,292 pinks 370 chums	5300 dead pinks, 50 dead reds.
9/5/52	3½ mi.	38 reds 10,062 pinks	All pinks were dead, reds still in good shape

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

GRAYLING CREEK

SUSITNA RIVER

	Name of Lake or Stream	Drainage
Location	3½ miles downstream from Judd Lake	
Map reference	TYONEK Quadrangle	I, 9 Reference Points
Length accessible	3 mi.	Average width 25 ft. Average depth 7 in.
Spawning facilities	Excellent	Peak of spawning
Gradient	Moderate	Bottom Gravel
Counting area(s)	Two miles upstream from confluence with Talachulitna River.	

Description and Comments

A medium sized, clear stream with moderate flow. Stream enters Talachulitna River 3½ miles downstream from Judd Lake. Grayling Creek arbitrarily named as there is no map name for it. Excellent spawning gravel in area covered. Spawning area is utilized by pinks, chums, cohos and reds. Termination of survey marked by red paint two miles upstream from Talachulitna River, (mark is on cottonwood)

Temperature of stream 8/22/52, 50°F. Bear predation heavy. Dolly varden trout, rainbow trout and grayling abundant in stream.

STREAM RECORD

GRAYLING CREEK

SUSITNA RIVER

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/2/52	2 mi.	85 pink 78 chum	
8/22/52	2 mi.	13 reds ✓ 678 pink ✓ 138 chum ✓	465 dead, mostly pinks.
8/5/52	2 mi.	2 reds 285 pinks 106 chum	All fish dead.

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

TRINITY LAKES

SUSITNA RIVER

Name of Lake or Stream		Drainage	
Location	5 miles east of Judd Lake. Tributary to Talachulitna River		
Map reference	TYONEK	I-J, 9-10	
	Quadrangle	Reference Points	
Length accessible	mi.	Average width	ft. Average depth
Spawning facilities	Poor	Peak of spawning	
Gradient		Bottom	
Counting area(s)			

Description and Comments

Predominantly marshy lakes, the larger lake having several deep areas, however. Outlet is slow running and blocked by many beaver dams. Few red salmon have been reported in this area. Cabin on east side of main lake. Plane landings can be made.

STREAM RECORD

TRINITY LAKES (LONG LAKE)
TRINITY

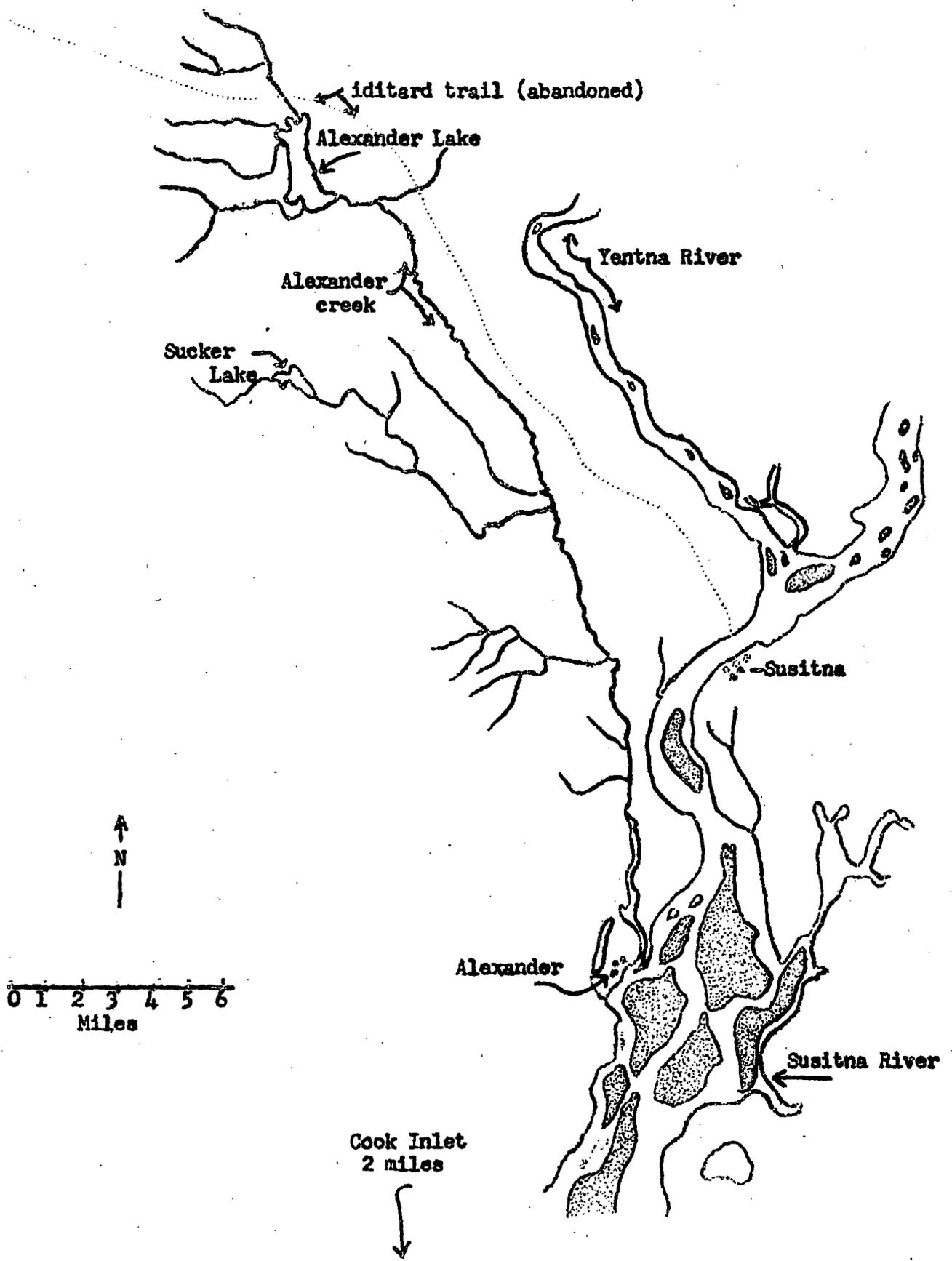
SUSITNA RIVER

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
1949		Few reds	Beaver dams noted
8/16/52	4 miles	2 reds	Air survey, many beaver dams.
8/28/52	6 miles	6 reds	Air survey

ALEXANDER LAKE AND CREEK



COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

ALEXANDER CREEK & LAKE

SUSITNA RIVER

Name of Lake or Stream	Drainage
Location <u>Enters Susitna River about 10 miles above mouth on west side.</u>	
Map reference <u>TYONEK</u>	<u>L-4, 11-12</u>
Quadrangle	Reference Points
Length accessible <u>25</u> mi. Average width <u>40</u> ft. Average depth <u>10</u> in.	
Spawning facilities <u>Good in lower regions</u> Peak of spawning _____	
Gradient <u>Gentle to moderate</u>	Bottom <u>Fine gravels</u>
Counting area(s) <u>none established</u>	

Description and Comments

Air survey only of this system. Alexander Creek is of medium size with a slight brownish tinge to the water. Deeper pools, of which there are many, appear black from air. There are numerous gravel bars, however, and these give the appearance of providing good spawning facilities. Very brushy along banks. Stream said to be predominately a pink producer although there are reports of reds going up one branch (possibly to Sucker Lake). Alexander Lake is very marshy and shallow averaging not over two feet in depth. It is considerably smaller than is shown on map and does not appear to be a likely red salmon producer. Local residents state that it has filled in considerably during the past few years. Tributary streams are all small.

ALEXANDER CREEK

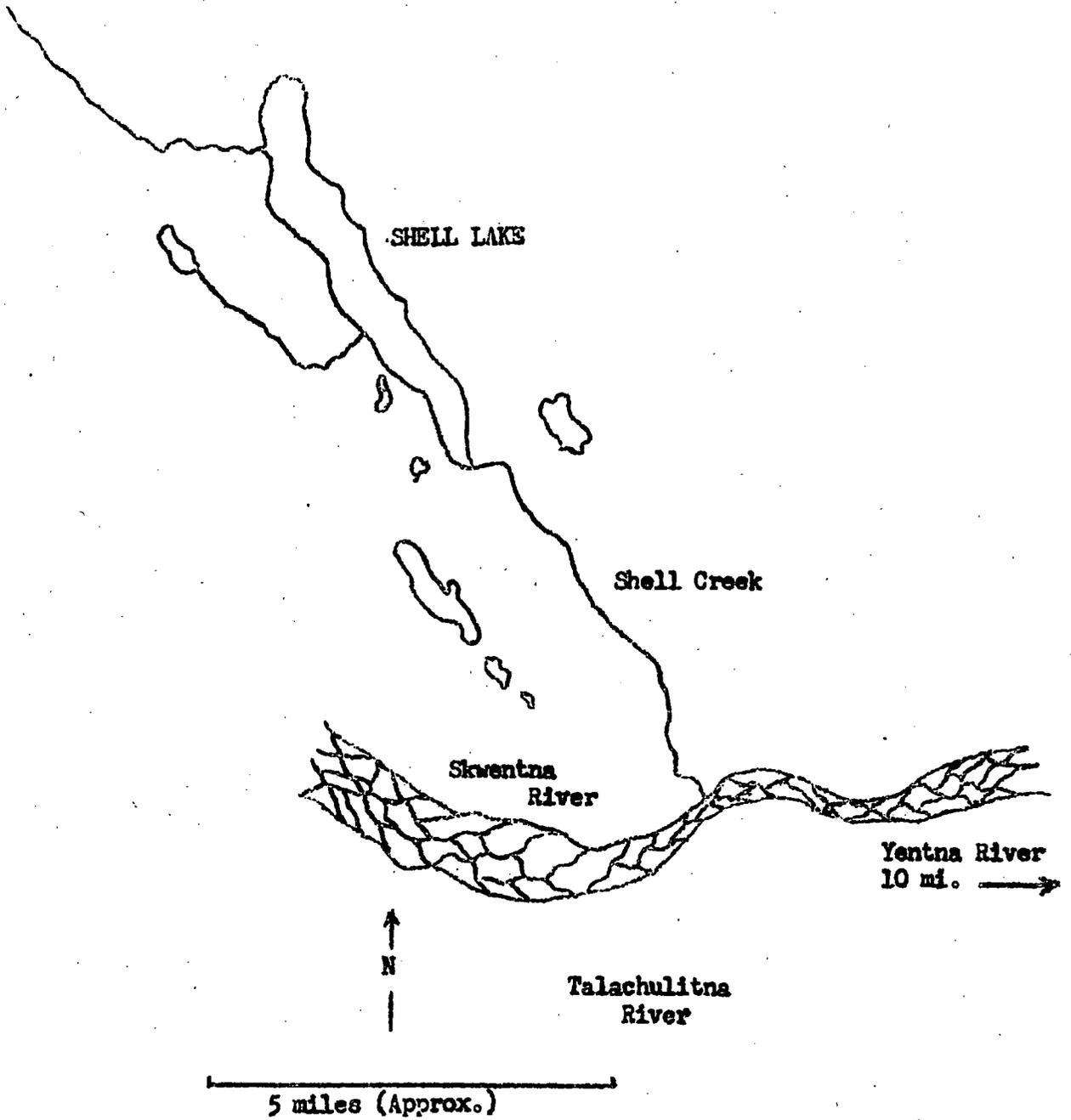
SUSITNA RIVER

Drainage

Name of Stream or Lake

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/14/50	12 miles	1000 pinks 1000 chums 200 kings 100 cohos	Air survey
7/9/51	13 miles	680 kings	Air survey
8/18/51	13 miles	680 kings	Air survey, fish now in headwaters
7/22/52	Entire		Air survey, kings present, no estimate of numbers made, light poor.

SHELL LAKE



COOK INLET STREAM AND LAKE SURVEYS

USFWS AND P.R.I.

SHELL LAKE AND CREEK

SUSITNA RIVER

Name of Lake or Stream	Drainage
Location	Shell Creek enters Skwentna River directly across stream from mouth of Talachulitna River.
Map reference	TYONEK I, 14 Quadrangle Reference Points
Length accessible	mi. Average width ft. Average depth in.
Spawning facilities	Unknown Peak of spawning
Gradient	Bottom
Counting area(s)	

Description and Comments

Area was covered from air only. Shell lake from air appears as a beautiful blue, deep body of water with a shallow beach area along shoreline. It is about 5 miles long by a mile wide. Shell Hills rise abruptly from its eastern shoreline, while rolling low hills border the lake on the west. The north end is predominantly marsh and muskog country. Shell Creek drains the lake from the south end entering the Skwentna River about 5 miles below lake. This is a small shallow stream, which could probably carry salmon only during high water stages. At least 6 beaver dams were noted in the stream. Tributary streams were hardly discernable. U. S. Geological Survey Maps indicate a small stream connecting Shell Lake with the Yentna River from the north. This stream was not seen from the air.

A few red salmon have been reported to enter lake in past. There is a cabin approximately 1/3 of the way up lake on Shell Hill side.

STREAM RECORD

SHELL LAKE

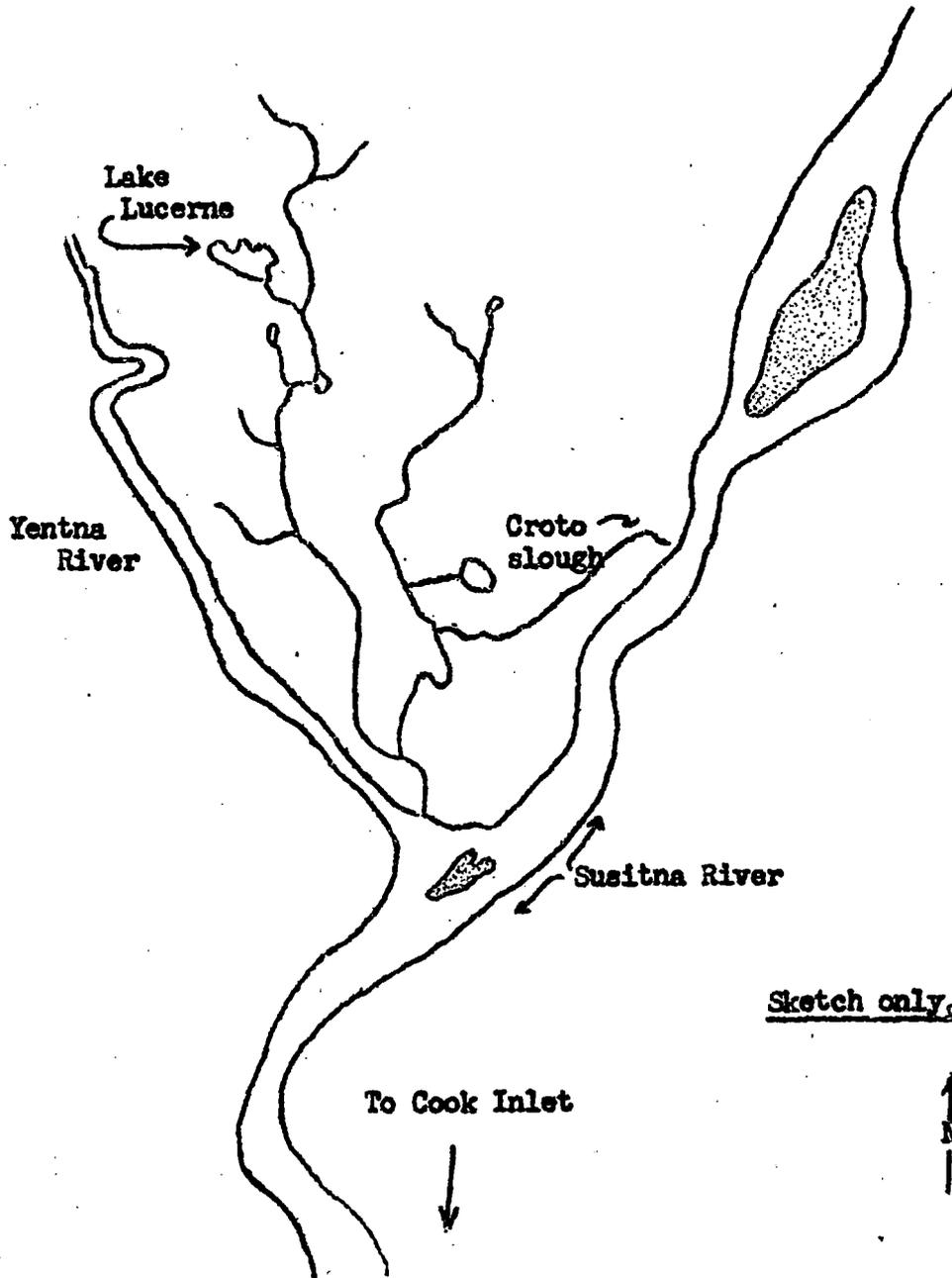
SUSITNA RIVER

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/4/50	4 miles	50 reds	Air survey, fish all near the mouth
8/14/50	4 miles	None	Air survey
8/18/51	Entire	None	Air survey
8/3/52 7/22/52 8/26/52		None	Air survey

LAKE LUCERNE



Sketch only, not to scale



COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.I.S.

LAKE LUCERNE

SUSITNA RIVER

Name of Lake or Stream		Drainage
Location	Approximately 12 miles upstream on small creek which has its mouth near junction of Yentna and Susitna Riv	
Map reference	TYONEK	N-0, 12
	Quadrangle	Reference Points
Length accessible	mi.	Average width ft. Average depth in.
Spawning facilities	Poor	Peak of spawning
Gradient		Bottom
Counting area(s)	None	

Description and Comments

Lake Lucerne is a small lake approximately 1 mile long and 3/8 mile wide. It lies in the flat low country between the Yentna and Susitna Rivers. The shoreline is predominantly marshy with numerous lily pad areas. No salmon noted or reported. Rainbow trout present in lake.

STREAM RECORD

LAKE LUCERNE

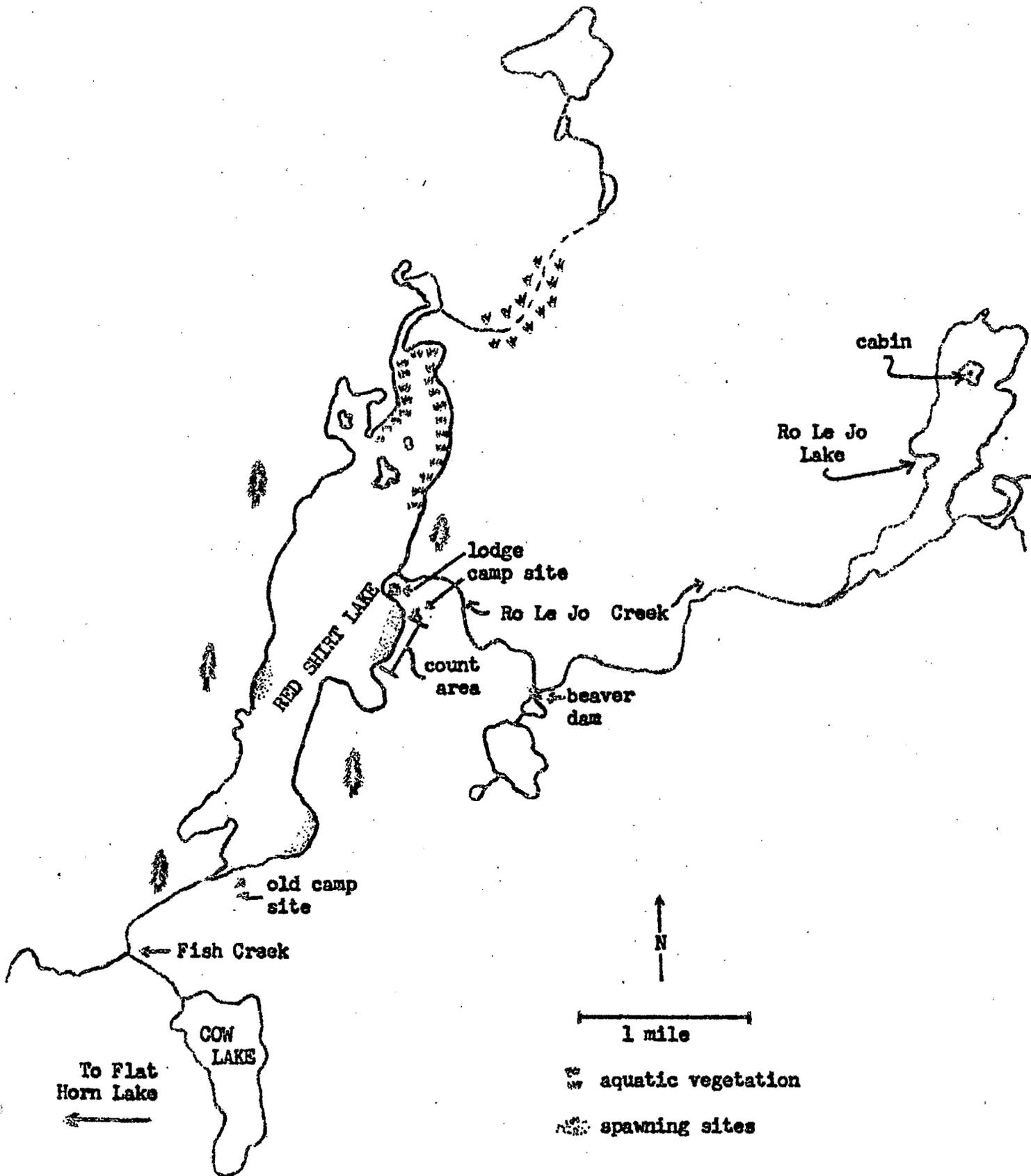
SUSITNA RIVER

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
9/4/52	Entire	None	Air and ground survey.

RED SHIRT LAKE



COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

RED SHIRT LAKE

SUSITNA RIVER

Name of Lake or Stream	Drainage
Location <u>North of Anchorage - between Susitna and Little Susitna River</u>	
Map reference <u>TYONEK</u>	Q, 10
Quadrangle	Reference Points
Length accessible _____ mi.	Average width _____ ft.
Average depth _____ in.	
Spawning facilities <u>Fair</u>	Peak of spawning <u>Late Aug. to mid Sept.</u>
Gradient _____	Bottom _____
Counting area(s) <u>Lake Shore</u>	

Description and Comments

Red Shirt Lake is located north of Anchorage between the Susitna River and the Little Susitna River, emptying into the Susitna River. It is a lake about 3½ miles long with fair spawning facilities along the shore. A fine layer of silt covers good gravel in a few areas which the salmon use. Three spawning areas were noted in 1952 surveys. The location just south of lodge was used most extensively. Red salmon in this area were seen spawning in and around the marsh grass growing in the water. The lake is clear water as are the tributaries flowing into it. The shoreline is very irregular, several islands in the lake, and considerable marshy area. The lake is situated in flat country, vegetation mostly conifers, some birch, with grasses in open swampy areas. Water level decreases a little as season goes on. One main stream feeds the lake and the other tributaries are all small and insignificant.

Camping site 100 yards south of lodge which is situated on east shore 3/4 distance up lake from south end. Not the best camp site available but is close to everything. Good plane landing approach here. Lodge is private and is usually occupied during summer months.

Both reds and cohos noted in lake and tributary stream (Ro Le Jo Creek).

Black bear predation evident but light. Observed a few beaver houses on bank of lake. Insects numerous.

STREAM INVENTORY

RED SHIRT LAKE

SUSITNA RIVER

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated number of Salmon	Remarks
8/24/48	Entire	2500 reds	Survey of entire system, many beaver dams.
6/27 - 7/1 1949		None	Too early, stream clearance on Fish Creek
6/28 - 7/5 1950		None	Too early, stream clearance on Ro Le Jo Creek.
7/19/51		None	Blocked by beaver dams.
7/29/52	Entire	None	Air survey
8/18/52	E. shore	300 reds	At mouth of Ro Le Jo Creek.
8/27/52	Entire	506 reds	Boat survey.
9/12/52	Entire	500 reds	Shore spawners.
9/17/52		1800 reds	Shore spawners.
		3106	

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

Ro Le Jo CREEK

SUSITNA RIVER

Name of Lake or Stream		Drainage	
Location Red Shirt Lake - 100 yards north of lodge, east shore.			
Map reference TYONEK		Q, 10	
Quadrangle		Reference Points	
Length accessible	5 mi.	Average width	15 ft. Average depth 6 in.
Spawning facilities	Good	Peak of spawning	Latter part of Aug.
Gradient	Moderate	Bottom	Gravel
Counting area(s)	From mouth to beaver dam (first lake)		

Description and Comments

A small marshy stream with gentle to moderate gradient, entering Red Shirt Lake 100 yards north of the lodge. A dense patch of water lilies surrounds its mouth. Skiff may be taken upstream perhaps 100 yards. Stream may also be reached by walking uplake from lodge. Travel along stream bed is difficult in some areas because of marshy nature of area. Evidence of old beaver activity in lower stretch. Water is dark color making observation of fish somewhat difficult and stream bottom is like that of lake with a shallow layer of silt covering good gravel beneath. Surrounding terrain is swamp and marsh with conifer and birch on higher ground. Topography, flat. Area surveyed is from mouth to first live beaver dam, which is a distance of about two miles. Dam large enough to stop fish from moving farther. About 200 yards upstream is a lake. Main stream branches to left of lake just above beaver dam and continues on to Ro Le Jo Lake.

Peak of the red run is the latter part of August. Cohos also said to enter stream. Bear predation light.

Re Le Jo CREEK

SUSTINA RIVER

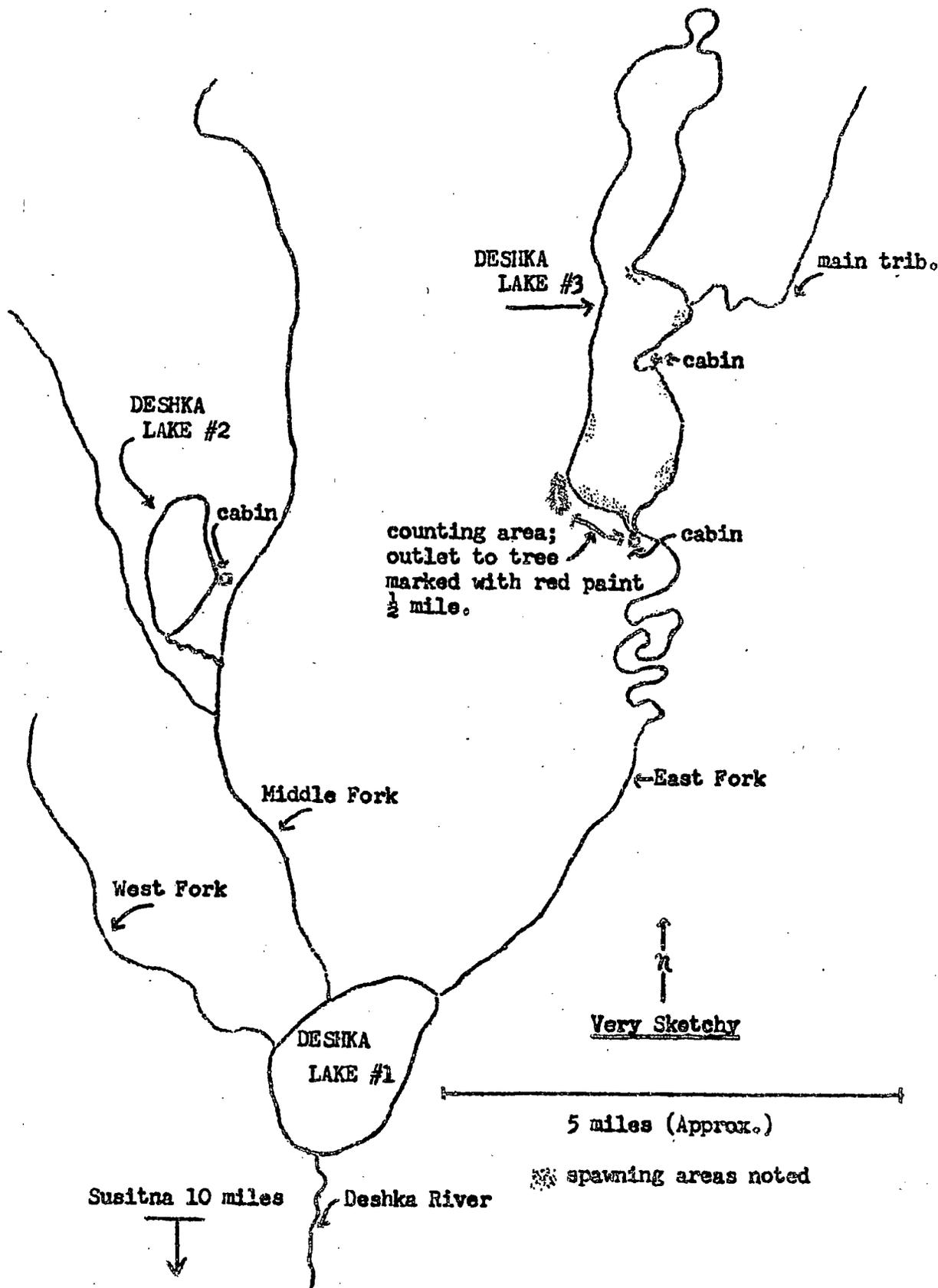
Name of Stream or Lake

Drainage

Date	Distance Surveved	Estimated Number of Salmon	Remarks
7/29/52	1 mile	None	Stream clearance work on beaver dams
8/18/52	3/4 mi.	None	300 reds at mouth. Residents report reds upstream.
9/12/52	1 mile	9 reds	Many fish reported upstream, estimate 200 reds
9/17/52	1 mile	750 reds 380 cohos	All fresh fish, cohos were at mouth of stream.

DESHKA LAKES

RIVER BASIN STUDIES
FWS - ANCHORAGE
LIBRARY



COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.S.

DESHKA LAKES AND RIVER		SUSITNA RIVER	
Name of Lake or Stream		Drainage	
Location	Stream enters Susitna River on west bank approx 10 mi. above mouth of Tentna River.		
Map reference	TYONEK Quadrangle	O-P, 13-14	Reference Points
Length accessible	mi.	Average width	ft. Average depth in.
Spawning facilities	Fair	Peak of spawning	1st of Sept.
Gradient	Moderate	Bottom	Weedy - gravel - boulder
Counting area(s)	Largest Lake (Designated #3)		

Description and Comments

A system of three small lakes, two of which are unimportant as salmon spawning areas because of marshy nature. Red salmon spawn along shores of third and largest lake. This is on the east fork of the Deshka River and enters Deska Lake #1 on east side. East and middle forks of stream clear water, fairly large, enabling the use of the skiff up each one. All three forks enter lake #1 where the Deshka River continues down as one large stream. Lake #3 is about 5 miles long with one main tributary, but this stream has many beaver dams on it. Terrain is typical Susitna River country, rather flat with low wooded ridges, quite marshy. East fork slow with weedy bottom. Middle fork larger with gravel boulder bottom. West fork inconsequential. Many other feeder streams but doubtful as to their value as salmon producing streams as they are boggy and full of weeds.

Reds, pinks, cohos, and probably chums and kings, utilize the system. Red spawning peaks about the first of September while the pinks peak around the middle of August. Sticklebacks and rainbow trout also in evidence in system.

There are three cabins in the area, one on Lake #2 (west of Lake #3) and two on Lake #3. Campsites at Lake #3 hard to find because of brush and marsh.

Red spawning concentrated on shores of Lake, and pinks spawn in middle fork and main stream below lake #1.

STREAM RECORD

DESHKA RIVER (CROTO CREEK)

DESHKA LAKE #3

SUSITNA RIVER

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
<u>DESIKA R.</u>			
8/4/49		None	Air survey
7/15/50		None	Stream clearance parties.
7/19/51		320 kings	Local resident report.
8/27/52	15 miles	200,000 pinks	Air survey, count of both alive and dead fish.
<u>DESHKA LAKE #3</u>			
8/27/52	Entire	300 reds	Air survey, Nearly all reds on lower west shore.
9/12/52	½ mile	148 reds	Ground survey, 52 of total were dead. Estimate less than 1000 in entire lake.

CHECK THESE STREAMS AND LAKE SURVEYS

USFWS AND F.R.S.

BIG WILLOW CREEK

SUSITNA RIVER

Name of Lake or Stream		Drainage
Location		Passes under Alaska R.R. bridge about 1/4 mile from Willow Station.
Map reference	TYONEK Quadrangle	Q, 12 Reference Point
Length accessible	? mi.	Average width 75 ft. Average depth 20 in.
Spawning facilities	Good	Peak of spawning
Gradient	Moderate	Bottom small rubble, sand, mud
Counting area(s)	none established	

Description and Comments

A large stream, usually clear, but roily during high water periods. Section below R.R. bridge said to be inaccessible. Fair road follows along parallel to creek for about 15 miles. Willow creek is reported to be an important king producer. Pinks, chums, and cohos, also noted.

BIG WILLOW CREEK

SUSITNA RIVER

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/22/47		4,500 kings	
7/6/48		2000 kings	
7/22/50	22 miles	None	Air survey
8/7/50	16 miles	40,000 pinks 20,000 chums	
8/10/50	3 miles	2000 cohos	Foot survey
7/19/51	12 miles	60 reds 135 kings	Air survey
8/11/52	Brief	kings present	Air survey, no estimate of number.

COOK INLET SURVEY AND LAKE SURVEYS

USFWS AND F.R.I.

LITTLE WILLOW CREEK

SUSITNA RIVER

Name of Lake or Stream

Drainage

Location About 4 miles north of Big Willow Creek on Alaska R.R.

Map reference

TYONEKQ, 12

Quadrangle

Reference Point

Length accessible _____ mi. Average width 50 ft. Average depth _____ in.Spawning facilities Good

Peak of spawning _____

Gradient ModerateBottom medium gravel and sandCounting area(s) none

Description and Comments

Little Willow Creek has been reported to be a good king salmon producer. It is generally a clear stream and from air surveys appears to have a bottom of medium gravels and sand. Pinks have also been reported in this creek.

LITTLE WILLOW CREEK

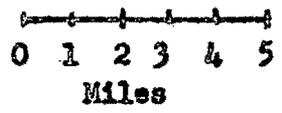
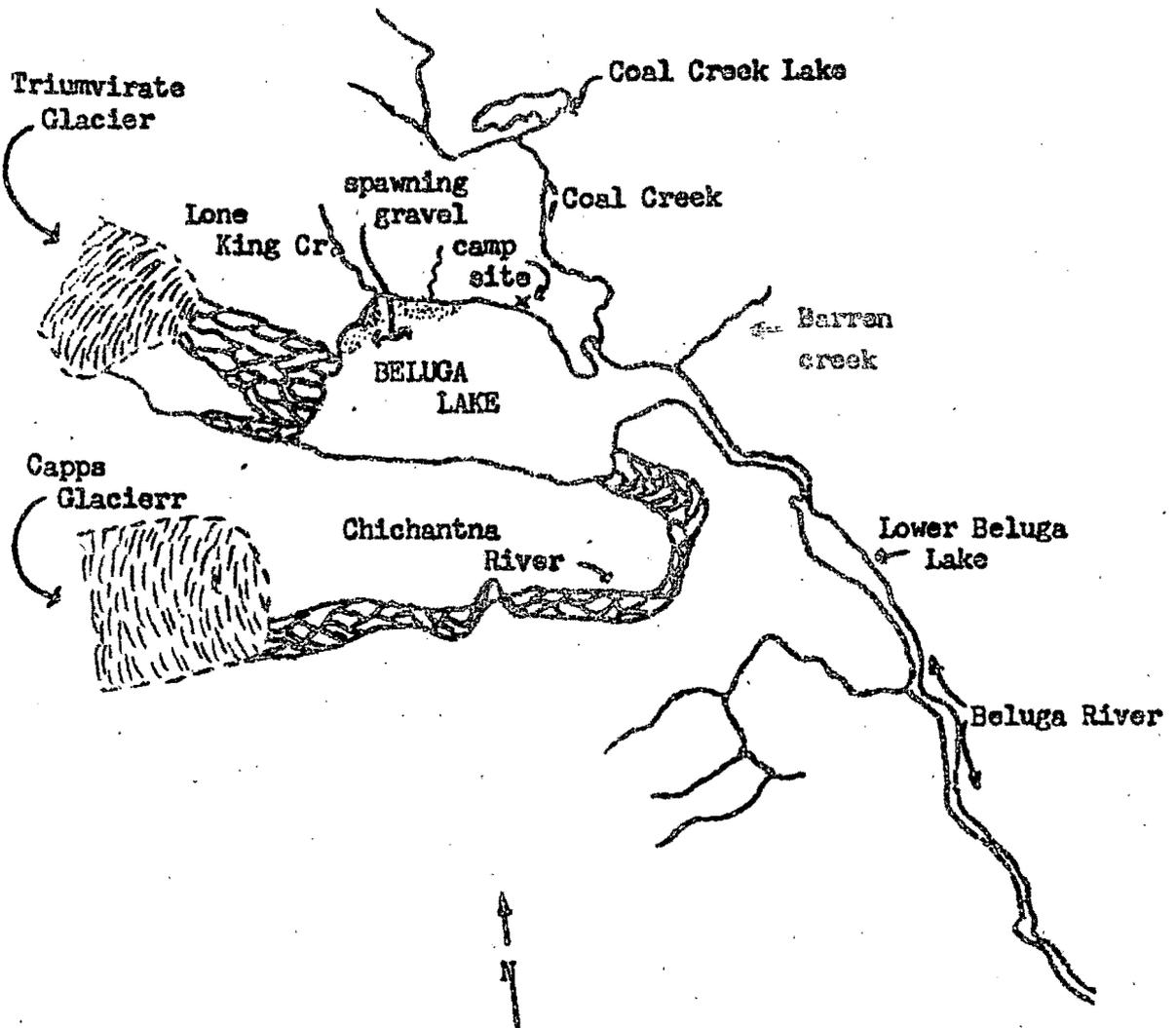
SUSITNA RIVER

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/7/50	3 miles	1000 pinks	Air survey
7/29/52	Brief	none	Air survey, too high.
8/11/52	Brief	kings present	Air survey, no estimated of number.

BELUGA LAKE



COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

BELUGA LAKE		BELUGA RIVER
Name of Lake or Stream		Drainage
Location	Head of Beluga River	
Map reference	TYONEK Quadrangle	I, 7 Reference Points
Length accessible	8 mi.	Average width 3 mi. ^{1/4} Average depth in.
Spawning facilities	Limited	Peak of spawning
Gradient		Bottom
Counting area(s)	Lake Shore	

Description and Comments

A large extremely glacial lake about 8 miles long and 3 miles wide. Little known about shore spawning but spawning gravel is available. Lake runs east and west with streams from Trimvirate Glacier coming in from west end and outlet stream at east end. Several miles downstream the stream widens into a secondary lake (Lower Beluga Lake). Three other main tributary streams enter Beluga. Coal Creek (glacial) enters at northeast end of lake, Lone King Creek (clear) enters northwest end of lake, and Chichantna River (glacial) enters at southeast end of lake.

There is a trapper's cabin at east end of lake on south side of outlet. Camp site about mid-way along north shore at base of small peninsula near mouth of Coal Creek, plane approach here. Surrounding terrain is brushy with conifers, cottonwood, and birch predominating. August temperatures average around 48 F. Large sand and silt delta at west end of lake.

Both black and brown bear prevalent in this area. Red, pink, coho, chum, and king salmon utilize this watershed. Cottids, suckers, and sticklebacks seined from lake. Grayling, dolly varden, and rainbow trout also present.

BELUGA RIVER

BELUGA RIVER

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
1946			Good showing of kings and cohos, no count.
1952			Air surveys, too muddy to make observations.

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

COAL CREEK	BELUGA RIVER
Name of Lake or Stream	Drainage
Location Enters Beluga Lake near east end on north side	
Map reference	TYONEK
Quadrangle	Reference Points
Length accessible <u>7</u> mi.	Average width <u>75</u> ft.
Average depth <u>30</u> in.	
Spawning facilities <u>Poor to excellent</u>	Peak of spawning
Gradient <u>Steep</u>	Bottom <u>Coarse gravel - boulder</u>
Counting area(s) <u>Three miles upstream from mouth at Beluga Lake</u>	

Description and Comments

Coal Creek is blue glacial in color and very swift in lower reaches. During late summer the stream flow diminishes considerably and the water becomes quite clear. Many large boulders in stream and in some sections the bed is solid coal, giving rise to name of stream. Canyon area and dense alder thickets make going very difficult along bank during high water. Termination point of survey was marked by red paint on boulder approximately three miles upstream.

Granite rock predominates in gravels. Best spawning area in lower stream near mouth at Beluga Lake. Air surveys of upper regions of this stream revealed long stretches of what appeared to be excellent spawning area. Additional surveys necessary to determine actual location of spawning areas utilized in Coal Creek.

Bear present but not likely to be of serious consequence as predators due to size of stream.

Both red and pink salmon observed in this stream. Water temperatures in August run close to 49° F.

STREAM RECORD

COAL CREEK

Beluga Lake

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
1942		good showing of reds	Air survey
8/13/49 8/19/49		1400 reds None	1200 at mouth Same area as above
8/4/50 8/14/50	5 miles 2½ miles	2000 reds None	Air survey Air survey
8/18/51	Entire	None	Air survey
7/22/52 8/10/52	7 miles 3 miles	None 500 reds, 8 pinks	Air survey, water milky Ground survey
8/28/52	Entire	No. reds 50 pinks	Air survey, water clear
9/7/52	3 miles	4 pinks	Ground survey, water clear

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

<u>CHICHANUNA RIVER</u>	<u>BELUGA RIVER</u>
Name of Lake or Stream	Drainage
Location <u>Enters Beluga Lake at southeast corner</u>	
Map reference <u>TYONEK</u>	<u>H-1, 5.5</u>
Quadrangle	Reference Points
Length accessible <u> </u> mi. Average width <u>100</u> ft. Average depth <u> </u> in.	
Spawning facilities <u>POOR</u>	Peak of spawning <u> </u>
Gradient <u>Moderate to steep</u>	Bottom <u> </u>
Counting area(s) <u> </u>	

Description and Comments

A large, extremely glacial stream entering Beluga Lake at southeast corner. Has its source in Capp's Glacier and is of doubtful importance as a salmon spawning area. Near its outlet the stream fans out over a wide area, entering Beluga Lake over a broad silty delta. A small, clear, seepage stream borders the river on the east bank near mouth, but no salmon were observed in this water during the 1952 surveys.

