

MAR 17 1997

AWC Volume SE SC SW W AR IN REGION II HABITAT AND RESTORATION DIVISION USGS Quad Talkeetna B-1

Anadromous Water Catalog Number of Waterway 247-41-10200-2362

Name of Waterway Twister Creek USGS name Same Local name Same

Addition Deletion Correction Backup Information

For Office Use

Nomination #	<u>97 266</u>	Regional Supervisor	<u>J. Wain</u>	Date	<u>12/8/97</u>
Revision Year:	<u>97</u>	AWC Project Biologist	<u>Ed Wain</u>	Date	<u>3/12/97</u>
Revision to:	Atlas <input type="checkbox"/> Catalog <input type="checkbox"/>			Date	<u>12/15/97</u>
	Both <input checked="" type="checkbox"/>			Drafted	
Revision Code:	<u>A-2</u>		<u>J. Drone</u>	Date	

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Migration	Anadromous
<u>A. kisutch (Coho)</u>	<u>9/18/96</u>		<u>34</u>		<u>X</u>
<u>O. tshawytscha (King)</u>	<u>9/18/96</u>		<u>164</u>		<u>X</u>

IMPORTANT: Provide all supporting documentation that this water body is important for the spawning, rearing or migration of anadromous fish, including: number of fish and life stages observed; sampling methods, sampling duration and area sampled; copies of field notes; etc. Attach a copy of a map showing location of mouth and observed upper extent of each species, as well as other information such as: specific stream reaches observed as spawning or rearing habitat; locations, types, and heights of any barriers; etc.

Comments: SEE Attached memo, map & field notes.

Name of Observer (please print) Douglas D. Hill
 Date: 10/16/96 Signature: Douglas D Hill
 Address: ADFG, Habitat Division
333 Raspberry Rd, Anchorage, AK 99518

This certifies that in my best professional judgment and belief the above information is evidence that this waterbody should be included in or deleted from the Catalog of Waters Important for Spawning, Rearing or Migration of Anadromous Fishes per AS 16.05.870.

Signature of Area Biologist: Edward W. Wain
 Nomform

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

Habitat and Restoration Division

TONY KNOWLES, GOVERNOR

333 Raspberry Road
Anchorage, AK 99518-1599
PHONE: (907) 344-0541
FAX: (907) 267-2464

MEMORANDUM

TO: Ed Weiss
Habitat Biologist
Region II
Habitat and Restoration Division
Department of Fish and Game

FROM: Doug Hill
Fish and Game Technician
Habitat and Restoration Division

DATE: October 1, 1996

SUBJECT: Twister Creek Survey
re: Alaska Railroad maintenance activities

September 18, 1996

0800 hours - Depart Anchorage ADF&G office. Purchased eggs (roe) and gas enroute to Talkeetna.

1100 hours - Arrived Talkeetna. Via highway I surveyed from the hillside (approximately 3/4 mile south of downtown Talkeetna) to downtown Talkeetna to verify the location of Twister Creek. I observed a very small drainage with no flow approximately 1/2 highway mile north of the railroad highway intersection. What I saw from the highway did not inspire me to follow this drainage to its confluence with the Susitna River, to see if any water was flowing in the vicinity of the railroad creek intersection. Perhaps this drainage is a remnant channel of Twister Creek. I located Twister Creek at the highway railroad intersection. From this point the creek runs SE along the south side of the railroad grade for approximately 2/3 of a mile. After 2/3 mile the creek flows through a culvert beneath the railroad and then runs approximately 50 feet to its confluence with the Susitna River.

Inlet side of railroad culvert: Twister Creek is approximately 5-6 feet wide at this point. The creek runs parallel and just below the railroad grade for approximately 100 yards above culvert inlet. This 100 yard section is approximately 70% pebble/gravel with some cobble and approximately 30% sand (the sand is interspersed between pebble/gravel runs). Creek depth varied from 1 inch to 18 inches deep, with the majority being less than 10 inches deep. Twelve very red sockeye salmon were observed within 50 yards of the culvert inlet and appeared to be holding tight to this locale. Traps (set #3 and #4) were set immediately above the culvert and photos were taken of the culvert inlet (Film Roll P1160, frames 3 and 4).

