

Customary and Traditional Use Worksheet, Yentna River King Salmon

Prepared by

James A. Fall and Amy L. Wiita

for the Tsiu/Tsivat Rivers Closed Waters and Miscellaneous Board of Fish meeting, April 24, 2018

April 2018

Alaska Department of Fish and Game

Division of Subsistence



Symbols and Abbreviations

The following symbols and abbreviations, and others approved for the Système International d'Unités (SI), are used without definition in the following reports by the Division of Subsistence. All others, including deviations from definitions listed below, are noted in the text at first mention, as well as in the titles or footnotes of tables, and in figure or figure captions.

Weights and measures (metric)		General		Measures (fisheries)	
centimeter	cm	Alaska Department of Fish and Game	ADF&G	fork length	FL
deciliter	dL	Alaska Administrative Code	AAC	mid-eye-to-fork	MEF
gram	g	all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.	mid-eye-to-tail-fork	METF
hectare	ha			standard length	SL
kilogram	kg			total length	TL
kilometer	km				
liter	L			Mathematics, statistics	
meter	m	all commonly accepted professional titles	e.g., Dr., Ph.D., R.N., etc.	all standard mathematical signs, symbols and abbreviations	
milliliter	mL			alternate hypothesis	HA
millimeter	mm			base of natural logarithm	e
				catch per unit effort	CPUE
Weights and measures (English)		at	@	coefficient of variation	CV
cubic feet per second	ft ³ /s	compass directions:		common test statistics	(F, t, χ^2 , etc.)
foot	ft	east	E	confidence interval	CI
gallon	gal	north	N	correlation coefficient (multiple)	R
inch	in	south	S	correlation coefficient (simple)	r
mile	mi	west	W	covariance	cov
nautical mile	nmi	copyright	©	degree (angular)	°
ounce	oz	corporate suffixes:		degrees of freedom	df
pound	lb	Company	Co.	expected value	E
quart	qt	Corporation	Corp.	greater than	>
yard	yd	Incorporated	Inc.	greater than or equal to	≥
		Limited	Ltd.	harvest per unit effort	HPUE
		District of Columbia	D.C.	less than	<
Time and temperature		et alii (and others)	et al.	less than or equal to	≤
day	d	et cetera (and so forth)	etc.	logarithm (natural)	ln
degrees Celsius	°C	exempli gratia	e.g.	logarithm (base 10)	log
degrees Fahrenheit	°F	(for example)		logarithm (specify base)	log ₂ , etc.
degrees kelvin	K	Federal Information Code	FIC	minute (angular)	'
hour	h	id est (that is)	i.e.	not significant	NS
minute	min	latitude or longitude	lat. or long.	null hypothesis	HO
second	s	monetary symbols	\$, ¢	percent	%
		(U.S.)		probability	P
Physics and chemistry		months (tables and figures): first three letters	Jan, ..., Dec	probability of a type I error (rejection of the null hypothesis when true)	α
all atomic symbols		registered trademark	®	probability of a type II error (acceptance of the null hypothesis when false)	β
alternating current	AC	trademark	™	second (angular)	"
ampere	A	United States (adjective)	U.S.	standard deviation	SD
calorie	cal	United States of America (noun)	USA	standard error	SE
direct current	DC	U.S.C.	United States Code	variance	
hertz	Hz	U.S. state	use two-letter abbreviations (e.g., AK, WA)	population sample	Var var
horsepower	hp				
hydrogen ion activity (negative log of)	pH				
parts per million	ppm				
parts per thousand	ppt, ‰				
volts	V				
watts	W				

SPECIAL PUBLICATION NO. BOF 2018-01

**CUSTOMARY AND TRADITIONAL USE WORKSHEET YENTNA RIVER
KING SALMON**

by

James A. Fall and Amy L. Wiita
Alaska Department of Fish and Game, Division of Subsistence, Anchorage

Alaska Department of Fish and Game
Division of Subsistence
333 Raspberry Road, Anchorage, Alaska 99518

April 2018

The Division of Subsistence Special Publications series was established for the publication of techniques and procedure manuals, informational pamphlets, special subject reports to decision-making bodies, symposia and workshop proceedings, application software documentation, in-house lectures, and other documents that do not fit in another publications series of the Division of Subsistence. Most Special Publications are intended for readers generally interested in fisheries, wildlife, and the social sciences; for natural resource technical professionals and managers; and for readers generally interested the subsistence uses of fish and wildlife resources in Alaska.

Special Publications are available through the Alaska Resources Library and Information Services (ARLIS), the Alaska State Library and on the Internet: <http://www.adfg.alaska.gov/sf/publications/>. This publication has undergone editorial and professional review.

*James A. Fall and Amy L. Wiita,
Alaska Department of Fish and Game, Division of Subsistence
333 Raspberry Road, Anchorage, Alaska 99518-1599, USA*

This document should be cited as:

Fall, J. A and A. L. Wiita. Revised Customary and Traditional Use Worksheet Information for the Yentna River Fishery. Alaska Department of Fish and Game Division of Subsistence, Special Publication No. 2018-01, Anchorage.

The Alaska Department of Fish and Game (ADF&G) administers all programs and activities free from discrimination based on race, color, national origin, age, sex, religion, marital status, pregnancy, parenthood, or disability. The department administers all programs and activities in compliance with Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act (ADA) of 1990, the Age Discrimination Act of 1975, and Title IX of the Education Amendments of 1972.

If you believe you have been discriminated against in any program, activity, or facility please write:

ADF&G ADA Coordinator, P.O. Box 115526, Juneau, AK, 99811-5526

U.S. Fish and Wildlife Service, 4401 N. Fairfax Drive MS 2042, Arlington, VA, 22203

Office of Equal Opportunity, U.S. Department of the Interior, 1849 C Street NW MS 5230, Washington D.C., 20240

The department's ADA Coordinator can be reached via phone at the following numbers:

(VOICE) 907-465-6077, (Statewide Telecommunication Device for the Deaf) 1-800-478-3648, (Juneau TDD) 907-465-3646, or (FAX) 907-465-6078

For information on alternative formats and questions on this publication, please contact:

ADF&G Division of Subsistence at <http://www.adfg.alaska.gov/index.cfm?adfg=contacts.anchorage>.

TABLE OF CONTENTS

1. INTRODUCTION.....	3
BACKGROUND.....	3
2. THE EIGHT CRITERIA.....	4
CRITERION 1: LENGTH AND CONSISTENCY OF USE	4
CRITERION 2: SEASONALITY	5
CRITERION 3: MEANS AND METHODS OF HARVEST	5
CRITERION 4: GEOGRAPHIC AREAS.....	6
CRITERION 5: MEANS OF HANDLING, PREPARING, PRESERVING, AND STORING.....	6
CRITERION 6: INTERGENERATIONAL TRANSMISSION OF KNOWLEDGE, SKILLS, VALUES, AND LORE	6
CRITERION 7: DISTRIBUTION AND EXCHANGE	6
CRITERION 8: DIVERSITY OF RESOURCES IN AN AREA; ECONOMIC, CULTURAL, SOCIAL, AND NUTRITIONAL ELEMENTS.....	7

LIST OF TABLES

Table	Page
Table 1. Reported Salmon Harvests by Upper Yentna Households, 1982 and 1984.....	9
Table 2. Top 10 resources harvested and used, Skwentna, 2012.....	10
Table 3. Estimated harvests and uses of fish, Skwentna, 2012.....	11
Table 4. Estimated percentages of salmon harvested by gear type, resource, and total salmon harvest, Skwentna, 2012.....	Error! Bookma
Table 5. Harvests and uses of king salmon.....	13

LIST OF FIGURES

Figure	Page
Figure 1.– Total area used by Upper Yentna River Area residents to harvest resources, and areas used to harvest salmon.....	14
Figure 2.– Skwentna harvest of wild resources, Chinook salmon, 2012.....	15

LIST OF APPENDIXES

Appendix	Page
Appendix A.– Excerpted and summarized information from the Board of Fisheries meetings Pertaining to the Customary and Traditional Use determination for the Yentna River.....	17
Appendix B.– Local comments and concerns from Technical paper 385: the harvest and use of wild resources in cantwell, chase, talkeetna, trapper creek, alexander/susitna, and skwentna, alaska ..	23
Appendix C.– Customary and traditional use worksheet from 1998.....	24
Appendix D.– Alaska Board of Fisheries committee report: subsistence and commercial fishing, February 2011.....	30
Appendix E.– ADF&G staff comments on the petition.....	34

1. INTRODUCTION

BACKGROUND

At its April 2018 regulatory meeting in Anchorage, the Alaska Board of Fisheries (board) will consider an emergency petition submitted by the Mt. Yenlo Fish and Game Advisory Committee (AC) for the Upper Yentna River subsistence fishery in the Cook Inlet Management Area (Figure 1). The petition asks the board to revise its customary and traditional (C&T) use determination for salmon in the Yentna River to add king salmon to the positive C&T finding, alleging that the board made an error when it revised the finding in 2011. The petition also asks the board to adopt regulations allowing the harvest of king salmon (also called Chinook salmon) in the Upper Yentna River subsistence fishery. In 1998, the board made a positive C&T determination for salmon in the Yentna River pursuant to Alaska Statute 16.05.258. All five species of Alaska salmon are found in the Yentna River: Chinook salmon (*Oncorhynchus tshawytscha*), sockeye salmon (*O. nerka*), pink salmon (*O. gorbuscha*), chum salmon (*O. keta*), and coho salmon (*O. kisutch*). Also in 1998, the board adopted regulations for a subsistence fishery for salmon in a portion of the Yentna River that prohibited the retention of king salmon. In 2011, the board modified the 1998 C&T determination to explicitly exclude king salmon from the positive finding.