COOK INLET STREAM AND LAKE SURVEYS

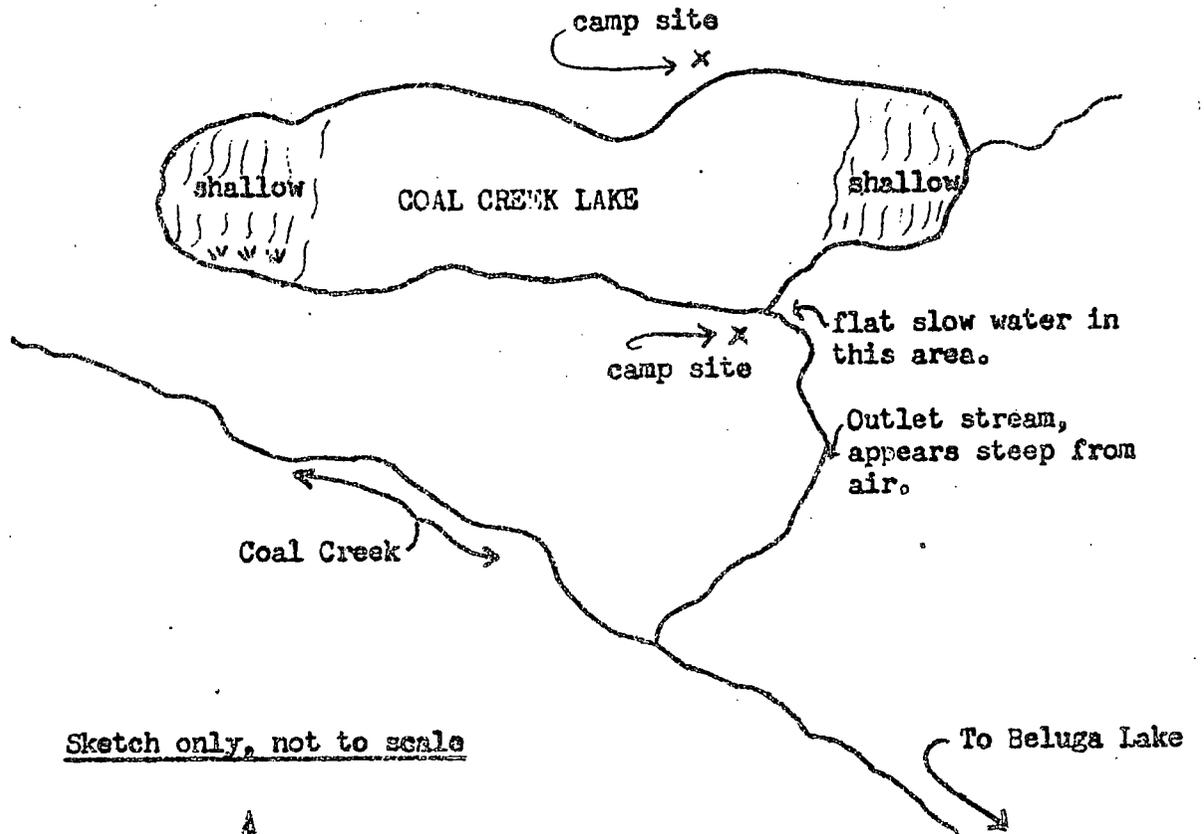
USFWS AND F.R.I.

BARRIN CREEK	BELUGA RIVER
Name of Lake or Stream	Drainage
Location <u>Enters lower end of Beluga Lake (north side)</u>	
Map reference	TYONEK
	I. 7
	Quadrangle
	Reference Points
Length accessible <u> </u> mi. Average width <u>10</u> ft. Average depth <u>6</u> in.	
Spawning facilities	Limited
	Peak of spawning
Gradient	Moderate
	Bottom <u>Gravel, rock, boulder</u>
Counting area(s)	none

Description and Comments

A muskeg colored stream entering Beluga Lake on north side near lower end. Stream flows generally southwesterly and appears to be of little or no importance as a salmon spawning area.

COAL CREEK LAKE



Sketch only, not to scale



COOK INLET STRIP AND LAKE SURVEYS

USFWS AND F. R. I.

<u>COAL CREEK LAKE</u>	<u>BELUGA RIVER</u>
Name of Lake or Stream	Drainage
Location <u>7 miles upstream from Beluga Lake on Coal Creek</u>	
Map reference <u>TYONEK</u>	<u>I, 8</u>
Quadrangle	Reference Points
Length accessible _____ mi. Average width _____ ft. Average depth _____ in.	
Spawning facilities <u>Not accessible</u>	Peak of spawning _____
Gradient _____	Bottom _____
Counting area(s) _____	

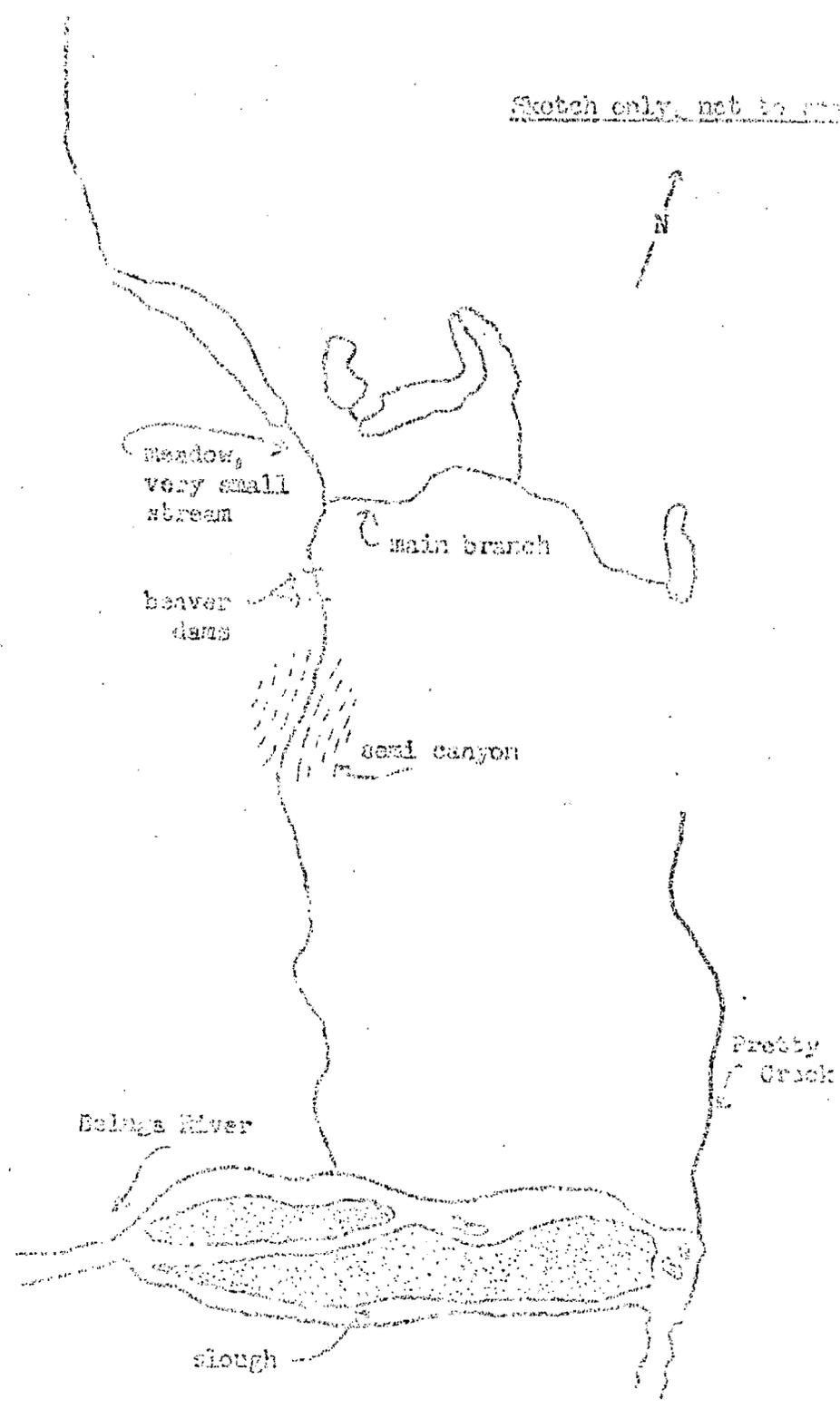
Description and Comments

Coal Creek Lake is approximately three miles long and a mile wide. A small creek drains the lake from near the southeast corner and flows generally southwesterly into Coal Creek. It appears to be very steep near its mouth at Coal Creek Lake and it is not likely that salmon can ascend it. Sport fishermen in the area indicated that no salmon enter the lake although large rainbow have been taken on occasion. Sticklebacks are also present.

The west and east ends of Coal Creek Lake are shallow while intervening areas appear fairly deep. Bottom of lake near outlet provides a good solid taxi approach area for medium amphibian planes although area directly in front of outlet should be avoided because of large rocks on bottom.

WATER COURSE MAP

Sketch only, not to scale



COOK INLET SURVEY AND A-500 SURVEYS

USFWS AND F.R.S.

WEST PRETTY CREEK AND LAKES	BELUGA RIVER
Name of Lake or Stream	Drainage
Location	Creek enters Beluga River 3 miles west of Pretty Creek
Map reference	TYONAK
	K-1, 5
	Quadrangle
	Reference Points
Length accessible	mi.
Average width	ft.
Average depth	in.
Spawning facilities	Feet of spawning
Gradient	Bottom Fine gravel in lower reaches
Counting area(s)	

Description and Comments

A small, clear stream heading in a group of small lakes lying approximately due east of Lower Beluga Lake. Reported to contain red salmon but none observed in 1952 surveys. Beaver activity in upper portion of stream. Plane landings may be possible on several of the lakes.

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

<u>THEODORE RIVER</u>	<u>UPPER N.W. COOK INLET</u>
Name of Lake or Stream	Drainage
<u>Location Enters Cook Inlet about 3 miles N.E. of Beluga River</u>	
Map reference <u>TYONEK</u>	<u>L. 7</u>
Quadrangle	Reference Points
<u>Length accessible 20 mi. Average width 35 ft. Average depth 10 in.</u>	
Spawning facilities <u>Good</u>	Peak of spawning _____
Gradient <u>Moderate</u>	Bottom <u>Medium gravel, rock, boulder</u>
<u>Counting area(s) _____</u>	

Description and Comments

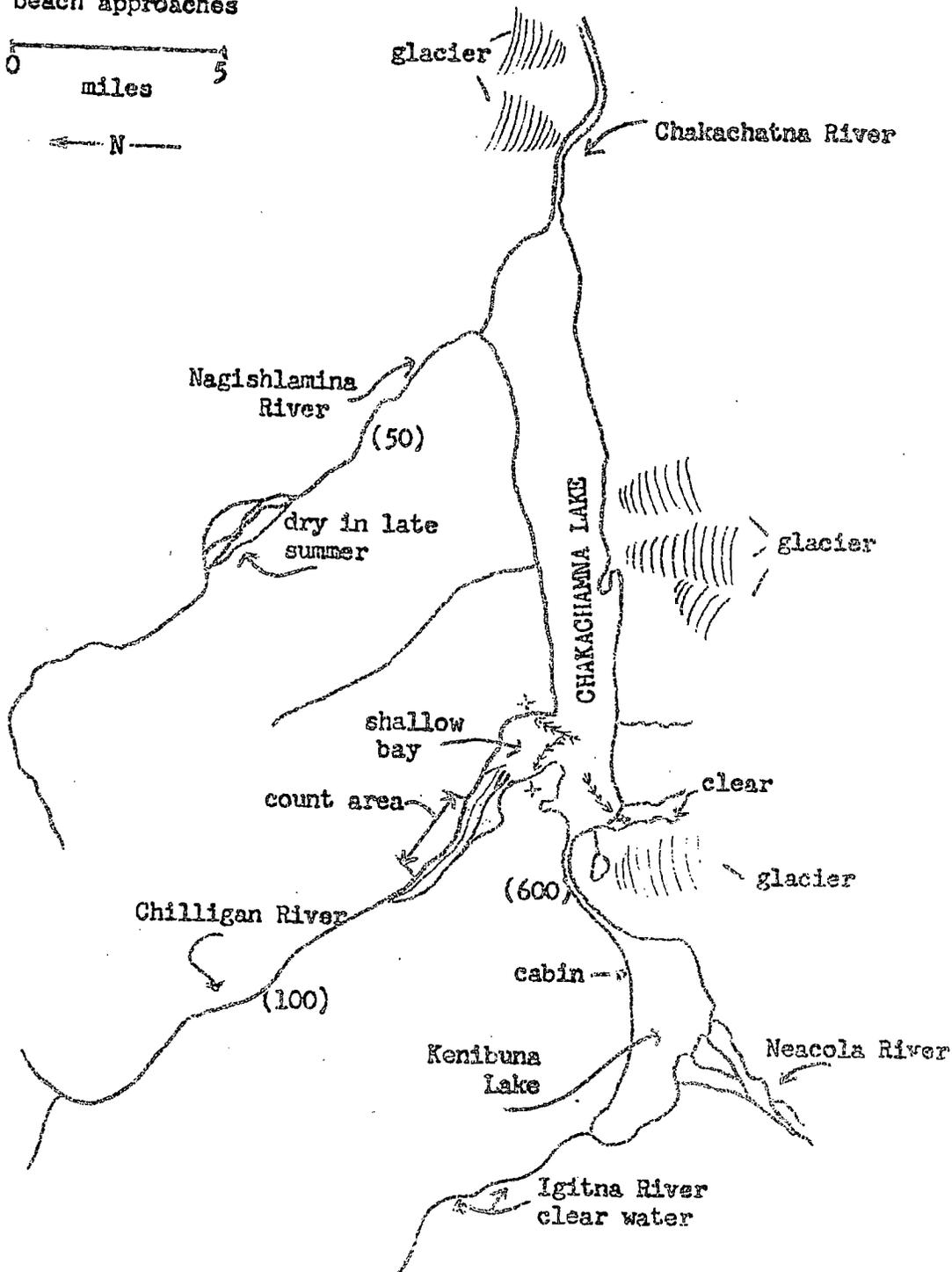
The lower section of this stream above the marshy tidal flat area is very brushy, making aerial observation of spawners somewhat difficult. The stream is clear except in muddy tidal flats. All five species of salmon are reported to enter this stream in limited numbers. About 10 miles upstream from mouth the topography changes from a brushy, flat terrain to a rather rugged canyon-like area. Limited air surveys indicate no blocks to salmon migration. A cabin and landing field are located on south bank near mouth. Field is to be avoided by heavier planes, however.

CHAKACHAMNA LAKE

- ✦ camp sites
- ▭ plane landing and beach approaches



← N →



USFWS AND F.R.I.

<u>CHAKACHAMKA LAKE</u>	<u>CHAKACHATNA RIVER</u>
Name of Lake or Stream	Drainage
<u>Location West of Beluga Lake - headwaters to Chakachatna River</u>	
<u>Map reference TYONEK</u>	<u>E-D, 4</u>
Quadrangle	Reference Points
<u>Length accessible _____ mi. Average width _____ ft. Average depth _____ in.</u>	
<u>Spawning facilities Not determined</u>	
<u>Perk of spawning _____</u>	
<u>Gradient _____</u>	
<u>Bottom Silt, sand, and gravel</u>	
<u>Counting area(s) Chakachamna Lake and Tributaries</u>	

Description and Comments

A large glacial lake 16 miles long and 2½ to 3 miles wide. Elevation approximately 1100 feet. Chilligan River is the only clear water tributary of consequence. The north and south shorelines are extremely precipitous while areas in vicinity of stream mouths are generally shallow. Silt and sand predominate in these shallow areas although some gravel is present. No evidence of lake spawning; however, glacial nature of water makes accurate observation difficult.

Plane landing in bay area at mouth of Chilligan River should be made with caution as this section is quite shallow. Would suggest staying well away from mouth, favoring west side of bay.

Surrounding topography very rugged and mountainous. Reds observed in Chilligan River only.

Lake fluctuates about 10 feet during season. Local guide states that lake becomes clear blue in fall. Black bear present. Lake trout observed in tributary stream.

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.K.

KENIBUNA LAKE Name of Lake or Stream	CHAKACHATNA RIVER Drainage
Location <u>Several miles west of Lake Chakachanna</u>	
Map reference <u>TYONEK</u> Quadrangle	<u>A, 3</u> Reference Points
Length accessible <u>3½</u> mi. Average width <u>3000</u> ft. Average depth <u> </u> in.	
Spawning facilities <u>Limited</u>	Peak of spawning <u> </u>
Gradient <u> </u>	Bottom <u> </u>
Counting area(s) <u> </u>	

Description and Comments

Kenibuna Lake is connected with Chakachanna Lake on the western end by a wild, turbulent glacial stream. The lake is likewise very glacial and has one moderately clear feeder stream, the Igitna River, which enters this body of water at the extreme northwest corner. Kenibuna is approximately 6 miles long by 1½ miles wide. Another river (glacial) enters the lake at the far west end having its source near Merrill Pass which is the gateway to the upper Kuskokwim watershed.

Nothing is known of the spawning facilities of this lake but from the air they appeared limited. A cabin is located on east shore of the bay leading to the Igitna River.

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

<u>IGITNA RIVER</u>	<u>KENIBUNA LAKE - CHAKACHATNA R.</u>
Name of Lake or Stream	Drainage
<hr/>	
Location	Extreme N.W. corner of Kenibuna Lake
Map reference	TYONEK A. 3
	Quadrangle Reference Points
Length accessible	$\frac{3}{4}$ mi. Average width 60 ft. Average depth 15 in.
Spawning facilities	Limited Peak of spawning
Gradient	Moderate to swift Bottom Gravel and boulders
Counting area(s)	None

Description and Comments

The Igitna River is a moderately clear stream having a slight glacial coloration. Aerial observation indicates a limited spawning area. A series of falls approximately $\frac{3}{4}$ miles upstream form a total barrier to salmon migration. Red salmon present in limited numbers.

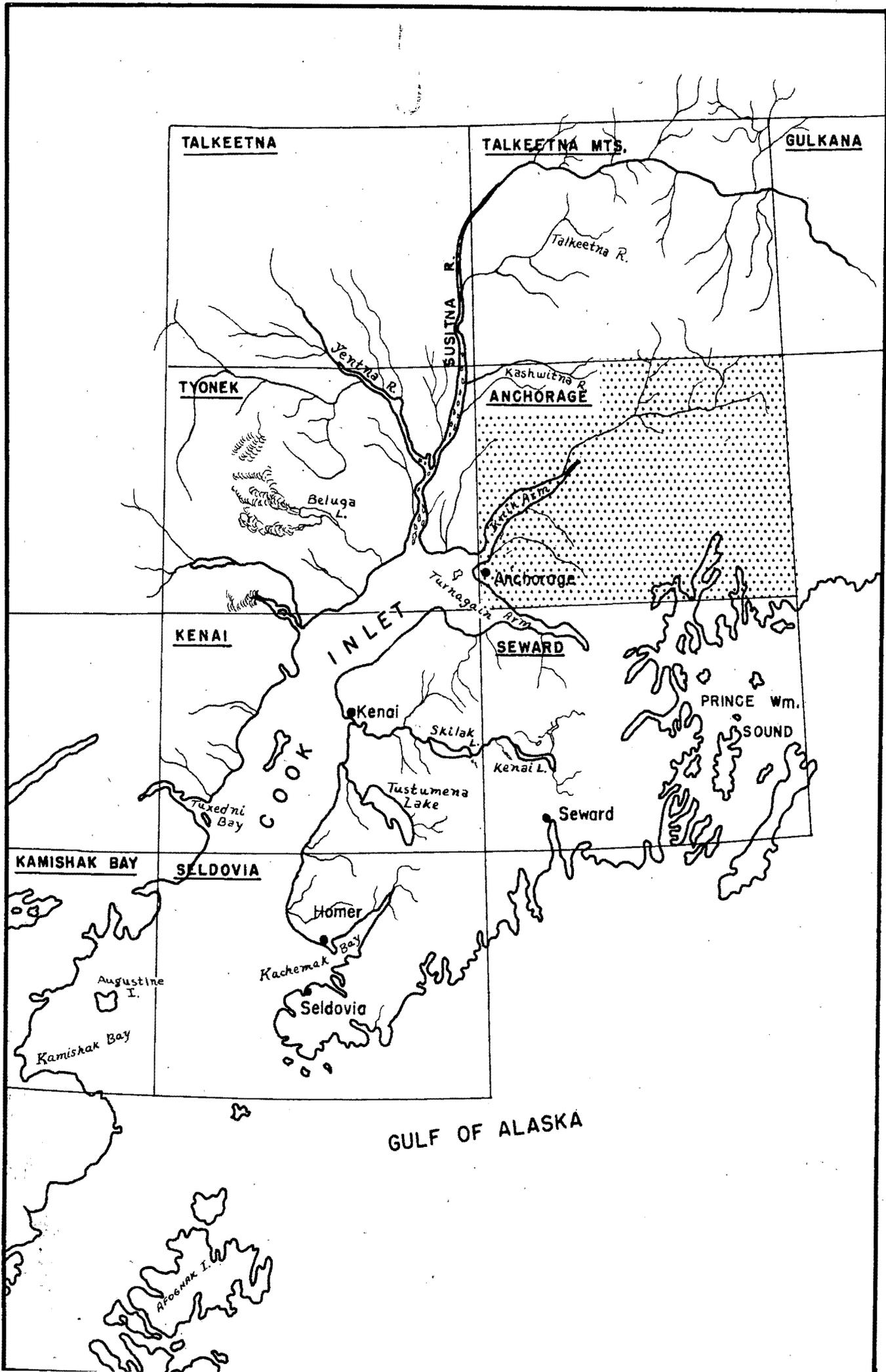
COOK INLET STREAM AND LAKE SURVEYS

USFWS AND P.R.I.

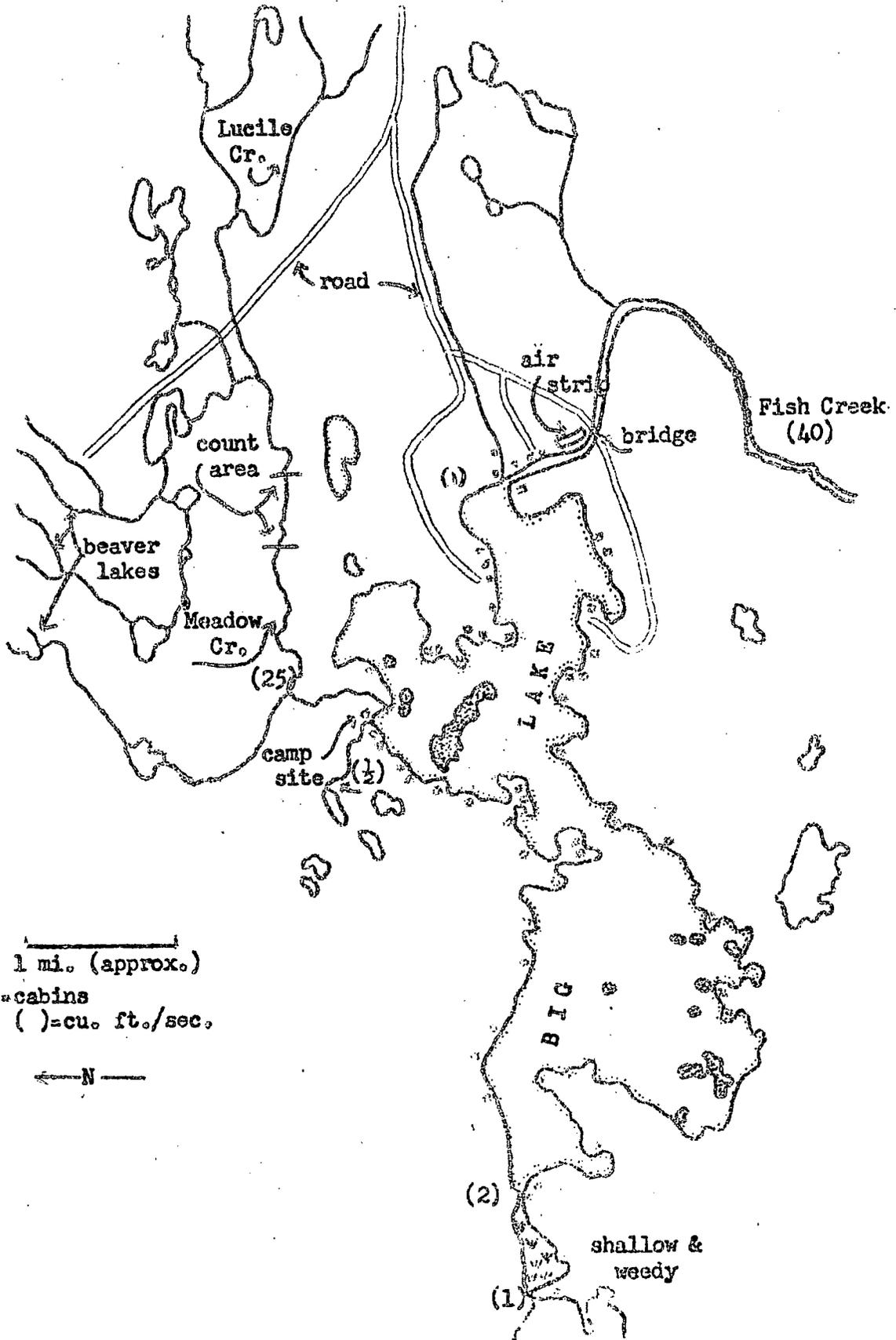
CHAKACHATNA RIVER		CHAKACHATKA RIVER	
Name of Lake or Stream		Drainage	
Location	West side Cook Inlet. Mouth at Trading Bay		
Map reference	TYONEK KENAI	A-G, 1-4 H-I, 13-5	Reference Points
Length accessible	Entire mi.	Average width	200 ft.
Spawning facilities	Unknown	Peak of spawning	
Gradient		Bottom	
Counting area(s)			

Description and Comments

Chakachatna River heads in Chakachamna and Kenibuna Lakes. It is perhaps the largest river on the west side of Cook Inlet, very glacial and extremely turbulent in its upper reaches. Red salmon are known to migrate up this stream and spawn in tributaries of Chakachamna and Kenibuna Lakes.



BIG LAKE



1 mi. (approx.)
* = cabins
() = cu. ft./sec.
← N →

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

BIG LAKE	FISH CREEK
Name of Lake or Stream	Drainage
Location <u>North of Anchorage, headwaters to Fish Creek</u>	
Map reference	<u>ANCHORAGE</u>
	<u>A-B, 8-9</u>
	Quadrangle
	Reference Points
Length accessible	<u>5</u> mi.
Average width	<u>5000</u> ft.
Average depth	<u> </u> in.
Spawning facilities	<u>Good</u>
Peak of spawning	<u>1st of Sept.</u>
Gradient	Bottom <u>Predominately gravel</u>
Counting area(s)	<u>Lake shore</u>

Description and Comment

A fairly large clear lake, not too deep. Intermittent spawning areas all around lake shore. Considerable vegetation in lake and it appears rich in food. Shore line of lake very long because of many bays and projections. A number of bays, weedy and silted. A favorite resort area of Anchorage residents who reach lake by plane or car. Several islands in lake. Camp sites numerous. Water temperatures in August around 65° F.

This lake with its tributary system (Meadow Creek) is the most important red production area in upper Cook Inlet. Cohos also utilize the system. Other fish include: rainbow trout, dolly varden, whitefish, lake ling, suckers and sticklebacks.

Animal predation light.

BIG LAKE

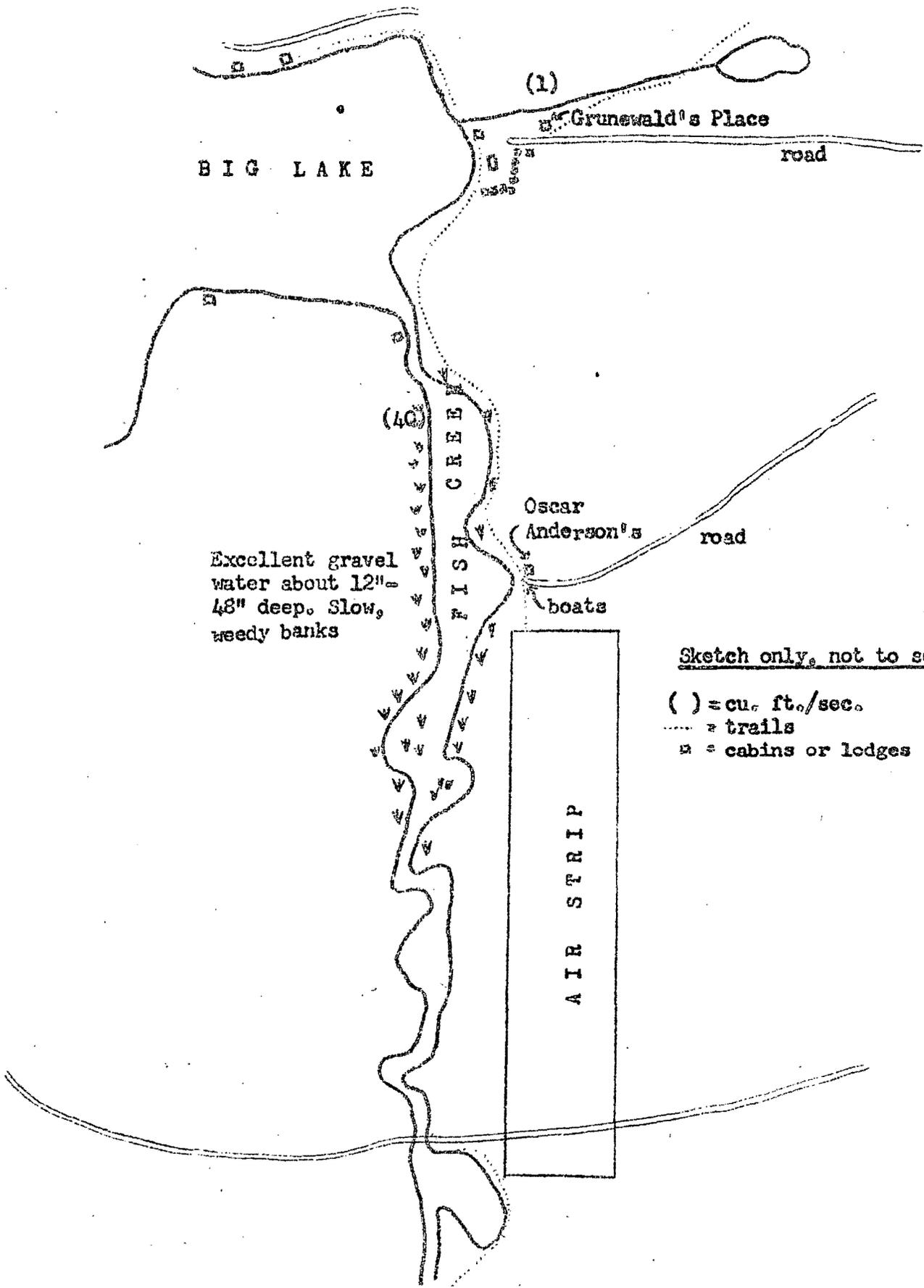
FISH CREEK

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/20/52	Entire	1000 reds	Fish scattered over most of shore line.

FISH CREEK



BIG LAKE

(1)

Grunewald's Place

road

(40)

FISH CREEK

Oscar Anderson's

road

boats

Excellent gravel water about 12"-48" deep. Slow, weedy banks

AIR STRIP

Sketch only, not to scale

() = cu. ft./sec.

--- = trails

x = cabins or lodges

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

FISH CREEK		FISH CREEK
Name of Lake or Stream		Drainage
Location <u>Outlet to Big Lake, east end</u>		
Map reference <u>ANCHORAGE</u>	<u>B. 7</u>	
Quadrangle		Reference Points
Length accessible <u>10</u> mi.	Average width <u>35</u> ft.	Average depth <u>20</u> in.
Spawning facilities <u>Excellent</u>	Peak of spawning <u>Middle of August</u>	
Gradient <u>Gentle-moderate</u>	Bottom <u>Gravel</u>	
Counting area(s) <u>1 1/2 miles below Big Lake</u>		

Description and Comments

Fish Creek is a medium sized stream with gentle to moderate gradient. In its upper reaches the banks are weedy and many springs feed into the stream. Spawning concentrated near Big Lake outlet. Road crosses creek over a bridge 1/2 mile downstream from Big Lake. Boat rentals shore distance downstream from lake. F.W.S. skiff and outboard available at "Grinewald's Place" north of outlet, east end of lake and accessible from the road. A partial dam in stream short distance upstream from bridge but no block to salmon. This stream of primary importance as an avenue for red salmon migrating from Knik Arm into Big Lake drainage. Several cabins in area, sports fishermen numerous.

Bear predation slight. Beaver have been nuisance in past but have been effectively controlled. Red and coho salmon utilize the area. Rainbow trout in evidence.

F.W.S. weir site located near mouth in Knik Arm.

FISH CREEK

FISH CREEK

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/19/52	1/8 mi.	373 reds	Count area, estimate 4000 reds from outlet to 1 1/2 mi. downstream.

STREAM RECORD

Fish Creek (Knik Arm)
NAME OF STREAM OR LAKE

Big Lake - Meadow Creek
DRAINAGE

Date	Distance Surveyed	Estimated Number of Salmon					Remarks
		Reds	Pinks	Chums	Kings	Cohos	
1930		Excellent				Excellent	8/31 - 9/4
1931		40% less than 1930				40% less	9/1 - 9/4
1932		Good					High water wide spread spawning
1936		203,032	Present	7/15-8/11	Several	Few	Weir count
1937		50,617				489	Weir 7/21-8/9
1938		182,463				19,417	Weir 7/10-8/8
1939		116,783	332			2,764	Weir 7/11-8/12
1940		306,982	many			16,546	Weir 7/4-8/17
1941		55,077				9,720	Weir 7/4-8/9
1942		Light					No weir count
1943		Fair					No weir count
1944		Good					Late survey
1945		Poor	Many reds taken for home use				
1946		Est. 60,000					
1947		150,000	(Heavy toll by personal use fisherman) Estimate				
1948		150,000					Estimate
1949		68,240	(11,000 reds taken for home use)			1642	Weir 7/9-8/17
1950	Weir count 7/9 - 8/17	29,659	699			1042	Additional 15,000 reds for home use
1951		34,722	(Est. 8760 reds for home use)			1953	Weir 7/4-8/16
1952		92,724				277	Weir 7/12-8/9

Fish Creek (Knik Arm)

Weir Count 1936

Date	Reds
July 15	1832
16	1045
17	2114
18	4316
19	5536
20	6186
21	16057
22	8187
23	21691
24	16388
25	17664
26	13594
27	18777
28	9694
29	10442
30	12913
31	17286
August 1	8620
2	3952
3	1626
4	1145
5	1063
6	401
7	695
8	934
9	216
10	560
11	98
Total:	203,032

Fish Creek (Knik Arm)

Weir Count 1937

Date	Reds	Cohos
July 21	145	
22	4025	
23	3195	
24	4300	
25	1042	
26	2280	
27	259	
28	3285	
29	6000	
30	6351	
31	5814	
August 1	4797	
2	3005	
3	2821	
4	1039	
5	744	
6	691	194
7	563	171
8	208	96
9	53	28
	<hr/>	<hr/>
Totals:	50,617	489

Fish Creek (Knik Arm)

Weir Count 1938

Date	Reds	Cohos
July 10	120	
11	50	
12	55	
13	15	
14	45	
15	10	
16	120	
17	755	
18	560	
19	870	
20	2280	
21	6680	
22	12360	
23	23540	
24	13257	1473
25	13964	1551
26	16857	1873
27	15080	1675
28	19089	2121
29	14148	1572
30	10796	1199
31	12340	3085
August 1	12908	3227
2	1736	434
3	1116	279
4	908	227
5	1436	359
6	520	180
7	336	84
8	512	128
Totals:	182,463	19,417

Fish Creek (Knik Arm)

Weir Count 1939

Date	Reds	Pinks	Cohos
July 11	2		
12	0		
13	2		
14	0		
15	0		
16	518		
17	0		
18	1581		
19	4147		
20	6188		
21	10889		
22	14961		
23	11311	115	
24	12836	135	
25	5525	24	
26	2263	4	
27	4480	9	
28	5549	7	
29	5562	8	
30	4420	10	
31	5274	20	
August 1	3788		
2	2513		
3	1854		26
4	6244		335
5	1593		123
6	2040		216
7	1891		451
8	1020		436
9	146		175
10	158		361
11	23		495
12	5		146
Totals:	116,783	332	2764

Fish Creek (Knik Arm)

Weir Count 1940

Date	Reds	Cohos
July 4	71	
5	415	
6	316	
7	217	
8	126	
9	19	
10	-	
11	-	
12	-	
13	1128	
14	2476	130
15	9497	499
16	9785	515
17	8398	442
18	47737	2513
19	57028	3002
20	34390	1810
21	31416	1654
22	12910	679
23	13414	707
24	11509	605
25	11817	622
26	12278	646
27	10933	576
28	5179	273
29	8238	433
30	7079	373
31	1524	80
August 1	1909	101
2	2085	109
3	988	52
4	506	89
5	645	114
6	586	103
7	561	100
8	698	123
9	476	84
10	369	66
11	106	19
12	153	27
Totals:	306,982	16,546

Coho counts established on basis of 5% of total run for period July 14 to August 3. Remainder of season calculated on basis of 15% of total run. Figures based on percentage of cohos in gill net catches at mouth of stream. Large numbers of pinks in stream during last week of counts. These were not included in totals.

Fish Creek (Knik Arm)

Weir Count 1941

Date	Reds	Cohos*
July 4	77	
5	67	
6	114	
7	63	
8	91	
9	78	
10	55	
11	85	
12	237	
13	82	
14	83	
15	1348	
16	836	
17	139	
18		
19	3836	
20	3294	
21	8724	
22	5139	
23	1560	
24	3850	
25	4723	
26	3828	
27	3165	
28	1975	
29	484	
30	897	
31	1393	
August 1	3194	
2	826	
3	649	
4	1535	
5	524	
6	253	
7	527	
8	1085	
9	261	
Totals:	55,077	9,720

* Estimated on basis of 15% of total figures.

Fish Creek (Knik Arm)

Weir Count 1949

Date	Reds	Cohos	Private Catch	Home-use Fishermen
July 9	20			
10	152			
11	20			
12	65		54	8
13	239		25	3
14	61		117	10
15	142		25	7
16	41		75	12
17	125		203	18
18	261		64	8
19	1583		276	15
20	5202		794	34
21	7283		1315	54
22	6231		1600	45
23	11366		747	22
24	6451		774	37
25	5063		634	29
26	2327		670	23
27	4078		144	10
28	3203	30	396	7
29	3440		256	6
30	1935		153	6
31	1930	75	106	13
August 1	1391	100	62	6
2	1523	39	130	8
3	1314	65	120	5
4	747	85	59	7
5	550	75	40	4
6	389	90	50	4
7	89	45	91	10
8	70	55	30	3
9	292	192	9	1
10	159	130		
11	115	95	7	2
12	133	110	13	3
13	97	85	11	2
14	50	60	45	8
15	17	20	10	2
16	61	96	3	1
17	25	195		
			1850*	2
			300**	4
Totals:	68,240	1642	11,258	439

* Estimated gill net catch at mouth of Fish Creek.

** Estimated gill net catch at Goose Bay.

Fish Creek (Knik Arm)

Weir Count 1950

Date	Reds	Cohos	Pinks	Home-use Catch
July 9				3
10				
11				
12				17
13	5			111
14	8			
15				32
16				6
17	20			10
18				2
19	4			18
20	94			82
21	2			89
22				15
23				16
24	1115	71		826
25	136	5		178
26	18			424
27	50			91
28	30			780
29	2942	58		877
30	2212	35	5	576
31	3201	40	46	314
August 1	3152	90	79	483
2	143	5	12	297
3	4760	24	120	423
4	4245	250	137	150
5	750	25	25	464
6	67	11	9	128
7	2056	66	78	1241
8	3019	83	48	214
9	1219	66	46	67
10	144	6	19	60
11	46	3	10	126
12	125	4	36	75
13	6	3	5	4
14	38	36	14	8
15	26	28	8	46
16	11	18	2	
17	15	115		
				7000 (unregistered)
Total:	29,659	1042	699	15,253

Fish Creek (Knik Arm)

Weir Count 1951

Date	Reds	Cohos	Net Marks	Water Temp. (F.)
July 4	1			
5				
6				
7				
8	4		1	71
9	124		42	71
10	98		40	74
11	7		3	74
12	7		3	73
13				73
14				74
15	850		207	72
16	536		188	70
17	517	3	161	64
18	389	1	125	65
19	1055	24	372	65
20	2707	77	865	64
21	1830	50	648	64
22	3297	71	912	62
23	1148	14	380	61
24	2901	47	882	60
25	576	24	173	60
26	1717	66	470	62
27	1001	31	291	60
28	4214	267	1338	60
29	479	14	182	60
30	2350	131	665	60
31	1471	41	495	58
August 1	2623	146	868	57
2	920	31	331	58
3	453	10	154	58
4	165	6	83	57
5	55	3	24	58
6	769	71	346	58
7	511	170	251	57
8	30	11	11	58
9	977	147	362	60
10	469	202	210	60
11	15	4	6	60
12	110	35	16	59
13	105	60	38	58
14	168	112	66	58
15	24	24	14	60
16	55	60	21	60
Total:	34,722	1953	11,244	

Fish Creek (Knik Arm)

Weir Count 1952

Date	Reds	Cohos	Net Marks
July 12	62		
13	302		23
14			
15			
16			
17	469		32
18	4862	4	324
19	3978	7	266
20	4129	21	415
21	8813	9	880
22	7692	8	514
23	9724	2	648
24	8421	63	848
25	6204		620
26	6020		602
27	3501		350
28	8978	23	900
29	10936	14	1095
30	5330	102	543
31	1704	13	172
Aug 1	329	7	33
2	505	1	50
3	86		9
4	242		24
5	120		12
6	107	3	11
7	89		8
8	76		7
9	<u>45</u>		<u>4</u>
Totals	92,724	<u>277</u>	8,390

	MEADOW CREEK	BIG LAKE
	Name of Lake or Stream	Basinage
Location	Northeast end of Big Lake	
Map reference	ANCHORAGE Quadrangle	D. 7.5 Reference Point
Length accessible	10 mi.	Average width 30 ft. Average depth 10
Spawning facilities	Excellent	Peak of spawning Mid August
Gradient	Slow	Bottom Mud to gravel
Counting area(s)	About 5 miles upstream from Big Lake	

Description and Comments

A clear stream, rather deep and slow running in lower section, meandering considerably. Skiff may be run up first three or four miles after which the stream shallows up into an excellent series of spawning riffles. (Note count area on map). Water temperatures in August around 60° F. Spawning known to continue upstream as far as Elodgett Lake.

Red and coho salmon observed, cottids, sticklebacks, and rainbow trout also in evidence. Bear in evidence although not plentiful.