Outlet side of railroad culvert: This approximately 50 feet section of stream is cobble/pebble/gravel/sand and only a few inches deep except for two small 10 to 12 inch pools. Two sockeye were observed below the culvert. The outlet rim of the culvert is perched approximately 12 to 15 inches above the creek bottom. One fish passed through the culvert. The other fish tried repeatedly to enter the culvert but kept running into the outside wall of the culvert via an eddy that curled around the rim of the north side of the culvert. Two traps (set #1 and #2) were set below the culvert and photos were taken of the culvert outlet (See film roll P1160, frames 1 & 2).

1150 hours - Outlet side of highway culvert: Stream is approximately 8 feet wide and up to 15 inches deep; the majority being less than 15 inches. The substrate is pebble/gravel/sand. Five very red adult sockeye were observed below the culvert and two of these fish entered the culvert. Two traps (set #5 and #6) were set just below the culvert and a photo was taken of the culvert outlet (See film roll P1160, frame 5).

Inlet side of highway culvert: Stream is approximately 30 to 40 feet wide with a soft mud bottom and very slow flow rate.. Eight very red adult sockeye were observed. Two traps (set #7 and #8) were set above culvert and photos were taken of the culvert inlet (See film Roll P1160, frame 6 & 7).

1220 hours - Arrived at parking lot-like area on Christenson Lake Road. At this point the road splits. One fork runs east and the other follows the ridge above the south shore of Twister Creek. I walked down to Twister Creek from the "fork". The creek is akin to a beaver pond at this point. It is approximately 60 to 120 feet wide with a soft mud bottom. There is little overhanging bank vegetation. The shoreline is vegetated with grass and other bog type vegetation. The flow rate is very slow. No adult fish were observed. Two traps (set #9 and #10) were set and a photo was taken depicting the stream character (See film roll P1160, frame 8).

1245 hours - Traveled narrow road that parallels creek to the creeks upper most open water. This point is approximately 1/2 air mile from the "fork". At this point the creek is similar to the 1220 hour creek description. Open water ends as the creek terminates into a wet mass of vegetation. No adult fish were observed. Two traps (set #11 and #12) were set.

**TWISTER CREEK
MINNOW TRAP DATA ***

Set #	Time Set	Time Pulled	Set Duration	Catch	
				King	Coho
1	1334 hrs 1134 hrs	1338 hrs	2 hrs 4 min	0	11
2	1136 hrs	1340 hrs	2 hrs 4 min	0	3
3	1140 hrs	1348 hrs	2 hrs 8 min	0	0
4	1144 hrs	1350 hrs	2 hrs 11 min	0	1
5	1205 hrs	1403 hrs	1 hr 58 min	0	1
6	1208 hrs	1408 hrs	2 hrs	0	1
7	1214 hrs	1410 hrs	1 hr 56 min	6	2
8	1217 hrs	1415 hrs	1 hr 58 min	1	2
9	1230 hrs	1432 hrs	2 hrs 2 min	121	8
10	1234 hrs	1566 hrs	2 hrs 2 min	36	5
11	1304 hrs	1503 hrs	1 hr 59 min	0	0
12	1308 hrs	1510 hrs	2 hrs 2 min	0	0

*Set 11 caught 30 sculpin and Set 12 caught 10 sculpin.

See attached aerial photo for set location sites.

See attached aerial photo for film roll P1160 photo locations.

cc: Cevin Gilleland
File

Twister Creek, Talkootna

9/18/96

SET #1

Set @ 1134 pulled @ 1338

SPP
Coho

Length

66 mm

68
73
58

57
49

53
61

50
45

55

TOTAL

SET #2

Set @ 1136 Pulled @ 1340

SPP
Coho

Length

55 mm

78
75

Set #3 Set @ 1140 Pulled @ 1348

SPP
Coho

Length

?