For consideration of the emergency petition at the April 2018 meeting, the department has summarized C&T information in this report focusing on Yentna River king salmon from two sources. First, this summary lists the harvest and use information about Yentna River king salmon available to the board at its February 1998 and February 2011 meetings, primarily derived from the ethnographic and ethnohistorical literature as reported in the C&T worksheet for Yentna River salmon prepared for the February 1998 meeting. The board may apply this information in determining if the revision to the C&T finding was made in error. Second, we have added more recent additional information [collected by the Division of Subsistence since 2011, and primarily summarized in Holen et al. 2014 for the 2012 data year (also referred to as Technical Paper No. 385)], indicated as underlined text. The board may find this information useful if it determines an error was made and that the C&T finding should be reevaluated. Information from the C&T worksheet available to the board for the February 1998 meeting for considering if an error was made appears as normal text. This information has been organized by the eight C&T criteria found in regulation at 5 AAC 99.010. This document is not intended to be a complete C&T worksheet about all Upper Yentna salmon but rather a highlighting of information about uses of Yentna River king salmon to assist the board's evaluation of the emergency petition for the Upper Yentna River subsistence fishery. Appendices A–D provide additional pertinent quotations, summarized information, and historical documents related to the board's deliberations on the customary and traditional uses of Yentna River salmon in 1998 and 2011.

Details about the board's previous regulatory actions regarding C&T determinations and subsistence regulations for Yentna River salmon have also been provided in ADF&G staff comments on the petition and are in Appendix E (RC 8).

2. THE EIGHT CRITERIA

CRITERION 1: LENGTH AND CONSISTENCY OF USE

A long-term consistent pattern of noncommercial taking, use, and reliance on the fish stock or game population that has been established over a reasonable period of time of not less than one generation, excluding interruption by circumstances beyond the user's control, such as unavailability of the fish or game caused by migratory patterns.

- Oral history information mentions early runs of salmon under ice; the kinds of fish used; and oral traditions about salmon runs (tapes of oral history interviews conducted by the Division of Subsistence in the 1980s which were indexed in RC 115 submitted for the Feb. 1998 meeting; also Special Publication No. BOF 2011-01)
- The C&T worksheet prepared for 1996 board references king salmon, noting (RC 115 Feb. 1998/Special Publication No. BOF 2011-01):
 - The preface notes king salmon as an Upper Cook Inlet stock, uses of which are described in the worksheet: "...early and late run Chinook salmon..."
 - Text under Criteria 1 notes that in 1982 king salmon were harvested by 44.1% of Skwentna households and are one of the three most frequently harvested species (Table 1).
 - Text under Criteria 1 further notes in 1984 king salmon were harvested by 68.8% of Skwentna households. They were the most harvested species.
 - Text under Criteria 1 notes that the sport harvest in the Yentna River (all participants) from 1989-1994 was about half king salmon.
- King salmon was the sixth ranked resource in pounds per capita and fifth by the percentage of household resource use in Skwentna in 2012 (Table 6-5 in Holen et al. 2014).
- **From Technical Paper (TP) 385 (Holen et al. 2014)**
 - "Salmon are one of the most important wild resources used by Skwentna residents for subsistence, especially sockeye salmon, coho salmon, and Chinook salmon." (pg 276)
 - "For Skwentna residents, salmon composed 34% of the wild resource harvest in pounds usable weight in 2012 (Figure 6-4). The composition of the salmon harvest was as follows: 47% coho salmon (1,562 lb, or 25 lb per capita); 41% sockeye salmon (1,362 lb, or 22 lb per capita); 7% Chinook salmon (234 lb, or 4 lb per capita); 4% chum salmon (137 lb, or 2 lb per capita); and 2% pink salmon (62 lb, or 1 lb per capita) (Table 6-4)." (pg 249)
 - "During 2012, 73% of households reported using coho salmon, 67% of households reported using sockeye salmon, and 60% of households reported using Chinook salmon." (pg 249)
 - "The majority of the salmon harvest effort by Skwentna households was directed toward coho salmon, sockeye salmon, and Chinook salmon. Of the 63% of households that attempted to harvest coho salmon and the 53% of households that attempted to harvest sockeye salmon, all were successful. However, out of the 50% of households that attempted to harvest Chinook salmon, only 43% were successful." (pg 252)

Table 5 compares survey results from Skwentna from 1982, 1984, and 2012 regarding uses and harvests of each of the five salmon species available locally as well as salmon in combination.

CRITERION 2: SEASONALITY

A pattern of taking or use recurring in specific seasons of each year.

- Summary index of oral history tapes in RC 115 Feb. 1998/Special Publication No. BOF 2011-01):
 - Index of oral history content contains notes regarding fishing for king salmon with nets.
- C&T worksheet prepared for the 1996 board references timing of harvests for king salmon (RC 115 Feb. 1998/Special Publication No. BOF 2011-01):
 - Criteria 2: notes “King salmon are taken in early June into July....”
 - Seasonal round figure shows king salmon harvests from May to August.
- “...on June 10 Bill [Link] caught 14 salmon in his net on mouth of fish creek.” (Joseph Delia affidavit referencing Bill Link 1935 diary for 1997 *Payton* lawsuit [Joseph Delia affidavit referencing Bill Link 1935 diary for 1997 *Payton* case (RC89 for 1998 board)]).
- “During May and June Chinook salmon are caught by rod and reel under sport fishing regulations.” (TP 385; pg 240-247)¹.
- “By July 15 the kings are very red and few in number” (Samantha Oslund, ADF&G Fishery Biologist II, personal communication April 13, 2018).

CRITERION 3: MEANS AND METHODS OF HARVEST

A pattern of taking or use consisting of methods and means of harvest that are characterized by efficiency and economy of effort and cost.

- The 1996 worksheet did not provide specific information for king salmon.
- “We never heard of subsistence [sic] in those times, just got our fish as fast as we could – when the run was new and the fish fresh and in numbers that warranted the canning and smoking process” [Joseph Delia affidavit referencing Bill Link 1935 diary for 1997 *Payton* Case (RC89 for 1998 board)].
- “There is a local need that needs to be faced. Even if they want to people don’t have time to sport-fish for their winter needs. There is a lot to do before Ole Man Winter blows and a short summer to accomplish it in. People want to get their fish when they’re bright and fresh and in numbers worth operating a smokehouse or canning process so they can get on with their work” [Joseph Delia affidavit referencing Bill Link 1935 diary for 1997 *Payton* Case (RC89 for 1998 board)].
- TP 385: “In 2012, rod and reel gear was used to harvest an estimated 70% of the salmon harvest weight, fish wheels were used to harvest about 28% of the salmon harvest weight, and gillnets were used to harvest about 2% of the salmon harvest weight during the study year (Table 6-6)” (pg 249).

¹ Note that this is before the July 15 opening date for fishing with fish wheels.

CRITERION 4: GEOGRAPHIC AREAS

The area in which the noncommercial, long-term, and consistent pattern of taking, use, and reliance upon the fish stock and game population has been established.

- The 1996 worksheet did not provide any specific location data for king salmon, just for “salmon.”
- “Chinook salmon were harvested in the Susitna River, Yentna and Skwentna rivers and the tributaries of Hayes River and Lake Creek. Chum salmon and pink salmon were harvested by fish wheels on the Yentna River” (see Table 4 and Fig. 2) (TP385; pg 249).
- “During the 2012 study year, Skwentna respondents reported harvesting coho salmon in the Yentna River, Skwentna River and tributaries, the Talachulitna River, Eightmile Creek, and Lake Creek. Sockeye salmon were harvested in the Yentna River, Lake Creek, and Shell Lake (Figure 6-6)” (TP385; pg 249)..