STREAM RECORD

MEADOW CREEK

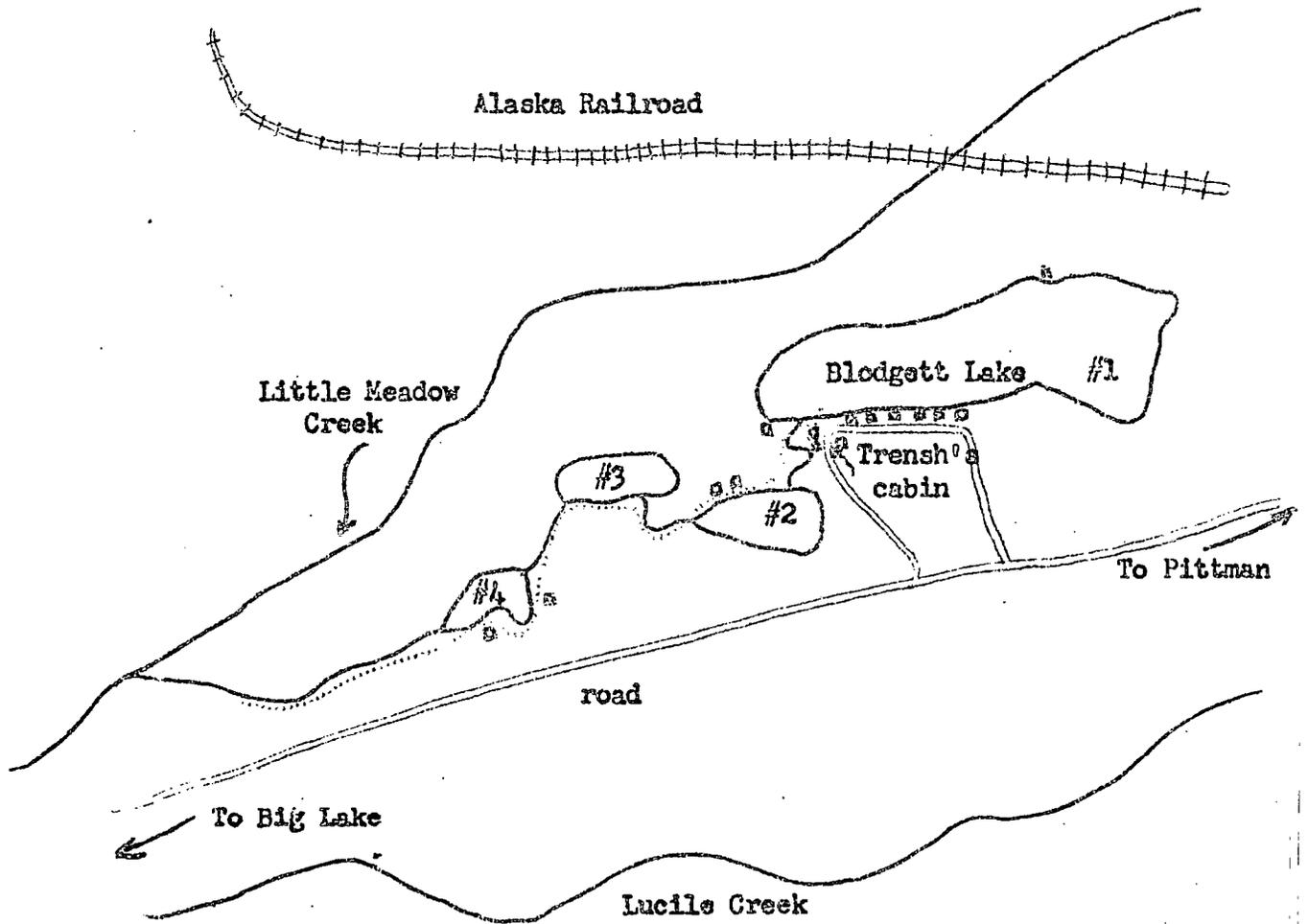
BIG LAKE

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/18/52	1/2 mi.	1878 reds	105 of total dead. Count area
8/21/52	1/2 mi.	1777 reds	Count area.

BLODGETT LAKES



1 mile, (Approx.)

--- trails
● cabins

COOK INLAND STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

BLEDGETT LAKE CHAIN		FISH CREEK
Name of Lake or Stream		Drainage
Location	East of Big Lake, tributary to Meadow Creek	
Map reference	ANCHORAGE Quadrangle	G. 9 Reference Points
Length accessible	mi.	Average width ft. Average depth in.
Spawning facilities	Excellent	Peak of spawning to first of Sept. Latter part of Aug.
Gradient	Bottom	
Counting area(s)	Lake shores and connecting stream.	

Description and Comments

A chain of 4 small spring-fed lakes tributary to Meadow Creek in the Big Lake drainage. Undoubtedly one of the larger contributors to the Fish Creek run. All the lakes other than number three in chain provide excellent spawning areas for red salmon. The third lake is shallow and marshy and of no importance for spawning. The stream connecting the lake chain also provides excellent spawning areas. Cabins numerous and there are good trails along all lakes. Area is accessible by road. A camp site on Mr. French's property, which has been utilized after obtaining permission, is located at the southwest end of Bledgett Lake. Bledgett Lake is the largest lake (3/4 mile long) and only one suitable for plane landings. Both reds and cohos utilize the system. Other species include rainbow trout, sculpin, and sticklebacks.

Although many people frequent the area, there is no evidence that the spawning salmon are being collected.

BLODGETT LAKE CHAIN

FISH CREEK

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/30/52	Entire		No count. Estimate 15 to 20,000 reds in lakes.
<u>Connecting Streams</u>			
8/30/52	Fr Lakes #1 - #2	711 reds	231 of total dead.
8/30/52	Fr Lakes #2 - #3	702 reds	126 of total dead.
8/30/52	Fr Lakes #3 - #4	1083 reds	128 of total dead.

COOK INLET STREAM AND LAKE SURVEYS

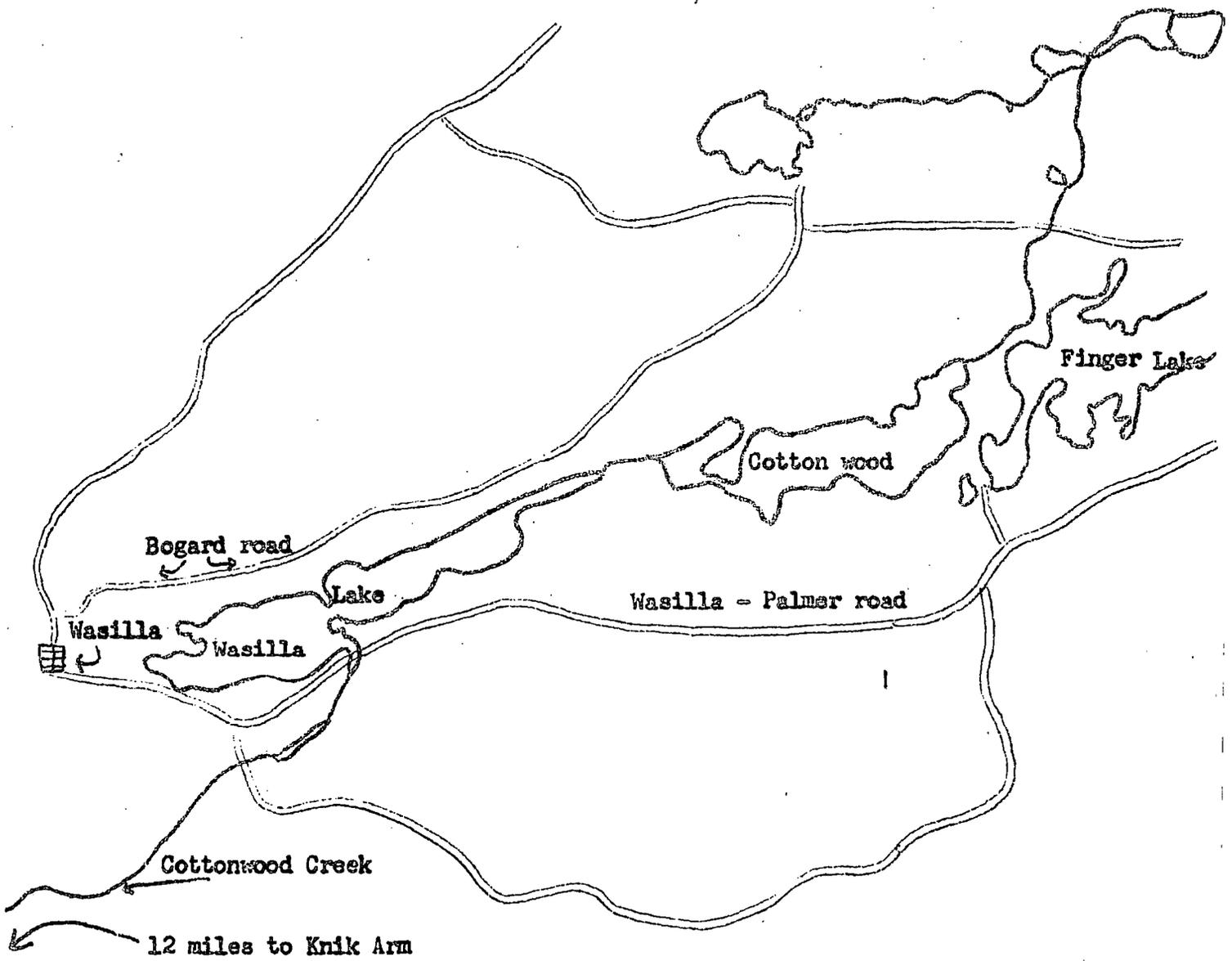
USFWS AND F.R.I.

LUCILE LAKE AND CREEK		FISH CREEK
Name of Lake or Stream		Drainage
Location	Headwaters of Meadow Creek	
Map reference	ANCHORAGE Quadrangle	C-D, E.5 Reference Points
Length accessible	mi.	Average width ft. Average depth in.
Spawning facilities		Peak of spawning
Gradient		Bottom Mud
Counting area(s)		

Description and Comments

Air survey only. Lake very shallow with middy bottom. Lucile Creek nearly dry at lake outlet during summer. Most of upper 6 miles inaccessible to salmon as stream is very small.

COTTONWOOD LAKE & CREEK



1 mi. (approx.)

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

COTTONWOOD CREEK		COTTONWOOD CREEK	
Name of Lake or Stream		Drainage	
Location: Upper northwest Knik Arm			
Map Reference	ABBREVIATION Quadrangle	G-1, F-9	Reference Station
Length at mouth	15 mi.	Average width	15 ft.
Spawning facilities: Good - Excellent		Fishes spawning	
Conditions		Notes	
Spawning area(s)			

Description and Comments

Cottonwood Creek is a small, clear stream which at one time supported a considerable number of red salmon. Heavy kill of salmon for food and human consumption is considered the most plausible reason for decline of run in this area. Just little spawning does take place in the watershed is now confined to limited areas of Cottonwood Lake and the upper portion of the drainage. Feeder have been a nuisance in the lower stretches but dams have been periodically removed by stream cleaning. There are excellent spawning gravels in section above Cottonwood Lake. Red and coho salmon have been observed.

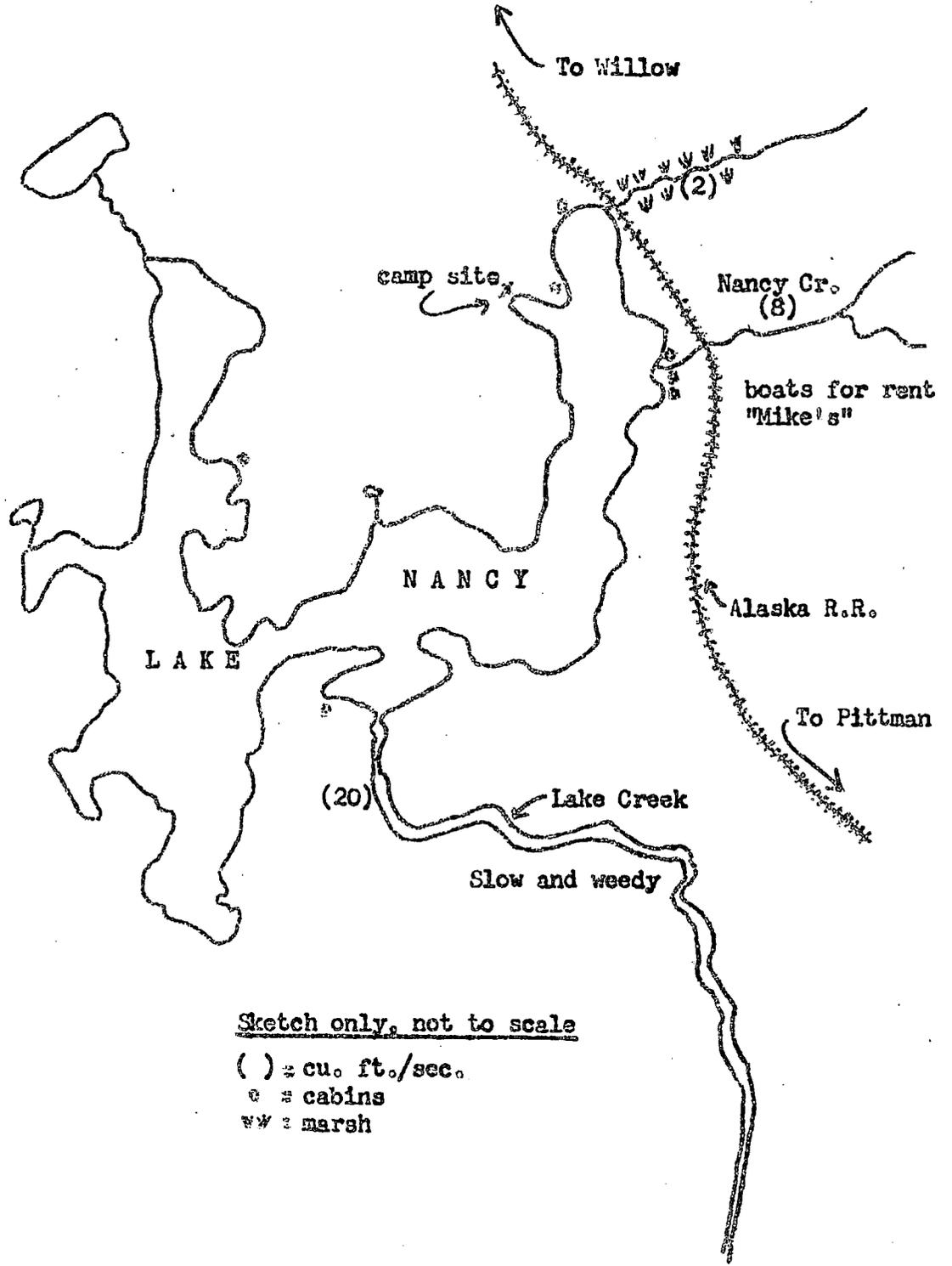
Date	Mileage Surveyor	Estimated Number of Station	Remarks
1930			Post (Killer) 1930 - 15,000 rods
1931			10% less than 1930
1932			Full showing during
1933			of rods
1934			for rods on opening grounds,
1935			8 - 10,000 rods taken for dog feed.
1937			General thousand taken for home use.
1938			Very few rods
1939			for rods
1940			Very few rods
1941			for rods
1942			In Government Lake
1943			from north, 1/2 foot
1944	1/2 mi.	None	check at bridge
1945	3 mi.	None	Foot survey
1946	4 mi.	150 rods	Foot survey
1947		150 rods	At dam 1/2 mi. from north
1948			Blah seen about 2 miles from

GOVERNMENT LAKE

Page 13 of 13 pages of Lake

GOVERNMENT LAKE

LAKE NANCY



Sketch only, not to scale

() = cu. ft./sec.

o = cabins

w = marsh

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

LAKE NANCY Name of Lake or Stream	LITTLE SUSITMA RIVER Drainage
Location <u>10 miles north of Big Lake</u>	
Map reference <u>ANCRORAGE</u> Quadrangle	<u>A, 10.5</u> Reference Points
Length accessible <u>2</u> mi. Average width _____ ft. Average depth _____ in.	
Spawning facilities <u>Good</u>	Peak of spawning <u>Late August-first Se</u>
Gradient _____	Bottom _____
Counting area(s) _____	

Description and Comments

A small clear lake with very irregular shoreline. All tributaries but Nancy Creek unimportant. Good spawning facilities in Nancy Creek. Very limited survey in 1952. Spawning areas reported fairly numerous around lake, concentrated in northeast, east, and northwest sections of lake. Surrounding area wooded. Some shore areas rather deep. Considerable aquatic vegetation. Several cabins on lake shore and one boat rental at east end of lake. Alaska Railroad runs near northeast end of lake. May be two red salmon peaks in Nancy Creek. Indications of early run (July) also. Temperature around 59° F. when checked in late August.

Beavers very numerous and a problem.

Reds, kings, and cohos reported to utilize this area. Rainbows, dolly varden, grayling, and whitefish also reported. Excellent sport fishing for rainbows.

STREAM RECORD

LAKE NANCY

LITTLE SUSITNA RIVER

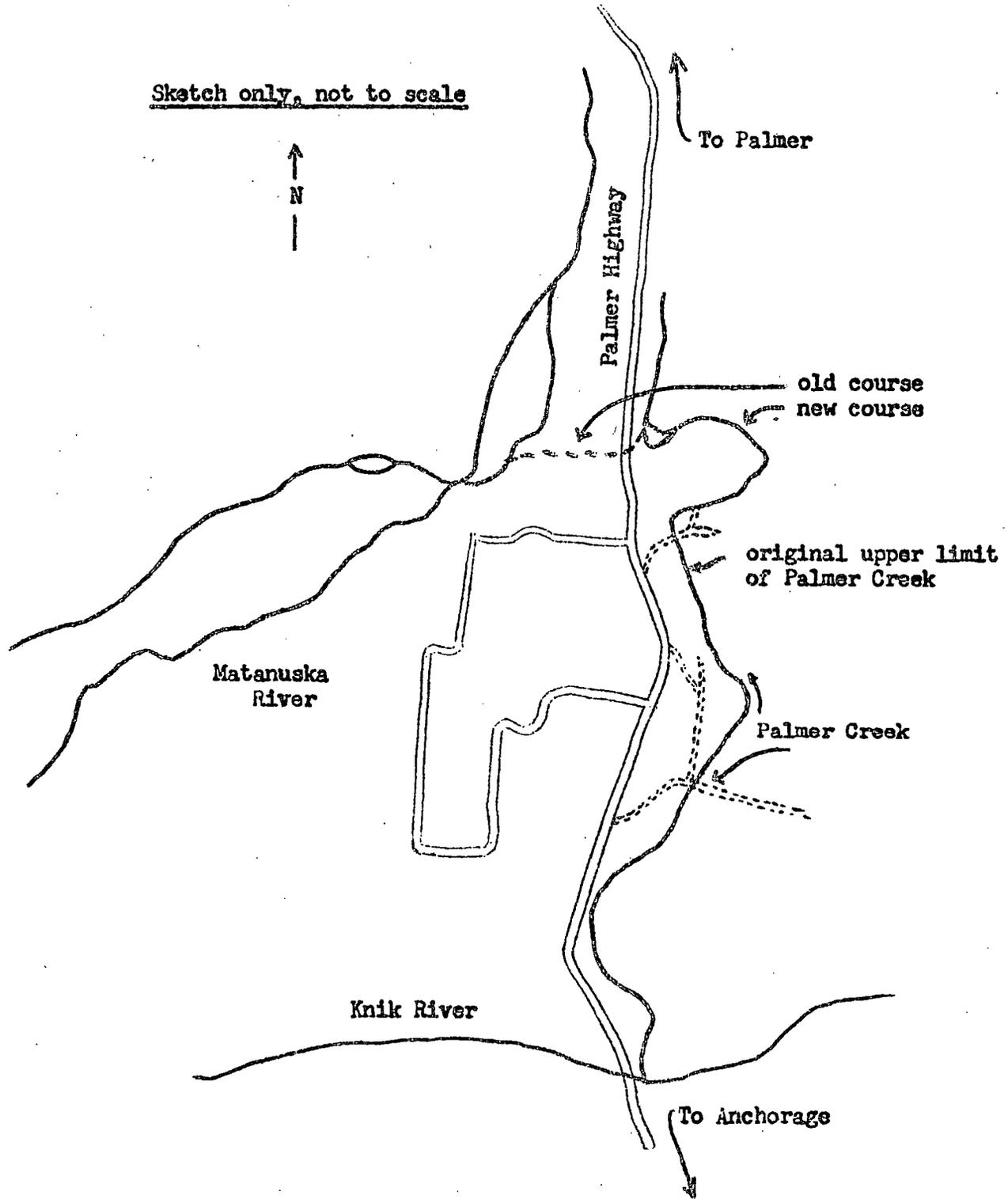
Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
7/8-9/49		No salmon reported	Stream clearance crews.
8/7/50	3 mi.	None	Air survey
8/28/52	Brief	300 reds	At mouth of Nancy Creek.

PALMER CREEK

Sketch only, not to scale



2001 INLET CHANNEL AND LAKE SURVEYS

OSPWS AND P.R.I.

PALMER CREEK		KNIK RIVER	
Name of Lake or Stream		Drainage	
Location	East side of Hi-way below Palmer		
Map reference	ANCHORAGE	F-6, 8	
	Quadrangle	Reference Points	
Length accessible	mi.	Average width	25 ft. Average depth 12 in.
Spawning facilities	Fair	Peak of spawning	First of September
Gradient	Moderate	Bottom	Gravel
Counting area(s)	About four miles upstream from mouth		

Description and Comments

A small clear stream of moderate gradient. Red salmon spawning areas limited. Stream parallels Palmer Hi-way entering Knik River just east of highway bridge. Palmer Creek longer than originally, due to road construction causing small Matamaka River tributary to change course into Palmer Creek. Backwater apparently resulting from construction activity forms a small pond area which is being utilized by red salmon fry and fingerlings. Only spawning reds seen were above this pool and the pool itself contained a number of red fry. Chums also present in stream. Few fish noted in 1952 survey. Temperature about 40° F.

STREAM RECORD

PALMER CREEK

KNIK RIVER

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated number of Salmon	Remarks
8/29/52	1/8 mi.	34 reds 20 chums	Limited spawning area. Deep pools formed by road construction.
9/3/52	1/8 mi.	51 reds 20 chum	

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

SHIP CREEK		SHIP CREEK	
Name of Lake or Stream		Drainage	
Location	Enters Knik Arm in Anchorage at Eward's Cannery		
Map reference	ANCHORAGE Quadrangle	C.4 Reference Points	
Length accessible	mi.	Average width	60 ft. Average depth 20 in.
Spawning facilities	Good	Peak of spawning	
Gradient	Moderate	Bottom Medium gravel, rock, and sand.	
Counting area(s)			

Description and Comments

Ship Creek runs for approximately 35 miles from its source in Chugach Mountains to the east of the city of Anchorage, entering Knik Arm adjacent to the wharf of Eward's Cannery. A high dam approximately 6 miles upstream blocks further passage of fish. The lower section of the stream has been altered considerably as the result of construction activity in Anchorage. Several small diversion dams were noted but all were passable to fish.

Pinks, lings, chum, and coho spawn in the restricted area now available. Foot trails along south bank from city of Anchorage. Stream is heavily fished by sports fishermen who take a few dolly varden trout.

STREAM REPORT

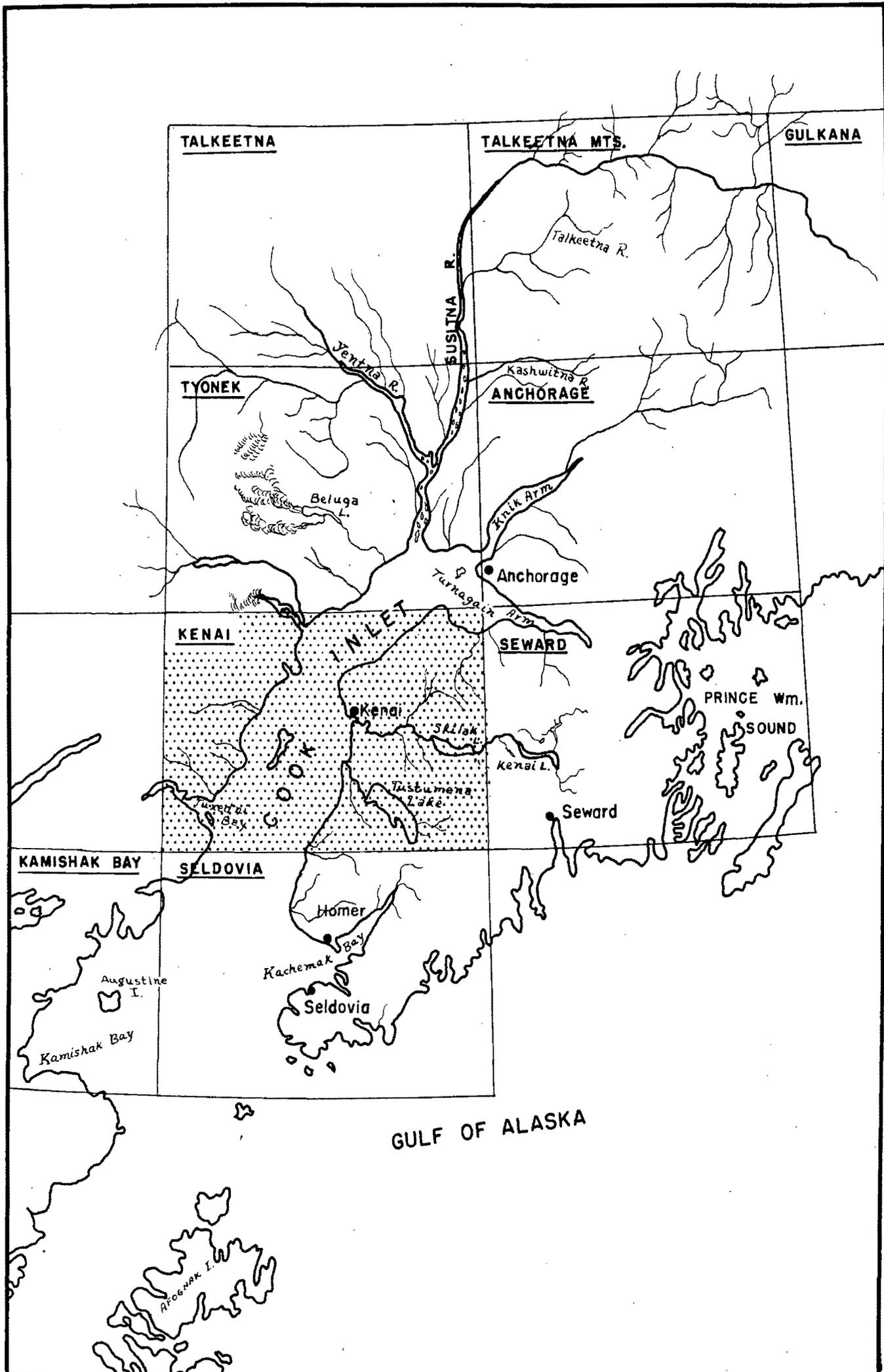
SHIP CREEK

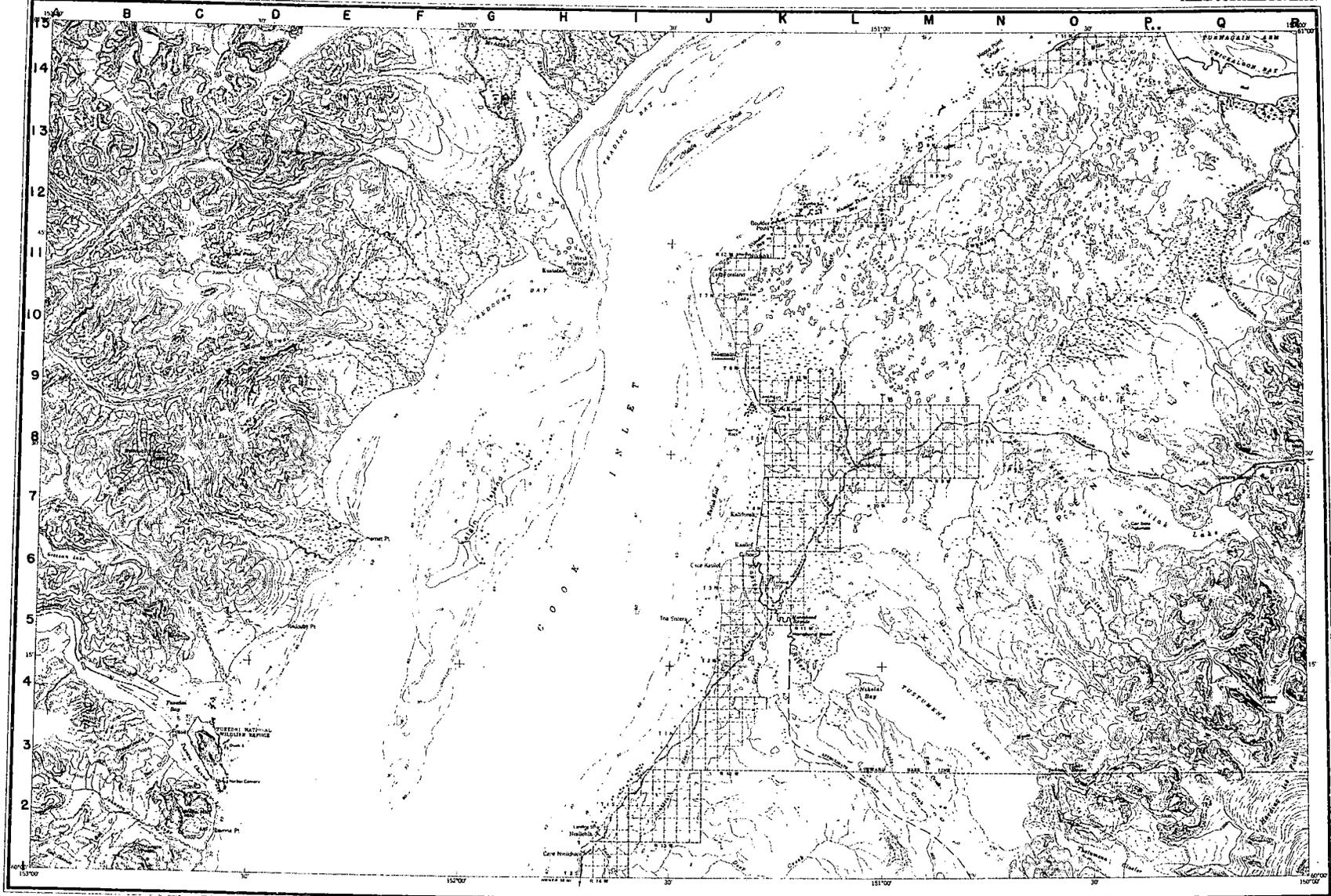
SHIP CREEK

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated number of Salmon	Remarks
9/16/52	2½ mi.	650 pinks	Ground survey, kings and cohos also present.
7/27/52	2 mi.	1 red 1258 pinks 50 chums 1 king	Poor light estimate 5,000 pinks in stream.





MAPPED BY THE GEOLOGICAL SURVEY AND ARMY MAP SERVICE
EDITED AND PUBLISHED BY THE GEOLOGICAL SURVEY

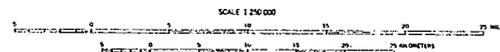
CONTROL AND CHECKS MADE BY USGS

DATA AND GRANGES IN PART COMPILED FROM INFORMATION
PROVIDED BY THE STATE OF ALASKA, THE GEOLOGICAL
SURVEY OF THE GEOLOGICAL SURVEY AND OTHER OFFICES.
SOURCE: U.S. GEOLOGICAL SURVEY, 1957-1964.
GRAPHIC PHOTOGRAPHIC AND MATHEMATICAL CORRECTION, 1964-1964

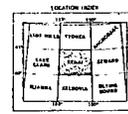
POLYMER PROJECTION 1927 NORTH AMERICAN DATUM
EQUIDISTANT LAMBERT CONIC PROJECTION SYSTEM



- 1. Contour Interval
- 2. Contour Interval
- 3. Contour Interval
- 4. Contour Interval
- 5. Contour Interval
- 6. Contour Interval



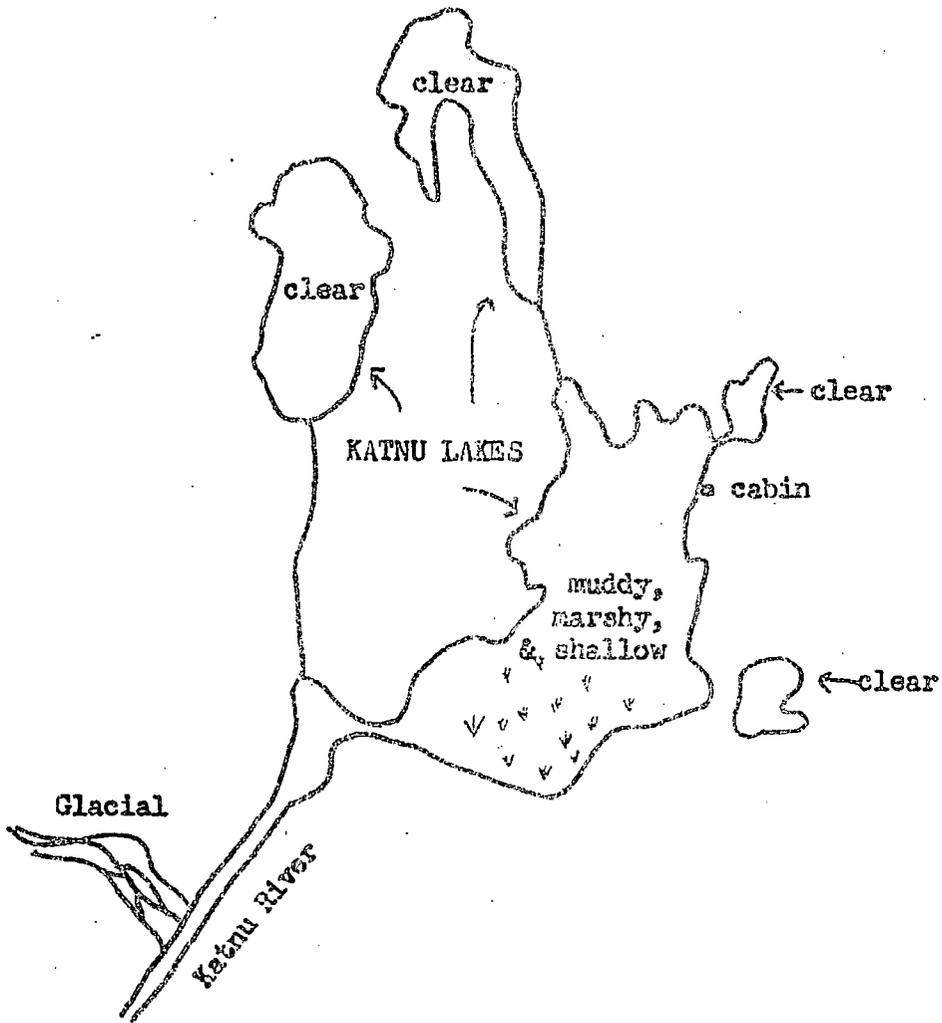
CONTOUR INTERVAL 200 FEET
SPACES NOT SHOWN IN DETAIL INDICATED BY BROKEN LINES
DEP. IN FEET OR METERS
DEPTH CURVES IN FEET OR METERS
1964 MAGNETIC DECLINATION 22 SOUTH EAST OF GUYOT THREE FROM LINES 10 20 W. EAST
THIS MAP IS AVAILABLE IN BOTH BROAD RELET AND CONTOUR EDITIONS.
FOR SALE BY U.S. GEOLOGICAL SURVEY, FEDERAL CENTER, DENVER, COLORADO OR WASHINGTON, D. C.
A FOLDER CONTAINING TOPOGRAPHIC MAPS AND THEMES IS AVAILABLE ON REQUEST



ROAD CLASSIFICATION
ALL WEATHER ROAD ONE WAY ROAD
ROAD SURFACE ROAD SURFACE
OTHER ROAD SURFACE

KENAI, ALASKA
6800-10 (2/57) 1:250,000
EDITION OF 1960

KATNU RIVER & LAKES



COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

KATEU LAKES		KATNU RIVER	
Name of Lake or Stream		Drainage	
Location	20 miles west northwest of West Foreland		
Map reference	KENAI	E. 12	
	Quadrangle	Reference Points	
Length accessible	_____ mi.	Average width	_____ ft. Average depth _____ in.
Spawning facilities	Unknown	Peak of spawning	_____
Gradient	_____	Bottom	_____
Counting area(s)	_____		

Description and Comments

A series of three lakes with several lesser bodies of water in vicinity. The lower and largest lake (2 mi. x $\frac{1}{2}$ mi.) is muddy, probably from backwater of Katnu River. The upper lakes are clear and appear to connect by small streams with lower lake. (Cursory air survey only in 1952). There is a cabin near the northwest end of the larger lake. No salmon noted.

STREAM RECORD

KATNU RIVER & LAKES

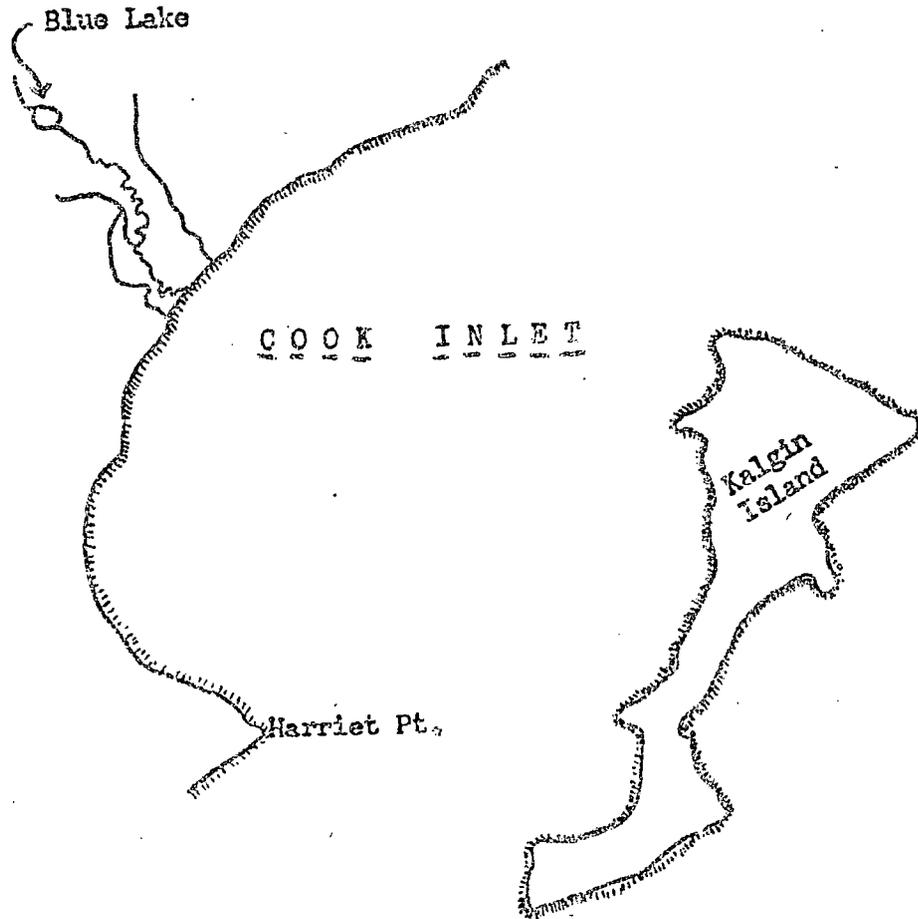
KATNU RIVER

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
6/27/49			Kings reported, too early
9/11/52	Brief	None	Air survey

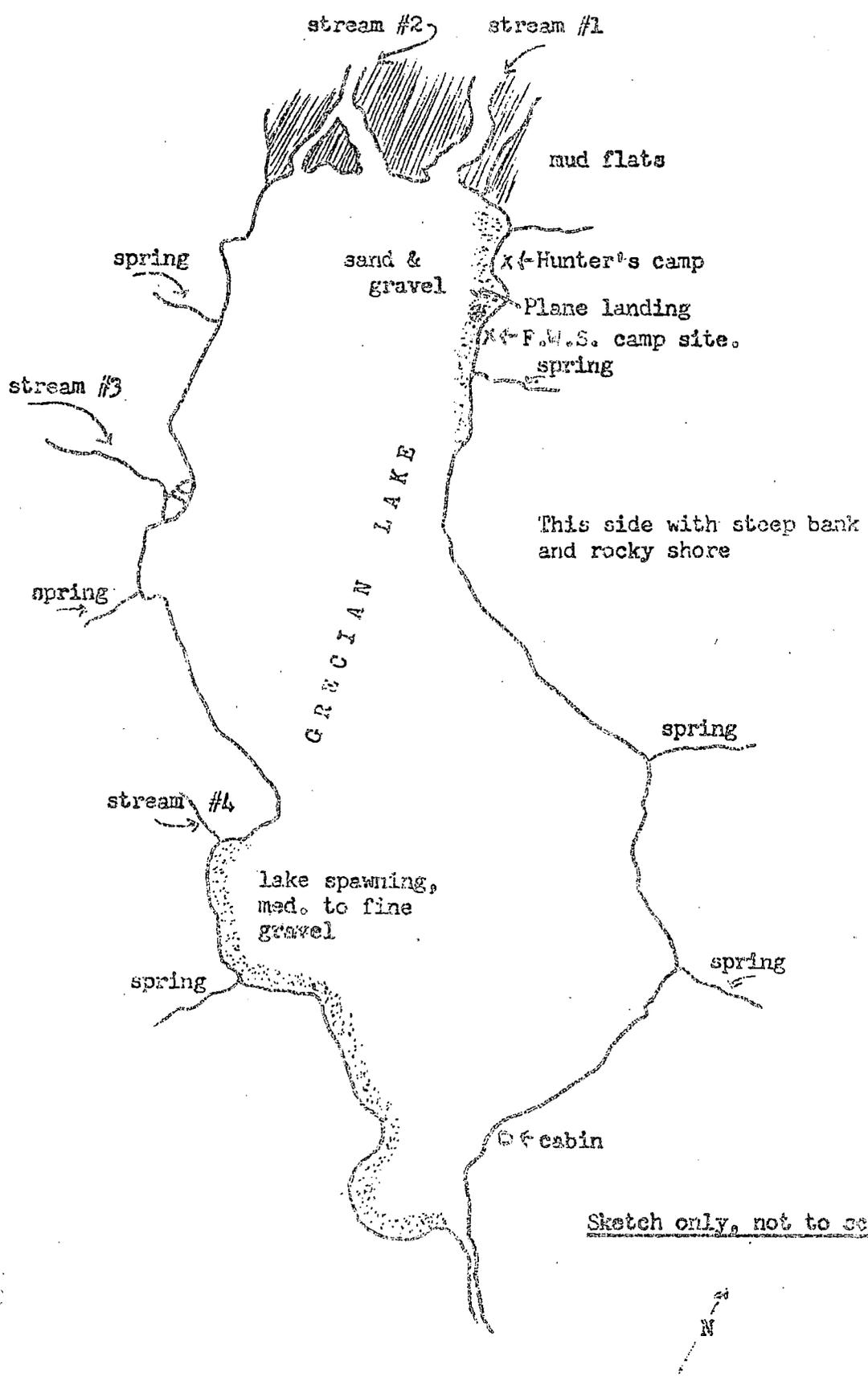
BLUE LAKE



Sketch only

5 mi. (Approx.)