Twister Creek, Talkootna - 9/19/96

Set #4

Set @ 1144 pulled @ 135

SPP
Coho

Length

65 mm

Set #5

Set @ 1205 pulled @ 1403

SPP
Coho

Length

68 mm

Set #6

Set @ 1208 Lgt @ 1408

SPP
Length

Set #7

Set @ 1214 pulled 1410

SPP
King

Length

100

99
95

107
96
97

83
73
?

Coho
Sculpin

Set #9 cont'd Twister Ck

SPP	Lgth	SPP	Lgth
King	131		
	96	104	109
	115	116	
	115	107	
	103	110	
	84	94	
	99	105	
	96	100	
	95	95	
	103	84	
	103	116	
	90	102	
	98	102	
	104	107	
	106	104	
	106	114	
	106	100	
	98	105	
	90	109	
	90	98	
	94	98	
	103	120 TOTAL	
	124		
	105		
	100		
	84		

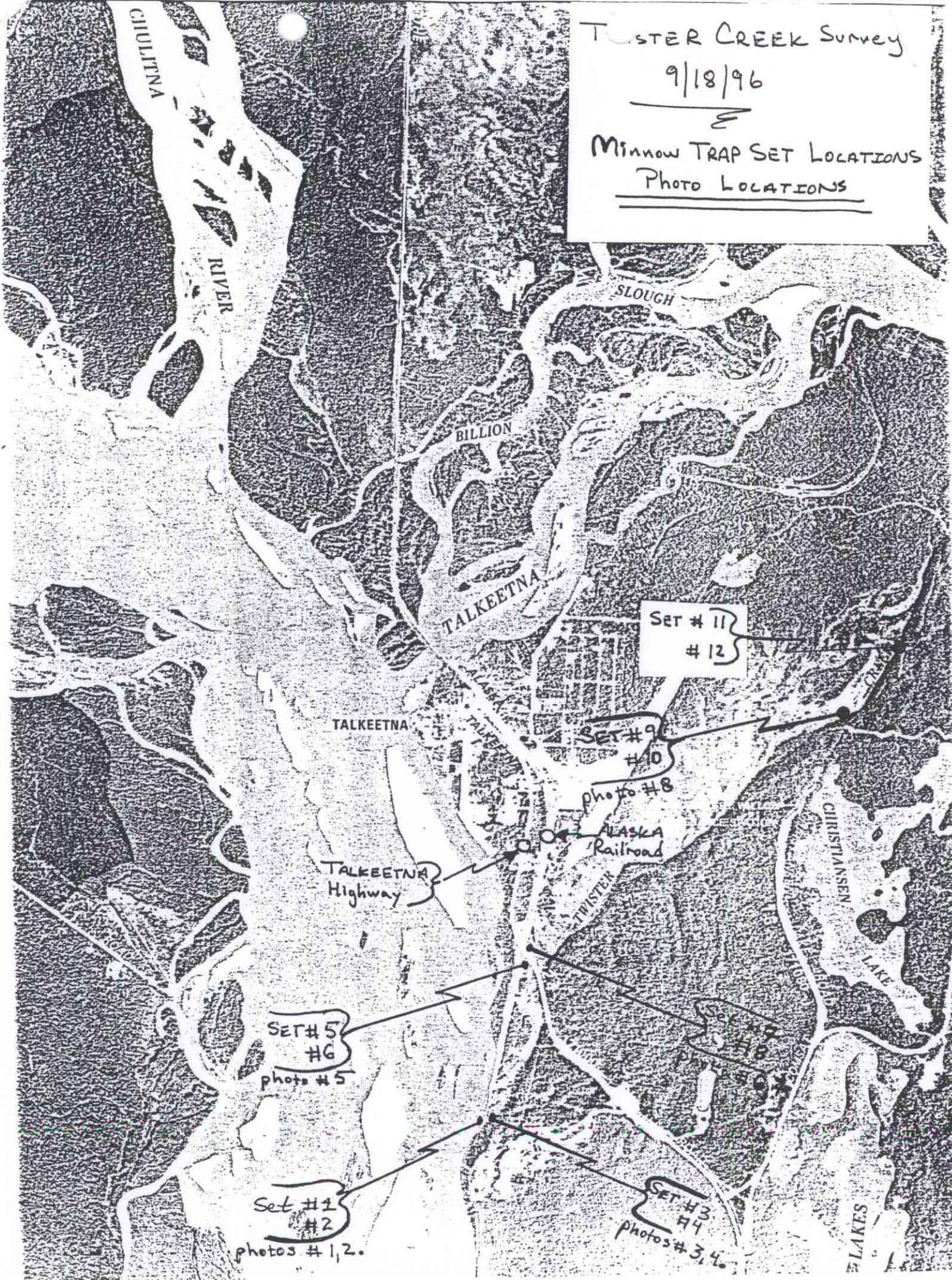
Twister Ck, Takeetna 9/18/96

SET #10	SPP	Lgth	SPP	Lgth
	coho			
	King	84	King	102
		82		102
		94		107
		93		113
		87		108
		100		91
		100		100
		98		104
		99		103
		108		105
		108		110
		110		103
		107		104
		106		105
		110		102
		110		103
		103		90
		94		90
		108		36 TOTAL
		100		
		102		
		105		
		95		
		107		

TRUSTER CREEK Survey

9/18/96

MINNOW TRAP SET LOCATIONS
PHOTO LOCATIONS



SET # 11
12

SET # 9
10
photo # 8

TALKEETNA
Highway

SET # 5
6
photo # 5

Set # 1
2
photos # 1, 2.

SET # 3
4
photos # 3, 4.

Weiss, Ed

From: Weiss, Ed
Sent: Monday, September 16, 1996 10:45 AM
To: Gilleland, Cevin; Gnath, Dennis; Wiedmer, Mike
Cc: McKay, Don
Subject: RE: Twister Creek

Doug Hill will be going out tomorrow, 9/17/96 to survey and trap Twister Creek in Talkeetna. Are there any other surveys or duties that could be done during this trip. Given the drive up there and back it will probably be a full day just with Twister Creek but we would like to work in other assignments if possible. Please let me know ASAP.

From: Wiedmer, Mike

Sent: Wednesday, September 11, 1996 5:08 PM
To: McKay, Don; Gilleland, Cevin; Gnath, Dennis; Weiss, Ed
Subject: Twister Creek

I spoke today with Nancy Hemming regarding Twister Creek in Talkeetna. She had talked earlier with Paul Hampton of B & B Environmental. B & B apparently had a contract, funded by the FAA and COE, to develop a wetlands plan for the Talkeetna Airport for use by DOT. Nancy believes that the COE will soon release the wetlands report. Contact Lizette Boyer (753-2637) in the Environmental Resources Section for information on the report. I understand the report includes Paul Hampton's October 1994 observations of many spawning coho throughout the stream. Talkeetna locals apparently do a lot of fishing in Twister. Let me know if you have any questions.