CRITERION 5: MEANS OF HANDLING, PREPARING, PRESERVING, AND STORING

A means of handling, preparing, preserving, and storing fish or game that has been traditionally used by past generations, but not excluding recent technological advances where appropriate.

- The 1998 worksheet and supporting documents did not offer any specific information about king salmon for this criterion.
- “...By June 15 he [Bill Link] had 115 [salmon] cut and hung in his smokehouse” [Joseph Delia affidavit referencing Bill Link 1935 diary for 1997 Payton Case (RC89 for 1998 board)].

CRITERION 6: INTERGENERATIONAL TRANSMISSION OF KNOWLEDGE, SKILLS, VALUES, AND LORE

A pattern of taking or use that includes the handing down of knowledge of fishing or hunting skills, values, and lore from generation to generation.

- Payton Affidavit (RC 93 at February 1998 meeting):
 - Page 2. “I have been given the knowledge of the customs and traditions of the subsistence uses of fish (including all five species of salmon) and game, the skills, and the values and lore of the Skwentna area by residents who have passed such knowledge down from previous generations. . . . The skills handed down include the methods of harvest, fish wheel, gill net, dip net, traps and the like as well as the locations of fish camps and the ways of preservation of the salmon resource, which include drying, salting, smoking, pickeling, jarring and canning.”
 - Note that in his affidavit, Mr. Payton generally refers to “salmon” or “the salmon resource” and rarely refers to specific species.

CRITERION 7: DISTRIBUTION AND EXCHANGE

A pattern of taking, use, and reliance where the harvest effort or products of that harvest are distributed or shared, including customary trade, barter, and gift-giving.

- The 1996 worksheet and supporting documents from the 1998 meeting did not include any information specific to king salmon, just “salmon.”
- TP 385:
 - “During 2012, 90% of Skwentna households used salmon, 77% harvested salmon, 37% shared salmon, and 50% reported receiving salmon (Table 6-4). Coho salmon (73%

using), sockeye salmon (67%), and Chinook salmon (60%) were the primary salmon species used by Skwentna residents” (TP385; pg 249).

- Many of the households that harvested salmon shared their catch with other Skwentna households (33% of households reported receiving sockeye salmon, 27% of households reported receiving Chinook salmon, and 23% of households reported receiving coho salmon)” (TP385; pg252).

CRITERION 8: DIVERSITY OF RESOURCES IN AN AREA; ECONOMIC, CULTURAL, SOCIAL, AND NUTRITIONAL ELEMENTS

A pattern that includes taking, use, and reliance for subsistence purposes upon a wide variety of fish and game resources and that provides substantial economic, cultural, social, and nutritional elements of the subsistence way of life.

- C&T worksheet prepared for 1996 board references king salmon on several occasions (RC 115 Feb. 1998/Special Publication No. BOF 2011-01):
 - Criteria 8: notes all five species of salmon comprised 24.9 percent of the wild food harvest.
- TP 385:
 - “Although the study found evidence of a long-term pattern of harvest and use of wild resources, many participants reported that their wild resource uses and harvests have changed over their lifetimes and in the last 5 years. This is especially true of salmon harvests with the decline of Chinook salmon abundance in the Susitna River Basin. Residents continue to harvest wild resources locally while also taking advantage of opportunities to travel to other areas in Alaska to harvest wild foods. Many residents expressed the desire to continue to harvest wild resources locally, regardless of changes in abundance of resources and the increase in the population of Southcentral Alaska over time” (TP385; pg 336).
 - In 2012, Skwentna residents harvested 9,966 lb of wild foods, 161.2 lb per person (TP385 pg 239).

REFERENCES CITED

- Holen, D. and J. A. Fall. 2011. Overview of subsistence salmon fisheries in the Tyonek Subdistrict and Yentna River, Cook Inlet, Alaska. Alaska Department of Fish and Game Division of Subsistence Special Publication No. BOF 2011-01, Anchorage.
- Holen, D., S. M. Hazell, J. M. Van Lanen, J. T. Ream, S. P. A. Desjardins, B. Jones, and G. Zimpelman. 2014. The Harvest and Use of Wild Resources in Cantwell, Chase, Talkeetna, Trapper Creek, Alexander/Susitna, and Skwentna, Alaska, 2012. Alaska Department of Fish and Game, Division of Subsistence Technical Paper No. 385. Anchorage.
- Joseph Delia affidavit referencing Bill Link 1935 diary for 1997 Payton Case (RC89 for 1998 board)
- Oslund, Samantha, ADF&G Fishery Biologist II, personal communication April 13, 2018.
- Stanek, Ron. 1987. Historical and contemporary trapping in the Western Susitna Basin. Alaska Department of Fish and Game, Division of Subsistence Technical Paper No. 134. Anchorage.

TABLES AND FIGURES

Available in 1998 to Board of Game (in C&T worksheet)

	Study Year 1982						Study Year 1984					
	Chinook Salmon	Sockeye Salmon	Chum Salmon	Pink Salmon	Coho Salmon	All Salmon	Chinook Salmon	Sockeye Salmon	Chum Salmon	Pink Salmon	Coho Salmon	All Salmon
Number of Households Harvesting and Percentage	15 44.1%	21 61.8%	5 14.7%	12 35.3%	24 70.1%	29 85.3%	22 68.8%	14 43.8%	6 18.8%	7 21.9%	20 62.5%	25 78.1%
Total Reported Harvest, Numbers of Salmon	125	336	111	205	304	1,081	66	201	27	60	212	566
Estimated Total Harvest, Number of Salmon	156	420	139	256	380	1,351	76	232	31	69	245	654
Total Reported Harvest, Pounds of Salmon	2,250	1,344	666	410	1,824	6,494	1,188	804	162	120	1,272	3,546
Average Household Harvest, Number of Salmon	3.7	9.9	3.3	6.0	8.9	31.8	2.1	6.3	0.8	1.9	6.6	17.7
Average Household Harvest, Pounds of Salmon	66.2	39.5	19.6	12.1	53.7	191.0	37.1	25.1	5.1	3.8	39.8	110.8
Per Capita Harvest, Number of Salmon	1.1	2.9	1.0	1.8	2.6	9.4	0.7	2.2	0.3	0.6	2.3	6.1
Per Capita Harvest, Pounds of Salmon	19.6	11.7	5.8	3.6	15.9	56.5	12.8	8.6	1.7	1.3	13.7	38.1

¹ The 1982 sample included 34 households (about 80 percent of all households in the area) with 115 members (79.3 percent of the total population).

² The 1984 sample included 32 households (86.5 percent) with 93 members (87 percent of the total population).

Sources: Fall, Foster, and Stanek 1983; Stanek 1987; Files, Division of Subsistence, ADF&G, Anchorage.

Table 1.— Reported Salmon Harvests by Upper Yentna Households, 1982 and 1984

Harvested			Used		Percentage of households using
Rank	Resource	Pounds per capita	Rank	Resource	
1.	Moose	59.4	1.	Coho salmon	73.3%
2.	Coho salmon	25.3	2.	Moose	70.0%
3.	Sockeye salmon	22.0	3.	Sockeye salmon	66.7%
4.	Northern pike	13.0	4.	Spruce grouse	63.3%
5.	Black bear	8.8	5.	Chinook salmon	60.0%
6.	Chinook salmon	3.8	5.	Northern pike	60.0%
7.	Brown bear	2.8	7.	Blueberry	50.0%
8.	Chum salmon	2.2	8.	Pacific halibut	46.7%
8.	Spruce grouse	2.2	9.	Highbush cranberry	36.7%
10.	Blueberry	2.1	9.	Raspberry	36.7%

Source ADF&G Division of Subsistence household surveys, 2013.

Table 2.– Top 10 resources harvested and used, Skwentna, 2012

Table 6-4. – Estimated harvests and uses of fish, game, and vegetation resources, Skwentna, 2012.