GRECIAN LAKE



Sketch only, not to scale

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

BLUE LAKE		WEST COOK INLET	
Name of Lake or Stream		Drainage	
Location	Outlet stream enters Cook Inlet due west of north end Kalgin Island		
Map reference	KENAI	D. 9	
	Quadrangle	Reference Points	
Length accessible	5/8 mi.	Average width	5/8 ft. Average depth _____ in.
Spawning facilities	Good	Peak of spawning _____	
Gradient	_____	Bottom	Medium gravels
Counting area(s)	Shoreline		

Description and Comments

Blue Lake is a small deep blue body of water lying approximately 4 miles inland at base of mountain area on west side of Cook Inlet. Its outlet stream meanders in snake-like fashion over marshy tidal flats, entering Cook Inlet almost due west of northern tip of Kalgin Island. A large beaver dam completely blocks outlet of lake but apparently does not prevent passage of fish into lake. The stream below dam is about 15 ft. wide and runs perhaps 10 second feet.

All lake spawning. Reds in lake, cohes below dam. Map indicates small feeder stream at head of lake. However, lake is probably spring fed for the most part. A smaller lake lies on other side of hill east of Blue Lake but does not appear to support a salmon population.

STREAM RECORD

BLUE LAKE

WEST COCK INLET

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated number of Salmon	Remarks
9/11/52		None	Air survey - brief. Large beaver dam at outlet.
9/17/52		1300 reds 280 cohos	All lake spawners, nothing in small tributary. 60 reds below beaver dam at outlet.

USFWS AND P.R.I.

GRECIAN LAKE		GRECIAN RIVER - WEST SIDE COOK INLET	
Name of Lake or Stream		Drainage	
Location	South of Mt. Redoubt - West Cook Inlet		
Map reference	KENAI Quadrangle	A-B, 6 Reference Points	
Length accessible	mi.	Average width	ft. Average depth
Spawning facilities	Fair	Peak of spawning First of September	
Gradient	Bottom		
Counting area(s)	Lake shore		

Description and Comments

A glacial lake about 6 miles long and $\frac{1}{2}$ to 2 miles wide, located in mountain pocket about 15 miles inland from mouth of Grecian River. One small rock island on north shore. Two streams at west end of lake are fairly clear in late summer and appear to support most of the red salmon spawning in this drainage. There is evidence of considerable fluctuation in the lake level. Lake spawning concentrated in southeast shore of lake with some activity at west end of lake also. Lake shore must be followed very close to shore for sighting fish.

Campsite northwest end of lake. Best plane approach between sand point and small rock hill. Sandbar south of this point. Guide's camp west of here is used during the hunting season. One cabin on lake at east end, north of lake outlet.

Dolly varden, stickleback, cottid and rede present in lake. Cods have been reported.

Only bear are browns. Considerable predation noted on smaller tributaries. Numerous seagulls and coyote in evidence. Some beaver activity in west streams--no dams. Few insects.

SCHEMATIC RECORD

GREGCIAN LAKE (Grossion Lake)

GREGCIAN RIVER

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/13/47			Air survey, redds noted no estimate of numbers.
7/20/49			Reds noted in Gregcian River
8/8/50	8 mi.		Air survey, dirty water, good run reported by fisherman.
8/18/51	1 mi.		Air check of river, dirty water.
9/6/52	Entire	2000 redds	Boat survey, water glacial.

KOON KULLE STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

<u>#1 STREAM - GRECIAN LAKE</u>	<u>GRECIAN RIVER</u>
<u>Name of lake or Stream</u>	<u>Drainage</u>
<u>Location</u>	<u>North side of valley - west end of lake</u>
<u>Map reference</u>	<u>KENAI</u>
<u>Quadrangle</u>	<u>A-B, 6</u>
<u>Reference Points</u>	
<u>Length accessible</u>	<u>mi.</u>
<u>Average width</u>	<u>60 ft.</u>
<u>Average depth</u>	<u>20 in.</u>
<u>Spawning facilities</u>	<u>Excellent</u>
<u>Peak of spawning</u>	<u>Unknown</u>
<u>Gradient</u>	<u>Moderate</u>
<u>Bottom</u>	<u>Gravel</u>
<u>Counting area(s)</u>	<u>None</u>

Description and Comments

A large partially glacial stream with moderate gradient, approximately 60 feet wide on the average and about 20 inches deep. An abundance of excellent spawning gravel is available. Somewhat difficult to survey in lower area because of almost impenetrable alder brush on valley floor along stream. Parts of stream too deep for wading. Farther upstream, stream bed has many bars for easier travelling. Some beaver activity near mouth. Stream flows into lake over a soft, sandy delta. This area can be crossed easily if a little care is taken. Red salmon noted in stream first part of September but no sign of active spawning. Stream continues in northerly direction for approximately 10 miles. Upper areas not surveyed.

Brown bear in evidence along stream and delta area. Many seagulls.

STREAM RECORD

#1 STREAM - GRECIAN LAKE

GRECIAN RIVER

Name of Lake or Stream

Drainage

Date	Distance Surveyed	Estimated number of Salmon	Remarks
9/11/52	2 mi.	2500 redds	Air survey. All fish seen $1\frac{1}{2}$ miles above lake.

SOCK SALMON STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

#2 STREAM - GREGIAN LAKE	GREGIAN RIVER
Name of Lake or Stream	Drainage
Location	South side of valley - west end of lake
Map reference	KENAI A-B, 6
	Quadrangle Reference Points
Length accessible	mi. Average width 20 ft. Average depth 15 in.
Spawning facilities	Excellent Peak of spawning Unknown
Gradient	Moderate Bottom Gravel
Counting area(s)	None

Description and Comments

A stream similar to #1 in color, but slightly smaller in size. It is easier to walk up and wade. Many sandbars near mouth, continuing on upstream. This stream is also partially glacial and enters lake just south of stream #1. Meanders considerably in lower area. Follows along somewhat parallel to stream #1 for several miles and then turns in a southwesterly direction. Dense alder thickets along stream.

Red salmon present in September.

Brown bear sign.

STREAM RECORD

#2 STREAM - GRECIAN LAKE

GRECIAN RIVER

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
9/11/52	2 mi.	1000 redds	Air survey. Fish seen were at least $1\frac{1}{2}$ mi. above lake.

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

<u>#3 STREAM - GRECIAN LAKE</u>	<u>GRECIAN RIVER</u>
<u>Name of Lake or Stream</u>	<u>Drainage</u>
<u>Location South shore 1/3 distance of lake from west end</u>	
<u>Map reference KENAI</u>	<u>A-B, 6</u>
<u>Quadrangle</u>	<u>Reference Points</u>
<u>Length accessible 2 mi.</u>	<u>Average width 15 ft.</u>
<u>Average depth 12 in.</u>	
<u>Spawning facilities Fair</u>	<u>Peak of spawning</u>
<u>Gradient Steep</u>	<u>Bottom Gravel</u>
<u>Counting area(s) 100 yards upstream</u>	

Description and Comments

Stream #3 is intermediate in size, very glacial, with a fairly fast water flow. Its importance as a salmon stream is questionable. It drops off the high mountains very rapidly having only about two miles of flat flow, entering the lake on a large-fan-shaped delta of old geological age. Surveying the stream from mouth up is next to impossible because of some deep pools and the impenetrable alder brush which is typical to the country. This brush extends along the stream for perhaps a quarter of a mile. Then the stream banks open up for easier travelling. To reach this open section of stream, a skiff landing should be made about $\frac{1}{4}$ mile west of the stream mouth. Here brushy areas have been opened up by high water scouring and stream may be approached with relative ease. Spawning takes place at the mouth and fish were seen for a short distance upstream. Bear much in evidence and predation relatively heavy.

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND P.R.I.

#4 STREAM - GRECIAN LAKE	GRECIAN RIVER
Name of Lake or Stream	Drainage
Location <u>2/3 distance of lake from west end on south shore</u>	
Map reference <u>HEKAI</u> Quadrangle	<u>A-B, 6</u> Reference Points
Length accessible <u>1/2</u> mi. Average width <u>5</u> ft. Average depth <u>3</u> in.	
Spawning facilities <u>Poor</u>	Peak of spawning _____
Gradient <u>Moderate</u>	Bottom <u>Coarse gravel</u>
Counting area(s) _____	Mouth of stream _____

Description and Comments

This is a clear stream of questionable importance as a spawning area other than at mouth. Stream flows are generally too low to provide for entry of red salmon for spawning. Late in season as the lake level recedes the delta is left high and dry. The exposed salmon beds may receive seepage water from the stream however. Spawning and spent fish were observed off the mouth and on the shores near the mouth of this stream. Alder brush grows in dense clusters along and over banks, making survey up this stream most difficult.

Travelling east, #4 stream lies around a sharp point and beyond a small bay or cove. Bear predation here is heavy and gulls are also active.

STREAM RECORD

#4 STREAM - GRECIAN LAKE

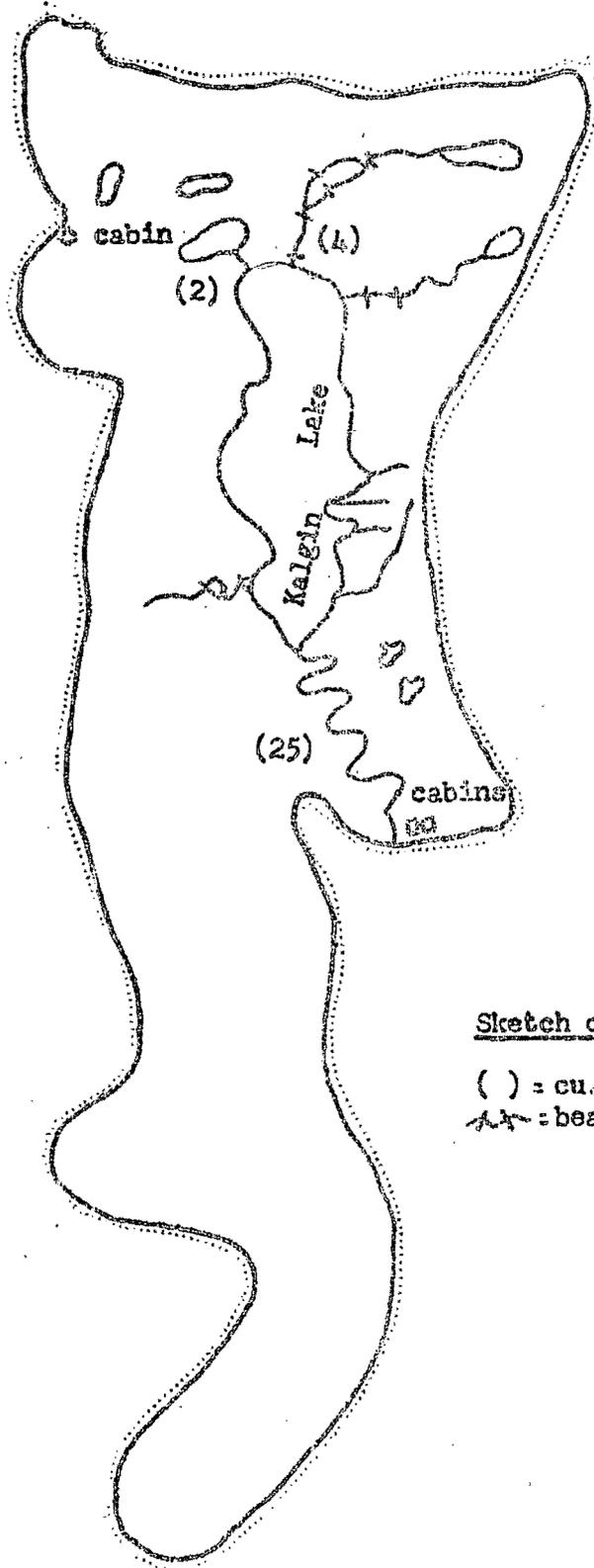
GRECIAN RIVER

Name of Lake or Stream

Drainage

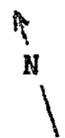
Date	Distance Surveyed	Estimated Number of Salmon	Remarks
9/6/52	1/4 mi.	250 redds	Stream low. All fish seen were fresh. 300 at mouth.

KALGIN ISLAND



Sketch only, not to scale

() = cu. ft./sec.
-- = beaver dams



ROCK RELIEF STREAM AND LAKE SURVEYS

USEWS AND F.R.I.

KALGIN ISLAND LAKE

KALGIN ISLAND

Name of Lake or Stream		Drainage	
Location <u>On Kalgin Island, west of Kasilof</u>			
Map reference <u>KENAI</u>		<u>G, 7.5</u>	
Quadrangle		Reference Points	
Length accessible <u> </u> mi.	Average width <u> </u> ft.	Average depth <u> </u> in.	
Spawning facilities <u>Available</u>		Peak of spawning <u> </u>	
Gradient <u> </u>		Bottom <u> </u>	
Continuing area(s) <u>Lake shore and tributaries</u>			

Description and Comments

A small coppery colored lake on the north end of Kalgin Island. Spawning gravel available around lake shore. Very limited survey made in 1952. Red salmon spawning noted in spring tributary at north end of lake. Other areas only briefly checked. A few cabins on island used by fishermen during commercial season. Plow landings can be made on lake.

Predation light. Some eagle activity. Beavers plentiful.

Red and coho salmon in evidence.

STREAM RECORD

KALGIN ISLAND LAKE

KALGIN ISLAND

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/25/52	1/8 mi.	450 redds	225 of total dead. Spring in N.W. corner of lake. 3-400 off mouth

STREAM RECORD

Kalgin Island Stream
NAME OF STREAM OR LAKE

Kalgin Island Lake
DRAINAGE

Date	Distance Surveyed	Estimated Number of Salmon				Cohos	Remarks	
		Reds	Pinks	Chums	Kings			
1926		100,000					Agent's estimate	
1927		9,415	(Counts made on daylight flood tides only)				See daily counts	
1928							No survey	
1929		10,864	(Counts made on daylight flood tides only)				See daily counts	
1930		7,100				2,040	See daily counts	
1931		9,335				1,470	See daily counts	
1932		19,280	(Daily flood tide counts)			5,610	1000 reds on ground at start of counts.	
1933							No survey	
1934							No survey	
1935							No survey	
1936		18,670	(Beaver activity noted)					Counts made on both daily tides.
1937		20,820					See daily counts	
1938		5,026					See daily counts	
1939		27,424	(Weir count 6/25 - 8/11)					2500 above weir at start of counts
1940		25,602	(Weir count 6/2 - 8/10)				307	1500 above weir at start of counts
1941		8,585	(Weir count 6/4 - 8/4)					1000 reds in stream before weir in
1942		Light					No weir count	
1943		Poor					No weir count	
1944-46							No data	
6/21 & 7/19/47		3,000						
1948							No data	
1949		Heavy loss to beaver						
1950		Considerable loss to beaver					Stream clearance activity	
1951		3,400					Early fish	

Kalgin Island Stream

1927

Counts made on daylight tides

Date	Reds
June 13	First showing at mouth of creek
14	Salmon starting up creek to spawning ground
15	20
16	55
17	90
18	50
19	-
20	-
21	-
22	100
23	75
24	125
25, 26, 27	-
28	50
29, 30	-
July 1 - 20 inclusive	-
21	30
22	45
23, 24	-
25	350
26	925
27	1275
28	1725
29	850
30	725
31	650
August 1	575
2	750
3	425
4	200
5	225
6	100
7, 8, 9, & 10	-
<hr/>	
Total:	9,415

(Counted 9,415 salmon that went up stream on day tides; believe equally as many went up on night tides, which would make a total of 18,830.)

Kalgin Island Stream

1929

Counts made on daylight tides

Date	Reds	Date	Reds
June 1	25	July 5	33
2	59	6	7
3	162	7	2
4	15	8	9
5	1712	9	16
6	731	10	14
7	432	11	3
8	590	12	46
9	548	13	18
10	332	14	-
11	296	15	-
12	329	16	-
13	506	17	66
14	255	18	24
15	373	19	14
16	-	20	1
17	767	21	-
18	221	22	-
19	304	23	-
20	210	24	-
21	45	25	-
22	169	26	-
23	204	27	-
24	7	28	30
25	-	29	36
26	12	30	34
27	269	31	-
28	97	August 1	-
29	156	2	-
30	-	3	55
July 1	-	4	104
2	25	5	1392
3	4	6	46
4	9	7	-
		Total:	10,864

It is estimated that escapement on night tides equalled that of the daylight tides, which would make a total escapement of 21,728 reds. The large escapement shown on Aug. 5 is attributed to strong southerly winds off Kalgin Island.

Kalgin Island Stream

1930

Counts made on daylight tides

Date	Reds	Date	Reds	Cohos
June 6	250	July 9	-	
7	45	10	-	
8	550	11	-	
9	-	12	-	
10	580	13	50	
11	140	14	20	
12	220	15	240	
13	10	16	170	
14	-	17	35	
15	15	18	40	
16	-	19	10	
17	-	20	-	
18	-	21	190	
19	10	22	750	
20	110	23	180	
21	1020	24	40	
22	530	25	60	
23	120	26	-	
24	10	27	75	
25	60	28	40	10
26	80	29	20	10
27	-	30	40	20
28	-	31	130	120
29	-	August 1	25	20
30	-	2	20	20
July 1	25	3	15	15
2	10	4	100	100
3	5	5	50	50
4	10	6	120	120
5	25	7	150	200
6	30	8	100	140
7	-	9	15	25
8	20	10	250	500
		11	180	360
		12	110	330
		Totals:	7,100	2,040

An estimated like number of each specie went upstream on night tides, making a total of 14,200 reds and 4,080 cohos.

Kalgin Island Stream

1931

Counts made on daylight tides

Date	Reds	Date	Reds	Cohos
June 7	-	July 9	-	
8	-	10	75	
9	-	11	60	
10	-	12	45	
11	10	13	10	
12	20	14	65	
13	180	15	25	
14	300	16	20	
15	850	17	60	
16	360	18	25	
17	175	19	35	
18	25	20	110	
19	20	21	65	
20	65	22	520	
21	-	23	170	
22	-	24	460	
23	45	25	185	
24	130	26	400	
25	20	27	475	
26	15	28	580	
27	110	29	90	
28	80	30	325	
29	-	31	900	
30	-	August 1	75	225
July 1	120	2	420	100
2	100	3	195	90
3	25	4	1045	600
4	10	5	-	-
5	-	6	35	35
6	-	7	15	15
7	30	8	10	15
8	5	9	75	150
		10	70	240
		Totals:	9,335	1,470

It is estimated that approximately 3,000 reds escaped which could not be tallied during the late night tides.

Kalgin Island Stream

1932

Counts made on all flood tides, light permitting

Date	Reds	Date	Reds	Cohos
June 1	330	July 3	80	
2	325	4	5	
3	680	5	460	
4	450	6	115	
5	580	7	-	
6	500	8	-	
7	160	9	490	
8	35	10	75	
9	15	11	-	
10	775	12	20	
11	300	13	635	
12	415	14	360	
13	60	15	780	
14	2220	16	20	
15	940	17	430	
16	285	18	135	
17	135	19	-	
18	15	20	-	
19	35	21	5	
20	80	22	475	
21	20	23	510	
22	210	24	85	
23	135	25	-	
24	540	26	-	
25	185	27	50	25
26	90	28	35	15
27	35	29	360	300
28	20	30	445	420
29	65	31	1180	525
30	370	August 1	210	125
July 1	60	2	400	245
2	525	3	430	350
		4	225	580
		5	160	670
		6	515	2355
		Totals:	19,280	5,610

An additional 1,000 redds were estimated to be on spawning grounds at start of counts.

Kalgin Island Stream
Stream Watch Count 1936

Date	Reds	Date	Reds
June 1	60	July 4	235
2	140	5	310
3	270	6	295
4	760	7	30
5	470	8	305
6	535	9	210
7	700	10	65
8	1690	11	15
9	590	12	45
10	605	13	140
11	460	14	155
12	415	15	185
13	270	16	210
14	70	17	375
15	30	18	0
16	45	19	550
17	25	20	265
18	390	21	435
19	1290	22	140
20	585	23	80
21	335	24	15
22	410	25	0
23	140	26	5
24	10	27	0
25	30	28	0
26	25	29	575
27	30	30	450
28	415	31	210
29	65	August 1	415
30	90	2	390
July 1	95	3	815
2	135	4	<u>510</u>
3	60		
		Total:	18,670

(Note: No cohos have been counted. Counts during latter part of July and those of August may have included some cohos.) Counts made on both daily tides.

Kalgin Island Stream
Stream Watch Count 1937

Date	Reds	Date	Reds
June 1	0	July 5	20
2	75	6	10
3	40	7	110
4	0	8	70
5	0	9	140
6	0	10	190
7	95	11	50
8	125	12	35
9	205	13	120
10	310	14	95
11	410	15	15
12	390	16	270
13	255	17	480
14	210	18	370
15	545	19	70
16	580	20	105
17	210	21	425
18	525	22	520
19	485	23	495
20	190	24	640
21	170	25	800
22	230	26	1260
23	260	27	385
24	210	28	1275
25	110	29	1135
26	210	30	210
27	225	31	20
28	285	August 1	35
29	245	2	710
30	195	3	1320
July 1	285	4	650
2	115	5	760
3	40	6	775
4	105		
		Total:	20,820

(Note: No cohos listed for latter part of season. Latter red counts may well have included some cohos. No statement that counts were made on both day and night tides.)

Kalgin Island Stream
Stream Watch Count 1938

Date	Reds	Date	Reds
June 15	36	July 10	51
16	103	11	15
17	61	12	57
18	28	13	17
19	292	14	38
20	103	15	41
21	25	16	42
22	52	17	0
23	23	18	48
24	53	19	86
25	93	20	53
26	99	21	140
27	82	22	24
28	63	23	92
29	86	24	37
30	95	25	254
July 1	122	26	535
2	168	27	208
3	75	28	310
4	110	29	285
5	94	30	255
6	82	31	316
7	104	August 1	17
8	76	2	48
9	94	3	38
			<hr/>
		Total:	5,026

Kalgin Island Stream

Weir Count 1939

Date	Reds	Date	Reds
June 24	74	July 19	8
25	184	20	330
26	42	21	24
27	31	22	11
28	283	23	6
29	162	24	409
30	231	25	1145
July 1	58	26	384
2	46	27	58
3	88	28	267
4	68	29	321
5	58	30	829
6	51	31	2591
7	16	August 1	2743
8	91	2	1429
9	90	3	588
10	12	4	3004
11	13	5	1013
12	17	6	2098
13	23	7	2234
14	167	8	2612
15	159	9	1736
16	11	10	817
17	9	11	789
18	14		
		Total	27,424

An estimated 2500 reds passed into stream prior to establishment of weir on June 23.

Kalgin Island Stream

Weir Count 1940

Date	Reds	Date	Reds	Cohos
June 2	24	July 6	211	
3	110	7	453	
4	170	8	448	
5	291	9	647	
6	118	10	171	
7	638	11	104	
8	352	12	30	
9	74	13	18	
10	253	14	12	
11	344	15	30	
12	109	16	43	
13	58	17	136	
14	58	18	665	
15	140	19	2611	
16	217	20	1678	
17	134	21	259	
18	685	22	924	
19	104	23	436	
20	30	24	49	
21	156	25	15	
22	75	26	14	
23	29	27	32	
24	34	28	24	
25	13	29	69	
26	16	30	78	
27	81	31	62	
28	106	August 1	308	
29	48	2	851	
30	14	3	28	
July 1	12	4	4026	125
2	9	5	2932	90
3	102	6	1979	62
4	371	7	593	17
5	236	8	273	9
		9	88	3
		10	31	1
			<hr/>	<hr/>
		Totals:	25,602	307

Estimated escapement prior to installation of weir was 1500 reds.

Kalgin Island Stream

Weir Count 1941

Date	Reds	Date	Reds
June 4	141	July 8	18
5	235	9	9
6	222	10	20
7	262	11	47
8	269	12	52
9	211	13	40
10	198	14	77
11	183	15	15
12	214	16	28
13	264	17	69
14	178	18	42
15	247	19	39
16	197	20	47
17	142	21	172
18	530	22	139
19	224	23	152
20	115	24	197
21	166	25	232
22	212	26	179
23	147	27	328
24	181	28	337
25	153	29	251
26	170	30	211
27	102	31	175
28	122	August 1	101
29	79	2	69
30	97	3	114
July 1	58	4	147
2	34		
3	41		
4	32		
5	24		
6	15		
7	29		
		Total:	8,595

Estimate 1000 reds in stream at start of counts.

BISHOP CREEK

UPPER KENAI PENINSULA

Name of Lake or Stream	Drainage
Location	Enters Cook Inlet 3 miles west south west of Swanson Creek
Map reference	KENAI I, 12
	Quadrangle Reference Points
Length accessible	10 mi. Average width 15 ft. Average depth 8 in.
Spawning facilities	Good
Gradient	Gentle
	Bottom (Gravel in upper areas)
Spawning species	

Description and Comments

Bishop Creek rises in several small lakes about 10 miles north of Kenai and flows in a northerly direction to enter Cook Inlet about 3 miles west-southwest of the mouth of Swanson Creek. Surrounding country is predominantly boggy. Upper stream appears to have a moderate flow over good gravel areas.

A small run of red salmon enters the stream.

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.L

SWANSON CREEK (RIVER)

UPPER KENAI PENINSULA

Name of Lake or Stream	Drainage
Location	Mouth in Cook Inlet 15 miles north of East Foreland
Map reference	KENAI L, 12
Quadrangle	Reference Points
Length accessible	35 mi. Average width 35 ft. Average depth 15 in.
Spawning facilities	Fair to Good Peak of spawning
Gradient	Gentle Bottom Large rocks with smaller gravel
Counting area(s)	None

Description and Comments

Swanson Creek drains a good portion of the marsh and lakes section of the Upper Kenai Peninsula. It meanders generally southwesterly for three fourths of its course and then turns almost due north for the last eight miles. Stream flow is predominantly gentle. Stream clearance crews have floated down stream to mouth from upper watershed. Beaver have been active in past.

In early years of Cook Inlet fishing Swanson Creek reportedly supported a good run of reds. At one time a small cannery operated at mouth of stream.

Anchorage sport fishermen say stream is an excellent rainbow trout producer and is also reported to contain a good run of cohos.

STREAM RECORD

SWANSON CREEK (RIVER)

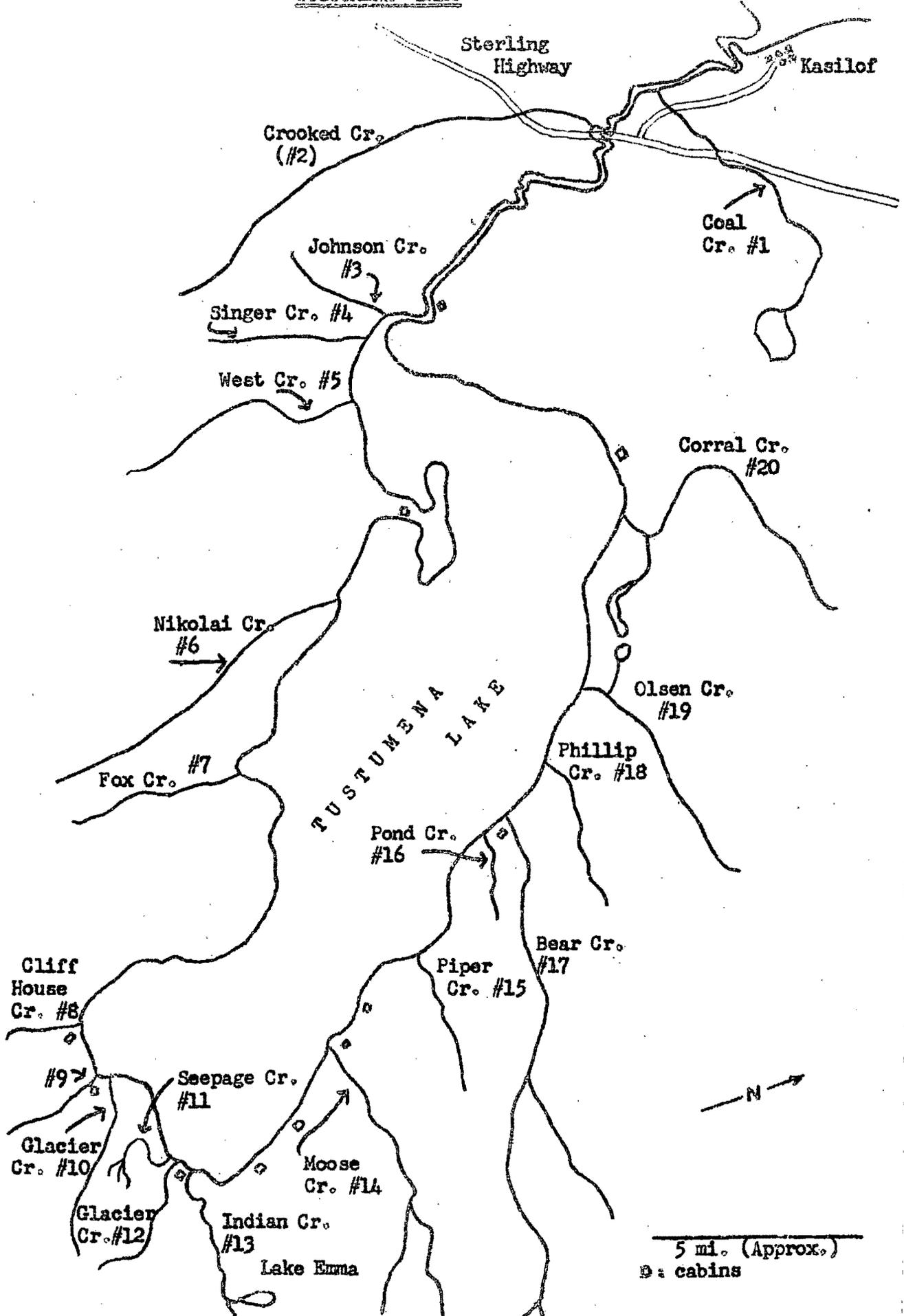
UPPER KENAI PENINSULA

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
1934		Ample numbers of reds	
7/22/47	Brief	Good showing of reds	Estimate 10,000
1948			Stream clearance work - June - too early
6/26/49	Mouth	Reds present	Stream clearance
6/9-18/50			Stream clearance - too early
6/15/51	3 miles	None	Foot survey
7/12/51	Entire	None	Air survey
7/14/51	Mouth	70 reds	Air survey
7/21/51	4 miles	None	Air survey
8/12/52	2 miles	None	Air survey - lower stream
8/20/52	Entire	None	Air survey - upper lakes & stream

TUSTUMENA LAKE



5 mi. (Approx.)
⊙ : cabins

TUSTUMENA LAKE		KASILOF RIVER	
Name of Lake or Stream		Drainage	
Location		SSW from Anchorage on Kenai Peninsula, east of Kasilof	
Map reference	KENAI Quadrangle	K-0, 2-6	Reference Points
Length accessible	23 mi.	Average width	4 ft.
		Average depth	in.
Spawning facilities	Available	Peak of spawning	
Gradient		Bottom	
Counting area(s)	None		

Description and Comments

Tustumena Lake is the largest lake on the Kenai Peninsula and is approximately 23 miles long with an average width of 4-5 miles. The two largest tributaries are located at the east end of the lake and both are glacial streams. Of the two streams, Glacier Creek is the largest, originating from Tustumena Glacier, which is approximately 6 miles from the lake. Glacier Creek divides into two streams. One stream emanates from the north side of the glacier, the other from the south side, with a large glacial delta in between covered with grass, stunted brush and trees (Alder - Cottonwood), and some hills with conifers. The other tributary, Indian Creek, enters the lake 1 mile west of the north branch of Glacier Creek. This stream is also large, swift flowing and very glacial. Indian Creek and Glacier Creek are not considered too important as red spawning streams because of their swiftness and turbidity. All other tributary streams are clear streams and of much smaller size. Of these other streams, only Bear Creek, Moose Creek, Seepage Creek, Nikolai Creek and possibly Cliff House Creek are of any importance to red salmon production. Streams of little or no importance are Corral Creek, Olsen Creek, Philip Creek, Pond Creek, Piper Creek, Clear Creek, Fox Creek, West Creek, and Singer Creek.

Due to the large glacial tributaries, the color of the water of the lake is also glacial and visibility into the water is just a few inches. Summer temperatures of the lake are around 55 degrees F. The lake can become very rough, swells reaching a height of three or four feet. No lakeshore spawning observed but possible. Outlet to lake is the Kasilof River in the west, which enters Cook Inlet near the town of Kasilof. This river navigable with large outboard motors from Inlet to lake. Tustumena Lake lies in fairly flat country bordered by rolling hills except at the eastern end where the rugged mountains begin. Travel away from the lake is usually difficult except when following a stream because of muskeg, swamp, dense spruce growth and tangles of brush and grass. The lake shore is predominantly sand and loose gravel. Mosquitoes uncommon, many grasshoppers.

TUSTUMENA LAKE (CONT'D)

Seven cabins are to be found on the north shore. They are used from time to time, during the hunting season and trapping season. Two of these cabins (near Indian Creek) were not locked. There are at least two other cabins, one on the peninsula arm and one in the vicinity of Cliff House Creek, both on south shore.

Species of fish observed in Lake Tustumena waters were red and pink salmon, dolly varden, stickleback, sculpins, and whitefish. Lake trout reported. Red and coho salmon fingerling were also observed.

Approximate travel time by skiff (2 men, 5 h.p. outboard) from Bear Creek camp to various streams: (Times can vary greatly depending on weather, these are to be considered as made on good days).

To Corral Creek	1½ hrs.
To Moose Creek	¾ to 1 hr.
To Seepage Creek	1½ to 2 hrs.
To Nikolai Creek	1 hr.
To Indian Creek	1½ hrs.
To Glacier Creek	1½ to 2 hrs.

Plane landing possible on all parts of lake when it is calm. Can become too rough for landing. Caution should be taken in approaching in loose gravel areas as wheels sink in very easily. The spit on uplake side of Bear Creek is suggested as a good approach area and camp site.

TUSTUMENA LAKE

KASLOP RIVER

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
1931		None	
1932		Good showing of redds (all trib.)	Exceptionally good early seeding
1935			Considerable lake spawning
1936			Shore spawning - first redds reported 6/19 - survey made 8/20-24
1937		Excellent red showing	All trib. streams except one(?) seeded to capacity - 8/20-24
1938			Tributaries well seeded but not up to last year
1939			All tributaries well seeded
1940			All tributaries well seeded
1941			Fair seeding in all tributaries - Nikolai Creek excellent
1943		Good showing of redds	Seeding in tributaries well above average
1944		Good showing of redds	Good in all tributaries
1945		Good showing of redds	All tributaries well seeded
1952			No lake spawning noted

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

CORRAL CREEK (Tustumena Lake)

KASILOF RIVER

Name of Lake or Stream	Drainage
Northwest end of Tustumena Lake	
Location	
Map reference	M, 5
KENAI	Reference Points
Quadrangle	
Length accessible	5 mi. Average width 15 ft. Average depth 10 in.
Spawning facilities	Good Peak of spawning
Gradient	Gentle Bottom Gravel and silt
Counting area(s)	From mouth to lake

Description and Comments

A small stream with gentle gradient, sluggish near mouth. Stream slightly murky, depositing layer of reddish silt over gravel. Utilization by salmon appears slight. Stream lies in swampy valley between low hills. Very difficult to follow stream because of swamp and tall grass. Stream forks about 1 1/2 miles upstream. The right branch continues to small lake another 2 miles further. Lake not suitable for spawning. Left branch not surveyed. Best walking in spruce on high ground. First 1/4 mile of stream from mouth is deep and skiff with outboard may be run up this far. Beyond this point, stream can be waded.

Past history of stream indicates it a poor area for salmon. A cabin is located approximately 2 miles west of stream mouth. Other than a few reds no other species of fish observed in stream. No evidence of beaver working area and no other type of stream block present. Very little bear sign, probably due to lack of fish in creek. Insects few.

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

OLSEN CREEK (Tustumena Lake)

KASILOF RIVER

Name of Lake or Stream	Drainage
Location	About half way between Bear Creek and Corral Creek
Map reference	KENAI Quadrangle
	N, 5 Reference Points
Length accessible	mi. Average width 2 ft. Average depth 4 in.
Spawning facilities	Poor Peak of spawning
Gradient	Slow Bottom Mud and gravel
Counting area(s)	

Description and Comments

A very small stream of no importance, although past reports mention red salmon around this stream. Olsen Creek enters Tustumena Lake about mid-way between Bear Creek and Corral Creek. The mouth is very difficult to find as it enters lake through dense aquatic growth. Flows through tall grass meadow and stands of spruce. Stream branches upstream a short distance, perhaps one mile, and the left branch goes to small lake, which, from the air, appears to be swampy around the shores.

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

PHILLIP CREEK (Tustumena Lake)	KASLOF RIVER
Name of Lake or Stream	Drainage
Location <u>About midway between Bear Creek and Olsen Creek</u>	
Map reference <u>KREAJ</u>	<u>N, 5</u>
Quadrangle	Reference Points
Length accessible <u> </u> mi.	Average width <u>2</u> ft.
	Average depth <u>4</u> in.
Spawning facilities <u>Feor</u>	Peak of spawning <u> </u>
Gradient <u>Slow</u>	Bottom <u>Mud and gravel</u>
Counting area(s) <u> </u>	

Description and Comments

This stream very similar to Olsen Creek in all respects. Mouth hard to find, small and marshy along banks. Here, also, early reports state salmon around stream. Of little importance, if any, to salmon production.

WATER RESOURCES SURVEY AND LAKES SURVEYS

USFWS AND F.R.I.

PIPER CREEK (Tustumena Lake) Name of Lake or Stream	KASLOF RIVER Drainage
Location	About 2 miles east of Bear Creek
Map reference	KUSKAI Reference Points
Length accessible	3 mi. Average width 2 ft. Average depth 4 in.
Spawning facilities	Poor Peak of spawning
Gradient	Slow Bottom Mud and gravel
Counting area(s)	

Description and Comments

Another very small clear stream of no importance as a salmon producer. Very similar to Olsen and Phillip Creeks on this drainage. Flows through grassy, marshy flats and spruce areas. Total length perhaps three miles to source at springs. Salmon reported around here but doubt if any really ascend this stream.

Indian Creek

Tustumena Lake

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/22/46	2 1/2 miles	Reds present	Turbid
8/10/52	Mouth		Salmon present at mouth - species unknown

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

CLIFF HOUSE STREAM (Tustumena Lake)	KASILOF RIVER
Name of Lake or Stream	Drainage
Location	Extreme southeast area of Tustumena Lake
Map reference	KEKAI
	0, 2
	Quadrangle
	Reference Points
Length accessible	mi.
Average width	ft.
Average depth	in.
Spawning facilities	Available
Peak of spawning	
Gradient	Moderate to steep
Bottom	Gravel to boulder
Counting area(s)	None

Description and Comments

A small clear stream with a moderate gradient. This stream enters Lake Tustumena in the extreme southeast corner around the point from the south branch of Glacier Creek. Past records show good numbers of redds utilizing this stream. No counts made in 1952. Stream appears to be accessible for only a short distance before the gradient becomes quite steep.

ULIFF lower Stream
 Name of Stream or Lake

Tustumena Lake
 Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/22/46	Mouth	1800 redds	Estimate 25,000 redds in 1 1/2 miles Short stream
8/21/47		500 redds	
8/25/48		2500 redds	Estimate
8/15/49		7000 redds	Estimate
8/2/50	1/2 mile	300 redds	Air survey
8/16/ 50	1/2 mile	500 redds	Air and foot
7/20/51	1 mile	None	Air survey
8/12/51	1 1/2 miles	470 redds	Air survey
8/5/52	1/2 mile	None	Brief air survey, poor light

COOK INLET STREAM AND LAKE SURVEYS

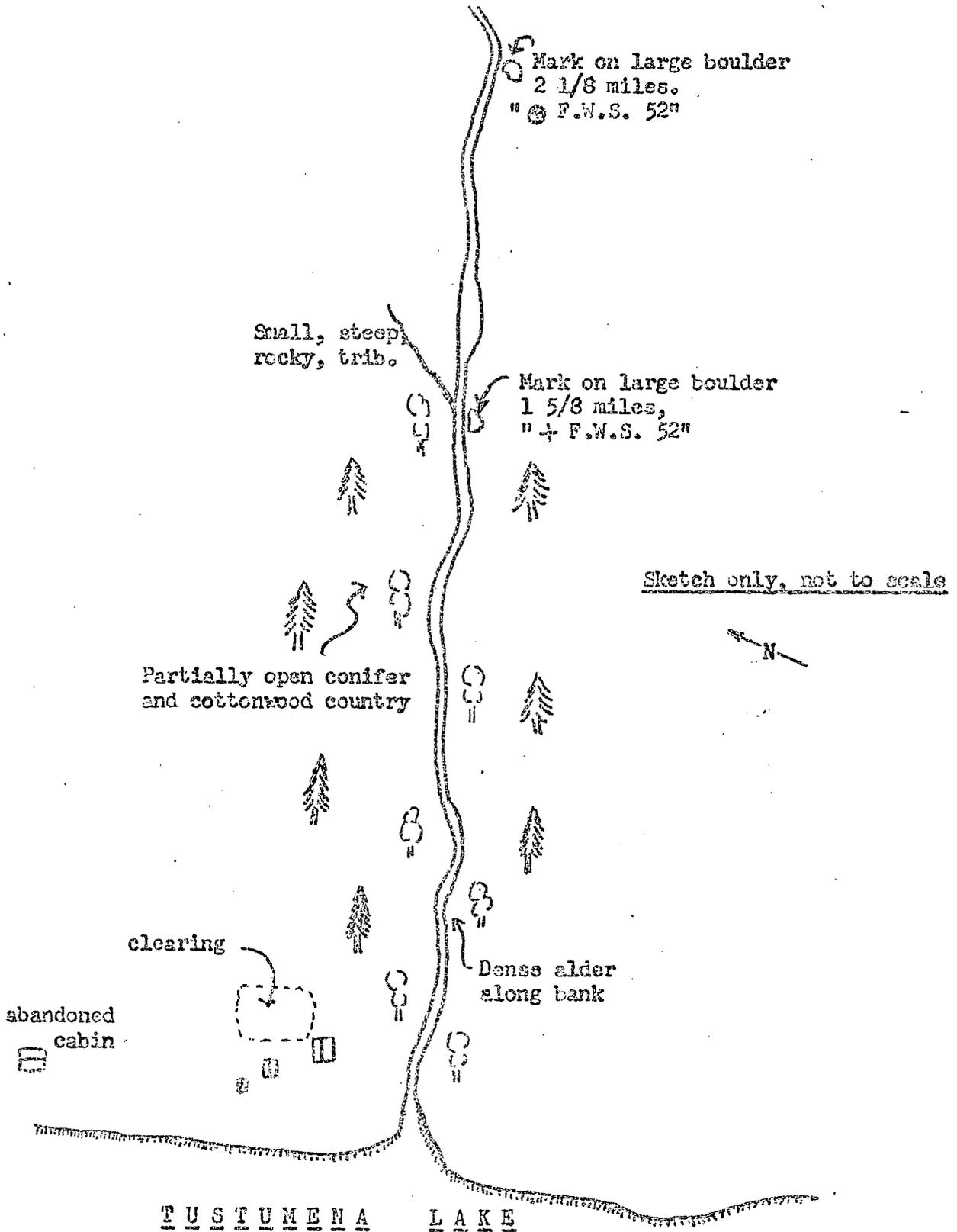
USFWS AND F.R.I.