Weiss, Ed

From: Wiedmer, Mike

Sent: Wednesday, September 11, 1996 5:08 PM

To: McKay, Don; Gilleland, Cevin; Gnath, Dennis; Weiss, Ed

Subject: Twister Creek

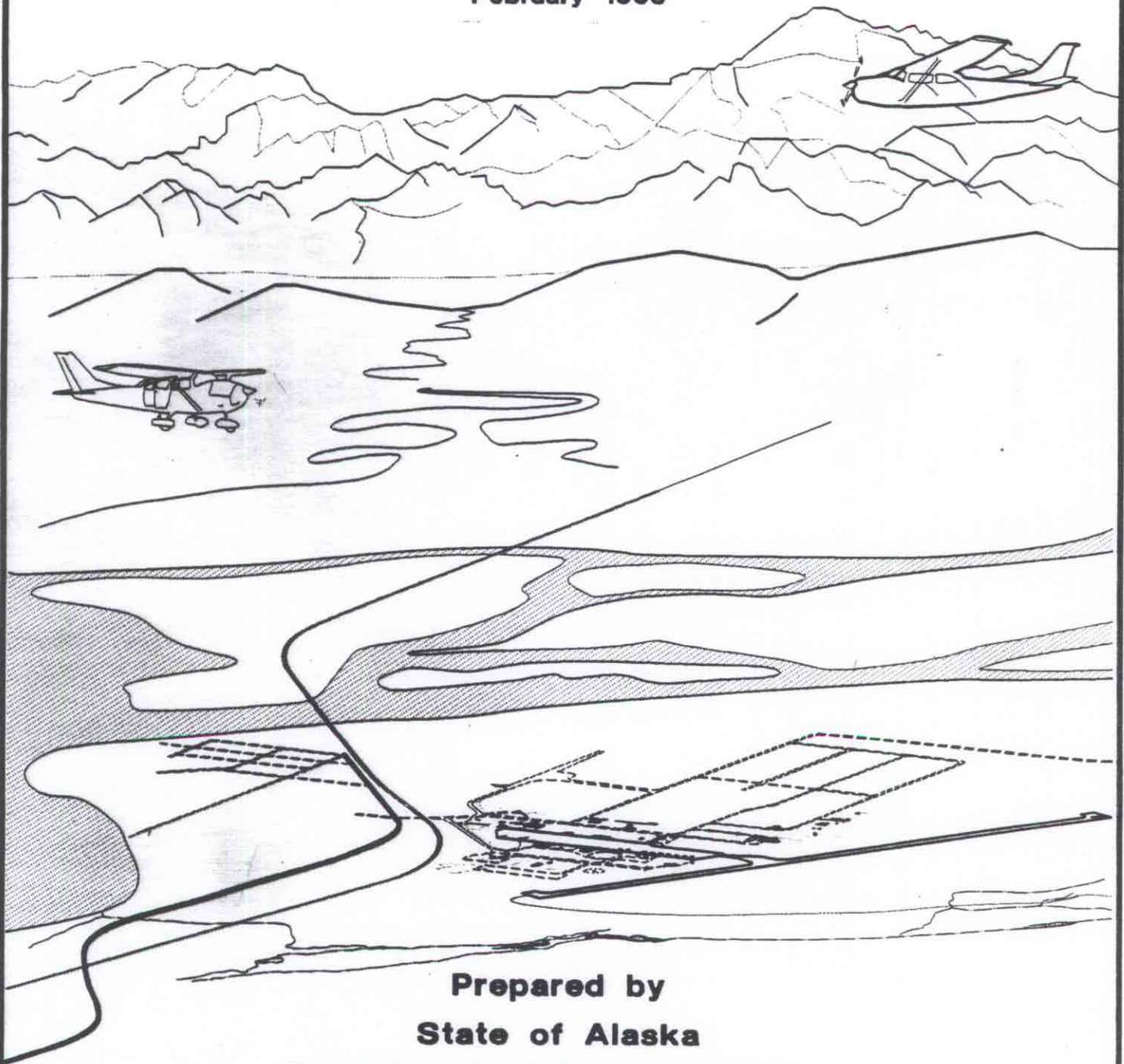
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ENVIRONMENTAL ASSESSMENT

Talkeetna Airport

Project No. 60045

February 1996



Prepared by
State of Alaska
Department of Transportation
and Public Facilities
for
Federal Aviation Administration

TALKEETNA AIRPORT
ADOT REPORT

and many kinds of songbirds and shorebirds. Principal fish include, burbot, grayling, salmon, trout, and whitefish.

Talkeetna: Many of the species named above are found in the Talkeetna area. Wildlife typical for bottomland spruce-poplar forest areas of Talkeetna include moose which browse on the dense patches of young willow during the winter. Black bear and brown bear frequent the river banks in summer and early in fall to eat salmon. Area marshes support beaver populations. All species of salmon are found in the Susitna, Chulitna, and Talkeetna Rivers.¹⁵ The ADF&G stock Christiansen Lake with silver salmon and rainbow trout. Twister Creek was not listed as supporting anadromous fish, but was identified in 1994 as providing spawning and rearing habitat for coho salmon.¹⁶ Area birds include raptors, songbirds, and owls. Bald eagles are known to nest in the Talkeetna area. According to local sources, in 1994 there were six known active eagle nests: two along the Susitna River and four along Talkeetna River.¹⁷ None are within a one mile radius of the airport.