Resource	Percentage of households				Harvest weight (lb)			Harvest amount ^a		95% confidence limit (±)	% of harvest
	Use %	Attempt %	Harvest %	Receive %	Give %	Total household	Mean household	Total	Unit		
All resources	100.0	100.0	100.0	76.7	63.3	9,966.0	284.7	161.2	2,462.3	70.4	12.7
Fish	90.0	86.7	86.7	63.3	50.0	4,559.4	130.3	73.7	1,334.2	38.1	12.1
Salmon	90.0	76.7	76.7	50.0	36.7	3,356.0	95.9	54.3	703.5	20.1	14.8
Chum salmon	13.3	13.3	13.3	3.3	3.3	136.5	3.9	2.2	22.2	0.6	39.0
Coho salmon	73.3	63.3	63.3	23.3	23.3	1,561.6	44.6	25.3	326.7	9.3	16.9
Chinook salmon	60.0	50.0	43.3	26.7	16.7	233.7	6.7	3.8	24.5	0.7	17.7
Pink salmon	13.3	13.3	13.3	3.3	3.3	61.8	1.8	1.0	23.3	0.7	37.8
Sockeye salmon	66.7	53.3	53.3	33.3	33.3	1,362.3	38.9	22.0	306.8	8.8	18.5
Landlocked salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unknown salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nonsalmon fish	80.0	66.7	66.7	50.0	26.7	1,203.4	34.4	19.5	630.7	18.0	17.5
Pacific herring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific herring roe	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific herring sac roe	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific herring spawn on kelp	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Smelt	3.3	3.3	3.3	0.0	3.3	19.0	0.5	0.3	75.8	2.2	77.3
Eulachon (hooligan, candlefish)	3.3	3.3	3.3	0.0	3.3	19.0	0.5	0.3	75.8	2.2	77.3
Cod	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific (gray) cod	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific tomcod	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Starry flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greenling	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lingcod	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific halibut	46.7	10.0	10.0	46.7	10.0	62.5	1.8	1.0	62.5	1.8	72.1
Rockfish	6.7	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sculpin	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Burbot	20.0	20.0	20.0	6.7	0.0	109.2	3.1	1.8	45.5	1.3	36.7
Char	16.7	16.7	16.7	3.3	3.3	86.7	2.5	1.4	73.5	2.1	58.9
Dolly Varden	13.3	13.3	13.3	3.3	3.3	49.4	1.4	0.8	54.8	1.6	59.6
Lake trout	6.7	6.7	6.7	3.3	3.3	37.3	1.1	0.6	18.7	0.5	60.5
Arctic grayling	3.3	3.3	3.3	0.0	0.0	1.6	0.0	0.0	2.3	0.1	77.3
Northern pike	60.0	50.0	50.0	23.3	20.0	803.6	23.0	13.0	287.0	8.2	20.1
Longnose sucker	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

-continued-

Table 3.– Estimated harvests and uses of fish, Skwentna, 2012

	<u>1982</u>	<u>1984</u>	<u>2012</u>
<u>Percentage of households</u>			
Using king salmon			60.0%
Fishing for king salmon			50.0%
Harvesting king salmon	44.1%	68.8%	43.3%
Receiving king salmon			26.7%
Giving away king salmon			16.7%
<u>Estimated harvests</u>			
Total number king salmon	156	76	25
Number of king salmon per HH	3.7	2.1	
Total pounds of king salmon	2,808	1,368	327
Pounds of king salmon per HH	66.2	37.1	6.7
<u>Percentage of households</u>			
Using salmon			90.0%
Fishing for salmon			76.7%
Harvesting salmon	85.3%	78.1%	76.7%
Receiving salmon			50.0%
Giving salmon			36.7%
<u>Estimated harvests</u>			
Total number salmon	1,351	654	704
Number of salmon per HH	31.8	17.7	20.1
Total pounds of salmon	8,116	4,097	3,356
Pounds of salmon per HH	191.0	110.8	95.9
<u>King salmon as percentage of total salmon harvest</u>			
% of number of salmon	11.5%	11.6%	3.5%
% of pounds of salmon	34.6%	33.4%	9.7%
<u>King salmon as percentage of total resource harvest</u>			
	7.6%	7.3%	3.3%
<u>Estimated total households</u>			
	38*	32	35

Table 5.— Harvest and uses of king salmon

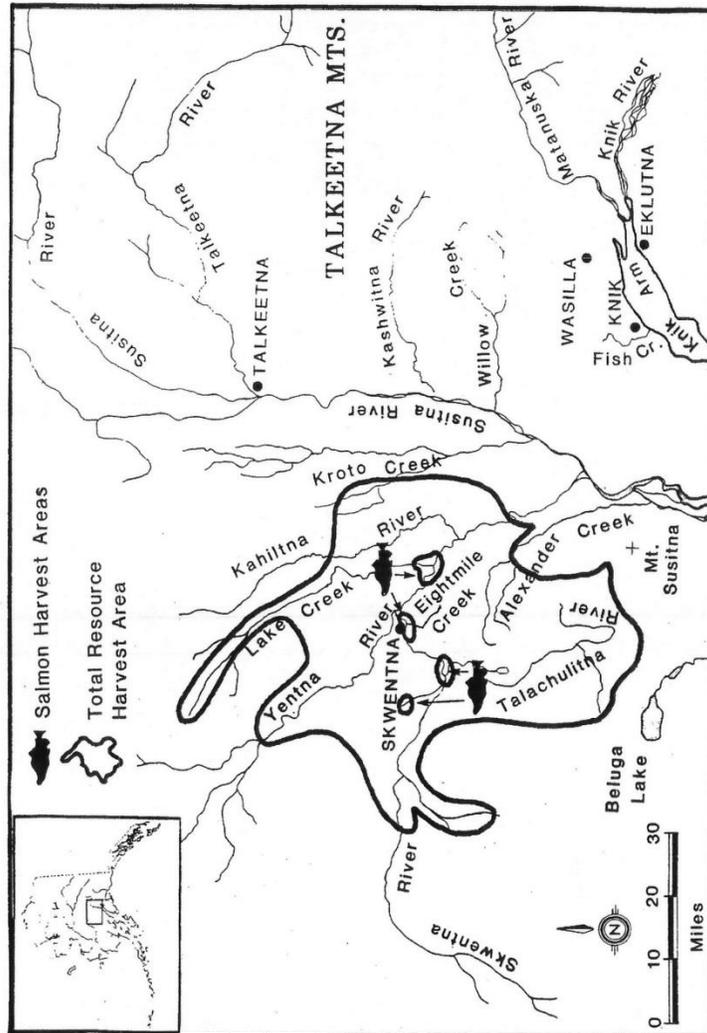


Figure 1.— Total area used by Upper Yentna River Area residents to harvest resources, and areas used to harvest salmon

APPENDICES

APPENDIX A.– EXCERPTED & SUMMARIZED INFORMATION FROM THE BOARD OF FISHERIES MEETINGS PERTAINING TO THE CUSTOMARY AND TRADITIONAL USE DETERMINATION FOR THE YENTNA RIVER

Following is selected information from Alaska Board of Fisheries meetings in 1996, 1998, and 2011 pertaining to the customary and traditional use determinations for Yentna River salmon.

- 1996 board
 - Board 1995/96 proposals for Cook Inlet & Kodiak/Chignik Areas Finfish
 - Proposal 150 submitted by Skwentna Subsistence Resource Council (pg 108) to establish a subsistence fishery in a portion of the Yentna River:
 - Item (5) of the proposal: “King salmon and Rainbow trout must be released.”
 - The board declined to revise the negative C&T determination for salmon, but modified Proposal 150 to create a personal use fish wheel fishery.
 - Staff comments Feb. 7, 1996 (pg 7):
 - Recognized that the proposal was to establish fish wheels as legal gear for harvesting “salmon other than king salmon” in a subsistence fishery.
- 1998 board
 - RC133 Subsistence and Personal Use Committee 2/10/98: Summary
 - Court decision (remand): board may not disqualify applicants regarding Criterion 3 simply because the methods were prohibited by regulation.²
 - “Advisory Panel Recommendation: Consensus to approve a subsistence fishery configured with the same regulations as the existing personal use fishery if the board adopts a positive c&t finding”.
 - “Payton [Tom Payton, committee member]: would like to use Fish Wheels, 16 hour openings, mandatory call in of catch, 2,500 fish cap (two wheels operated this year). Season July 15-July 31 (this is what is in use currently in the PU fishery).”
 - “Board Committee recommendation: Consensus to support a positive c&t finding for salmon stocks of the area; support advisory panel recommendations regarding subsistence regulations.”
- 2011 board
 - No ANS options that included king salmon were presented by Division of Subsistence, because regulations since 1998 had prohibited the retention of king salmon in the subsistence fishery.
 - Proposal 103 deliberation by board (see also transcribed extracts, below).

² Note: it appears this would hold true for species as well— the board could not find a negative C&T finding for king salmon just because harvest was prohibited by regulations.

- The board did not review justification (if any) from 1998 to prohibit the retention of king salmon when the C&T finding was for “salmon.”
- The Alaska Department of Law (DOL) expressed concern with the 1998 C&T finding being for all salmon, and with regulations adopted by the board in 1998 that excluded king salmon, stating that these two regulatory actions are not “consistent.”—DOL advised board to either exclude king salmon from the C&T finding or allow retention of king salmon—see transcript below.
- Narrative of Subsistence and Commercial Fishing Committee report regarding Proposal 103:
 - Notes under Support: “This fishery only targets sockeye salmon. King salmon and trout must be released.”