FOX CREEK (Tustumena Lake)	KASLOF RIVER
Name of Lake or Stream	Drainage
Location <u>South shore in small bay</u>	
Map reference <u>KENAI</u> Quadrangle	<u>M. 3</u> Reference Points
Length accessible _____ mi. Average width <u>7</u> ft. Average depth _____	
Spawning facilities <u>Doubtful</u>	Peak of spawning _____
Gradient <u>Moderate</u>	Bottom _____
Counting area(s) <u>None</u>	

Description and Comments

This is a small clear stream on the southern shore of Tustumena Lake and lies east of Nikolai Creek and a SSW compass reading from the Bear Creek camp. No ground survey made but from the air appears to be insignificant as a productive salmon stream. It has a moderate flow, flowing through a valley with spruce and alder brush cover.

MOOSE CREEK



COOK INLET STREAM AND LAKE SURVEYS
COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

<u>MOOSE CREEK (Tustumena Lake)</u>	<u>KASLOF RIVER</u>
Name of Lake or Stream	Drainage
<u>Location 3/4 distance on north shore going east on Tustumena Lake</u>	
<u>Map reference</u>	<u>N. 3.5</u>
KENAI Quadrangle	Reference Points
<u>Length accessible 8 mi. Average width 15 ft. Average depth 7 in.</u>	
<u>Spawning facilities Good</u>	<u>Peak of spawning Middle of Aug.</u>
<u>Gradient Moderate</u>	<u>Bottom Gravel and small rock</u>
<u>Counting area(s) 2 markers #1 @ 1 mi., #2 @ 2 1/4 mi.</u>	

Description and Comments

Stream of moderate size and clear. Gradient moderate in lower section becoming progressively steeper upstream. Ample spawning gravel for first 2 1/4 miles. Stream then becomes quite rough and bottom begins to change from gravel-rock to rock-boulder. This stream more difficult to survey than Bear Creek. Must stay in creek most of the time while making survey due to dense brush and grass. Creek banks lined with large rocks, making walking difficult. On return to lake it is easier to travel the bear trails along stream. There are two red markers on Moose Creek. One approximately 1 mile upstream, the other 2 1/4 miles upstream at the first fork. Beyond this point the stream appears to become of lesser importance to salmon spawning. Stream-side vegetation predominantly alder, birchwood, spruce, and grasses. Stream can become quite low. At the mouth of Moose Creek, west side, a cabin with several smaller buildings are located. The cabin is locked but one small building is open and could be used for emergency shelter or as an overnight way-station while working the east end of the lake.

Several pink salmon observed around mouth of stream in August. Dolly varden trout abundant during spawning. Moose Creek is undoubtedly one of the more important red salmon spawning areas on Tustumena Lake. Temperatures taken one day only on this stream and read 46° F at 0845 (near mouth) and 50° F at 1200 (end of survey).

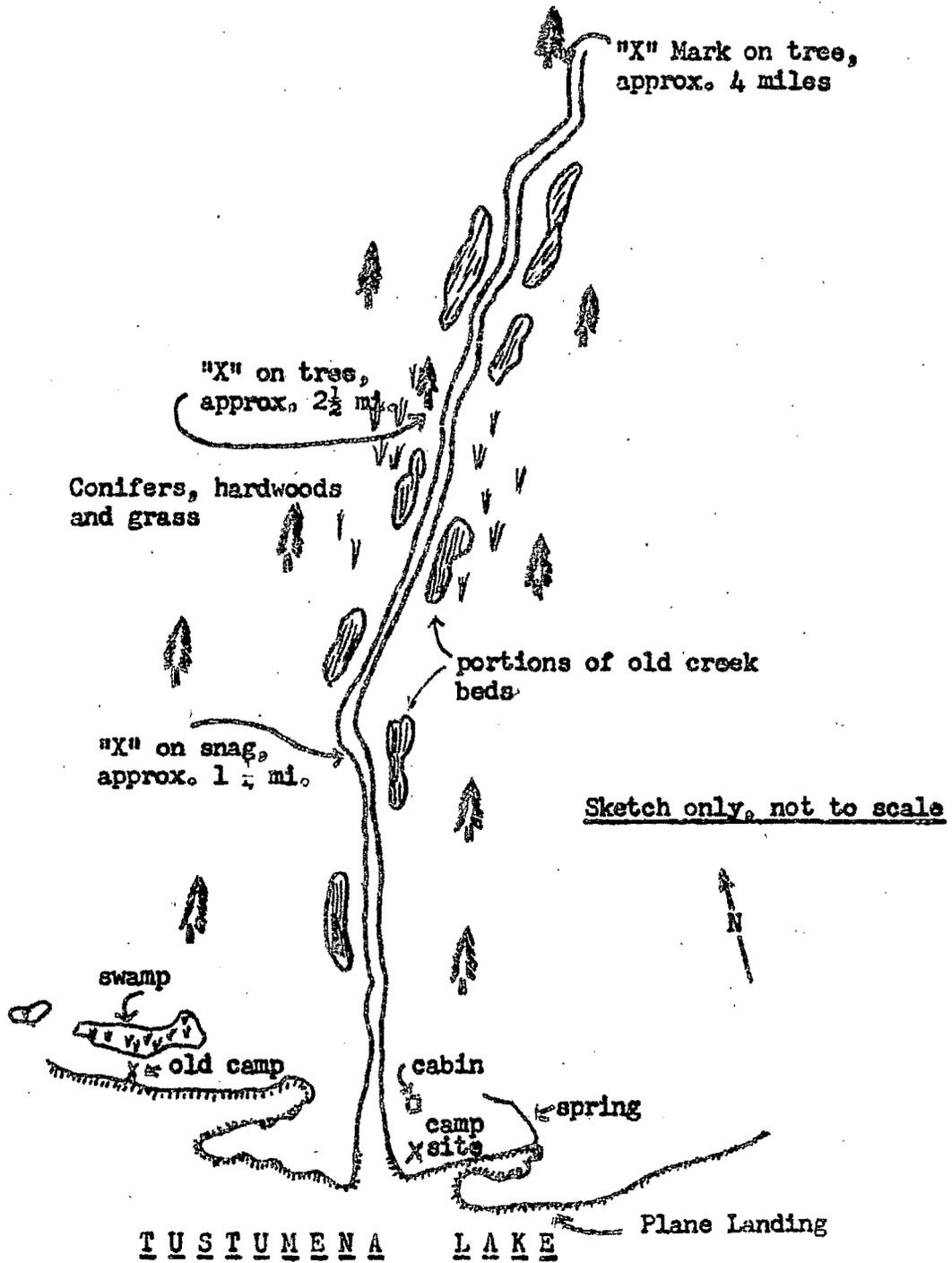
Black and brown bear predation heavy, some gulls work stream. Few insects. No beaver activity and no known natural obstructions on Moose Creek.

Cross Cr. (Bear Cr. in early surveys)
 Name of Stream or Lake

Tustumena Lake
 Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/18/31		Good showing of reds	
1935		Good showing of reds	Second largest red producer on lake
1936		Excellent showing of reds	Survey taken 8/20-24
1942		Good showing of reds	
8/21/46	1½ miles	685 reds	Estimate 4,500 in stream
8/25/47		Estimate 3500 reds	
8/25/48		6500 reds	Estimate for entire stream
8/15/49		13,200 reds	Estimate for entire stream
8/2/50	4 miles	400 reds	Air survey
8/16/50	4 miles	15,000 reds	Air survey
7/20/51	3½ miles	None	Air survey
8/12/51	5 miles	2700 reds	Air survey
7/30/52	Brief	None	Air survey
8/4/52	3 miles	300 reds	Air survey
8/13/52	2½ miles	1960 reds	Foot survey - 604 dead
9/3/52	1 mile	60 reds	Foot survey - few dead

BEAR CREEK



COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

<u>BEAR CREEK (Tustumena Lake)</u>	<u>KASILOF RIVER</u>
Name of Lake or Stream	Drainage
Location <u>Approximately mid-way on north shore of Lake Tustumena</u>	
Map reference <u>KENAI</u>	<u>M-N, 4</u>
Quadrangle	Reference Points
Length accessible <u>12</u> mi. Average width <u>10</u> ft. Average depth <u>6</u> in.	
Spawning facilities <u>Excellent</u>	Peak of spawning <u>Middle of Aug</u>
Gradient <u>Moderate</u>	Bottom <u>Fine gravel - rock</u>
Counting area(s) <u>3 markers #1 @ 1½ mi., #2 @ 3 mi., #3 @ 4½ mi.</u>	

Description and Comments

A small, clear stream with a moderate gradient in lower areas, becoming swifter progressively upstream. Excellent spawning gravel in lower 5 miles. Stream bed becoming more rocky upstream. Salmon observed spawning entire length of area surveyed, continuing in good numbers above end point of survey. Easy going along stream bed. Return trip can be made by walking away from creek in open areas and bear trails. Surrounding country fairly flat for 5-6 miles, then becomes hilly. Vegetation consists mostly of conifers, alder, tall grass, and birchwood (nearer mouth of stream) - fairly dense. Stream flow can become very low in dry periods. No temperatures were taken in 1952. Three red section markers indicating ends of study section, each section 1½ miles in length. Last section marker approximately 4½ miles from mouth.

Best campsite at mouth of stream on east side in small clearing, good water supply, plenty of driftwood for camp fire. Old trappers cabin (not habitable) in trees about 25 yards from tent-site. Plane approach on sand spit in front of camp. Small lagoon areas on both sides at mouth of creek. Skiff may be moored inside lagoon which affords good protection during rough water. Drinking water obtained at head of lagoon. Approximately ½ mile east of camp are two cabins used during the hunting season, referred to as the Ledge.

Reds are only species of salmon observed in stream of any abundance, one pink observed around the first of September. Dolly varden trout abundant in stream when salmon spawning. Bear Creek is one of the most important, if not the most important red salmon spawning stream in the area.

BEAR CREEK (CONT'D)

Extremely heavy predation by bear (black and brown). Surveyors should by all means be armed when checking this stream. Gulls prey on weakened, spawned-out salmon. Ravens also present. Evidence of coyote but part as a predator is unknown. Insects few.

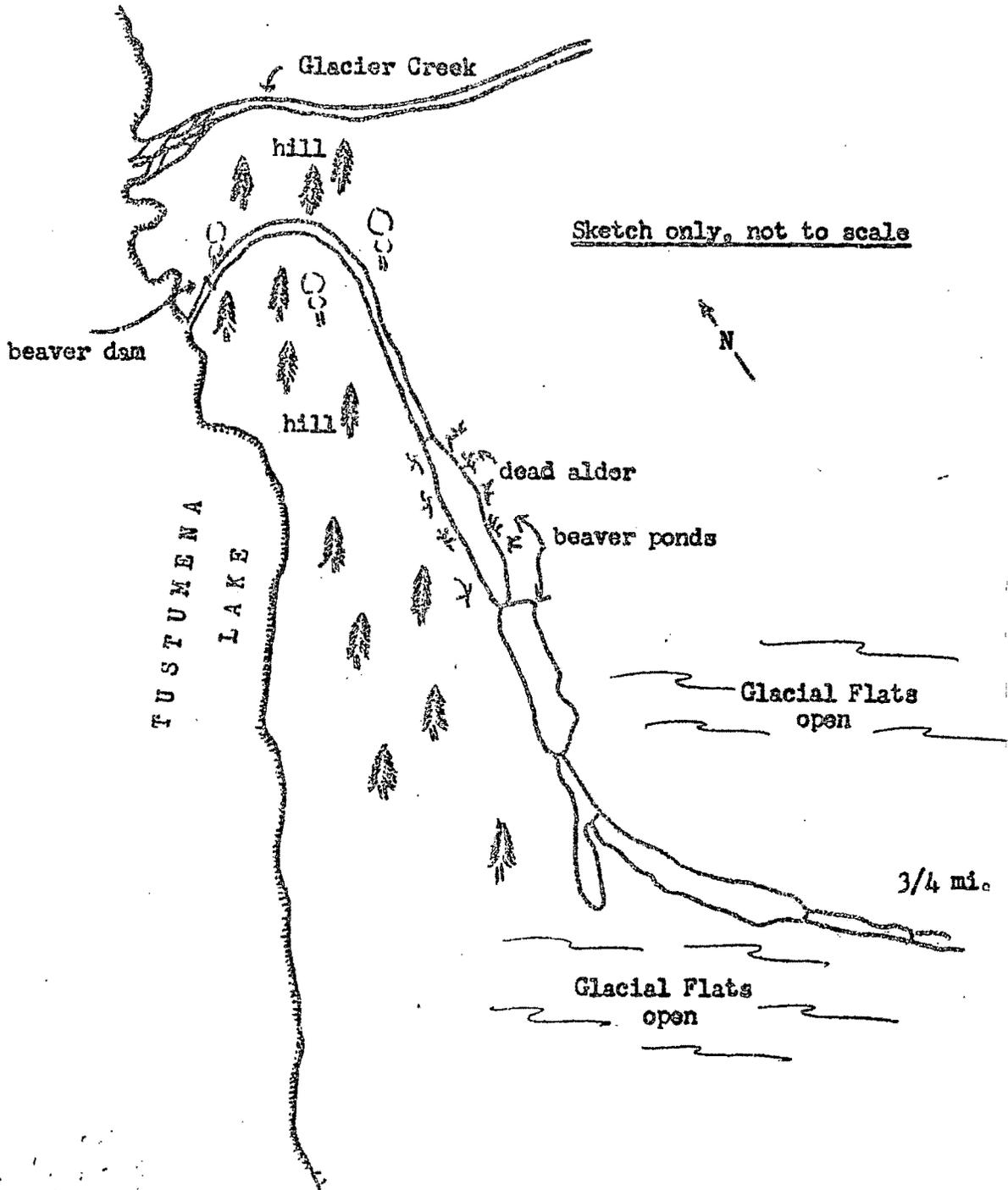
No evidence of beaver on stream. No known natural obstructions on stream.

Bear Cr. (Formerly Birchwood Cr.)
Name of Stream or Lake

Tustumona Lake
Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/19/31		Poor Red run	Practically no fish
1935		Good showing of reds	Largest producer of reds on lake
1936		Excellent showing of reds	Many eggs observed among boulders, Survey on 8/20
1942		Poor showing of reds	
8/22/46	3 miles	3800 reds	Estimate 18,000 in entire stream
8/26/47		Good showing of reds	Estimate 10,000 in entire stream
8/25/48		Poor showing of reds	Estimate 1300 in entire stream
8/15/49		Good showing of reds	Estimate 7000 in entire stream
7/22/50	2 miles	500 reds	Air check - all fish at mouth
8/2/50	4½ miles	300 reds	Air survey - too early
8/16/50	4½ miles	22,000 reds	Air check - 1600 at mouth
7/20/51	7 miles	None	Air survey
8/12/51	13 miles	6100 reds	Air survey
7/29/52	3 miles	None	Air survey - reds present at mouth
8/4/52	6 miles	3500 reds	Air survey
8/11/52	4 miles	4204 reds	Foot survey - 533 dead additional

SEEPAGE CREEK



COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

SEEPAGE CREEK (Tustumena Lake)

KASLOF RIVER

Name of Lake or Stream	Drainage
Location	East end Tustumena Lake between Glacier Creeks
Map reference	0, 3
KENAI Quadrangle	Reference Points
Length accessible	3 mi. Average width 15 ft. Average depth 10 in.
Spawning facilities	Fair-good Peak of spawning Middle of Aug or later
Gradient	Slow to moderate Bottom Gravel to mud
Counting area(s)	Entire stream, 3 miles

Description and Comments

A small clear stream with gentle to moderate flow. As previously mentioned, the Tustumena Glacier gives off two large streams leaving a large body of land between. Seepage Creek emanates from seepage water from the glacier and continues along the glacial flat entering the lake about 200 yards south of the north branch of Glacier Creek. Spawning gravel is good but is limited. Best spawning area is lower 3/4 mile. Beaver dams and ponds above this point. Easy surveying for the first two miles. Then alders along stream are so thick it is difficult travelling next to stream. Two old beaver dams near mouth are open, but about 3/4 mile upstream the creek becomes a succession of dams and pools. The pools have deep layer of silt and mud on bottoms. Fourteen beaver dams counted on stream in first two miles. Extreme lower end of stream near mouth is also quite silty. Most of stream flows through flat glacial plain bordered by grass and alder. Near mouth stream passes through low, spruce covered ridge before entering lake. Best to beach skiff to the right of creek mouth. Shallow sand bars must be watched for while approaching the beach. Good camping areas if necessary. Coming downstream there is a trail on the left side of the creek through the timber.

No other species of salmon observed. Few trout seen in stream. One temperature taken was 58°F. Beaver dams very abundant but fresh sign not too prevalent. First trip to stream, three dams opened. Next trip almost three weeks later holes not repaired. Some fresh cuttings on dams farther upstream. Many dead alders along upper stream. Bear predation concentrated in lower section of stream. Coyote in evidence. Insects few.

Sespage Creek
Name of Stream or Lake

Tustumena Lake
Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
1935		Good run of reds Few cohos	
1936		Many reds	Survey taken 8/20-24
1942		Good run of reds	
1944		Good run of reds	Report that beaver have become active on this stream
1945		Good run of reds	Beaver continue active
8/25/47		Few reds	Estimate 1000 in stream
8/21/48		11,500 reds	Estimate for entire stream
8/15/49		1000 reds	Estimate for entire stream
8/2/50	2 miles	1 red	Air survey
8/16/50	2 miles	500 reds	Air survey - beaver blocks
7/20/51	2 miles	None	Air survey
8/12/51	3 miles	140 reds	Air survey
8/7/52	2 miles	None	30 reds at mouth - air survey
8/14/52	3/4 mile	148 reds	Foot survey
9/4/52	3 miles	42 reds	Foot survey

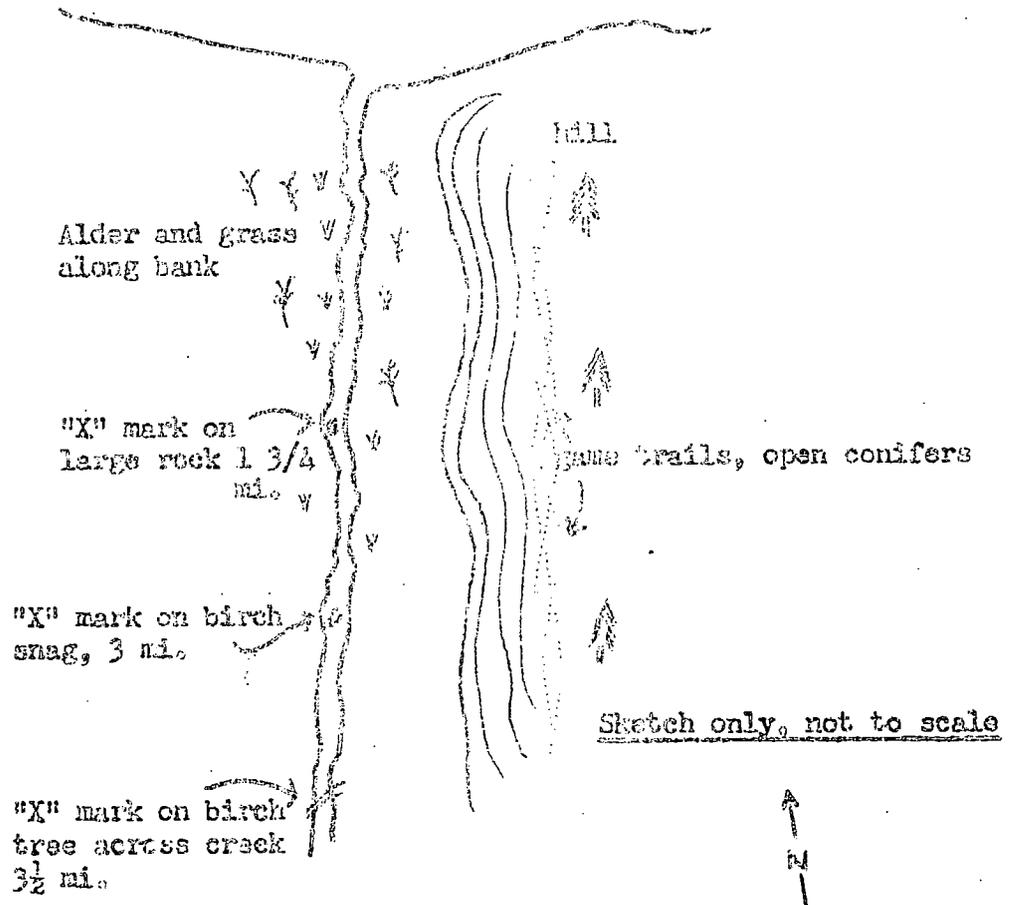
Glacier Creek (North Branch)
Name of Stream or Lake

Tustumena Lake
Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/22/46	Mouth	Reds present	Very glacial
1952	Mouth only	None	Glacial

NICKELAI CREEK

TUSTUMENA LAKE



WATER RESOURCES SURVEY AND LAKE SURVEYS

USFWS AND F.R.I.

<u>NIKOLAI CREEK (Tustumena Lake)</u>	<u>KASLOF RIVER</u>
Name of Lake or Stream	Drainage
Location <u>SW shore but east of peninsula in Tustumena Lake</u>	
Map reference <u>KENAI</u>	<u>L-4, 4</u>
Quadrangle	Reference Points
Length accessible <u>10</u> mi. Average width <u>20</u> ft. Average depth <u>10</u> in.	
Spawning facilities <u>Excellent</u>	Peak of spawning <u>Middle of August</u>
Gradient <u>Moderate</u>	Bottom <u>Gravel to rock</u>
Counting area(s) <u>3 markers #1 @ 3/4 mi., #2 @ 3 mi., #3 @ 3 1/2 mi.</u>	

Description and Comments

Clear stream of moderate size. Gradient moderate in area surveyed. Excellent spawning facilities in stream but very poorly utilized in 1952. Past records show Nikolai Creek salmon runs very irregular. This stream easy to survey if a person walks in stream itself. Stream flows along middle of narrow valley. Higher ridges approximately 100 yards from stream and valley floor consists of tall grass and bunches of willow and alder brush. The bottom is swampy and difficult to traverse. Returning to lake made easier by crossing swampy area to base of hills and following game trails back. Surrounding area of low hills densely covered with spruce. There are three red stream markers on the stream, on 1 3/4 miles upstream; the second, 3 miles; the third, 3 1/2 miles from the mouth. Stream fluctuation appears slight.

Nikolai Creek is about 5 miles distance across Tustumena Lake from Bear Creek camp. Surveying this stream depends entirely on the roughness of the lake and calm weather should be used to advantage for safety's sake. It takes an hour's travel time by boat (5 h.p.) in calm weather.

Good camping area at mouth of stream if needed. No cabins close by. One reported on peninsula arm, however. Abundant drift wood for fire. A few pinks are known to use the stream. Dolly varden not common. Stream temperatures in August about 50°F. Few insects. Bear sign plentiful. No beaver activity observed in stream or natural obstructions.

Nikolai Creek
Name of Stream or Lake

Tustumena Lake
Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
1935		Reds and cohos present	
1936		Fair showing of reds	Survey made 8/20-24
1941		Excellent showing of reds	
8/22/46	1 1/4 miles	2200 reds	Estimate 20,000 in stream
8/26/47	3 miles	50 reds	
8/22/48		2000 reds	Estimate
8/15/49		7000 reds	Estimate
8/22/50	1 mile	150 reds	Air survey at mouth
8/2/50	18 miles	6000 reds	Air survey
8/16/50		Same	No new fish
8/8/51	16 miles	4300	Air survey
8/12/51	16 miles	No change	Air survey
7/19/52	12 miles	None	Air survey
8/7/52	6 miles	100 reds	Air survey
8/16/52	3 1/2 miles	407 reds	Foot survey
8/30/52	3 1/2 miles	20 reds 5 pinks	Foot survey

KASILOF RIVER
Name of Stream or Lake

KASILOF RIVER
Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/30/31		Kings present	
1934		Heavy run of reds	
1935		Pinks and cohos present	
1936		Many kings and cohos present	Survey made 8/20-24

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

SLIKOK RIVER

KENAI RIVER

Name of Lake or Stream	Drainage	
Location Enters Kenai River from south, west of highway and Soldotna		
Map reference	Reference Points	
KENAI Quadrangle	L, 7	
Length accessible	Average width	Average depth
mi.	ft.	in.
Spawning facilities	Peak of spawning	
Gradient	Bottom	
Counting area (s)	Air survey	

Description and Comments

A long river draining marshy area between Kenai River and Kasilof River. Heads in hills north of Lake Tustumena. Stream muddy and almost impossible to observe anything.

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

FUNNY RIVER	KENAI RIVER
Name of Lake or Stream	Drainage
Location <u>Several miles upstream (east) from Soldotna district</u>	
Map reference <u>KENAI</u> Quadrangle	<u>N, 7</u> Reference Points
Length accessible <u> </u> mi.	Average width <u> </u> ft. Average depth <u> </u> in.
Spawning facilities <u> </u>	Peak of Spawning <u> </u>
Gradient <u>Gentle</u>	Bottom <u> </u>
Counting area(s) <u>Air survey</u>	

Description and Comments

A long stream draining marsh-land south of Kenai River. Very muddy at lower end, clearing somewhat farther upstream. Spawning facilities in upper section not well known, however, appear favorable from air. Probably utilized more by pinks than reds.

COOK INLET SALMON AND LAKE SURVEYS

USFWS AND F.R.I.

MOOSE RIVER		KENAI RIVER	
Name of Lake or Stream		Drainage	
Location: 11 miles west of Skilak Lake			
Map reference KENAI		N, S	
Quadrangle		Reference Points	
Length accessible	20 mi.	Average width	75 ft., Average depth 30 in.
Spawning facilities	Fair to Poor	Peak of spawning	
Gradient	Gentle	Bottom Small rubble and silt, vegetation	
Counting area(s) 3 miles up stream from confluence with Kenai River			

Description and Comments

A rather large, slow moving stream draining a comparatively extensive area. Water is of a brownish color and visibility is poor due to this coloration and the silty bottom. There are numerous tributaries to the stream, the major ones being the east, west, and north fork. The east fork drains a series of some six lakes. Some of this area provides good spawning facilities, however beaver activity in this region is quite heavy and may be a serious barrier to movement of salmon. From past reports similar conditions exist on the west fork of the river. No doubt spawning occurs in those portions of the river which are accessible as spawners are observed in the river each year, and red fingerling have been taken by means of a small sein near the road crossing.

It is necessary to survey this river by boat. There is a small tourist camp at the mouth of the river and boats are available.

STREAM RECORD

MOOSE RIVER

LOWER KENAI RIVER

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/9/31		Reds present, also kings	
1932		Good showing of kings	Resident reports lower river
1940		Poor showing of reds	Air survey - 8/21-22
1941			Beaver dams blocking stream
1943			Beaver dams blocking stream
1949		Reds and cohos present	Run over by August 5
6/8/50	Mouth	50 reds	Foot survey
8/2/50	15 miles	None	Air survey
8/16/50	15 miles	None	Air survey
7/20/51	11 miles	None	Air survey
7/26/51	6 miles	None	Foot survey
7/27/51	Mouth	35 reds	Air survey
7/21/52	Brief	25 reds, 10 kings	Road check - lower river
7/25/52	3 miles	None	Reds at mouth
7/29/52	15 miles	None	Air survey of right branch - poor light
7/30/52	Brief	200 reds, 3 pinks	Green fish just moving in

COOK INLET STREAM AND LAKE SURVEYS

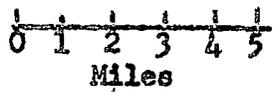
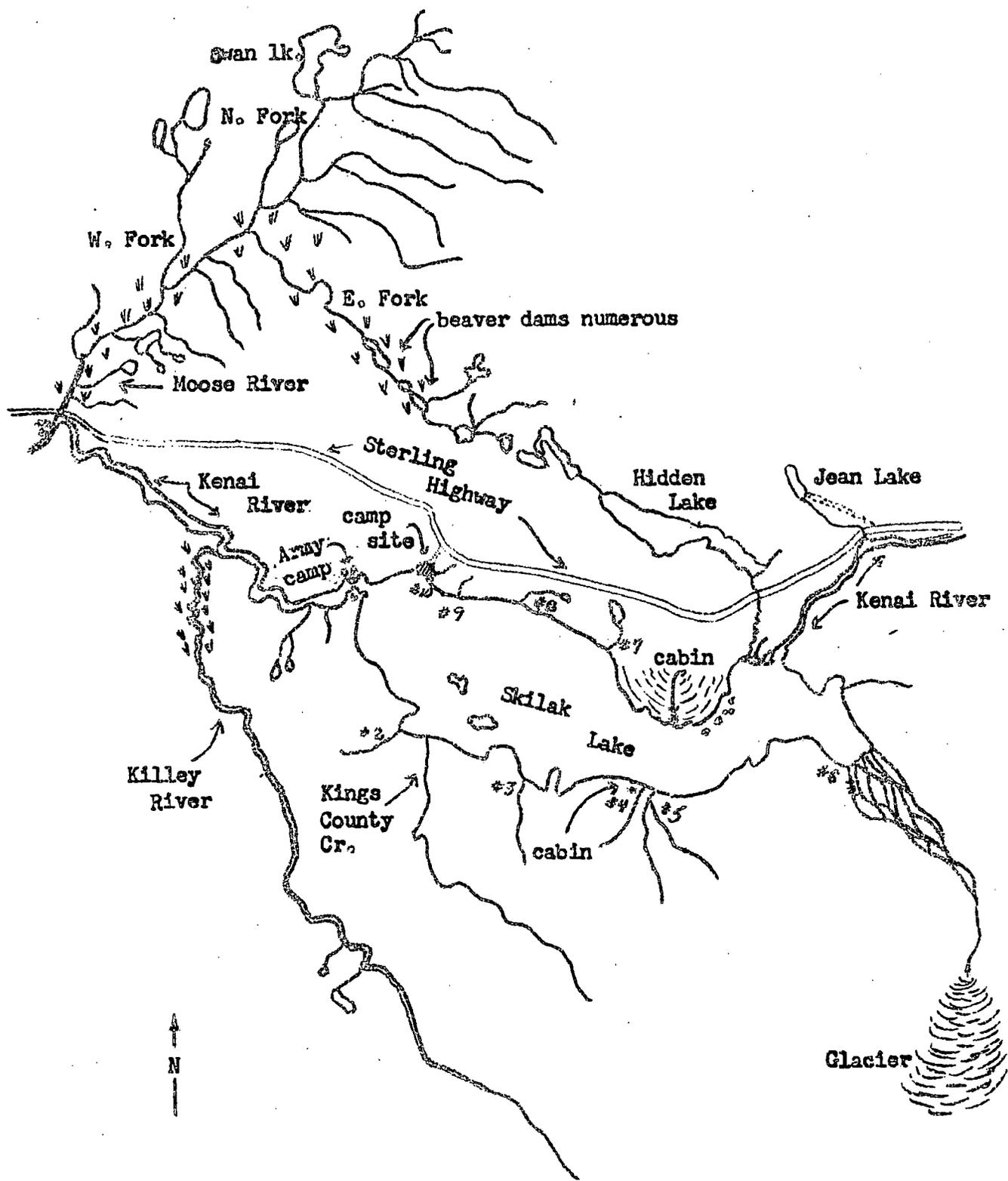
USFWS AND F.R.I.

KILLEY RIVER	KENAI RIVER
Name of Lake or Stream	Drainage
Location <u>Approximately 6 miles downstream from Skilak Lake</u>	
Map reference <u>KENAI</u>	<u>0, 7</u>
Quadrangle	Reference Points
Length accessible <u> </u> mi.	Average width <u> </u> ft.
	Average depth <u> </u> in.
Spawning facilities <u>Unknown</u>	Peak of spawning <u> </u>
Gradient <u> </u>	Bottom <u> </u>
Counting area(s) <u>Only air survey made</u>	

Description and Comments

A large, fairly long stream, muddy in the lower section which flows through swampy terrain. Stream very wide and may support salmon runs but no known records. Quite a number of beaver dams in upper area of stream.

SKILAK LAKE



COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

<u>SKILAK LAKE AND TRIBUTARIES</u>	<u>KENAI RIVER</u>		
Name of Lake or Stream	Drainage		
Location	Head of lower Kenai River		
Map reference	KENAI		
	O-C, 7		
	Quadrangle		
	Reference Points		
Length accessible	mi; Average width	ft. Average depth	in.
Spawning facilities	Peak of spawning		
Gradient	Bottom		
Counting area(s)	Lake shore (no specific areas established)		

Description and Comments

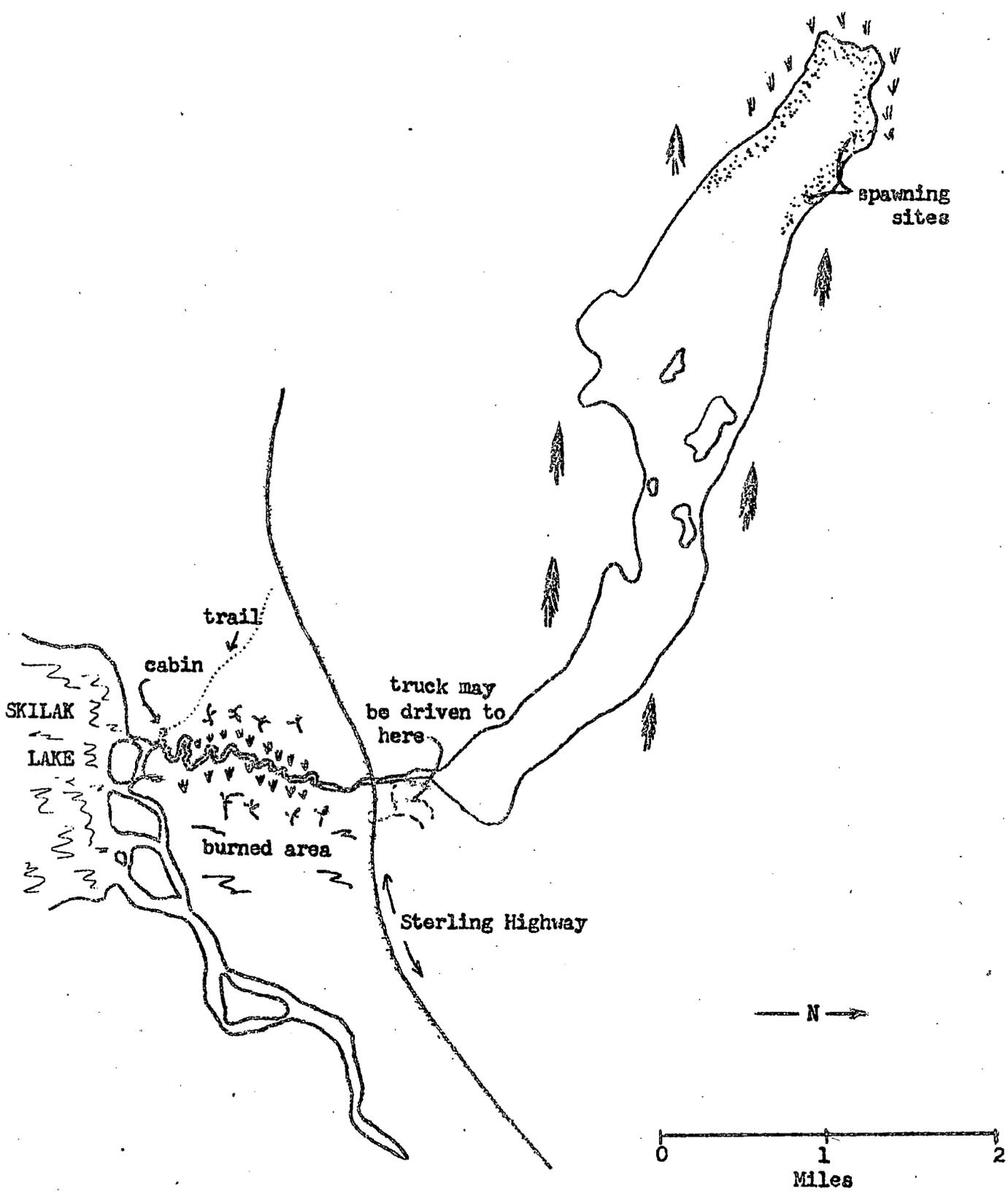
Skilak Lake is the second largest lake on the Kenai Peninsula. As it is quite glacial, accurate estimation of beach spawning is difficult. At times, providing conditions are good, schools of fish may be observed from the air; however, such observations are difficult from the ground and schools of fish may be located only if the fish are jumping. Large schools of red salmon fry have been observed along the shores.

Tributaries to the lake are in general quite small and have little spawning potential. Stream #2 and Kings County Creek on the south shore are large enough to carry fish, however none were observed at the mouth and within the streams. Streams #3-5 and #7-10 are all quite small and it is doubtful that fish could utilize these streams for spawning although beach spawning may occur at the mouths of the streams. Creek #6 is a large glacial stream caused by the run off of Skilak Glacier. The river spreads out over a wide mud flat where it enters the lake and it is not likely that fish utilize this river at all. There are several clear streams branching off the glacial stream on the west side which look as though they might have spawning possibilities; however, these streams are dammed by beaver and no fish have been observed in them.

Hidden Creek is probably the major spawning tributary on the lake (see description).

There is a good camp site at the NW end of the lake maintained by the Forest Service. There is also a Army rest camp at the outlet of the lake on the Kenai River which is operated during the summer.

HIDDEN LAKE



— N —→

0 1 2
Miles

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

HIDDEN LAKE AND CREEK		KENAI RIVER	
Name of Lake or Stream		Drainage	
Hidden Lake lies in a valley just north of Skilak Lake, Hidden Location creek joins the two, entering Skilak at the NE end.			
Map reference	KENAI	P-Q, 8	
	Quadrangle	Reference Points	
Length accessible	3½ mi.	Average width	10 ft. Average depth 15 in.
Spawning facilities	Creek: Upper mile good, lower 2½ mi. poor Lake: West end good	Peak of spawning	August 30 - Sep 10
Gradient	Moderate	Bottom	Small rubble to silt
Counting area(s)	None established		

Description and Comments

Hidden Creek: A medium size, clear stream with moderate gradient. The Sterling Highway crosses the stream at a point approximately 1 mile from the lake. The stream from this point up to Hidden Lake offers good spawning ground; however, the portion from the road crossing to the mouth of Skilak Lake winds through a broad, marshy valley and has a silty bottom affording little spawning area except near the mouth. It is believed that most of the spawning in this area occurs in the lake, in the stretch of stream between Hidden Lake and the road crossing, and within the first 300 yards of the stream at the mouth.

As a result of the forest fire in 1947 there are several wind-falls laying across the stream just upstream from the road crossing which remain as potential stream blocks.

Both red and coho salmon utilize the lake and stream for spawning. Water temps. average around 57°F.

Hidden Lake:

Approximately 5 miles long and ½ mile wide. Clear lake offering fair beach spawning facilities. Practically all of which are located at the west end of the lake.

There is a good trail from the road crossing to the lake which follows the stream. There is also a road which branches off the main road on the east side of the creek and runs towards the lake coming to a dead end at a point approximately 1/8 mile from the outlet of the lake. When surveying the lake, the truck may be driven to this point and the boat and motor can be packed over to the creek outlet. In 1952 the refuge manager at Kenai kept a small skiff on the lake all season and this skiff was utilized by the survey party. Boat is locked and the key may be obtained from Mr. Dave Spencer at Kenai.

SALMON RECORD

HIDDEN CREEK & LAKE

SKILAK LAKE (KENAI RIVER)

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
1931	5 miles	Good run of early reds	School off mouth
8/18/47		1200 reds	Estimate
8/5/48		1000 reds	Estimate
8/5/49	Highway- Hidden Lake	Fdw reds	
7/22/50	4½ miles	800 reds	Air survey
8/2/50		18 reds	Air survey - upper end of lake
8/12/51	4 miles	60 reds	Air survey
7/10/52	Brief	None	Survey of outlet
7/30/52	Entire	None	Air survey of lake
9/11/52	Entire	2500 reds	Air survey - lake spawners

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

JEAN CREEK AND JEAN LAKE

KENAI RIVER

Name of Lake or Stream	Drainage
Location <u>4 miles west of Henton's Kenai Lodge on Sterling Highway</u>	
Map reference <u>KENAI</u>	<u>Q, 8</u>
Quadrangle	Reference Points
Length accessible <u>2</u> mi.	Average width <u>6</u> ft. Average depth <u>6-8</u> in.
Spawning facilities <u>Fair</u>	Peak of spawning <u>Questionable</u>
Gradient <u>Moderate</u>	Bottom <u>Medium to small gravel,</u>
Counting area(s) <u>Jean Creek: Mouth at Kenai River to point 3/4 mile above road crossing.</u> <u>Jean Lake: Entire shore line.</u>	

Description and Comments

A rather small, clear stream with a moderate gradient. It is doubtful that much spawning occurs in the stream proper, the lake offering better and more extensive spawning ground. The lake is approximately 1 mile long and 1/2 mile wide. Beaches at the NW end of the lake afford good spawning ground, as well as a portion of the beach at the SW end of the lake near the outlet of Jean Creek. The lake is clear and fairly shallow. Rather large populations of sticklebacks are evident. Coho fingerling and fry have been taken by seine hauls near the lake shore.

There are two cabins on the lake owned by a resident, Mr. Bill Parchin. The lake is accessible from the main road by vehicle, the road leading to the lake being approximately 2.3 miles long.

There is evidence of an early run of red salmon in this system, fish having been seen in the stream as early as June 26.

Water temperatures average around 58°F.