¹⁵ADF&G, Anadromous Water Catalog, December 1989, Sheet B-1.
¹⁶B&B Environmental, op cit.
¹⁷Mahay, Steve, Mahay Riverboat Service, pers. comm., March 15, 1995.



ADOT Report
TALKEETNA AIRPORT P. 1/2

RECEIVED

MEMORANDUM

State of Alaska

DEPARTMENT OF FISH & GAME

NOV 10 '94

TO: Steven R. Horn, P.E.
Supervisor
Central Region
Department of Transportation
and Public Facilities

DATE: November 10, 1994

FILE NO.: Project #60045

PHONE NO.: 267-2284

SUBJECT: Talkeetna Airport
Improvement
Project No. 60045

Design		COPY	ACTION
Environmental			
Section			
ADP Engr.			
Project Mgr.			
General Mgr.			
Assistant			
Staff			
Project File			
Central File			

FROM: *Dennis G. Gnath*
Dennis G. Gnath
Habitat Biologist
Region II
Habitat and Restoration Division
Department of Fish and Game

The Alaska Department of Fish and Game (ADF&G) has reviewed your written request of October 14, 1994 to provide preliminary scoping comments for the Talkeetna Airport improvement project. Specifically, you have asked us to identify any concerns or issues that the ADF&G may have with this proposal. We have the following comments for consideration during your scoping phase.

Limited fisheries resource data are available for the area near the Talkeetna Airport; therefore, we are unable to identify any specific fish resources potentially affected by this proposal. In general, however, the palustrine wetlands in the project area are thought to affect water quality, hydrology, and wildlife use in the area. They function as a filtration and settling system for surface water flow, and as storm and flood water retention areas that maintain minimum base flows, important to aquatic resources, before flowing into nearby streams such as Twister Creek. These wetlands also provide habitat for wildlife such as birds, waterfowl, furbearers, and other living resources.

The impacts associated with moving equipment across wetland areas for "clearing" can be avoided or minimized by operating off of existing road surfaces when there is at least 1 foot of snow underlain by 1 foot of ground frost. For planning purposes, these conditions are usually present during the period from November 9 through March 31. Where proposed fill areas encroach on the wetland portions of the project, incorporating a series of small-diameter equalization (cross-drainage) culverts along the length of the parallel taxiway and access road would prevent blockage of sheet flow without redirecting or concentrating that flow, thereby, maintaining the wetland function.

From the plans submitted for review, it appears that the seven proposed actions for airport improvement will not have an adverse affect on fish and wildlife resources, habitats, or public access to fish and wildlife resources provided our

MEMORANDUM

State of Alaska

DEPARTMENT OF FISH & GAME

TO: Laurie Mulcahy
Environmental Analyst
Division of Design and Construction
Department of Transportation and
Public Facilities

DATE: January 18, 1996

FAX NO.: 267-2464

TELEPHONE NO.: 267-2285

SUBJECT: ADOT&PF
Talkeetna Airport
Improvements Project
Project No. 60045
Environmental Assessment
Talkeetna

FROM: 
Dennis G. Gnath
Habitat Biologist
Region II
Habitat and Restoration Division
Department of Fish and Game

The Alaska Department of Fish and Game (ADF&G) is unable to review the subject Environmental Assessment (EA) document for improved facilities at the Talkeetna Airport. The ADF&G provided comments on the proposal to improve the Talkeetna Airport during November 1994 (attached). We have no additional comments regarding this proposal.

Thank you for the opportunity to review this EA document.

RECEIVED

Attachment

JAN 22 '96

cc: C. Whitmore, ADF&G
J. Westlund, ADF&G

	COPY	ACTION
Prelim. Design & Environmental Section		
PD&E Engr.		
Project Mgr.		Tanaka
Locations		
Env. Team Leader		
Staff		lmz
Project Files		
Central File		