Transcriptions

February 1998 board

Following are selected quotations (in quotation marks) or summaries of statements from board members or staff at the February 1998 Alaska Board of Fisheries meeting pertaining to the customary and traditional determination as it related to salmon of the Yentna River.

JF. James Fall, ADF&G

JW. John White, chair, Alaska Board of Fisheries

LE. Larry Engel, Board of Fisheries

VU. Virgil Umphenour, Board of Fisheries

Selected transcripts from Tape 24

[Note: several board members reference a committee discussion of the prior day; this discussion was not recorded.]

[A board member makes a motion to adopt a positive C&T.]

[JF: Discussion of “stocks” the board is considering for the C&T finding, shows map in RC 115. Salmon stocks are to the west of the nonsubsistence area along the Yentna River. Refers to RC 115 as C&T worksheets, one from 1980s and second from 1996. Advises board to see RC 133 committee report, page 5 and page 6, comparing worksheets. Also cites several other RCs; RC 131 is excerpts from oral history tapes. These were discussed in committee.]

LE: “Do we have RC 149 [substitute language from committee report] before us?”

JW: “Yes we do sir”.

LE: “OK, then I move that we find the customary and traditional use of the Yentna River salmon stocks relative to the language that is now before us, Mr. Chair.”

VU: “Second”.

[JF goes through 8 criteria; references “area in which the stocks occur:” these are the stocks the board is considering. References Figure 2 in C&T worksheet.]

[Discussion under Criterion 2:]

JF: “The historical record shows that the salmon species of this area have been harvested when they became available locally.” [Refers to Figure 3 in the worksheet, the seasonal round chart, that includes king salmon.]

VU: “People catch what they can to eat it when it’s there.”

[Discussion under Criterion 4]:

[JF refers to map and states people fished near their homes.]

[Discussion under Criterion 5]:

LE: “I find that the fish stocks of that area have been consumed, preserved, and utilized in a manner consistent with Criterion 5.”

[Discussion under Criterion 6]:

[LE recalls that people shared knowledge of “the fishery resources” in the area with him in 1960/61].

Selected transcripts from Tape 25

[The board and department discussed an amount reasonably necessary for “salmon”.]

LE: States that the committee suggested the board follow personal use (PU) regulations for the subsistence fishery. Notes that Tom Payton (local resident and member of the committee) said a subsistence fishery like the PU fishery would “provide reasonable access to the resource.”

[The board was referred to page 11 of RC 133, which was substitute language for the subsistence regulations, based on personal use regulations.]

[LE stated his intent to use the personal use fishery regulations, the two years [1996 and 1997] the PU fishery was open, as a guide for levels of harvest and performance for the subsistence fishery.]

LE: “2,500 salmon are reasonable amount to provide for that use.”

JW: “The next question before us is whether the current subsistence regulations for this stock provide a reasonable opportunity for subsistence users and whether or not there are existing regulations that demonstrate that.”

[JF explains there are no current subsistence regulations and that the committee suggested using PU regulations.]

JW: [to staff] “Does the present PU fishery provide the numbers of fish necessary for the subsistence fishery?”

[JF answered that it was for the board to determine, and that the topic was discussed in committee. He said the committee said PU regulations looked like a good place to start for the subsistence fishery.]

[JW referred to the 2,500 salmon cap in the PU regulations that the board had just adopted for the subsistence fishery and asked:] “so if the PU fishery becomes a subsistence fishery, then we will have embraced that. Is that correct? Is there any objection? Do we have consensus on this?”

VU: “ I just wanted to point out that these fish wheels are equipped with live boxes and they’re pitching the king salmon and the rainbow trout back in the river, live. I just wanted to point that out.”

LE: “I’d just like to add another piece of information that we learned from our stakeholders in our committee, that all four species of salmon [Note: LE was referring to sockeye, chum, pink, and coho salmon] are available and are being caught during this [time], from the current PU fishery. Some of the participants prefer chum salmon, some prefer silvers or some combination; and so, there is a variety of species there available to accommodate a diverse use of the salmon resources, Mr. Chairman, and we heard that in committee.”

JW: “Now let’s get it straight here with Law and all three of the divisions. Is there any clarity we need in our findings because we’re to the point of having the question called here on final action. Let’s get it straight here. Is there anything else we need to get clarity on?”

[JW asks each division and Law directly. No one brings up anything else. Motion passes, 6-0 (one member absent)].

February 2011 board

JF. James Fall, ADF&G

LN. Lance Nelson, Alaska Department of Law

MS. Mike Smith, Board of Fisheries

VW. Vince Webster, chair, Board of Fisheries

KJ. Karl Johnstone, Board of Fisheries

[Following are quotations (in quotation marks) and summaries of statements from board members and ADF&G and DOL staff at the February 2011 Alaska Board of Fisheries meeting pertaining to the customary and traditional determination as it related to all salmon species and king salmon for the Yentna River. The committee report was in RC 95, with substitute language on page 7.]

[JF gave an introduction to Proposal 103]: “I would first of all note that the original proposal addressed three things. The C&T finding for the subsistence fishery. The ANS amount for the fishery. And the harvest cap of 2,500 salmon reducing that to 500 salmon. The substitute language that is now before you would modify the C&T finding but not repeal it to clarify that the C&T finding does not include king salmon and would then add an ANS range for the fishery ...”

[MS references his comments on Proposal 102 (that addressed the Tyonek Subdistrict subsistence fishery), and the board's need to make an ANS finding for the Yentna River fishery.]

VW: "Do we need to, under "C, except for kings," do we need to do another C&T? Do we need to do C&T like we did last time?"

JF: "As we noted in our staff report, the board made a positive C&T finding for this fishery in 1998 and this was after the Alaska Supreme Court remanded the decision back to the board. The Division of Subsistence has no new information that pertains to the eight criteria for this fishery. I can go over more detail if you like on what I mean by no information and what we generally provided before. At the time, the finding that the board made in regulation was salmon in the Yentna drainage. It then adopted regulations that excluded the harvest of king salmon from the subsistence fishery and that's what the revised language would do."

VW: "So that's what we're hearing, is, basically, that's what the board did. That's why we don't -- I'll get a clarification from Mr. Nelson."

LN: "Mr. Chairman, I think Dr. Fall described it correctly. The finding itself said all salmon but at the same time when they instituted the regulations they excluded king salmon from the fishing opportunity. So, I don't know, I don't remember if I was at the meeting or not. I don't know what the thinking was in that but as far as I know, there haven't been any complaints from the users in that area that they aren't allowed to catch king salmon, and so that's about as much as I know."

KJ: "It seems to me that if we don't have any additional information that would change our C&T finding that it would stand and if we don't have any additional new information about whether they use the king salmon or not, that would stand. That would be the approach I would like to take. I wonder if that legally would be the proper approach, Mr. Nelson?"

LN: "The thing I worry about I guess is having a finding that says all salmon and then only allowing, having regulations inconsistent with that only allowing the harvest of salmon other than king salmon. I feel uncomfortable having that inconsistency, I guess, in the regulations. So that's why we're suggesting that you look at that and make them consistent, one way or the other, I guess."

KJ: "So as far as whether or not we have to go through the eight criteria for a C&T finding, in the absence of any information we can let that stand? Is that correct?"

LN: "Yes. What's new is that since 1998 we know what the harvest of salmon has been and that under your regulations we know that that hasn't included king salmon, because king salmon weren't allowed. What we aren't able to furnish you is the exact reasoning of the board's distinguishing king salmon and excluding that from the harvest."

VW: "So what I'm hearing is they did exclude it. We don't know exactly why. But they already excluded it. There's no new information. So we have no reason to challenge their findings."

LN: "That's a reasonable interpretation."

[ANS discussion follows]

VW: "I just want to make sure, if there's any objection, under "C. Except for king salmon." Is it OK with all of the board members to do this? Does anybody think that we have new information where we need to address a C&T finding that the past board came up with? If I don't see any objections then I think we can safely say that everyone's accepting this, "C. Except king salmon in the Yentna River drainage outside Kenai Anchorage MatSu nonsubsistence area." So if I don't see any objections to this, then OK, now let's talk about the numbers."

**APPENDIX B.– LOCAL COMMENTS AND CONCERNS FROM TECHNICAL PAPER
385: THE HARVEST AND USE OF WILD RESOURCES IN CANTWELL, CHASE,
TALKEETNA, TRAPPER CREEK, ALEXANDER/SUSITNA, AND SKWENTNA,
ALASKA**

- **Skwentna:**

From March 2–8, 2013, household surveys and key respondent interviews were completed in the Skwentna CDP. One additional key respondent interview was conducted with a Skwentna resident in Wasilla on March 26, 2013. Three key respondent interviews were conducted in Skwentna. Two community review meetings were held in separate locations to allow for increased participation on September 3–4, 2013.