STREAM RECORD

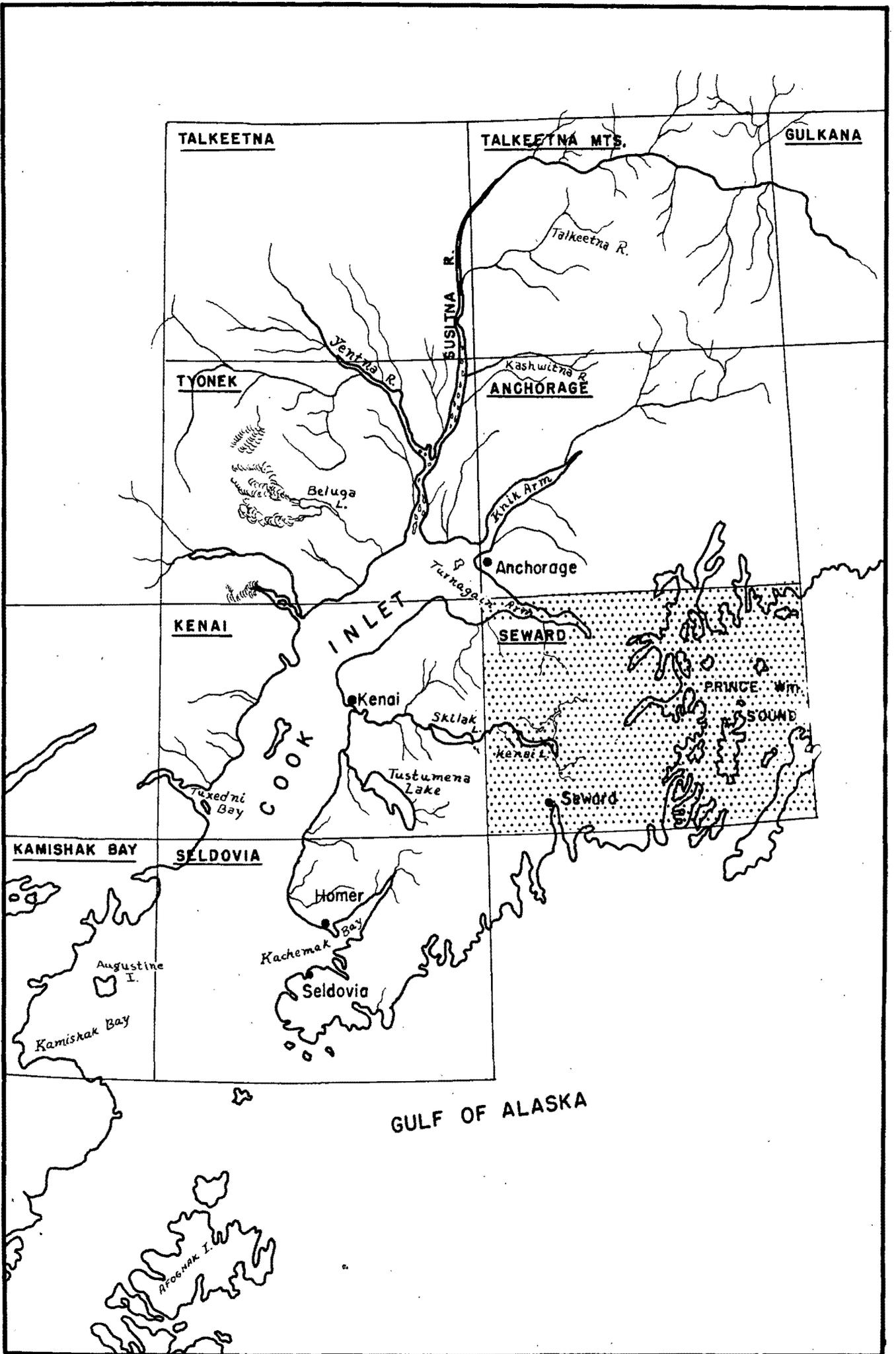
JEAN CREEK & LAKE

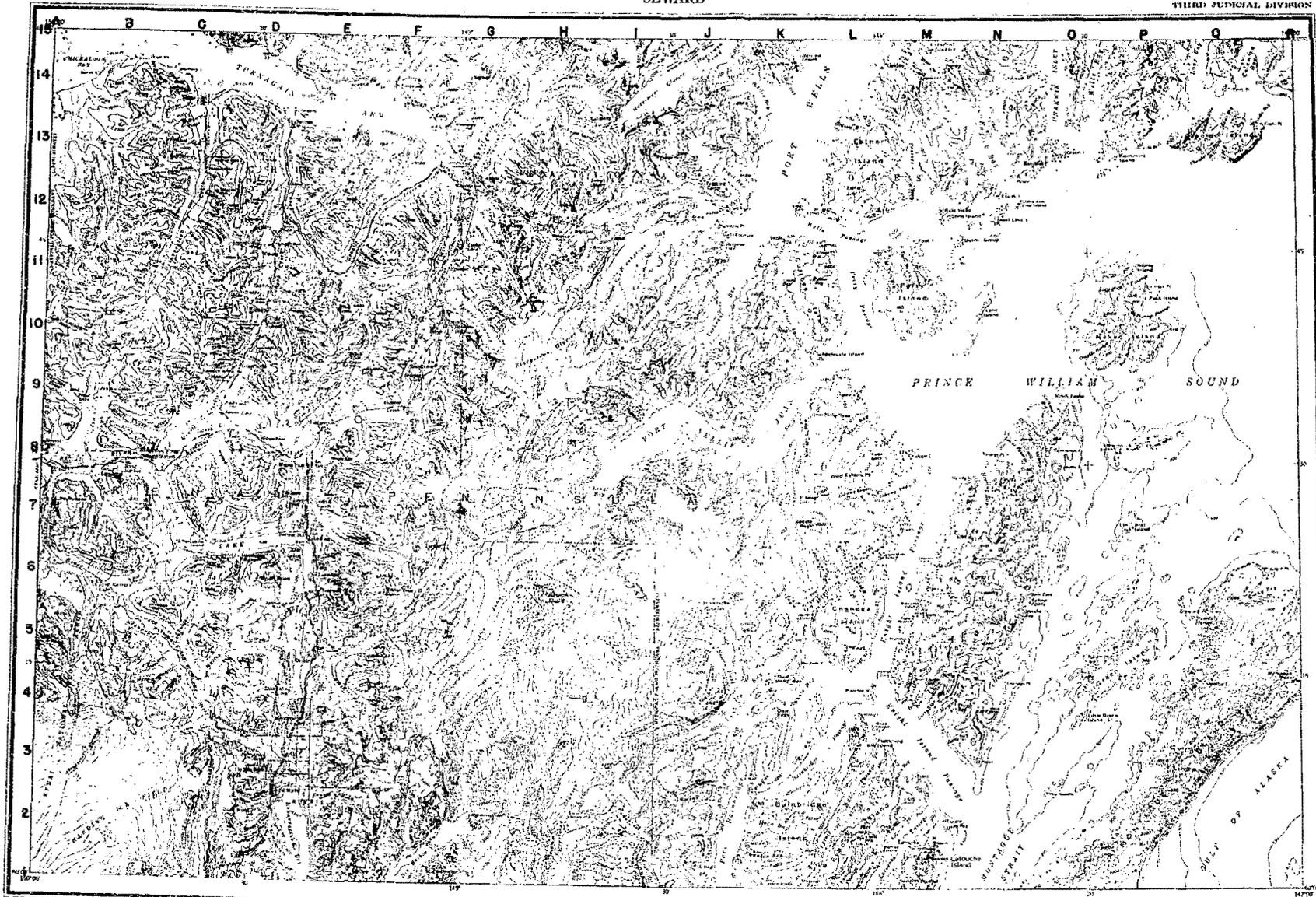
Name of Stream or Lake

UPPER KENAI RIVER

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
1931		Few reds	Late August survey
1940		Poor showing of reds	Air survey - 8/21-22
1941			Large beaver dam blocking entrance to lake
8/18/47		1200 reds	Lake shore survey
8/17/48		1000 reds	Estimate
6/17/49		Fair showing of reds	Early run
8/10/49	Mouth	Few reds	
6/26/50	200 yards	20 reds	Check of outlet - none in lake
8/2/50	3½ miles	None	Air survey
8/16/50	3½ miles	None	Air survey
6/1/51		75 reds	Resident report
8/12/51	7½ miles	30 reds	Air survey
7/31/52	1 mile	None	Only skeletons seen, 1 mile of stream and entire lake shore.
9/11/52	Entire	None	Air survey of entire lake



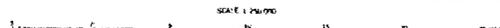


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CONTOUR INTERVAL 100 FEET
METERS NOT SHOWN ON THIS MAP. HEIGHTS IN FEET AND METERS
SHOWN BY SPACING OF CONTOUR LINES. SPACING OF CONTOUR LINES
INDICATES SLOPE. CONTOUR LINES ARE DRAWN AT 100-FEET INTERVALS
EXCEPT WHERE SHOWN OTHERWISE. CONTOUR LINES ARE DRAWN AT
50-FEET INTERVALS WHERE SHOWN OTHERWISE.



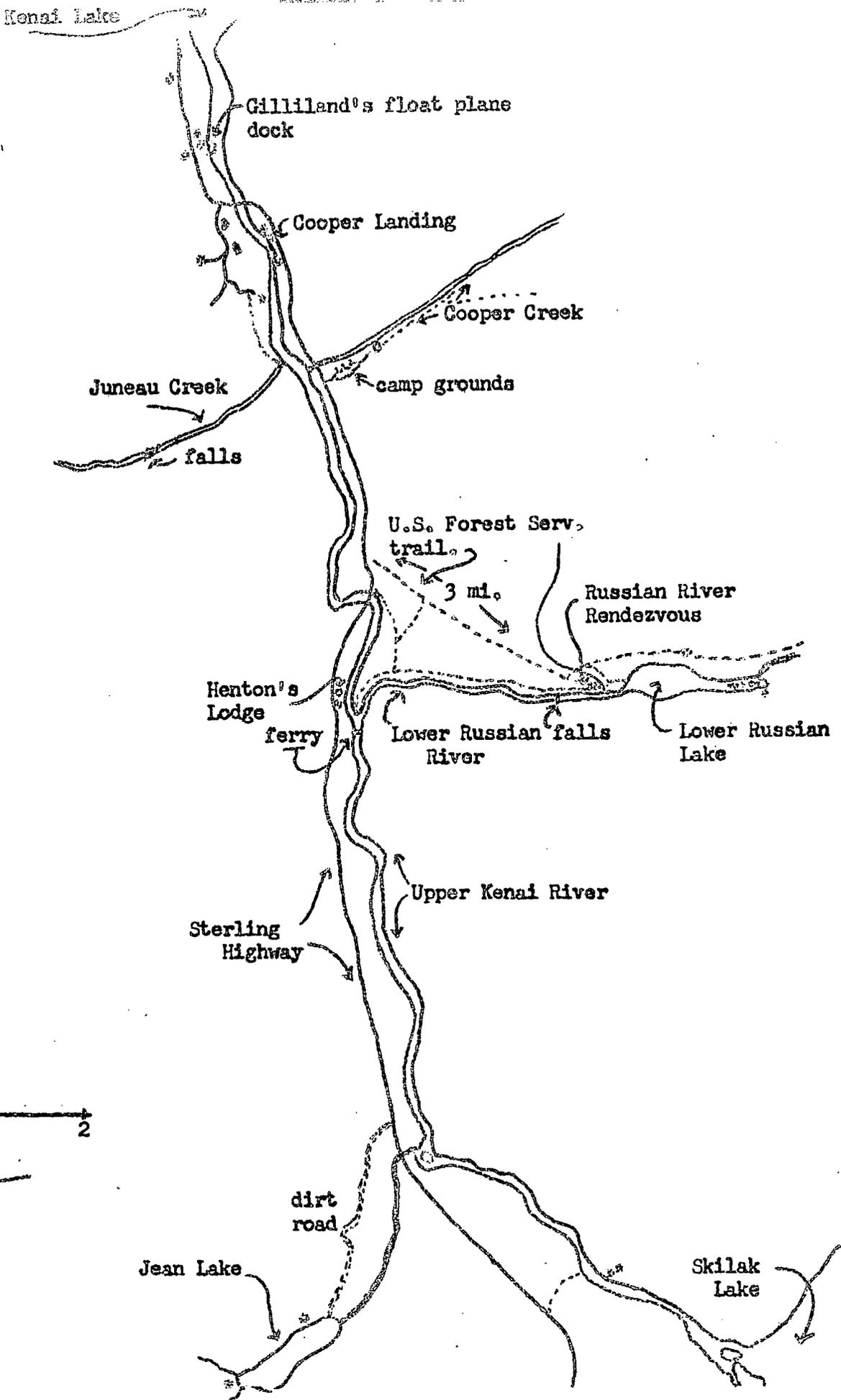
CONTOUR INTERVAL 100 FEET
METERS NOT SHOWN ON THIS MAP. HEIGHTS IN FEET AND METERS
SHOWN BY SPACING OF CONTOUR LINES. SPACING OF CONTOUR LINES
INDICATES SLOPE. CONTOUR LINES ARE DRAWN AT 100-FEET INTERVALS
EXCEPT WHERE SHOWN OTHERWISE. CONTOUR LINES ARE DRAWN AT
50-FEET INTERVALS WHERE SHOWN OTHERWISE.



ROAD CLASSIFICATION
ALL WEATHER ROADS ON WEATHER ROADS
MAINTAINED BY STATE OR FEDERAL GOVERNMENT
UNPAVED
TABLE 1

SEWARD, ALASKA
SCALE 1:50,000
EDITION 19 1971

UPPER KENAI RIVER



COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

UPPER KENAI RIVER	KENAI RIVER
Name of Lake or Stream	Drainage
Location <u>Kenai to Skilak Lakes</u>	
Map reference <u>KENAI SEWARD</u> Quadrangle	<u>Q-R, 7</u> <u>A-B, 8</u> Reference Points
Length accessible <u>13</u> mi.	Average width <u>275</u> ft. Average depth <u>60</u> in.
Spawning facilities <u>good</u>	Peak of spawning <u>latter part of Aug</u>
Gradient <u>Moderate - steep</u>	Bottom <u>gravel - boulders</u>
Counting Area(s) _____	

Description and Comments

A large glacial stream connecting Kenai and Skilak Lakes. During September the stream becomes somewhat less turbid, permitting partial observation of fish from the air. Most reliable yearly counts can probably be made by tallying dead fish only. Past records indicate good numbers of reds use this stream for spawning. The area from the mouth of Russian River to Skilak Lake is reported to contain the bulk of spawners each year.

SALMON RECORD

UPPER KENAI RIVER

SKILAK TO KENAI LAKES

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
1931		Kings present	Late August survey
1932		Good showing of reds and kings	
1936		Excellent show of reds	Motorboat travel difficult because of numbers of fish
1937			Tributaries show above average seeding of reds - 8/29-31
1938			Tributary streams show good seeding
1939		Excellent show of reds	Large bodies of reds seen breaking in glacial water
1940		Poor showing of reds	Air survey - 8/21-22
1941		Poor showing of reds	
1943		Poor showing of reds	Poor in all tributary streams - late survey
1945		Good showing of reds	All tributaries well seeded
8/20/47		Present in sloughs	Glacial water
3/16/50	5 miles	50,000 reds	Air survey from Russian River to Skilak Lake
8/12/51	5 miles	65,000 reds	Estimate - large concentrations in glacial water
9/11/52	12 miles	10,000*	Air survey - glacial water - *dead only

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

JUNEAU CREEK		KENAI RIVER	
Name of Lake or Stream		Drainage	
2 miles west of Cooper Landing, enters Kenai River on north shore		just across from Cooper Creek.	
Location			
Map reference	SEWARD	A-3, 3-7	
	Quadrangõe	Reference Points	
Length accessible	2½ mi.	Average width	20 ft.
		Average depth	2½ in.
Spawning facilities	Fair	Peak of Spawning	August 20-30
Gradient	Moderately steep	Bottom	Medium rubble to large rock
Counting area(s)	2 miles upstream from mouth of Kenai River		

Description and Comments

A clear stream of moderate size and fairly steep gradient. Most of the spawning takes place in the lower section of the stream, 1 to 1½ miles upstream from the mouth. There is an impassible falls approximately 2½ miles upstream which prevent salmon reaching Trout Lake and Juneau Lake. Spawning in this system is limited to the section between the falls and the mouth of the stream. Although red salmon utilize the stream to some degree, it does not seem to be a very important spawning ground. King salmon have been observed in the stream; however, not in any great numbers.

Easiest approach to the stream for survey work is by boat. Putting in at Cooper Creek and crossing the Kenai River to the mouth of Juneau Creek, a distance of approximately 125 yards. The other approach is to drive to the Kenai River Bridge at Cooper Landing, cross to the north shore and take the first road to the left. By following this road and keeping to the left a clearing will be reached. The vehicle may be left at this point, the trail to the mouth of Juneau Creek will be found at the west end of the clearing, from this point to the mouth of the creek is a distance of approximately 1½ miles.

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

<u>COOPER CREEK</u>	<u>KENAI RIVER</u>
<u>Name of Lake or Stream</u>	<u>Drainage</u>
Location <u>2 miles west of Cooper Landing on Sterling Highway</u>	
Map reference <u>SEWARD</u>	<u>B, 7-8</u>
<u>Quadrangle</u>	<u>Reference Points</u>
Length accessible <u> </u> mi. Average width <u>23</u> ft. Average depth <u>18</u> in.	
Spawning facilities <u>Poor for reds</u>	Peak of spawning <u> </u>
Gradient <u>Steep</u>	Bottom <u>60% boulders, 40% medium - small</u> rubble
Counting area(s) <u>2¹/₂ miles upstream from junction of Kenai River</u>	

Description and Comments

A moderate sized, clear stream with a steep gradient. With exception of a small area near the junction with the Kenai River, little spawning area exists on this stream. Red salmon have been reported at the mouth of the stream. Very few have ever been seen in the stream. King salmon have been observed spawning in the stream, and both coho and king fingerlings have been observed.

A trail follows the stream for about a mile upstream from the road crossing. Beyond this point going is rough as stream cuts through a narrow canyon and banks are steep on both sides. Another trail cuts off to the right of this trail and follows higher ground to an old mine, and on to Cooper Lake. Mr. Gilliland, guide at Cooper Landing, states that falls in the stream prevent salmon from reaching Cooper Lake.

Dolly varden have been observed in the stream; however, not in any great numbers. One lake trout was taken by a fisherman from the stream during survey period in 1952.

There are several excellent campsites near the mouth of the stream at Kenai River, all accessible by road.

1953 11 King Salmon

1954 - Nothing

1955 - Nothing

STREAM RECORD

COOPER CREEK

UPPER KENAI RIVER

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
1931		Good number of kings	Late August survey
1936		Few reds and cohos, fair show of kings	Clear
1946	Mouth	20 reds	
1947		Good showing of kings	Resident's report
8/9/49	Mouth	15 reds	
8/2/50	Mouth	300 reds	Air survey
8/17/50	3/4 mile	35 kings	Foot survey
7/8/52	2 miles	None	Very swift - poor red spawning area
8/29/52	Mouth	Few reds, 2 kings	
8/18/53	1/2 mile	17 kings 1 chum	
1954	No record		
1955	No record		
1956	No record		
1957	No record		
9/3/58	Unknown	3 live kings	Foot survey by FRI.

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

37

LOWER RUSSIAN RIVER AND LAKE		KENAI RIVER	
Name of Lake or Stream	Drains Lower Russian Lake and enters the Kenai River at Henton's		
Location	Kenai Lodge 6 miles west of Cooper Landing.		
Map reference	SEWARD	A, 7-8	
	Quadrangle	Reference Points	
Length accessible	4 mi.	Average width	60 ft. Average depth 30 in.
Spawning facilities	Excellent to good	Peak of spawning	River: Mid Aug.
Gradient	Steep to moderate	Small to medium rubble, large Bottom rocks and boulders.	
Counting area(s)	3½ miles. Complete coverage from mouth at Lower Russian Lake to confluence with Kenai River should be made.		

Description and Comments

Lower Russian is a rather large clear stream which drains Lower Russian Lake. Spawning facilities throughout the stream vary with the gradient of the stream. The lower portion, that section from the point of confluence with the Kenai River to a point approximately 1 3/4 miles upstream, is of moderate gradient and excellent spawning facilities are present. The upper 2 1/4 miles of the stream is of steep gradient and spawning facilities are not so good; however, this section is utilized to the full extent. About a quarter of a mile downstream from the outlet at Lower Russian Lake there are a series of rapids and falls which, although not acting as a barrier to migrating salmon, do offer somewhat of an obstacle.

The run in this stream seems to be of a bi-modal nature. The first fish arriving around the 10th to 20th of June and the next run beginning in late July and early August. The early fish do not spawn in the lower system but move on up the lower river to Upper Russian River and Lake. During the interval between the two runs the lower river may be void of fish. The late fish utilize the Lower Russian River and Lake with the peak of river spawning occurring around the 19th of August.

Probably the best way to make a complete survey of the Lower Russian is to go to Henton's Lodge and take the ferry across the Kenai River. The Lower Russian joins the Kenai about 150 yards from this point and the survey may be started from there. See reference map for details regarding trails, etc.

Some spawning occurs in Lower Russian Lake, and this area may be checked by boat, three of which are available at the Russian River Rendezvous located at the north end of the lake near the outlet of Lower Russian River. Mr. Fred Davis operates the lodge and is very cooperative in regards to supplying information and the loan of a boat. System carries reds, kings, cohos and a few pinks have been observed.

STREAM RECORD

LOWER RUSSIAN RIVER

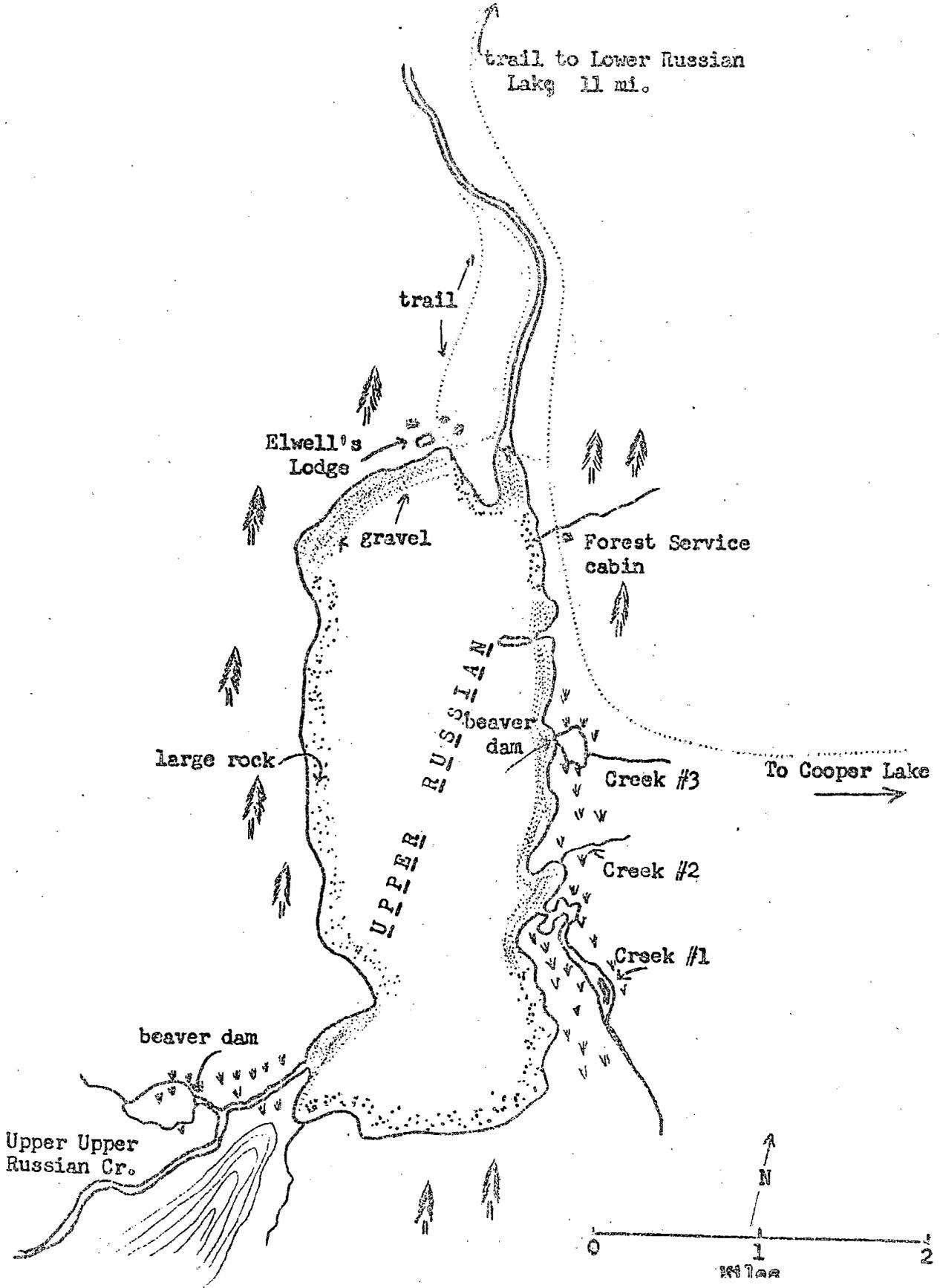
KENAI RIVER

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/24/30		Few reds, good showing of coho	Fair early red run reported
1931	3 miles	Fair red run	Fair early escapement beyond falls Late August survey
1932		Good showing of kings	
1936		Excellent red run - fair king and coho runs	
1940		Poor red run	Very good early run to Upper Russian - 8/21-22
1941		Fair showing of reds	Survey on 8/19
1942		Poor showing of reds	
1944		Excellent show of reds	
1945		Good showing of reds	
1946	Near mouth	6800 reds	Estimate 86,000 in stream
8/16/47		46,000 reds	Estimate for entire stream
8/13-16/48		30,000 reds	Estimate
8/16/49		65,000 reds	
7/22/50	5 miles	None	Air survey
8/2/50	5 miles	500 reds	Air survey - all at mouth
8/17/50	5 miles	34,820 reds	Foot survey
8/12/51	5 miles	24,000 reds	Air survey
7/7/52	3 miles	6000 reds	All moving through
7/25/52	3 miles	54 reds	
8/19/52	3 miles	2544 reds 155 kings	
9/3/52	1/4 mile	406 reds	Estimate 8000 in stream

UPPER RUSSIAN LAKE



COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

UPPER RUSSIAN LAKE	KENAI RIVER
Name of Lake or Stream	Drainage
Location	Approximately 10 miles south west of Kenai Lake
Map reference	SEWARD B, 5-6
	Quadrangle Reference Points
Length accessible	mi. Average width
	ft. Average depth
	in. Streams: First of Aug
Spawning facilities	Excellent Peak of spawning Lake: Late Sep.
Gradient	Bottom
Counting area(s)	Lake shore

Description and Comments

A moderate sized, clear lake, approximately 4 miles long and 1 mile wide. This is probably one of the best spawning areas in the Kenai drainage. There are several major beach spawning areas on the lake and four small tributaries which carry fish, the most important being Upper, Upper Russian Creek.

Reds usually enter the system around the 15-20 of June and begin spawning in the tributaries around the first of August, lake spawning occurs later during the month of September. Salmon, especially cohos, have been noted in the lake up until the freeze up, according to Mr. Elwell, a resident on the lake.

The lake is accessible by trail and air. A Forest Service trail takes off the road at Schooner Bend on the Kenai River approximately 4 miles west of Cooper Landing. It is on the south side of the road just east of the covered bridge and directly across from the cleared parking area. Trail is marked as the "Russian River Rendezvous Trail", and there is also a sign with the name "Elwell". The trail cuts overland to Lower Russian Lake and then on to Upper Russian River, a total distance of approximately 12 miles. This is a very good trail and is maintained by the Forest Service during the summer months. Approach by air is a more efficient operation, however, especially if any amount of gear must be taken in.

There is a Forest Service cabin on the east shore of the lake approximately 1/4 mile from the outlet of Upper Russian River, which is open and may be utilized if not already occupied by trail crews or other campers.

Mr. Elwell has a lodge and three cabins at the north end of the lake about 1/2 mile from the Forest Service cabin which could be rented if it is so desired. Mr. Elwell also has a boat and motor which may be used. He is very cooperative along these lines as well as being a good source of reliable information.

STREAM RECORD

UPPER RUSSIAN LAKE
Name of Stream or Lake

KOMAI RIVER
Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
9/11/52	Entire lake shore	10,000 reds	Air survey

COCK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

<u>UPPER UPPER RUSSIAN CREEK</u>	<u>KENAI RIVER</u>
Name of Lake or Stream	Drainage
Location <u>Tributary at Southwest end of Upper Russian Lake</u>	
Map reference <u>SEWARD</u>	<u>A-B, 5-6</u>
Quadrangle	Reference Points
Length accessible <u>2 3/4 mi.</u>	Average width <u>17 ft.</u> Average depth <u>9 in.</u>
Spawning facilities <u>Excellent</u>	Peak of spawning <u>First of Aug.</u>
Gradient <u>Moderate</u>	Bottom <u>Small to medium rubble</u>
Counting area(s) <u>2 3/4 miles upstream from mouth.</u>	

Description and Comments

A clear stream of moderate size and gradient. This stream provides excellent facilities for the first two miles after which the stream becomes more rapid and the bottom scattered with large rocks and boulders. Little spawning occurs above this point. It is the best spawning tributary on the Upper Russian Lake and has consistently carried a good run of fish.

When surveying this stream and the Upper Russian Lake area it is best to make camp at the Northwest end of the lake near the mouth of Upper Russian River. Mr. Luke Elwell has a lodge here and there is also a Forest Service cabin just Southeast of his place on the lake shore.

There are brown bear in this area, particularly on Upper Upper Russian where predation is rather heavy. Dolly varden and rainbows resident in lake and tributaries.

Peak of spawning in creek is around the first of August with the first fish arriving around the 19th of June.

STREAM RECORD

UPPER UPPER RUSSIAN CREEK

RUSSIAN RIVER & KENAI RIVER

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
1946		14,000 redds	Estimate
8/17/47		4000 redds	
8/16/48		15,000 redds	
8/6/49		14,000 redds	3000 additional redds at mouth
8/16/50		5800 redds	Air survey
8/12/51	2 miles	7700 redds	Air survey
7/15/52	2 miles	254 redds	Foot survey
8/12/52	2 miles	6600 redds	500 redds at mouth

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

<u>STREAM #1 (Upper Russian Lake)</u>		<u>KENAI RIVER</u>
<u>Name of Lake or Stream</u>		<u>Drainage</u>
<u>Location Southeast shore Upper Russian Lake (see reference map)</u>		
<u>Map reference</u>	<u>SEWARD</u>	<u>B, 5-6</u>
	<u>Quadrangle</u>	<u>Reference Points</u>
<u>Length accessible</u>	<u>1 mi.</u>	<u>Average width 7 ft. Average depth 8 in.</u>
<u>Spawning facilities</u>	<u>Fair</u>	<u>Peak of spawning Last of Aug to 1st Sep</u>
<u>Gradient</u>	<u>Gentle</u>	<u>Bottom Medium to fine rubble</u>
<u>Counting area(s) 3/4 mile upstream from lake</u>		

Description and Comments

A small, clear stream of gentle gradient. It is quite narrow at the mouth; however, immediately spreads out into a rather wide pot-hole which extends for about 30 yards. The stream then continues for about 1/4 mile, 6 to 8 feet wide and around 8 inches in depth. At this point there is another pot-hole, smaller than the first, offering good spawning facilities. Upstream the creek becomes progressively smaller and after about 3/4 of a mile is too small to offer any spawning ground. Mr. Elwell states that these two pot-holes and the connecting stream are utilized by spawners.

Bears are in evidence in this area and no doubt take quite a few fish as the stream is small and offers little avenue of escape.

STREAM RECORD

STREAM #1 (UPPER RUSSIAN)

KENAI RIVER

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
7/16/52	1 mile	None	
8/11/52	1/4 mile	30 reds	200 off mouth

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

STREAM # 2 KENAI RIVER--TRIB. UPPER RUSSIAN LAKE
 Name of Lake or Stream Drainage

Location Just north of Stream #1 (see reference map)

Map reference SELARD B.5-6
 Quadrangle Reference Points

Length accessible ? mi. Average width 4-5 ft. Average depth 5 in.

Spawning facilities Poor Peak of spawning _____

Gradient Moderate Bottom Medium to small rubble

Counting area(s) 600 yards from mouth

Description and Comments

A very small clear stream 4-5 feet in width and approximately 5 inches in depth. Due to it's size it is very doubtful that this stream is utilized for spawning. No fish were observed within the stream and only a very few were seen at the mouth.

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

<u>UPPER RUSSIAN RIVER</u>	<u>KENAI RIVER</u>
Name of Lake or Stream	Drainage
Location <u>Between and connecting Lower and Upper Russian Lakes</u>	
Map reference <u>SEWARD</u>	<u>A, 6-7</u>
Quadrangle	Reference Points
Length accessible <u>11</u> mi. Average width <u>35</u> ft. Average depth <u>24</u> in	
Spawning facilities <u>Excellent</u>	Peak of spawning <u>Last of August, per</u>
Gradient <u>Moderate</u>	Bottom <u>Medium to small rubble, large</u>
Counting area(s) <u>Three miles downstream from outlet at Upper Russian Lake</u>	

Description and Comments

A fair sized, clear stream draining Upper Russian Lake and flowing into Lower Russian Lake. The stream affords excellent spawning facilities throughout the entire area surveyed and probably throughout the entire 11 miles of the stream. The peak of spawning in the river seems to occur around the last of August; however, many fresh fish may be observed during this time and it is believed that these are fish moving into Upper Russian Lake and will be lake spawners.

Bear kills were in evidence; however, not in the abundance found on the smaller streams in this area.

STREAM RECORD

UPPER RUSSIAN RIVER

KENAI RIVER

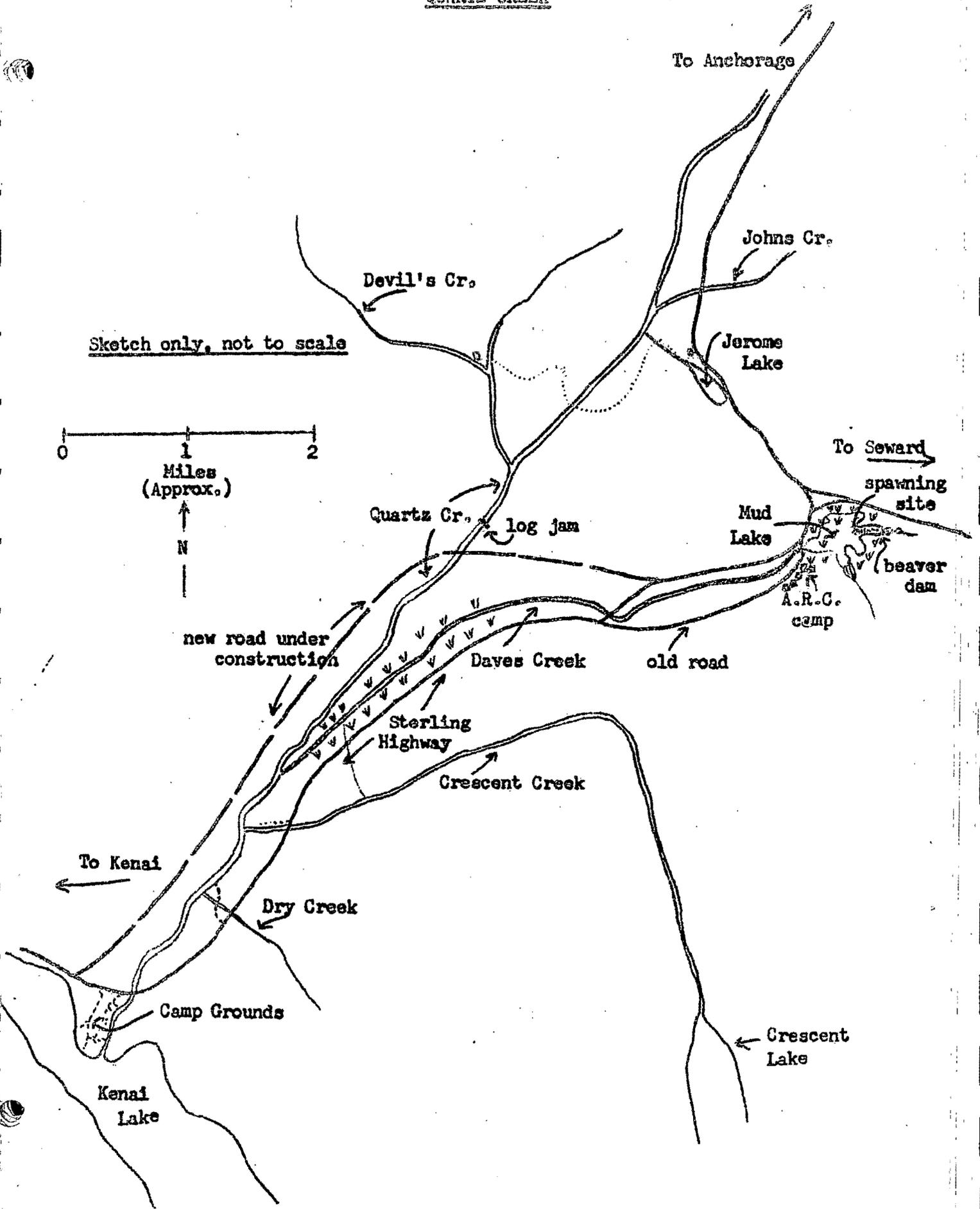
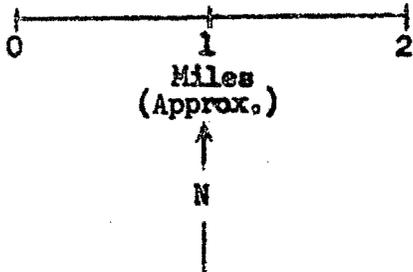
Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/6/49		5000 reds	
7/22/50	3 miles	2000 reds	Air survey
8/16/50	13 miles	3000 reds	Foot survey
8/12/51	Entire	14,000 reds	Constant run since 6/4
7/16/52	2 miles	6 reds	Fish not spawning
8/13/52	2½ miles	754 reds	Estimate 3500 reds in entire stream

QUARTZ CREEK

Sketch only, not to scale



BOOK INDEX STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

QUARTZ CREEK Name of Lake or Stream	KENAI RIVER Drainage
Location <u>Enters Kenai Lake approximately 4 miles east of Cooper Landing</u>	
Map reference <u>SEWARD</u> Quadrangle	<u>B-G, 7.5</u> Reference Points
Length accessible <u>10</u> mi. Average width <u>50</u> ft. Average depth <u>30</u> in.	
Spawning facilities <u>Good to poor</u>	Peak of spawning <u>August</u>
Gradient <u>Moderate</u>	Bottom <u>Small to medium rubble, sand to silt</u>
Counting area(s) <u>From mouth at Kenai Lake upstream to 3/4 mile above new road crossing, distance of approximately 4 miles</u>	

Description and Comments

A stream of good size and moderate gradient. In the upper limits of the stream the water is clear; however, the portion below the confluence with Davis and Crescent Creek is glacial. Early in the spring and up until around the middle of August the turbidity of the stream makes observations impossible in the lower portion of the creek. Around the middle of August this section of the stream clears enough to make a fairly accurate survey of the entire stream possible.

It was found that the portion of the stream from the mouth of Kenai Lake to point just downstream from the confluence with Davis Creek offers the best spawning facilities. The water averages around 2 feet deep and bottom is of medium to small rubble. Above this section the stream narrows somewhat and is slightly deeper. The bottom is of sand and silt, rather hard packed. The stream continues as such for approximately 2 miles. Then, about 1/4 mile below the new road crossing the stream shallows. Spawning facilities in this area are fairly good. There is a rather bad log jam in the stream just about 1/4 mile above the new road crossing which may develop into a serious stream block. Kings, cohes and a few pinks have been observed in the stream.

The stream in general has fair spawning facilities and should be able to carry several thousand fish.

STREAM RECORD

QUARTZ CREEK

LOWER END KENAI LAKE

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
1931		Coho present	Almost barren of redds
1936		Excellent show of redds - few kings - fair number of coho	Steelhead observed
8/18/46	½ mile	190 redds	Estimate 5000 in stream
8/15-20/47		3000 redds	Estimate
8/7/49		2480 redds	Water roily
8/2/50	12 miles	3800 redds	Air survey
8/15/50	2 miles	7000 redds	Foot survey
8/16/50	12 miles	28,000 redds	Air survey
8/12/51	To Daves Creek	430 redds	Air survey
7/21/52	Brief	None	Road checks - glacial
8/5/52	4 miles	52 redds - 1 pink - 13 kings - 1 coho	Upstream from mouth of Daves Creek - clear
8/23/52	5 miles	833 redds	From mouth to approx. 1 mile below Devils Creek
8/30/52	1½ miles	No counts	Stream high and muddy
8/10/53	6 miles	676 Redds 2 kings 2 coho 2 chum	mouth to 6 miles upstream
8/22/54	3 miles	1459 Redds 6 chum 9 king 1 pink coho present	Daves L. to mouth.
8-21-55	3 miles	942 Redds 9. King	estimate of 2500 Redds for whole stream

STREAM RECORD

(LOST CREEK) CRESCENT CREEK
Name of Stream or Lake

KENAI RIVER
Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
1931		Many dead kings	Late August survey
8/17/46		250 reds 4 dead kings	Brief survey
8/15/47		500 kings	
8/12/48		200 kings	
8/7/49		No reds 247 kings	
8/15/50	2½ miles	70 kings	Foot survey
7/21/52	1/8 mile		Glacial
8/4/52	Brief	1 pink - few kings	
		<p>Handwritten notes:</p> <p>250 17 10</p>	

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

<u>DRY CREEK</u>	<u>KENAI RIVER</u>
Name of Lake or Stream	Drainage
Location <u>Enters Quartz Creek near mouth at Kenai Lake</u>	
Map reference <u>SEWARD</u>	<u>C. 5</u>
Quadrangle	Reference Points
Length accessible <u> </u> mi.	Average width <u> </u> ft.
	Average depth <u> </u> in.
Spawning facilities <u>None</u>	Peak of spawning <u> </u>
Gradient <u> </u>	Bottom <u> </u>
Counting area(s) <u>From mouth to short distance above road</u>	

Description and Comments

A small, clear stream entering Quartz Creek approximately 2 miles upstream from the mouth at Kenai Lake. This stream offers no spawning possibilities due to its size and the manner in which it spreads out just before entering Quartz Creek. At this point the stream breaks up into many small channels, none of which are large enough to permit the entry of fish from Quartz Creek.

COOK INLET FEDERAL OIL FIELD SURVEYS

USFWS AND F.R.I.

DAVES CREEK AND MUD LAKE		KEEAL RIVER
Name of Lake or Stream	Drainage	
Location	Source at Mud Lake (Kenai-Seward-Anchorage highway junction) flows southwest for about 5 miles and joins Quartz Creek	
Map reference	SEWARD	E-D, 8
	Quadrangle	Reference Points
Length accessible	5 mi.	Average width 15 ft. Average depth 12 in
Spawning facilities	Fair to poor	Peak of spawning August 15
Gradient	Moderate	Bottom Small to medium rubble to silt
Counting area(s)	No counting area designated	

Description and Comments

Daves Creek is of moderate size and gradient. It is quite turbid and observation of fish in this type stream is difficult. A road parallels most of stream course from Mud Lake to Quartz Creek. Through most of this stretch the stream is rather sluggish and marshy. At other points the bottom is of small to medium rubble and more rapid. Although spawners have been reported in the stream the general conditions of the stream do not seem to meet requirements of good spawning ground.

Mud Lake is a very small lake and as the name implies is, in the main, muddy with mud and silt bottom, surrounded by marshy ground. A small, clear stream enters at the extreme east end which provides suitable spawning ground within the stream and in the lake near the mouth of the stream. Spawning is restricted to an area of only 50 yards in the stream as there is a beaver dam at this point. The stream is so small that it is doubtful spawning conditions could be improved very much by stream clearance work. No doubt the greater part of the spawning occurs in the lake near the mouth of the stream. There is another stream entering on the south shore of the lake; however, this is quite muddy and carries a great deal of silt, thus making it unsuitable for spawning. It is this stream that gives the lake and Daves Creek its turbidity.

Red salmon fingerlings and king salmon fry were taken on the south shore near the outlet to Daves Creek. Sticklebacks present in large numbers. Lake is readily accessible by road.

STREAM RECORD

DAVES CREEK

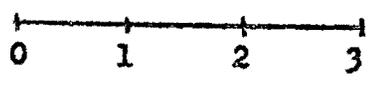
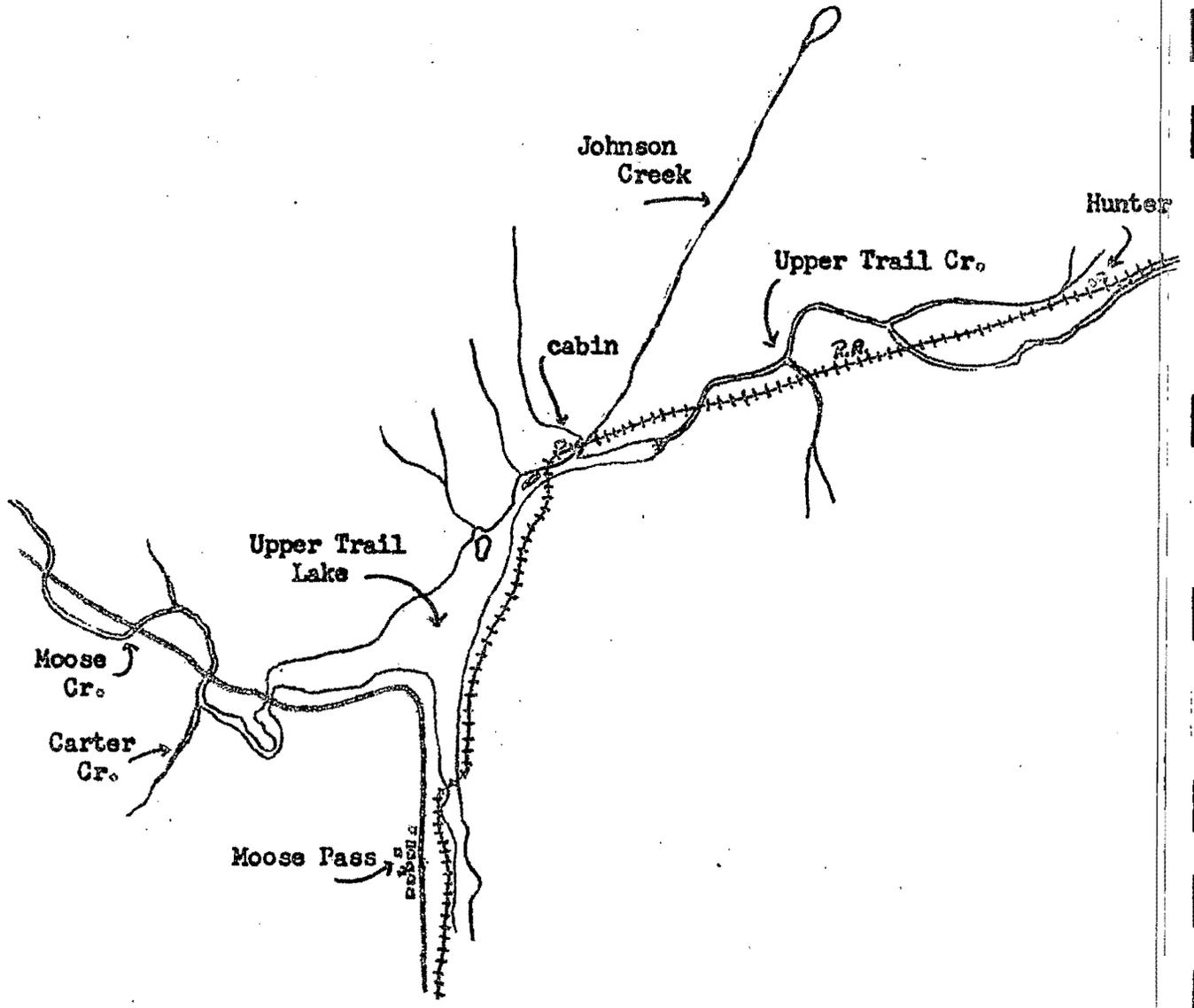
Name of Stream or Lake

KENAI RIVER

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/12/48		1000 reds	Estimate
8/7/49		No reds - 100 kings	
8/14/50	3 miles	None	Foot survey
8/16/50	5 miles	None	Air survey
1951			No survey
1952	1/8 mile	None	Muddy

UPPER TRAIL LAKE



COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

<u>MOOSE CREEK (Bear Creek, Trail Creek)</u>	<u>KENAI RIVER, TRIB, UPPER TRAIL LAKE</u>
<u>Name of Lake or Stream</u>	<u>Drainage</u>
<u>Tributary to Upper Trail Lake, enters lake on northwest shore four miles by highway north and west of Meese Pass.</u>	
<u>Location</u>	
<u>Map reference</u>	<u>D-E, 5</u>
<u>SEWARD</u>	<u>Reference Points</u>
<u>Quadrangle</u>	
<u>Length accessible</u> <u>3</u> <u>mi.</u>	<u>Average width</u> <u>12</u> <u>ft.</u>
	<u>Average depth</u> <u>12</u> <u>in.</u>
<u>Spawning facilities</u> <u>Good-excellent</u>	<u>Peak of spawning</u> <u>August 15</u>
<u>Gradient</u> <u>Moderate</u>	<u>Bottom</u> <u>Medium to small rubble</u>
<u>Counting area(s)</u> <u>Approximately 3 miles upstream from mouth at Upper Trail Lake</u>	

Description and Comments

A small, clear stream of moderate gradient. It is joined by Carter Creek, a smaller stream, at a point approximately a mile upstream from Upper Trail Lake. Although Meese Creek is small it affords excellent spawning facilities throughout its entire length. Easy access by road. Bottom is composed of medium to small gravel.

Dolly varden and small rainbow trout were observed in the stream.

STREAM RECORD

MOOSE CREEK
(TRAIL CREEK OR BEAR CREEK)

UPPER TRAIL LAKE - KENAI RIVER

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/17/46		3500 redds	Estimate for entire creek
8/15/47		4000 redds	Estimate for entire creek
8/12/48		1000 redds	Estimate for entire creek
8/8/49	Entire	1335 redds	Count
8/2/50	3 miles	100 redds	Air survey
8/14/50	2½ miles	750 redds	Foot survey
8/16/50	3 miles	500 redds	Air survey
8/4/52	1 mile	275 redds	Spawning beginning
8/21/52	3 miles	1057 redds	Spawning nearly over
8/29/52	Brief		No new fish
8-22/53	3 miles	495 Redds	
8-5-54	3 miles	1061 Redds 3 chum 1 pint	→
8-18-55	3 mds	305 Redds	→

CROOK WILSON STREAM AND LAKE SURVEYS

USFWS AND F. R. I.

CARTER CREEK		KEMAI RIVER
Name of Lake or Stream		Drainage
Location	West end of Upper Trail Lake--Tributary to Moose Creek	
Map reference	SEWARD Quadrangle	D. 8 Reference Points
Length accessible	$\frac{1}{2}$ - $\frac{3}{4}$ mi.	Average width 6 ft. Average depth 10 in.
Spawning facilities	Good	Peak of spawning
Gradient		Bottom
Counting area(s)	$\frac{1}{2}$ mile upstream	

Description and Comments

A small, clear creek converging with Moose Creek a short distance west of Upper Trail Lake. Well used by rede for a short distance near mouth, then stream narrows and becomes quite swift, shallow and brushy. Road near stream.

8-25-35 42 Red's $\frac{1}{4}$ mile
Counts of fish included with Moose Creek.

~~Carter CR~~

8-5-54 $\frac{1}{4}$ mile 142 Red's

~~Carter CR~~

8-13-55 $\frac{1}{10}$ mile 34 Red's

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

JOHNSON CREEK	KENAI RIVER
Name of Lake or Stream	DRAINAGE
Location Northeast arm of Upper Trail Lake on northeast shore	
Map reference	Reference Points
SEWARD Quadrangle	E-F, 8-9
Length accessible _____ mi. Average width <u>15</u> ft. Average depth <u>12</u> in.	
Spawning facilities <u>Fair</u>	Peak of spawning <u>August 20</u>
Gradient <u>Moderate to slightly steep</u>	Bottom <u>Medium rubble to large rocks</u>
Counting area(s) <u>1/4 mile upstream from mouth</u>	

Description and Comments

A rather small, clear stream of moderate gradient. The portion of stream surveyed offered fair spawning facilities; however, was being utilized only partially. A complete survey was not made, only about 1/4 mile covered. Past records state that there is an impassible falls about 1/2 mile upstream. Possibly it is farther upstream. The easiest way to reach the stream is by boat, putting in where the highway runs near the lake approximately 1 mile north of Hesse Pass. If boats are not available one could hike to the creek following the railroad from where it crosses Upper Trail Lake; however, this is a distance of some six miles as compared to the 3 miles by boat.

No predators were noted in the stream.

STREAM RECORD

JOHNSON CREEK

UPPER TRAIL LAKE - KENAI RIVER

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/2/50	3 miles	100 reds	Air survey
8/16/50	1 mile	1 red	Air survey
8/18/50	1 mile	200 reds	Foot survey - old fish
7/27/51	2 miles	120 reds	Air survey
8/22/52	1 mile	100 reds	Most fish spawning

COOK INLET STREAM AND LAKE SERVICES

USFWS AND F.R.I.

TRAIL CREEK Name of Lake or Stream	KENAI RIVER Drainage
Location <u>Enter Upper Trail Lake in upper northeast corner</u>	
Map reference <u>SEWARD</u> Quadrangle	<u>E-F, 8</u> Reference Points
Length accessible _____ mi. Average width <u>50</u> ft. Average depth <u>15</u> in	
Spawning facilities _____ Peak of spawning _____	
Gradient <u>Moderately steep</u> Bottom <u>Silty near mouth</u>	
Counting area(s) _____	

Description and Comments

A glacial stream, clearing somewhat to permit counts during the low water periods. Little known of spawning facilities.

STREAM RECORD

TRAIL CREEK

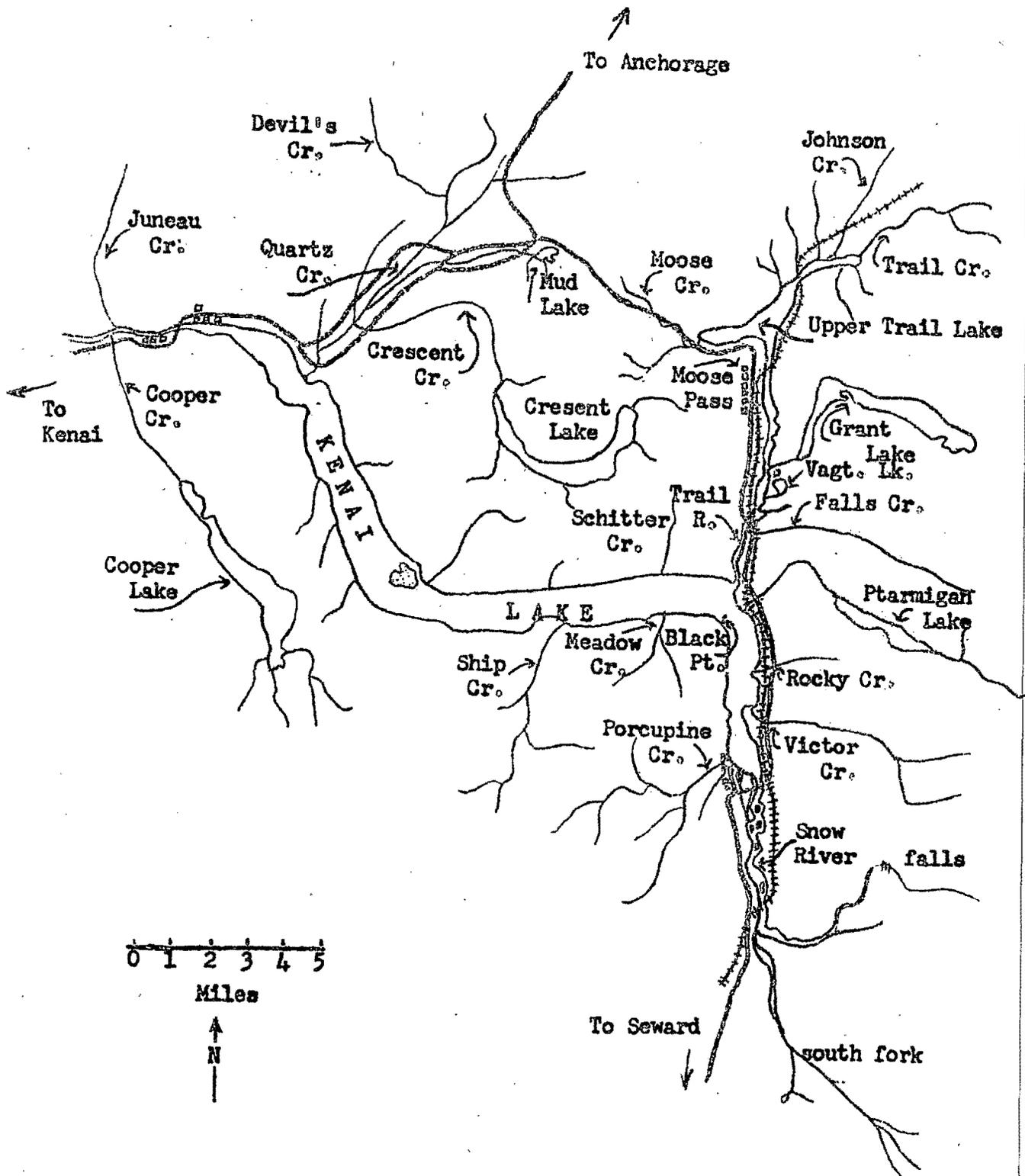
UPPER TRAIL LAKE - KENAI RIVER

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
1931	Brief		Short distance above mouth - too muddy for counts - late August survey
1940		Poor showing of reds	Air survey - 8/21-22
1947		Good escapement of reds	Report by Forest Service
7/27/51	2½ miles	180 reds	Air survey
7/29/52	1 mile		Air survey - very muddy
9/10/52	1 mile		Air survey - no fish seen

KENAI LAKE AREA



COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

<u>VAGT CREEK</u>	<u>KENAI RIVER</u>	
Name of Lake or Stream	Drainage	
Location <u>East shore of Lower Trail Lake</u>		
Map reference <u>SEWARD</u>	<u>D-E, 7</u>	
Quadrangle	Reference Points	
Length accessible _____ mi.	Average width _____ ft.	Average depth _____ in.
Spawning facilities <u>None</u>	Peak of spawning _____	
Gradient _____	Bottom _____	
Counting area(s) <u>None</u>		

Description and Comments

A very small stream. No importance as a salmon producer.

CORNER TRIANGLE STREAM AND LAND SURVEYS

USFWS AND F.R.I.

FALLS CREEK Name of Lake or Stream	KENAI RIVER Drainage
Location Entora Trail River just below Lower Trail Lake	
Map reference SEWARD Quadrangle	D-E, 6.5 Reference Points
Length accessible _____ mi. Average width 20 ft. Average depth 12 in.	
Spawning facilities Good	Peak of spawning _____
Gradient Slightly steep	Bottom Medium to large rock
Counting area(s) _____	

Description and Comments

A clear stream with possible salmon carrying potential but local residents state no run in stream. Impassible falls about one mile upstream. Cabin near mouth of stream. Highway crosses stream near mouth. Stream was checked frequently while salmon were running; however, there was no evidence of fish entering stream.

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

VICTOR CREEK	KENAI RIVER
Name of Lake or Stream	Drainage
Location	East shore of Kenai Lake by settlement of Lakeview
Map reference	SEWARD
	Quadrangle
	D-E, 6
	Reference Points
Length accessible	mi.
Average width	ft.
Average depth	in.
Spawning facilities	Peer
	Peak of spawning
Gradient	Steep
	Bottom
	Rubble
Counting area(s)	

Description and Comments

A swift glacial stream with many rapids and peer spawning facilities. Doubt that any salmon utilize this stream. Enters Kenai Lake near small settlement of Lakeview on highway to Seward.

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

SNOW RIVER		KENAI RIVER	
Name of Lake or Stream		Drainage	
Location	Extreme southeast end Kenai Lake		
Map reference	SEWARD	D-2, 5	
	Quadrangle	Reference Points	
Length accessible	4 mi.	Average width	ft. Average depth in.
Spawning facilities	Unknown	Peak of spawning	
Gradient	Moderate	Bottom	Silt and gravel
Counting area(s)	No ground survey made, only aerial observation		

Description and Comments

River is located at the extreme south end of Kenai Lake. Water is extremely glacial and visibility is very poor. The river is made up of two major streams; the Snow River and South Fork. There is a lake at the head of Snow River; however, it is not accessible to salmon as there is an impassible falls in the river approximately 4 miles upstream from the mouth. The South Fork has been reported to carry fish, and it is possible that it does as there are spawning facilities available.

STREAM RECORD

SNOW RIVER

Name of Stream or Lake

KENAI LAKE - KENAI RIVER

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/12/51			Glacial
9/10/52	3 miles		High falls at 3 miles - glacial
9/10/52	2 miles		South fork - part glacial - no fish seen

COOK TRUST STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

PORCUPINE CREEK	KENAI RIVER
Name of Lake or Stream	Drainage
Location <u>Southwest corner of Kenai River</u>	
Map reference <u>SEWARD</u> Quadrangle	<u>D-E, 7.5</u> Reference Points
Length accessible _____ mi. Average width <u>17</u> ft. Average depth <u>9</u> in.	
Spawning facilities <u>Good</u>	Peak of spawning _____
Gradient <u>Moderate</u>	Bottom <u>Gravel</u>
Counting area(s) <u>1½ miles upstream</u>	

Description and Comments

A clear stream with good potential spawning area; however, local residents claim no run goes up this stream. It is surprising that this stream carries no fish as it seems to offer better facilities than some other streams in the area that carry salmon runs.

SCORING STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

MEADOW CREEK	KENAI RIVER
Name of Lake or Stream	Drainage
Location <u>1 1/2 miles west of Black Point on south shore Kenai Lake</u>	
Map reference	D. 6.5
SEWARD Quadrangle	Reference Points
Length accessible _____ mi. Average width _____ ft. Average depth _____ in.	
Spawning facilities	Peak of spawning
Possible	
Gradient	Bottom
Moderate	Gravel
Counting area(s) _____	

Description and Comments

A stream similar to Ship Creek and in same general location except farther east. Spawning may possibly take place, but no fish observed during 1952 visit.

COOK INLET STREAM AND LAKE SURVEYS

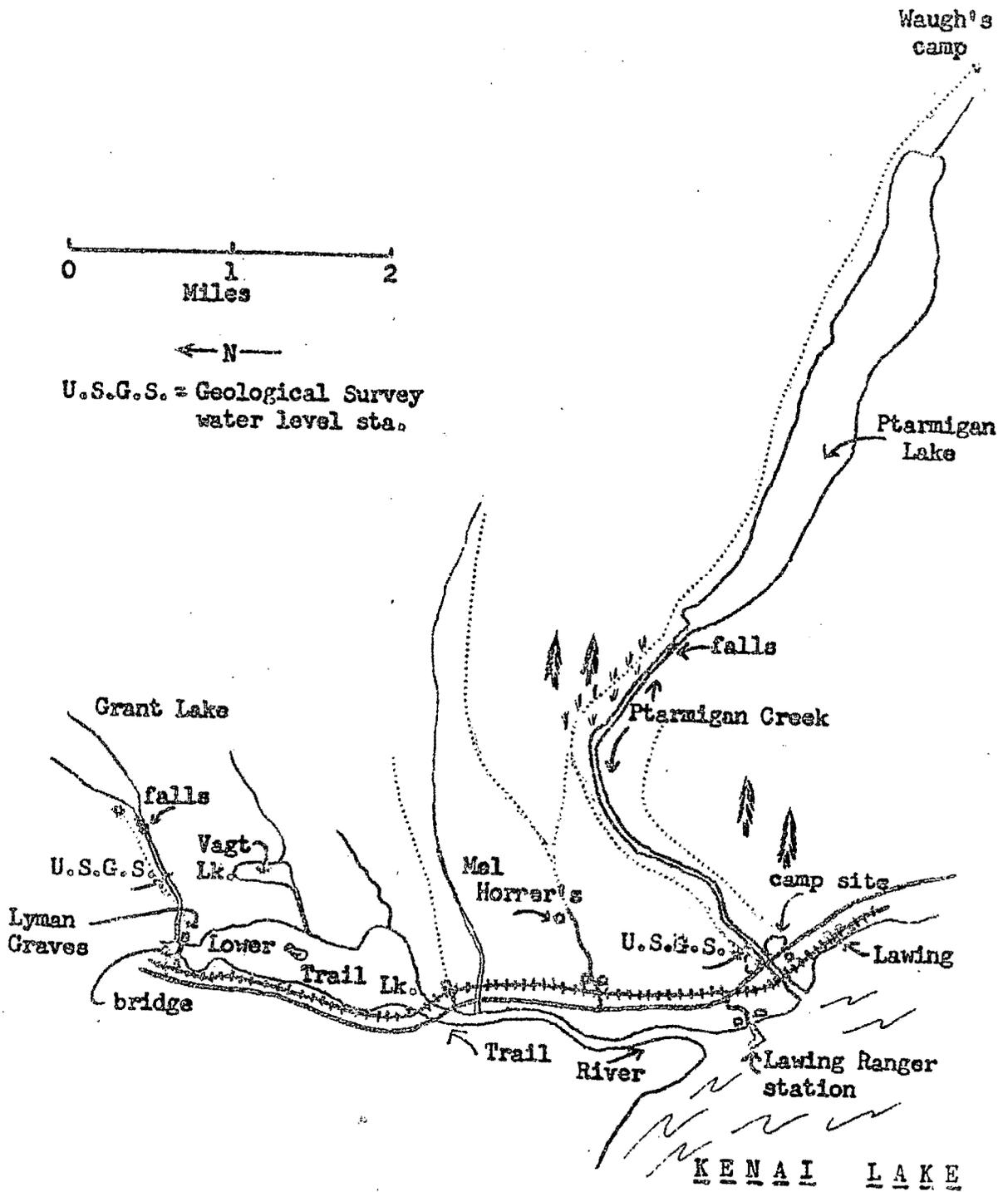
USFWS AND F.R.I.

SHIP CREEK Name of Lake or Stream	KENAI RIVER Drainage
Location <u>Midway on south shore Kenai Lake</u>	
Map reference <u>SEWARD</u> Quadrangle	<u>C-D. 6.5</u> Reference Points
Length accessible _____ mi. Average width _____ ft. Average depth _____ in.	
Spawning facilities <u>Lively</u>	Peak of spawning _____
Gradient <u>Moderate</u>	Bottom <u>Gravel</u>
Counting area(s) _____	

Description and Comments

A small clear stream with possible spawning potential. Survey not complete. Stream located on south shore of Kenai Lake. No fish observed during visit.

PTARMIGAN LAKE AREA



STATE FISH AND GAME SERVICE

USFWS AND F.R.I.

TRAIL RIVER Name of Lake or Stream	KENAI RIVER Drainage
Location <u>Between Upper Trail Lake and Kenai Lake</u>	
Map reference <u>SEWARD</u> Quadrangle	<u>D-2, 6.5</u> Reference Points
Length accessible <u>2</u> mi. Average width <u>75-100</u> ft. Average depth <u>7</u> in.	
Spawning facilities <u>Good</u>	Peak of spawning _____
Gradient <u>Slightly steep</u>	Bottom <u>Medium to large rubble, large rocks</u>
Counting area(s) _____	

Description and Comments

A rather large river connecting Lower Trail Lake and Kenai Lake. Water is glacial and visibility poor; therefore, it is difficult to make accurate estimations of spawners. Red salmon spawning does occur as fish have been observed from the air. It is a difficult stream to survey from the ground. River is readily accessible from the road which follows the general course of the river throughout.

STREAM RECORD

TRAIL RIVER

Name of Stream or Lake

KENAI RIVER

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
9/11/52	Entire	500 reds	Air survey

COCKE RIVER SURVEY AND LYNX SURVEYS

USFWS AND F.R.I.

GRANT CREEK	KENAI RIVER
Name of Lake or Stream	TRIBUTARY TO LOWER TRAIL LAKE
Drainage	
Location Enters north end of Lower Trail Lake, approximately 2 miles from Moose Pass.	
Map reference <u>SEWARD</u> Quadrangle	<u>D-E, 7.5</u> Reference Points
Length accessible <u>3/4 - 2</u> mi. Average width <u>25</u> ft. Average depth <u>24</u> in.	
Spawning facilities <u>Poor</u>	Peak of spawning <u>Late August</u>
Gradient <u>Steep</u>	Bottom <u>Medium to large rubble, boulders</u>
Counting area(s) <u>Approximately 1 mile upstream from mouth</u>	

Description and Comments

A swift, glacial stream with rather poor spawning facilities throughout. A few redds utilize the stream. The area is considered more suitable for kings than redds. Visibility is very poor as the water is quite glacial. Accurate estimation of numbers of spawners difficult. It is doubtful that any redds could reach the lake above due to falls in the stream. The stream is accessible from the highway as there is a bridge across the narrows of Lower Trail Lake.

STREAM RECORD

GRANT CREEK

Name of Stream or Lake

KENAI RIVER

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
7/29/52	Entire	None	Air survey
8/3/52	½ mile	None	Ground survey
8/28/52	1½ miles	250 rods	Ground survey

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

PTARMIGAN CREEK	KENAI RIVER TRIBUTARY TO KENAI LAKE
Name of Lake or Stream	Drainage
Location <u>1/2 mile north of Lawing</u>	
Map reference <u>SEWARD</u> Quadrangle	<u>D-E, 6.5</u> Reference Points
Length accessible <u>4 1/2</u> mi. Average width <u>35</u> ft.	Average depth <u>24</u> in.
Spawning facilities <u>Good to fair</u>	Peak of spawning <u>August 27</u>
Gradient <u>Steep</u>	Bottom <u>Medium to small rubble, rock</u> large
Counting area(s) <u>From mouth at Kenai Lake to approximately 1 mile below Ptarmigan Lake-- 3/4 miles</u>	

Description and Comments

A good sized stream with a rather steep gradient. Turbidity varies from glacial to slightly glacial and at times becomes clear. Spawning facilities are fairly good for the first 2 miles or so after which the stream becomes more rapid and rocky. Kings, coho, and reds utilize the stream for spawning. It is doubtful that any fish enter the lake due to the rapids and falls just below the lake outlet.

There are trails on both sides of the stream and the stream is easily accessible from the road. It is fished quite heavily by sport fishermen, the majority of the catch consisting of small dolly varden. There are good camping facilities on both sides of the stream at the road crossing.

STREAM RECORD

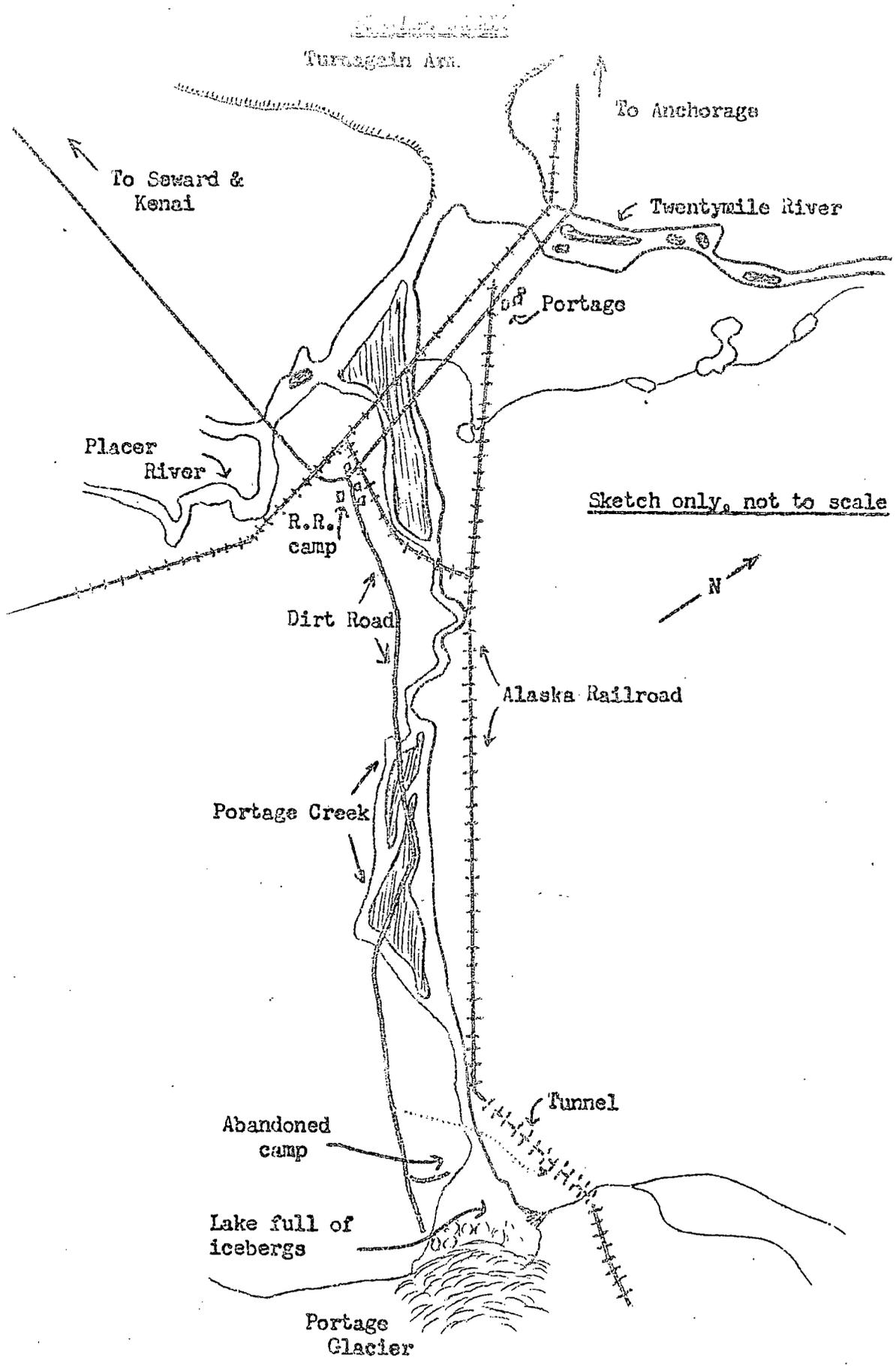
PTARMIGAN CREEK

KENAI RIVER

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/28/31		Reds abundant Kings and cohos present	Reds more plentiful than previous years
1936		Very poor show of reds	Glacial
1940		Poor showing of reds	Air survey - 8/21-22
1946	1 mile	750 reds	Estimate 4000 in stream
8/15/47	Mouth	No new fish	Estimate 3000 in stream
8/12/48		Poor showing of reds - 300 kings	Estimate 1000 in stream
8/8/49		2700 reds	Water roily
8/2 /12 /16/50	3 miles	700 reds	Air and ground surveys
8/12/51	2½ miles	850 reds	Air survey
7/29/52	Entire		Air survey - glacial - falls just below lake
8/1/52	2 miles		Discolored - no fish reported seen
8/27/52	4½ miles	1034 reds	Discolored - no fish seen above 2¼ miles
9/4/52	Brief	1500 reds	Estimate 400 new fish since last check
8/27/59			



COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

PORTAGE CREEK		PORTAGE CREEK
Name of Lake or Stream		Drainage
Location	East end Turnagain Arm	
Map reference	SEWARD Quadrangle	G. 12.5 Reference Points
Length accessible	mi.	Average width ft. Average depth in.
Spawning facilities	Peer	Peak of spawning Sept. 10-15
Gradient	Moderate	Bottom Gravel
Counting area(s)	Side channels and sloughs	

Description and Comments

An extremely glacial stream of moderate size and gradient. Originates a Portage Glacier 5 miles from mouth of stream at Turnagain Arm. Small lake at base of glacier was full of icebergs. Does not contain salmon. Stream meanders through flat valley bordered by steep mountains. Side channels and adjoining sloughs only clear water in area. Red and chin salmon observed utilizing these areas, although not extensively.

Temperature of lake in mid-September was 39 degrees.

Road travels length of stream. Bridges somewhat rickety from lack of upkeep.

ESTIMATED RECORD

PORTAGE CREEK

PORTAGE CREEK

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
9/16/52	Brief	300 reds 4 chum	Ground survey
9/17/52	Entire	650 reds	Air survey

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

SWAN LAKE		CHICKALCOON RIVER	
Name of Lake or Stream		Drainage	
Location	Extreme head of Chickaloon River--3 miles north of Juneau Lake		
Map reference	SEWARD Quadrangle	B. 9.5 Reference Points	
Length accessible	_____ mi.	Average width	_____ ft. Average depth _____ in.
Spawning facilities	_____	Peak of spawning	_____
Gradient	_____	Bottom	_____
Counting area(s)	_____		

Description and Comments

A narrow lake approximately 2 miles long, lying in mountainous area north of Trout and Juneau Lakes. Plane landings can be made on lake but turbulent air has occasionally prevented access by light plane. Lake may also be reached by a Forest Service trail from Juneau Lake. Travel along lake shores is reported difficult.

An early run of red salmon has been reported in this lake.

STREAM RECORD

SWAN LAKE

CHIKALCOON RIVER (TURNAGAIN ARM)

Name of Stream or Lake

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
1947		Good showing of redds	Forest Service report
6/29/50	1 mile	40 redds	Ground survey
8/2/50	1 mile	None	Air survey
8/16/50	1 mile	200 redds	Air survey
7/21/51	7 miles	65 redds	Report by resident on river
1952			No survey

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

<u>GROUSE LAKE AREA</u>	<u>RESURRECTION BAY</u>
Name of Lake or Stream	Drainage
Location <u>South of east end Kenai Lake</u>	
Map reference <u>SEWARD</u> Quadrangle	<u>D-E, 3-75</u> Reference Points
Length accessible _____ mi.	Average width _____ ft/ Average depth _____ in.
Spawning facilities _____	Peak of spawning _____
Gradient _____	Bottom _____
Counting area(s) _____	

Description and Comments

A very small lake on Upper East Creek which drains into Resurrection Bay. Some redds use this area for spawning, although it is a small stream and lake. More area could possibly be opened by removal of a beaver dam above Grouse Lake. Highway closely follows stream and lake. Located near highway to Seward below Kenai Lake.

COOK INLET STREAM AND LAKE SOLVERS

USFWS AND F.R.I.

<u>BEAR LAKE</u> Name of Lake or Stream	<u>RESURRECTION BAY</u> Drainage	
Location <u>South of east end of Kenai Lake</u>		
Map reference <u>SEWARD</u> Quadrangle	<u>D-E, 4</u> Reference Points	
Length accessible _____ mi.	Average width _____ ft.	Average depth _____ in.
Spawning facilities <u>Reportedly good</u>	Peak of spawning _____	
Gradient _____	Bottom _____	
Counting area(s) _____		

Description and Comments

Residents state good run of red salmon use lake. Not surveyed.

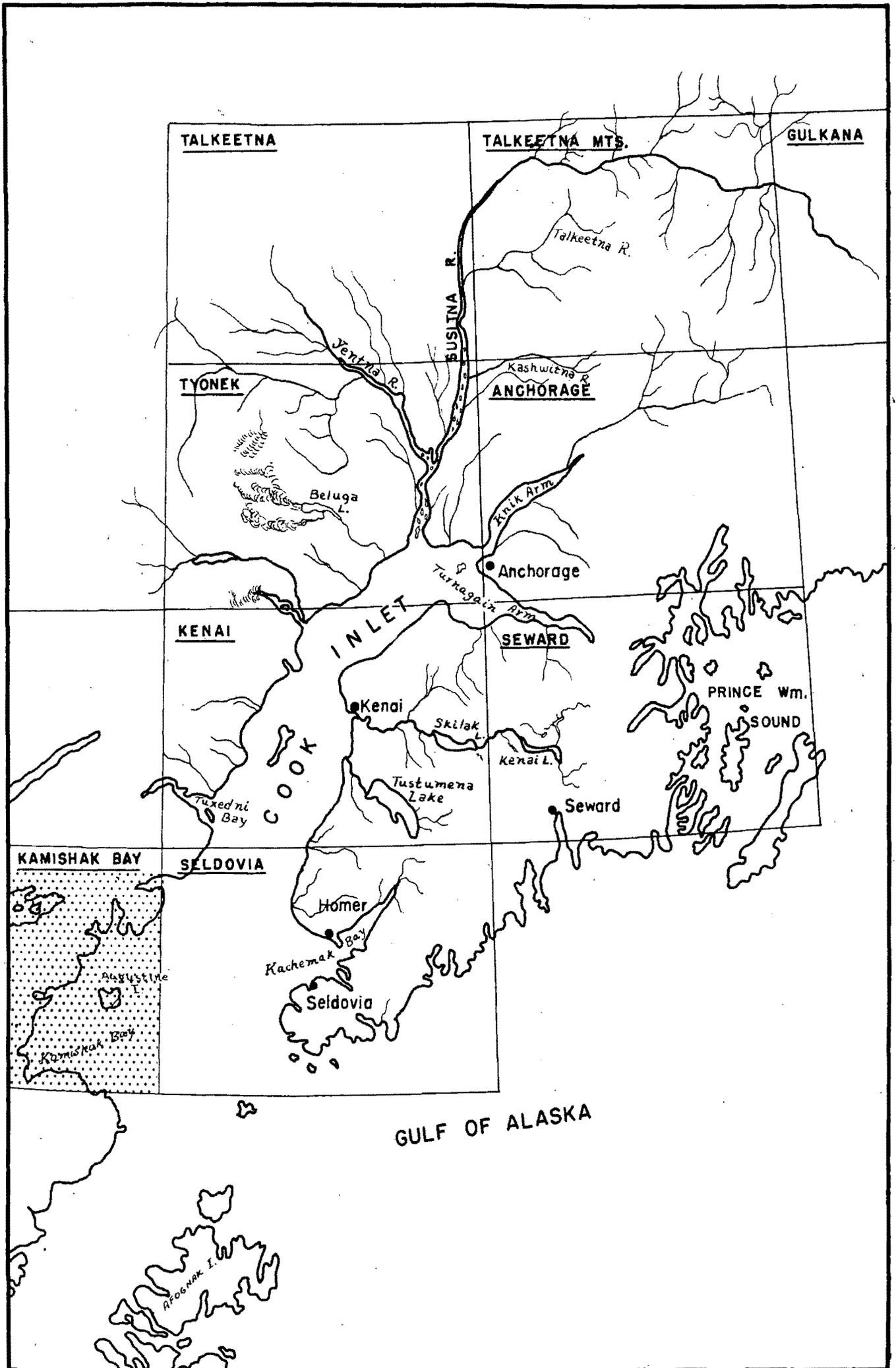
COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

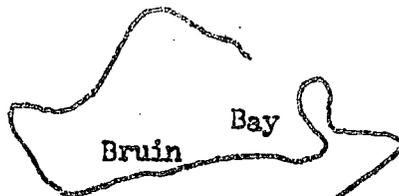
<u>LOST LAKE AND STREAM</u>	<u>RESURRECTION BAY</u>
<u>Name of Lake or Stream</u>	<u>Drainage</u>
<u>Location</u> South of east end of Kenai Lake	
<u>Map reference</u> SEWARD	<u>D. 5</u>
<u>Quadrangle</u>	<u>Reference Points</u>
<u>Length accessible</u> _____ <u>mi.</u> <u>Average width</u> _____ <u>ft.</u> <u>Average depth</u> _____ <u>in.</u>	
<u>Spawning facilities</u> None	<u>Peak of spawning</u> _____
<u>Gradient</u> _____	<u>Bottom</u> _____
<u>Counting area(s)</u> _____	

Description and Comments

Reportedly no fish in this system. None seen in area surveyed.



CHINIK CREEK



Bruin Bay

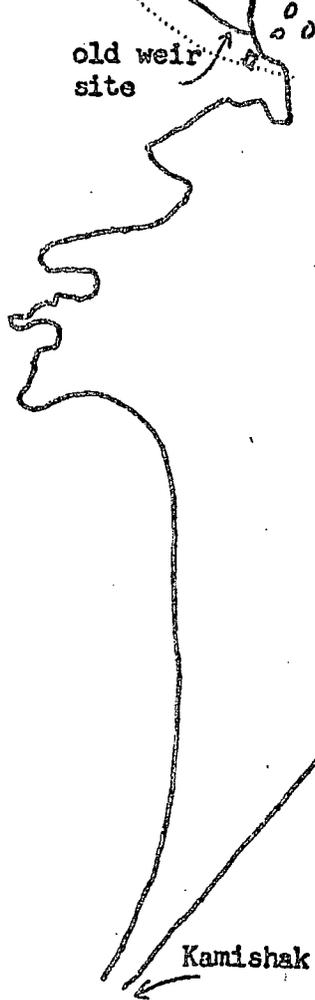
Chinik
Creek

old weir
site

K A M I S H A K

B A Y

Note: Map taken from letter
to Commissioner of Fisheries
from Field Superintendent,
dated Feb. 16, 1928.