Following is a summary of local observations of wild salmon populations and trends that were recorded during the 2012 Division of Subsistence surveys in Skwentna. Some households did not offer any additional information during the survey interviews, so not all households are represented in the summary. In addition, respondents expressed their concerns about wild resources during the community review meeting of preliminary data. These concerns have been included in the summary.

- Community residents reported that beginning in the mid-1990s they began to observe declines in salmon returns in local rivers and streams, especially Chinook salmon.
- Today, sockeye salmon and coho salmon are the primary species sought by the community.
- Some respondents reported observations that Chinook salmon runs remain healthy in the Talachulitna River and the Skwentna River, but that numbers have dropped off severely in many other tributaries of the Yentna and Skwentna rivers.
- Skwentna respondents believed that the primary cause of salmon declines in the area is historical overharvesting by both the commercial and sport fisheries.
- Additionally, respondents believed that demand for Chinook salmon in the Susitna Basin sport fishery has become unsustainable in recent years and many respondents said that they have chosen not to participate in the fishery any longer because of excessive crowding by non-local sport fishermen in pursuit of Chinook salmon.

APPENDIX C.—CUSTOMARY AND TRADITIONAL USE WORKSHEET FROM 1998

CUSTOMARY AND TRADITIONAL USE WORKSHEET

SALMON, UPPER COOK INLET, YENTNA RIVER

Alaska Board of Fisheries
February 1996

Prepared by:

Division of Subsistence
Alaska Department of Fish and Game

Proposals 150, 521, and 522 request that the Board of Fisheries adopt regulations allowing subsistence fishing for salmon in a portion of the Yentna River with fish wheels and/or dipnets. For the purposes of this fishery, Proposal 150 defines the "Skwentna Subdistrict" as the mainstream of the Yentna River from the Skwentna River down to an ADF&G marker approximately one mile below Marten Creek. This area is outside the Matsu Nonsubsistence Area (Fig. 1) (ADF&G 1995).

Prior to adopting regulations allowing the subsistence harvest of salmon, the Board of Fisheries must identify the salmon stocks that are customarily and traditionally used for subsistence purposes, using the eight criteria defined in 5 AAC 99.010(b), the Joint Boards of Fisheries and Game Subsistence Procedures (a "C&T finding"). This worksheet provides background information on uses of salmon in the Yentna River area organized according to these eight criteria. It is intended to be supplemented by other staff reports and by public testimony at the Board meeting.

Subsistence salmon fishing in the Yentna River was open prior to 1960 but has been closed since statchood (Table 1). Since that time, fishing for salmon in the area has been restricted to rod and reel gear under sport fishing regulations. In March 1988, in response to Proposal No. 405 to establish regulations for a subsistence salmon fishery in the Yentna River, the Board of Fisheries found that there is no customary and traditional use of salmon in the area. A very similar proposal, No. 7, was submitted to the Board and discussed in its December 1988 meeting. The board reaffirmed its earlier decision that there were no customary and traditional uses of salmon stocks in the Skwentna area. The Board prepared written findings which explained the reasons for this action. These are attached to this worksheet as Appendix A. In both of these earlier discussions, the Board focused entirely on uses by residents of the area itself, because at the time only rural Alaska residents would be eligible to participate in the subsistence fishery. In November 1992, Proposal No. 362 was submitted which again asked that subsistence salmon fishing be opened in a portion of the Yentna River. Citing its previous findings, the Board determined that no new information was available and rejected this proposal.

Following the McDowell decision (December 1989), which removed the limitation on subsistence eligibility to rural residents only, the board determined that eight stocks of salmon in the Upper Cook Inlet Area supported customary and traditional uses (5 AAC 01.566 (6)). The uses by all communities of the Cook Inlet area were considered in these determinations. These stocks were early and late run chinook salmon, early and late run sockeye salmon, chum salmon, pink salmon, and early and late run coho salmon. Regulations adopted by the board to provide reasonable subsistence fishing opportunities for these stocks did not allow subsistence fishing in freshwater (5 AAC 01.592). With the creation of nonsubsistence areas, these subsistence regulations and their supporting customary and traditional use finding were repealed (in June 1995). This left salmon stocks taken in the Tyonek Subdistrict as the only salmon stocks in Upper Cook Inlet with standing customary and traditional use findings. It will be necessary for the Board to reconsider if customary and traditional uses of salmon occur in other portions of the Cook Inlet area outside the nonsubsistence area before authorizing a subsistence salmon fishery as described in this proposal.

Note. This worksheet incorporates information from a worksheet on Yentna River salmon prepared for the Board of Fisheries in March 1988, and also reviewed by the board in December 1988.¹ The original worksheet was also provided to the board in November 1992, during its review of standing subsistence regulations for conformance with the 1992 subsistence law. This worksheet also incorporates information from a C&T worksheet on moose in this same general area prepared for the Alaska Board of Game in January 1993. A subsistence moose hunt occurs in this area (Game Management Unit 16B), based on a positive C&T finding for moose by the Board of Game dating back to 1983.

Criterion 1. A long-term consistent pattern of noncommercial taking, use, and reliance on the fish stock or game population that has been established over a reasonable period of time of not less than one generation, excluding interruption by circumstances beyond the user's control, such as unavailability of the fish or game caused by migratory patterns.

[This and following sections will focus on uses of salmon by people whose primary place of residence is in or near the proposed subsistence fishery (Study Area A in Fig. 1). Brief notes on uses by non-local residents appear at the end of discussion on selected criteria.]

Salmon from the Yentna River drainage have been harvested and used for food as long as this area has been populated by human settlements. The subsistence activities of the several Dena'ina (Tanaina) Athabaskan Indian villages along the Yentna and Skwentna rivers, which were occupied in the 19th century and before, focused on salmon, other fish, and caribou. After being abandoned as village sites, these places were used as seasonal camps for fishing and hunting by Susitna Station and Kroto Creek Dena'ina until at least the 1930s. Former Dena'ina residents of Susitna River drainage villages, who later lived in Tyonek and other Cook Inlet communities, used this area for hunting, trapping, and fishing into the 1960s.

After the American purchase of Alaska in 1867, salmon were used by resident Euro-American trappers, miners, and homesteaders who settled in the area and developed trail systems (Fig. 2) (Stanek 1987:18). A fur trading post was established at Susitna Station. Before the 1900s, the numbers of area residents were small. At precontact, the area's Dena'ina probably numbered no more than a few hundred people; the federal census counted 90 people in 1880 at Susitna Station and 142 in 1890, which are partial counts for the western Susitna drainage area. In 1928, the District Superintendent for the Alaska road system listed at least 15 resident households in the area who hunted and trapped for a living, and 1 household that also prospected. During this time, some Euro-American trappers purchased traplines from Dena'ina, who moved closer to Cook Inlet. The federal census counted 52 people living at Susitna in 1930 and 42 in 1960 (these are partial counts for the total population of the western Susitna Basin).

The settlers during this period of 1925 - 1962 supplemented their wild resource harvests with staple food items (flour, sugar, tea, coffee) from stores at Knik, Talkeetna, and Anchorage. Settlers developed a pattern of hunting and trapping during winter along traplines, and moving down river to Cook Inlet in spring to trade fur and to earn money in the commercial fisheries. People who fished commercially also dried and smoked large quantities of salmon for use by themselves and their dog teams in the following winter (Stanek 1987a:66, Stanek 1987b:14).

The following account summarizes salmon fishing related activities of Bill Link, a single trapper who lived at Fish Creek Lakes in 1935, based upon his personal diary (Stanek 1987a:66-68). He caught and preserved salmon for his own use and to feed his dogs and the mink he was raising.

Link first set a fish net on May 24. . . He caught his first salmon on June 10 when he recorded 14 fish (species not noted). All June and July were spent catching salmon, drying and smoking them, building several fish caches, growing a garden, and hauling lumber. . . By July 31st he

¹ A note on sources. Information on uses of wild resources by residents of the western Susitna River area, including the Yentna River drainage, in this worksheet is based largely on research by the Division of Subsistence conducted in 1982 to 1985 (Fall et. al. 1983, Stanek 1987a). Although that research focused on moose hunting and furbearer trapping, overall resource use patterns and the history of the area were also investigated. The division has not conducted systematic research in this area since that time.

had caught and put up 700 salmon. . . . In August, . . . salmon fishing continued. . . . Because of rainy weather he was careful to turn and check his fish regularly. . . . By the end of August he had caught approximately 970 salmon.