Kamishak River

Douglas
River



Chinik Creek (Kamishak Bay)

Weir Count 1927

Date	Reds	Date	Reds
July 5	40	August 1	115
6	25	2	25
7	80	3	220
8	250	4	15
9	335	5	6
10	160	6	-
11	190	7	-
12	680	8	-
13	220	9	-
14	756	10	16
15	575	11	-
16	525	12	-
17	510	13	-
18	1000	14	30
19	88	15	20
20	95	16	-
21	110	17	-
22	100		<hr/>
23	55	Total:	7,069
24	35		
25	140		
26	18		
27	145		
28	160		
29	210		
30	100		
31	20		

Chinik Creek (Kamishak Bay)

Weir Count 1928

Date	Reds
July 2	107
3	445
4	295
5	211
6	553
7	512
8	370
9	492
10	596
11	988
12	1411
13	1468
14	881
15	1067
16	1040
17	1472
18	735
19	1164
20	648
21	680
22	473
23	935
24	1498
25	926
26	1147
27	1091
28	1217
29	738
30	1494
31	730
August 1	1171
2	1172
3	1134
4	671
5	845
6	443
7	197
Totals:	31,007

Chinik Creek (Kamishak Bay)

Weir Count 1929

Date	Reds
June 11-28	-
29	18
30	110
July 1	45
2	96
3	140
4	130
5	121
6	325
7	1280
8	2650
9	3400
10	2800
11	2650
12	2180
13	1500
14	1200
15	740
16	500
17	575
18	530
19	420
20	450
21	700
22	880
23	950
24	700
25	650
26	680
27	850
28	600
29	750
30	800
31	650
August 1	180
2	150
3	40
	<hr/>
Total:	30,440

Chinik Creek (Kamishak Bay)

Weir Count 1930

Date	Reds
July 3	968
4	1160
5	1228
6	960
7	998
8	1141
9	1308
10	1834
11	1473
12	1582
13	1397
14	1051
15	853
16	1103
17	1072
18	941
19	1003
20	897
21	801
22	523
23	164
24	174
25	219
26	8
27	244
28	87
29	23
30	244
31	<u>182</u>
Totals:	23,638

First fish over falls on June 28 but did not go through weir until July 3. Estimate 150 salmon below weir when removed on July 31.

Chinik Creek (Kamishak Bay)

Weir Count 1931

Date	Reds
July 1	163
2	75
3	1143
4	2282
5	248
6	651
7	1821
8	2466
9	2020
10	2211
11	2546
12	2732
13	1936
14	2122
15	2234
16	2224
17	1623
18	1621
19	1079
20	818
21	1121
22	378
23	-
24	-
25	-
26	-
27	-
28	-
29	-
30	Weir dismantled
31	-
	<hr/>
Total:	33,514

Note: Fishing closure effective west of 154° in Kamishak Bay on July 6. A total of 14 beach seines were operating in Chinik Inlet prior to this date taking approximately 25,000 reds.

Chinik Creek (Kamishak Bay)

Weir Count 1932

Date	Reds
July 1	304
2	355
3	312
4	1400
5	2802
6	3200
7	3150
8	4606
9	3853
10	2318
11	5755
12	4153
13	3430
14	2700
15	1960
16	2749
17	2810
18	1620
19	2478
20	720
21	1605
22	330
23	210
24	192
	<hr/>
Total:	53,012

Chinik Creek (Kamishak Bay)

Weir Count 1933

Date	Reds
June 28	5
29	246
30	356
July 1	1334
2	946
3	791
4	655
5	507
6	1918
7	2002
8	1266
9	1543
10	1419
11	1728
12	1067
13	2389
14	5364
15	5280
16	2270
17	2281
18	1814
19	1505
20	1117
21	1055
22	946
23	826
24	460
25	<u>132</u>
Total:	39,222

Between July 26 and August 3 an estimated 2000 reds ascended the stream.

Note: Cannery tenders report taking 103,604 red salmon from Chinik Inlet and vicinity.

Chinik Creek (Kamishak Bay)

Weir Count 1934 /

Date	Reds
June 27	-
28	-
29	-
30	-
July 1	-
2	9
3	12
4	2800
5	1075
6	1316
7	416
8	553
9	402
10	647
11	844
12	1953
13	2100
14	2680
15	2870
16	2350
17	2150
18	1850
19	1230
20	900
21	1600
22	2950
23	1936
24	1050
25	540
26	375
27	420
28	320
29	280
30	<u>150</u>
Totals:	35,778

Commercial fishing closed on July 7 to July 23 inclusive. Total catch 31,729.

Chinik Creek (Kamishak Bay)

Weir Count 1935

Date	Reds
June 18	2
19	1
20	70
21	50
22	-
23	-
24	-
25	-
26	28
27	140
28	337
29	260
30	82
July 1	128
2	489
3	654
4	1034
5	901
6	1398
7	1351
8	1101
9	2028
10	1437
11	558
12	1200
13	318
14	137
15	207
16	115
17	437
18	851
19	329
20	<u>398</u>
Total:	16,041

Weir removed because of high water. Estimate 4-5,000 red salmon went upstream after weir was removed. Weir installed June 8.

Chinik Creek (Kamishak Bay)

Weir Count 1936

Date	Reds
June 19	29
20	78
21	555
22	568
23	173
24	229
25	298
26	10
27	46
28	217
29	634
30	471
July 1	1468
2	1518
3	1620
4	829
5	1211
6	817
7	473
8	600
9	628
10	500
11	477
12	337
13	227
14	117
15	244
16	74
17	177
18	150
19	217
20	385
21	812
22	378
23	340
24	300
25	350
26	310
27	270
28	157
29	300
30	275
31	200
August 1	<u>300</u>

Total:

19,349

Weir removed July 29. Counts after that were estimates.

Chinik Creek (Kamishak Bay)

Weir Count 1937

Date	Reds
July 8	343
9	684
10	298
11	208
12	949
13	133
14	4
15	565
16	142
17	216
18	77
19	115
20	24
21	3
22	404
23	491
24	965
25	805
26	438
27	338
28	290
29	137
30	21
31	383
August 1	223
Total:	8,256

Chinik Creek (Kamishak Bay)

Weir Count 1938

Date	Reds
July 6	402
7	5
8	340
9	54
10	0
11	6
12	8
13	235
14	0
15	0
16	6
17	9
18	59
19	172
20	27
21	59
22	217
23	0
24	577
25	1008
26	274
27	169
28	177
29	22
30	0
	<hr/>
Total:	3,804

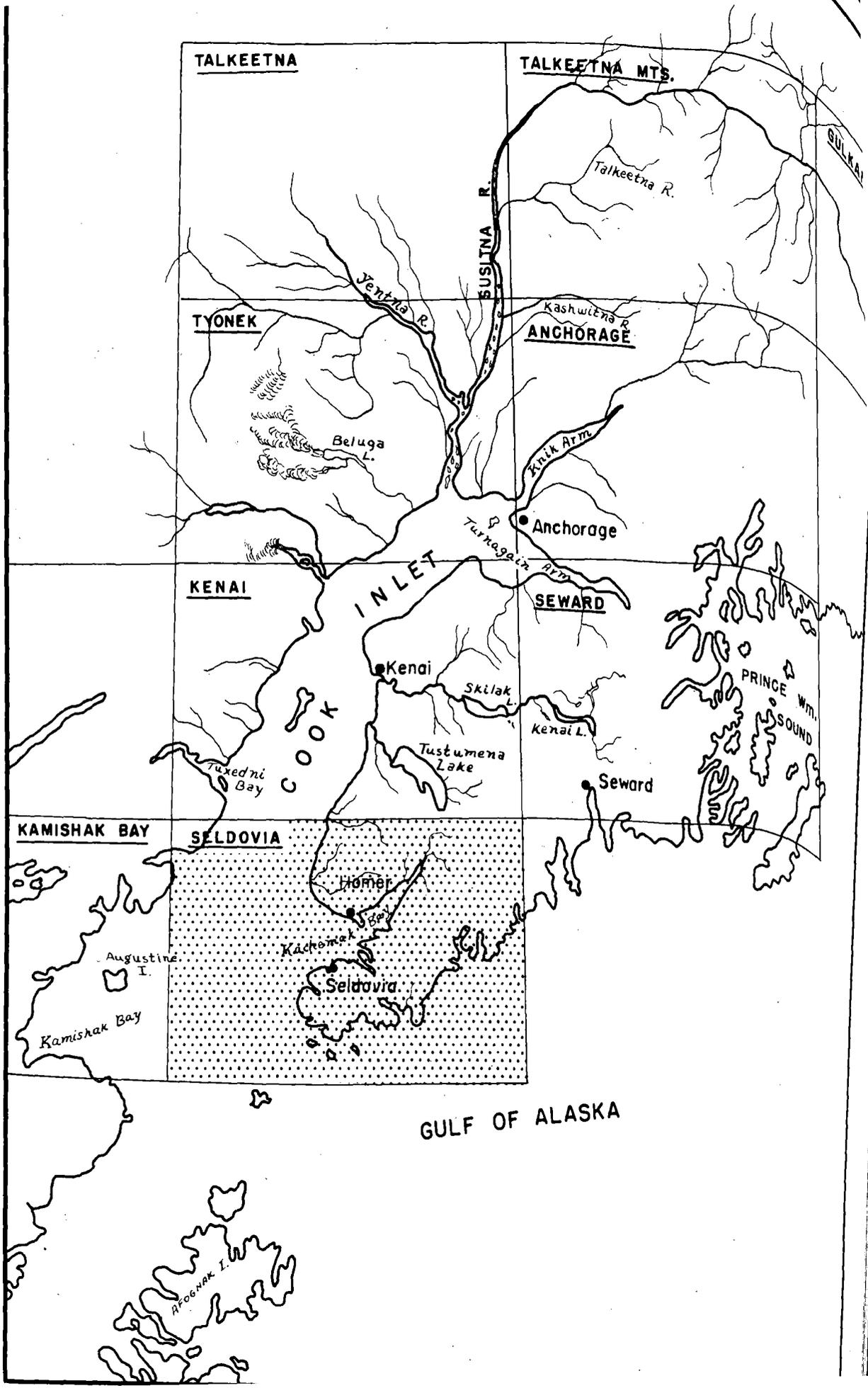
There were about 200 reds in stream below weir when it was taken out.

Chinik Creek (Kamishak Bay)

Weir Count 1939

Date	Reds
July 3	28
4	150
5	235
6	180
7	220
8	140
9	0
10	0
11	0
12	0
13	0
14	0
15	0
16	0
17	49
18	83
19	51
20	313
21	126
22	373
23	329
24	409
25	347
26	337
27	517
28	189
Total:	4,076

Weir removed July 29. Estimate 500 reds below weir at this time.



STREAM RECORD

English Bay Stream
NAME OF STREAM OR LAKE

English Bay Lakes
DRAINAGE

Date	Distance Surveyed	Reds	Estimated Number of Salmon			Cohos	Remarks
			Pinks	Chums	Kings		
1927	Weir count	19,197			153		5/23 to 8/4
1928	" "	24,025					5/30 to 7/28
1929	" "	15,407					6/2 to 7/27
1930	" "	18,858					5/23 to 7/29
1931	" "	18,878					5/27 to 7/30
1932	" "	22,933					5/29 to 8/2
1933							No data
1934		1,655					Incomplete count
1935	Weir count	15,851					5/12 to 8/9
1936	" "	15,767	Heavy				6/1 to 8/10
1937	" "	14,857	174				5/31 to 8/3
1938	" "	16,779					6/8 to 8/13
1939	" "	48,777	958				5/28 to 8/16
1940	" "	30,357	390				5/25 to 8/8
1941	" "	26,905					5/20 to 8/5
1942		Light					No weir count
1943		Poor					No weir count
6/16-7/3/47		15,000	(estimate)				
1948		15,000					
7/20/49	Lower Lake	2,500					Estimate
8/17/49	Entire system	7,260					Ground survey
8/2/50		5,000					Air check-nothing in streams
7/2/51	1/2 mile	120					Foot survey near mouth
7/9/51	3 1/2 mile	17,000					Foot-from mouth upstream
8/4/51	mouth				40		Brief check
8/4/51	entire	18,500					Air survey-best run in years

English Bay Stream

Weir Count 1927

Date	Reds	Date	Reds
May 23-29	-	July 2	245
30	240	3	270
31	430	4	410
June 1	470	5	390
2	305	6	265
3	490	7	375
4	140	8	210
5	105	9	855
6	135	10	580
7	250*	11	270
8	250*	12	365
9	345	13	195
10	280	14	255
11	370	15	230
12	640	16	165
13	480	17	650
14	215	18	310
15	350	19	220
16	490	20	275
17	165	21	195
18	280	22	115
19	215	23	70
20	150	24	105
21	390	25	180
22	465	26	40
23	360	27	30
24	300	28	75
25	305	29	10
26	195	30	25
27	655	31	65
28	220	August 1	65
29	355	2	145
30	630	3	170
July 1	685	4	17
			<hr/>
		Total:	19,197

* High water - counts estimated. A total of 153 Pinks also went up stream.

English Bay Stream

Weir Count 1928

Date	Reds	Date	Reds
May 30	12	June 28	526
31	30	29	452
June 1	700	30	621
2	424	July 1	231
3	302	2	352
4	315	3	380
5	226	4	830
6	313	5	689
7	385	6	1021
8	489	7	411
9	608	8	411
10	384	9	392
11	507	10	854
12	513	11	382
13	300	12	1104
14	314	13	491
15	277	14	380
16	231	15	205
17	217	16	614
18	483	17	520
19	440	18	133
20	604	19	445
21	490	20	320
22	734	21	121
23	431	22	120
24	548	23	41
25	491	24	84
26	480	25	56
27	446	26	72
		27	73
		28	30
			<hr/>
		Total:	24,025

English Bay Stream

Weir Count 1929

Date	Reds	Date	Reds
June 2	65	June 28	151
3	35	29	544
4	310	30	435
5	370	July 1	250
6	680	2	-
7	486	3	125
8	635	4	210
9	404	5	240
10	390	6	470
11	640	7	445
12	302	8	331
13	190	9	544
14	204	10	600
15	192	11	304
16	264	12	300
17	281	13	150
18	390	14	190
19	540	15	185
20	105	16	285
21	152	17	395
22	243	18	175
23	170	19	140
24	442	20	100
25	182	21	139
26	153	22	100
27	461	23	142
		24	257
		25	80
		26	34
		27	-
		Total:	15,407

English Bay Stream

Weir Count 1930

Date	Reds	Date	Reds
May 26	31	June 28	1171
27	222	29	281
28	136	30	375
29	203	July 1	368
30	815	2	484
31	360	3	275
June 1	524	4	225
2	630	5	625
3	288	6	210
4	182	7	650
5	323	8	160
6	794	9	175
7	282	10	100
8	320	11	130
9	555	12	150
10	221	13	700
11	721	14	205
12	366	15	332
13	265	16	560
14	435	17	205
15	654	18	137
16	133	19	560
17	272	20	92
18	160	21	70
19	174	22	45
20	105	23	32
21	343	24	35
22	114	25	75
23	121	26	15
24	155	27	-
25	262	28	-
26	140		
27	60	Total:	18,858

English Bay Stream

Weir Count 1931

Date	Reds	Date	Reds
June 1	37	July 1	564
2	140	2	474
3	102	3	541
4	31	4	221
5	52	5	345
6	200	6	572
7	-	7	451
8	145	8	711
9	96	9	835
10	89	10	838
11	92	11	1109
12	143	12	1011
13	72	13	822
14	272	14	507
15	64	15	431
16	215	16	309
17	97	17	501
18	72	18	477
19	68	19	867
20	33	20	995
21	74	21	666
22	162	22	342
23	35	23	211
24	81	24	167
25	161	25	269
26	62	26	327
27	144	27	321
28	160	28	231
29	130	29	159
30	620	30	47
		31	Weir removed
		Total:	18,878

Weir operating on May 27. First fish appeared June 1.

English Bay Stream

Weir Count 1932

Date	Reds	Date	Reds
May 29	67	July 1	94
30	48	2	132
31	74	3	1093
June 1	23	4	1190
2	141	5	994
3	70	6	814
4	185	7	1735
5	174	8	2180
6	115	9	1112
7	210	10	714
8	318	11	621
9	109	12	460
10	64	13	764
11	255	14	466
12	165	15	614
13	200	16	112
14	164	17	711
15	191	18	110
16	122	19	726
17	104	20	906
18	117	21	512
19	76	22	335
20	180	23	85
21	81	24	362
22	51	25	20
23	38	26	147
24	31	27	26
25	50	28	275
26	211	29	62
27	353	30	31
28	415	31	23
29	434	August 1	27
30	636	2	8
			<u>8</u>
		Total:	22,933

Abundance of pinks in lagoon when weir was dismantled.

English Bay Stream

Weir Count 1954

Date	Reds
June 25	350
26	132
27	320
28	250
29	286
30	
July 1	32
2	28
3	44
4	56
5	32
6	
7	
8	11
9	28
10	21
11	30
12	9
13	
14	
15	
16	
17	
18	
19	
20	21
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
August 1	
2	
3	<u>5</u>
Total:	1,655

Note: Weir records give no explanation for blank periods in count.

English Bay Stream

Weir Count 1935

Date	Reds	Date	Reds
May 12	3	June 26	773
13	0	27	69
14	3	28	101
15	6	29	110
16	0	30	146
17	3	July 1	59
18	0	2	156
19	1	3	281
20	5	4	535
21	8	5	242
22	24	6	400
23	37	7	89
24	78	8	224
25	77	9	332
26	53	10	393
27	69	11	233
28	26	12	538
29	31	13	239
30	46	14	704
31	27	15	652
June 1	161	16	108
2	85	17	612
3	157	18	317
4	186	19	228
5	109	20	959
6	45	21	328
7	482	22	183
8	477	23	64
9	177	24	101
10	131	25	35
11	105	26	12
12	152	27	27
13	240	28	26
14	289	29	111
15	33	30	79
16	63	31	2
17	223	August 1	6
18	39	2	57
19	663	3	12
20	264	4	8
21	192	5	9
22	451	6	6
23	265	7	6
24	184	8	10
25	442	9	7

Total: 15,851

English Bay Stream

Weir Count 1936

Date	Reds	Date	Reds
June 1	9	July 7	346
2	33	8	71
3	57	9	336
4	32	10	318
5	91	11	103
6	328	12	542
7	244	13	289
8	381	14	983
9	64	15	582
10	178	16	218
11	49	17	590
12	361	18	543
13	336	19	269
14	472	20	41
15	169	21	37
16	279	22	16
17	184	23	7
18	168	24	11
19	149	25	130
20	154	26	14
21	86	27	10
22	238	28	8
23	268	29	11
24	428	30	47
25	196	31	67
26	462	August 1	21
27	126	2	97
28	167	3	36
29	721	4	33
30	1053	5	42
July 1	771	6	67
2	217	7	58
3	356	8	33
4	104	9	33
5	226	10	140
6	458		
		Total	15,787

English Bay Stream

Weir Count 1937

Date	Reds	Date	Reds
May 31	22	July 3	369
June 1	31	4	948
2	17	5	276
3	16	6	103
4	26	7	456
5	15	8	961
6	45	9	469
7	362	10	1298
8	48	11	465
9	387	12	480
10	407	13	166
11	95	14	512
12	82	15	74
13	72	16	568
14	104	17	285
15	431	18	299
16	134	19	364
17	292	20	241
18	478	21	206
19	209	22	146
20	112	23	215
21	247	24	158
22	263	25	95
23	136	26	74
24	169	27	65
25	49	28	57
26	314	29	24
27	156	30	14
28	84	31	16
29	79	August 1	18
30	172	2	24
July 1	136	3	47
2	185		
		Total:	14,857

In addition to the above, 174 Pink salmon were noted at English Bay weir between July 25 and August 2.

English Bay Stream

Weir Count 1938

Date	Reds	Date	Reds
June 8	9	July 6	582
9	62	7	564
10	40	8	367
11	7	9	354
12	37	10	484
13	189	11	608
14	412	12	266
15	297	13	506
16	116	14	394
17	138	15	186
18	86	16	502
19	276	17	418
20	94	18	394
21	78	19	398
22	217	20	315
23	93	21	254
24	81	22	692
25	89	23	183
26	109	24	326
27	507	25	473
28	658	26	806
29	414	27	464
30	382	28	459
July 1	249	29	442
2	157	30	104
3	106	31	416
4	122	August 1	190
5	247	2	21
		3	22
		4	53
		5	52
		6	25
		7	18
		8	21
		9	96
		10	32
		11	22
		12	13
		13	5
		Total	16,779

English Bay Stream

Weir Count 1939

Date	Reds	Date	Reds	Pinks
May 28	2	July 8	1921	
29	5	9	1546	
30	5	10	1617	
31	29	11	1172	
June 1	83	12	2215	
2	9	13	476	
3	238	14	1424	
4	501	15	1006	
5	21	16	1224	6
6	697	17	720	10
7	46	18	668	7
8	486	19	304	26
9	164	20	507	8
10	528	21	198	5
11	539	22	912	37
12	386	23	406	11
13	734	24	392	12
14	821	25	196	7
15	674	26	258	4
16	546	27	206	3
17	781	28	214	6
18	1211	29	158	23
19	931	30	207	7
20	599	31	164	10
21	439	August 1	184	21
22	542	2	172	24
23	407	3	423	6
24	364	4	67	4
25	551	5	42	4
26	578	6	278	8
27	1038	7	336	12
28	1914	8	223	14
29	1672	9	262	11
30	1122	10	214	21
July 1	1452	11	123	11
2	1267	12	210	142
3	286	13	152	118
4	1012	14	97	112
5	966	15	21	44
6	909	16	18	224
7	3291			
		Totals:	48,777	958

Note: Flat Island Trap not operating in 1939.

English Bay Stream

Weir Count 1940

Date	Reds	Date	Reds	Pinks
May 26	340	July 4	781	
27	448	5	498	
28	130	6	1233	
29	408	7	1193	
30	457	8	1541	
31	449	9	901	
June 1	18	10	204	
2	473	11	287	
3	210	12	294	
4	584	13	102	
5	458	14	389	7
6	607	15	305	10
7	1357	16	314	14
8	582	17	538	36
9	919	18	142	16
10	623	19	41	24
11	312	20	38	31
12	545	21	14	6
13	802	22	13	8
14	548	23	26	8
15	485	24	127	18
16	647	25	106	14
17	660	26	84	10
18	356	27	159	11
19	271	28	89	7
20	307	29	263	40
21	314	30	37	11
22	1013	31	118	9
23	484	August 1	97	6
24	303	2	81	7
25	302	3	12	3
26	312	4	94	84
27	492	5	-	-
28	340	6	28	10
29	592	7	-	-
30	768	8	-	-
July 1	738			
2	937			
3	663			
		Total:	30,357	390

Many pinks below weir and in lagoon when counts discontinued.
Flat Island Trap inoperative in 1940.

English Bay Stream

Weir Count 1941

Date	Reds	Date	Reds
May 20	-	June 28	182
21	8	29	168
22	-	30	456
23	25	July 1	344
24	-	2	402
25	288	3	609
26	445	4	965
27	539	5	664
28	382	6	619
29	98	7	47
30	352	8	511
31	244	9	240
June 1	394	10	353
2	258	11	172
3	492	12	85
4	704	13	572
5	386	14	609
6	205	15	599
7	357	16	857
8	1142	17	488
9	975	18	Flood
10	762	19	Flood
11	228	20	216
12	296	21	187
13	277	22	144
14	289	23	162
15	386	24	349
16	0	25	147
17	127	26	286
18	965	27	124
19	959	28	179
20	678	29	88
21	568	30	64
22	453	31	174
23	1229	August 1	67
24	394	2	126
25	462	3	47
26	218	4	26
27	267	5	-

Total: 26,905

Estimated escapement during flood July 18 & 19 - 1000 reds.

ENGLISH BAY LAKES

Lost Lake

Sketch only, not to scale



old trail

camp site

Upper Lake

Lower Lake

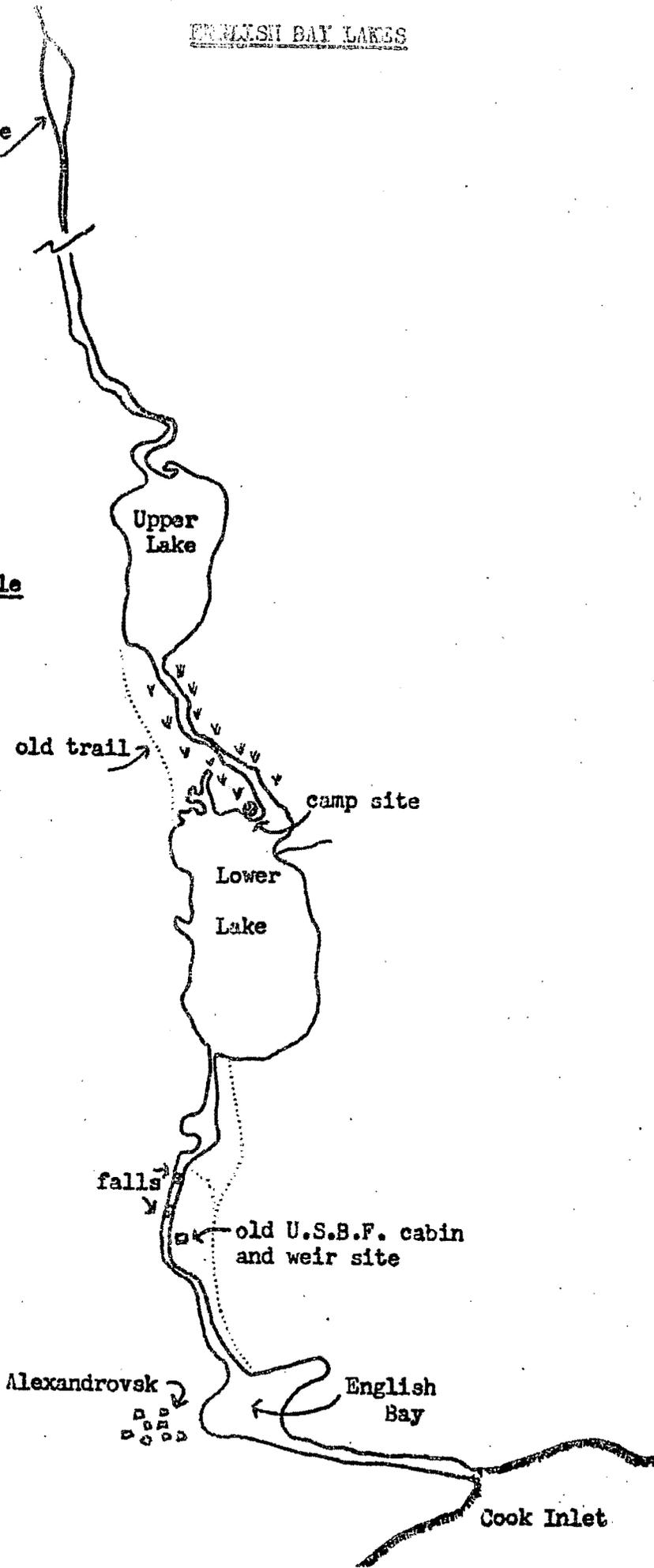
falls

old U.S.B.F. cabin
and weir site

Alexandrovsk

English Bay

Cook Inlet



COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R. I.

ENGLISH BAY STREAM (Section #1)	ENGLISH BAY LAKES
Name of Lake or Stream	Drainage
Location <u>Southern tip of Kenai Peninsula - enters English Bay</u>	
Map reference <u>SELDOVIA</u> Quadrangle	<u>G-H, 5</u> Reference Points
Length accessible <u>1½</u> mi. Average width <u>40</u> ft. Average depth <u>20</u> in.	
Spawning facilities <u>Good in lower portion</u> Peak of spawning <u>Peak of spawning</u>	
Gradient <u>Moderate to steep</u>	Bottom <u>Gravel, rocks, boulders</u>
Counting area(s) <u>Entire</u>	

Description and Comments

English Bay stream as here described represents the lower portion of the English Bay drainage. The stream runs for approximately 1½ miles from Lower English Bay lake to the sea. An Indian village is situated on the north bank of a lagoon area near the stream's outlet into lower Cook Inlet. Travel is relatively easy along the stream bank and an excellent trail also runs along the south bank from the lagoon to the lower lake. About ¼ mile downstream from the lake the stream widens into another small body of water. Below this are two series of falls, not impassable to salmon. The first drops about 8 feet in a distance of 25 feet and the second drops 4 feet in 10-foot area. Beyond the falls are habitable Government cabin and an abandoned weir site.

The portion of stream below the falls area provides good spawning area for pinks and cohos. Moss covered rocks predominate in the upper section of the stream. Reds, cohos, and a few pink and chum have been observed in stream. Rainbow trout also present.

Principal cover is coniferous with some salmon berry and willow.

Little predation in area--few black bear. Insects scarce.

The natives take a number of salmon each year for home use.

STREAM RECORD

ENGLISH BAY STREAM (SECTION #1)
Name of Stream or Lake

ENGLISH BAY
Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/20/52	1½ miles	50 reds 50 pinks	Cohos jumping off mouth

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

<u>ENGLISH BAY STREAM (Section #2)</u>	<u>ENGLISH BAY</u>
Name of Lake or Stream	Drainage
<u>Location Between #1 and #2 lakes</u>	
<u>Map reference SELDOVIA</u>	<u>G-H, 5</u>
Quadrangle	Reference Points
<u>Length accessible 1 mi. Average width 30 ft. Average depth 12 in.</u>	
<u>Spawning facilities Excellent</u>	<u>Peak of spawning Middle to late August</u>
<u>Gradient Moderate</u>	<u>Bottom Gravel</u>
<u>Counting area(s) Entire distance between lakes</u>	

Description and Comments

This section of stream is of moderate size and gradient with excellent spawning facilities for its entire one mile length. The stream flows from Lake #2 to Lake #1 through the valley floor. Vegetation is mainly alder and willow brush with some conifers. There are several open areas covered by tall grass. Easiest travel is by walking in stream itself. Very easy stream to work because of its clearness, moderate flow, and shallow depth. Many sandbars make for easy travel.

Only bear in vicinity are blackies. Seagulls prey on weak fish and coyotes in evidence. Predation light. Insects few.

Rainbow trout observed along with dolly varden. Silvers enter the stream sometime in September.

STREAM RECORD

English Bay St. Jam - Section #2
Name of Stream or Lake

English Bay Lakes
Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
7/20/49	Mouth	500 reds	Off inlet to Lake # 1
8/17/49	1 mile	728 reds	Ground survey
8/2/50		none	Air survey - all reds in lake
8/4/51	Entire	Excellent number of reds	Air survey
8/19/52	1 mile	3110 reds	Ran near peak

COOK INLET STREAM AND LAKE SURVEYS

USFWS AND F.R.I.

ENGLISH BAY STREAM (Section #3)		ENGLISH BAY
Name of Lake or Stream		Drainage
Location	Upstream from #2 Lake	
Map reference	SELDOVIA Quadrangle	G-H. 5 Reference Points
Length accessible	5 mi.	Average width 30 ft. Average depth 14 in.
Spawning facilities	Excellent	Peak of spawning Middle to late August
Gradient	Moderate	Bottom Gravel
Counting area(s)	#2 Lake to 1 1/2 miles upstream	

Description and Comments

This section of stream is similar to section between the two lower lakes except that it has more and deeper pools. Above 1 1/2 miles upstream vegetation presses closer to stream, many windfalls across stream, and brush becomes more dense and travel more difficult. Excellent spawning gravel. All areas available to salmon and well utilized. Again travel easiest in stream bed. The stream continues on to Lost Lake, a small lake about 8 miles from #2 Lake.

Predation light from bear. Seagulls in abundance and coyote in evidence. Black bear very wary as natives from village hunt them extensively for meat. Insects few. Dolly varden trout prevalent.

STREAM RECORD

ENGLISH BAY STREAM - #3

ENGLISH BAY LAKES

Name of Stream or Lake

Drainage

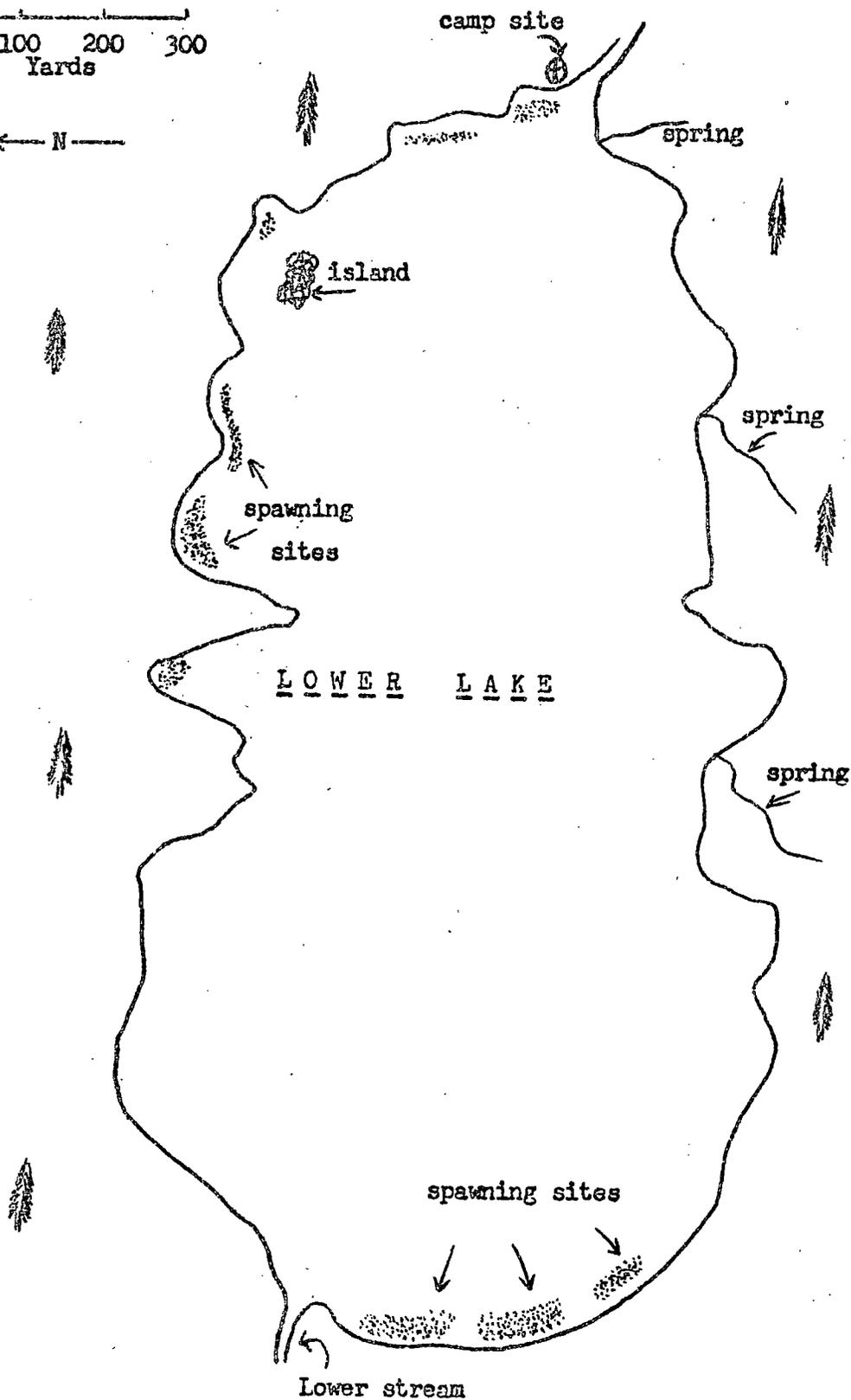
Date	Distance Surveyed	Estimated Number of Salmon	Remarks
8/17/49	3 mi.	1250 reds	Estimate
8/2/50		none	Early air check
8/4/51	Entire	Excellent showing of reds	Air Check
8/24/52	1 1/4 mi.	700 reds	Many above termination of check area.

LOWER LAKE - ENGLISH BAY

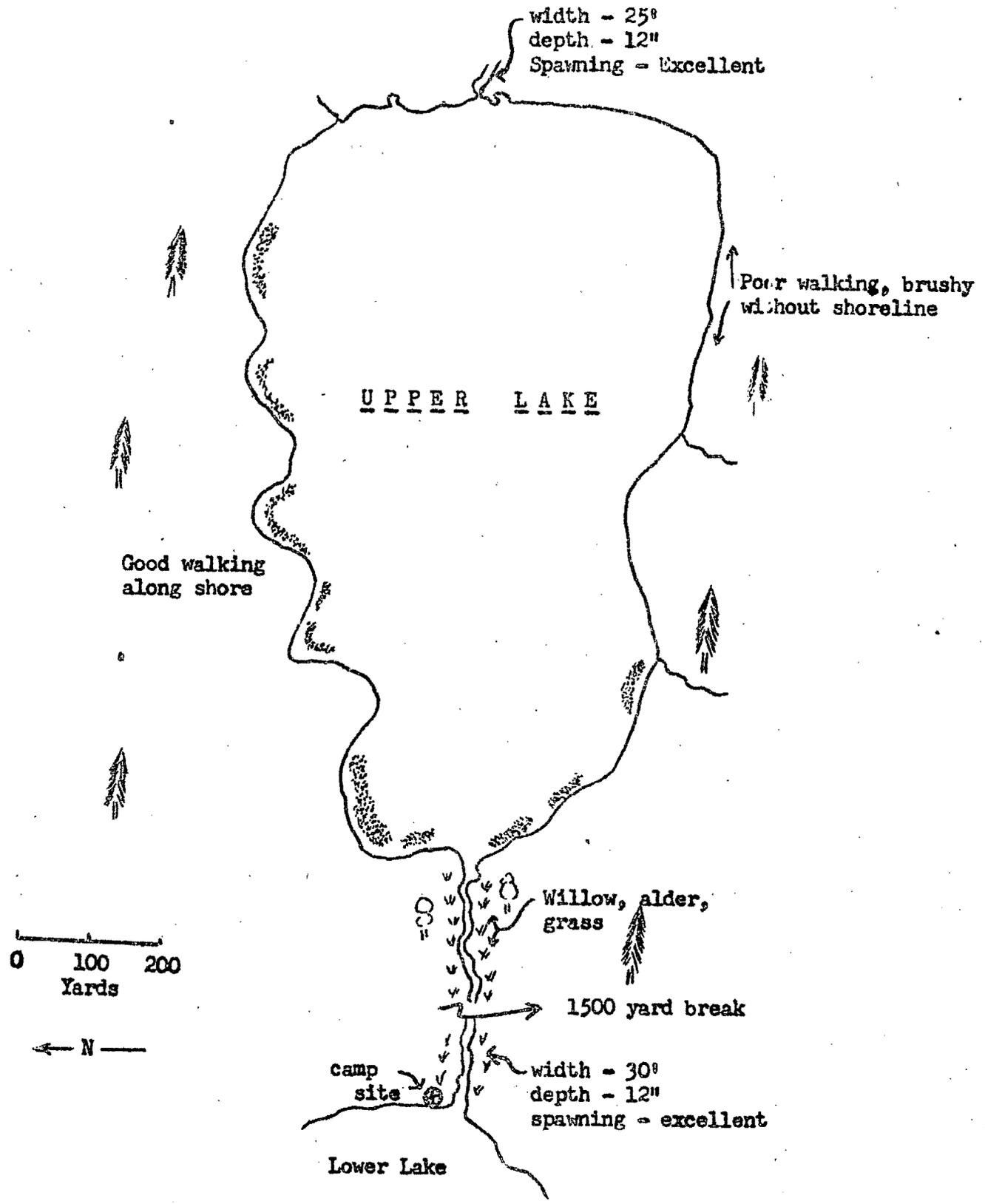
Sketch only, not to scale

0 100 200 300
Yards

← N →



UPPER LAKE - ENGLISH BAY



width - 25°
depth - 12"
Spawning - Excellent

U P P E R L A K E

Poor walking, brushy
without shoreline

Good walking
along shore

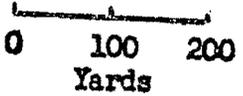
Willow, alder,
grass

1500 yard break

width - 30°
depth - 12"
spawning - excellent

camp
site

Lower Lake



← N →

COCK INLET STREAM AND LAKE SHEVETS

USFWS AND F.R.I.

<u>ENGLISH BAY LAKES #1 - #2</u>	<u>ENGLISH BAY</u>
Name of Lake or Stream	Drainage
Location <u>East of English Bay</u>	
Map reference <u>SELDOVIA</u>	<u>G-N, 5</u>
Quadrangle	Reference Points
Length accessible _____ mi. Average width _____ ft. Average depth _____ in.	
Spawning facilities <u>Good</u>	Peak of spawning <u>Middle to late August</u>
Gradient _____	Bottom _____
Counting area(s) <u>Lake shore</u>	

Description and Comments

These two lakes and their connecting stream (English Bay Stream #2) lie in a fairly narrow valley bordered by rather steep mountains. The lakes have consistently supported a good run of red salmon.

#1 Lake is 1½ miles long with little available beach and must be surveyed by skiff. Dense alder brush grows to the water's edge in most areas. Lake spawning is confined predominantly to the north shore. There are some beats at the west end of the lake used by the natives to cross the lake. A slough area in the northeast corner of this lake is utilized by red salmon for spawning. The stream enters this lake in the southeast corner. This is the best camping spot in the area and is also a good plane approach site.

#2 Lake, one mile upstream from #1, is about 1 mile long and considered too small for safe take-off with loaded plane. Same type vegetation around shores as at #1 lake but the north shore has a good beach that enables one to walk the entire length of this lake. Spawning is confined to the east, north, and west sides of the lake and appears to be more extensive than in #1 Lake. Predation by bear along both lakes slight. There appears to be a tendency for large numbers of reds to collect in the lakes before moving upstream. The daily volume entering the streams is perhaps several hundred fish.

Insects are few and fireweed for a campfire is scarce. No glacial streams in area, nor any beaver activity.

STREAM RECORD

ENGLISH BAY LAKES

Name of Stream or Lake

ENGLISH BAY

Drainage

Date	Distance Surveyed	Estimated Number of Salmon	Remarks
<u>LAKE #1</u> 8/18-26/52	Entire	1500 reds	
<u>LAKE #2</u> 8/20-24/52	Entire	3000 reds	

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STREAM SURVEYS

(By Foot)

<u>STREAM</u>	<u>DATE</u>	<u>DISTANCE</u>	<u>AGENCY</u>	<u>FISH</u>
Cooper Creek	9-3-58	Unknown	FRI	7 live kings
Hidden	8-29-58	All surveyed	FRI	200 live reds
Quartz	8-3-58	50 yd.	SG	3 live kings
"	8-15-58	2 miles	FWS	9 live reds; 1 live king
"	8-26-58	2½ miles	FRI	19 live reds; 4 dead reds
"	9-3-58	3 miles	FRI	20 live reds; 6 dead reds
Quartz Creek (access area)	8-20-58	600 yds.	FWS	51 live reds; 1 dead red; 3 live kings
Ptarmigan Creek	8-19-58	Unknown	FWS	1 live red; 1 live king
"	8-25-58	2 miles	FRI	3 live kings; 2 dead kings
"	9-20-58	Unknown	FRI	50 live reds; 2 live kings; 2 dead kings
Crescent Creek	7-9-58	500 yds.	SG	-0-
"	7-30-58	250 yds.	SG	6 live kings
"	8-3-58	250 yds.	SG	7 live kings

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