Use of wild resources, including salmon, by residents of this area has continued from the 1960s to the present. During this period, state land disposal programs led to additional people coming into the area. The Upper Yentna area's population was about 145 by 1984, as estimated by ADF&G surveys (with another 44 living in the Alexander Creek Area), and 125 people in 47 households in the Skwentna and Alexander Creek Census Designated Areas, as estimated by the 1990 federal census. The Matanuska - Susitna Borough provided an estimate of 173 people for the Skwentna area in 1994 (Matanuska-Susitna Borough Planning Department 1996).

Table 2 summarizes salmon harvests by all methods by the Upper Yentna area's residents in 1982 and 1984. Specific harvests by gear type are not available, but it is likely that most of these harvests were with rod and reel (the only legal gear). Most area residents harvested salmon for home use: 85.3 percent in 1982 and 78.1 percent in 1984. In 1982, coho salmon (70.1 percent harvesting), sockeye salmon (61.8 percent), and chinook salmon (44.1 percent) were the most frequently harvested species and made up most of the take. The average household caught about 32 salmon in 1982, for 191 pounds, usable weight, about 56 pounds per person. In 1984, chinook salmon (68.8 percent harvest), coho (62.5 percent), and sockeyes (43.8 percent) made up most of the harvest. In 1984, on average, households caught about 18 salmon, for about 111 pounds per household, 38 pounds per person. Expanded to the total number of households living in the area at the time, the estimated harvest was 1,351 salmon in 1982 and 654 salmon in 1984 (Table 2).

The western Susitna Basin and western Cook Inlet, including the drainage of the Yentna River, is the site of important sport fisheries for salmon. As reported in Table 3, for the period 1984 through 1994, an annual average of about 38,400 anglers participated in these sport fisheries. The estimated average annual sport harvest of salmon for that period was 45,710, with chinook and coho dominating the harvest. Table 4 reports sport harvests of salmon by species for the years 1989 through 1994 for the Yentna River drainage. The sport harvest for this period averaged about 12,000 salmon annually, with about half of that chinook salmon and most of the rest cohos. In 1993, sport fishermen in the western Susitna/Cook Inlet area released about 69.8 of their chinook catch, 44.1 percent of the coho catch, 60.6 percent of sockeyes, 93.6 percent of pinks, and 95.9 percent of chums (Whitmore et al. 1995:29).

Criterion 2. A pattern of taking or use recurring in specific seasons of each year.

Upper Yentna Area residents harvest each salmon species as it becomes available locally. King salmon are taken in early June into July, accompanied by sockeye salmon. Pinks are harvested in July and August, and chums at about the same time. Silvers are harvested in late July, August, and September (Fig. 3). In the seasonal round of trappers in the 1930s through 1960s, salmon were dried and smoked from June into September (see Criterion 1, above) and canned in late August and September (Stanek 1987a:64).

Criterion 3. A pattern of taking or use consisting of methods and means of harvest that are characterized by efficiency and economy of effort and cost.

The Athabaskan inhabitants of the region used fish traps, dip nets, spears, and weirs to harvest salmon until the early part of the 20th century (Osgood 1937). Until the 1950s, residents of the area fished for salmon with wire traps and gill nets. Several families operated a fish wheel near the mouth of Eight Mile Creek until the mid 1950s. Since statehood, regulations have closed subsistence fishing in all freshwater areas of the Susitna River drainage (except for a portion of the Susitna River itself in 1959 and 1960). Residents of this area fished with rod and reel gear in the 1970s and 1980s. Some have reportedly used dip nets also. Table 1 provides a history of subsistence salmon fishing regulations for this area.

Criterion 4. The area in which the noncommercial, long-term, and consistent pattern of taking, use, and reliance upon the fish stock or game population has been established.

At the time of Division of Subsistence studies in the 1980s, a few residents of this area fished commercially for salmon in Cook Inlet and obtained some fish from their commercial catches. However, most people fished in rivers, streams, and lakes near their homes (Fig. 4). In the 1980s, the nearest noncommercial net fisheries for upper Yentna residents were on the Kenai Peninsula near Kenai, Kasilof, and Homer. Generally, Upper Yentna residents did not participate in these fisheries because of the long distance involved and the expense of travel. In the 1990s, subsistence and/or personal use fisheries were open along much of the shore of upper Cook Inlet, although these areas were still distant and costly to access for year-round residents of the Yentna River area.

Criterion 5. A means of handling, preparing, preserving, and storing fish or game that has been traditionally used by past generations, but not excluding recent technological advances where appropriate.

Historically, the Tanaina dried, smoked, and fermented salmon for winter use. Preservation methods for salmon used by non-native inhabitants of the area in the 1920s through the 1950s included drying, smoking, salting, canning, and jarring. Much of the fish and game harvests of area residents in the 1980s were preserved by methods not requiring electricity, including smoking, canning, jarring, and freezing out of doors in the winter.

Although 76 percent of the Upper Yentna households sampled in 1983 owned an electric generator, usually a small portable type, these were not generally used for long term storage of food. Nine interviewed households (26 percent) reported having freezers in their homes, and three had access to freezers in Anchorage.

Criterion 6. A pattern of taking or use that includes the handing down of knowledge of fishing or hunting skills, values and lore from generation to generation.

As reviewed under Criterion 1, people have continuously lived in the lower Susitna/Yentna River area from before historic contact to the present. During this period, knowledge about subsistence activities, including salmon fishing and salmon fishing areas was passed between relatives, hunting and trapping partners, and neighbors. Dena'ina fishers and Euro-American settlers co-mingled during the late 19th century and early 20th century and hunted and fished as neighbors. As in many other areas of Alaska, fishing methods and knowledge were shared between people. In this area, Dena'ina adopted certain fishing methods, such as fish wheels, metal hooks, and cotton nets, from the Euro-Americans, and Euro-American settlers acquired certain things from the Dena'ina, such as names of major rivers in the area (such as Kahitna, Skwentna, Yentna, and Susitna) and fishing locations. Some families spanned generations in the area while other people and families moved in and out over time (see Stanek 1987b). However, the division does not have systematic information on family histories. Based on interviews conducted in 1983 and 1984, settlers in the area since state land disposal programs have continued the local pattern of fishing for and using salmon, and salmon continues to be a valued food resource for many resident households.

In the 1980s, there was a core of long-term resident households in the area who had lived there for 20 years or more. Several others of this group had retired and left the area prior to the 1982 - 1984 study period. The average number of years living in the area for the 1982 sample was 7.9, with a range of 0.5 to 33 years. Of the 38 households interviewed for 1982, 33 (87 percent) had lived in the area for 10 years or less. For 44 households in the Upper Yentna and Alexander Creek area sampled in 1984, 63.6 percent had lived in the area less than 10 years, 16 percent had been in area 10 to 19 years, and the rest, about 20 percent for more than 20 years. The population included families and school-aged children.

Criterion 7. A pattern of taking, use, and reliance where the harvest effort or products of that harvest are distributed or shared, including customary trade, barter, and gift giving.

Study findings from the 1980s showed that sharing and distribution of wild resources in the Upper Yentna area most commonly occurred at the subcommunity level; for example, among residents concentrated at Lake Creek (eight to ten households), Skwentna (eight households), or Johnson Creek and Donkey Lake (five or six households). Of the 34 households interviewed in 1982, 33 (97 percent) shared wild resources with from one to sixteen other households. When large quantities of a resource (such as moose) were harvested, sharing extended more widely, with partially processed products sometimes transported 15 to 25 miles between households, weather and travel conditions permitting. Fish, especially salmon, were the second most widely shared food item after moose. In 1982, 68.4 percent of the households gave fish to other households. Sharing of salmon most often occurred at the subcommunity level. The most typical pattern was for a fisherman to share a portion of a daily catch with another family.

Criterion 8. A pattern that includes taking, use, and reliance for subsistence purposes upon a wide diversity of fish and game resources and that provides substantial economic, cultural, social, and nutritional elements of the subsistence way of life.

In 1982, a sample of 38 households living in the Upper Yentna area (and a portion of the Alexander Creek Area) took a per capita harvest of 258 pounds of wild foods. Moose was the most widely used resource, but overall, wildlife harvests were diverse that year, with 74 percent of the households harvesting at least 11 kinds of wild foods. Salmon composed about 22 percent of the 1982 harvest as measured in pounds edible weight. In 1984, a sample of 44 western Susitna households harvested 212 pounds of wild resources per capita, with moose again the major species. Five salmon species made up 24.9 percent of this harvest. (The 32 households in the upper Yentna Area itself harvested 175 pounds per person.) These are substantial harvests. The family in the United States purchases annually about 222 pounds per person of meat, fish, and poultry (US Department of Agriculture 1983).

Division of Subsistence research has found that wild resource harvests in the Upper Yentna area in the 1980s were among the highest in Southcentral Alaska (Fig. 5²). This level of harvest was about the same as the 1983 harvest by residents of Tyonek (260 pounds), a long-established village on upper Cook Inlet.

In the 1980s, cash employment opportunities in this area were limited, often part-time, and mostly seasonal. Examples included hunting and fishing guides, local construction, trapping, and lodge work. The few full time jobs included the school teacher, postmaster, and weather recorder.

Incomes for the Skwentna area were relatively low in the 1980s: average incomes per income tax return were \$12,101 (1982), \$10,449 (1983), and \$14,108 (1984), compared with incomes of Anchorage residents which were \$23,590 (1982), \$24,393 (1983), and \$25,406 (1984). According to US Census data, the per capita income in the Skwentna area was \$7,457 in 1989, compared to \$17,610 per capita for the state overall (Bureau of the Census 1992). For many resident households, fishing and hunting for food was part of a yearly cycle of activities, including seasonal employment and trapping, which together provided a livelihood but individually could not, as described in Fall et al. (1983) and Stanek (1987a).

References Cited

Alaska Department of Fish and Game
1992 Report on Proposed Nonsubsistence Areas. Alaska Joint Board of Fisheries and Game.

² The source for most of the data summarized in Figure 5 is Scott et al. (1995), which contains the results of Division of Subsistence systematic household surveys. The exception is Anchorage and Palmer/Wasilla, the source for which are permits and sport fish harvest surveys summarized in ADF&G (1992). For both these communities, the "salmon" category includes all finfish.

Upper Yentna Area Salmon C&T Worksheet, continued.

November 1992. Anchorage.

1995 Report on Implementation of the 1992 Subsistence Law. Juneau.

Bureau of the Census

1992 1990 Census of Population and Housing: Summary Social, Economic, and Housing Characteristics, Alaska. U.S. Department of Commerce. Report Number 1990 CPH-5-3. Washington, D.C.

Fall, James A. Dan Foster, and Ronald Stanek

1963 The Use of Moose and Other Wild Resources in the Tyonek and Upper Yentna Areas: A Background Report. Alaska Department of Fish and Game, Division of Subsistence Technical Paper No. 74. Juneau.

Howe, Allen L. Gary Fidler, and Michael J. Mills

1995 Harvest, Catch, and Participation in Alaska Sport Fisheries During 1994. Alaska Department of Fish and Game, Division of Sport Fish Fishery Data Series No. 95-24. Anchorage.

Matanuska-Susitna Borough Planning Department

1996 Population Summary, Matanuska-Susitna Borough 1994.

Osgood, Cornelius

1937 The Ethnography of the Tanaina. Yale University Publications in Anthropology No. 16. New Haven: Yale University Press.

Scott, Cheryl, Amy W. Paige, Gretchen Jennings, and Louis Brown

1995 Community Profile Database Catalog, Volume 2: Southcentral Region. Alaska Department of Fish and Game, Division of Subsistence. Juneau.

Stanek, Ronald T.

1987a Historical and Contemporary Trapping in the Western Susitna Basin, 1986. Alaska Department of Fish and Game, Division of Subsistence Technical Paper No. 134. Juneau.

1987b A Case Study of Land Use in the Western Susitna Basin, 1925 - 1967. Paper presented at the 14th Annual Meeting of the Alaska Anthropological Association. Alaska Department of Fish and Game, Division of Subsistence.

United States Department of Agriculture

1983 Food Consumption: Households in the West, Seasons and Year 1977-78. Nation Wide Food Consumption Survey 1977-78, Report No. H-10. Consumer Nutrition Division, Human Nutrition Information Service, Washington, D.C.

Whitmore, Craig, Dana Sweet, and Larry Bartlett

1995 Area Management Report for the Recreational Fisheries of Northern Cook Inlet, 1994. Alaska Department of Fish and Game, Division of Sport Fish Fishery Management Report No. 95-8. Anchorage.

**APPENDIX D.—ALASKA BOARD OF FISHERIES COMMITTEE REPORT:
SUBSISTENCE AND COMMERCIAL FISHING, FEBRUARY 2011**

RC 95

Alaska Board of Fisheries
Committee Report

COMMITTEE A
Subsistence and Commercial Fishing

February 23, 2011

Board Committee Members:

1. Mike Smith, *Chair
2. Mel Morris
3. Tom Kluberton

Alaska Department of Fish and Game Staff Members:

1. Jeff Fox, Area Manager, Division of Commercial Fisheries
2. Pat Shields, Asst. Area Manager, Division of Commercial Fisheries
3. Mark Willette, Area Research Biologist, Division of Commercial Fisheries
4. Tracy Lingnau, Regional Mgmt. Coordinator, Division of Commercial Fisheries
5. Tim McKinley, Area Research Biologist, Division of Sport Fisheries
6. Sam Ivey, Acting Area Manager, Division of Sport Fisheries
7. Tony Eskelin, Fisheries Biologist, Division of Sport Fisheries
8. Greg Buck, Fisheries Biologist, Division of Commercial Fisheries
9. Bob DeCino, Asst. Area Research Biologist, Division of Commercial Fisheries
10. Davin Holen, Regional Program Manager, Division of Subsistence
11. Samantha Oslund, Fisheries Biologist, Division of Sport Fisheries
12. Jim Fall, Statewide Program Manager, Division of Subsistence
13. Lisa Olson, Acting Deputy Director, Division of Subsistence
14. Sue Aspelund, Deputy Director, Division of Commercial Fisheries
15. Lance Nelson, Department of Law
16. Bob Clark, Fisheries Scientist, Division of Sport Fisheries
17. Jim Hasbrouck, Regional Supervisor, Division of Sport Fisheries

Alaska Department of Law Staff Members:

1. Lance Nelson, Senior Assistant Attorney General, Department of Law

Advisory Committee Members:

1. Andrew Couch, Matanuska Valley/ AC
2. Norm Darch, Kenai/Soldotna AC
3. Joel Doner, Anchorage AC
4. Frank Standifer, Tyonek AC
5. David Martin, Central Peninsula AC
6. Steve Runyan, Susitna Valley AC
7. Tom Payton, Mount Yenlo AC

Page 1 of 29

Public Panel Members:

1. Stephen Braund, N. Dist. Setnetter's Assoc.
2. Kenny Rodgers, N. Dist. Eastside Setnetters
3. Dan Johnson, Sport Fish Guide
4. Jeffrey Widman, Drift fisherman
5. Kevin Delaney, Kenai River Sportfish Association (KRSA)
6. Mac Minard, Mat-Su Borough Mayors Sportsman Blue Ribbon Committee (BRC)
7. Eric Beeman, West Side Kalgin Island setnetter
8. Paul Shadura, South K-Beach Independent Setnet Assoc. (SOKI)
9. Greg Johnson, Kenai Peninsula Fisherman's Association (KPFA)
10. Ken Tarbox, Kenai Area Fisherman Coalition (KAFC)
11. Page Herring, N. Dist. Setnetter
12. Gary Hollier, Kenai Peninsula Fisherman's Association (KPFA)
13. Roland Maw, Upper Cook Inlet Drift Assoc. (UCIDA)
14. Jeff Beaudoin, Kenai Peninsula Fisherman's Association (KPFA)
15. David Brindle, Processor
16. Jimmie Jack Drath, Kenai River Guide Association (KRGGA)
17. Gary Deiman, Eastside set gillnetter
18. Brent Johnson, Eastside set gillnetter/historian
19. David Goggia, Kenai River Professional Guide Association (KRPGA)
20. Jeff Berger, Processor, Copper River Seafoods
21. Larry Reutov, Russian community

Federal Subsistence Representative:

1. None

The Committee met February 23, 2011 at 08:35 a.m. and adjourned at 5:15 p.m.

PROPOSALS BEFORE THE COMMITTEE WERE: (25 total) 102, 103, 104, 105, 106, 109, 167, 107, 108, 322, 321, 323, 110, 111, 112, 113, 114, 115, 116, 117, 118, 324, 119, 120, 121.

PROPOSAL 103 - 5 AAC 01.593. Upper Yentna River subsistence salmon fishery. This proposal asked for a review of C&T finding, reduce the harvest cap and require first 500 fish be retained for the Skwentna River.

Narrative of Support and Opposition:

Department:

- The department noted that 54% or 55% of permits went to residents of Skwentna and the remainder were Mat-Su and Anchorage residents.
- The board should adopt an ANS. The board has not established an ANS range and RC 74, RC 20, and RC 50 provide options for ANS ranges.

Department of Law:

- See comments to Department of Law comments on Proposal 102.

Support:

- General consensus in support of option 1A in RC 20 for an ANS range of 400-700 salmon.
- This fishery only targets sockeye salmon. King salmon and trout must be released.

Opposition:

- There are no roads in that area as stated in the proposal.
- Requiring that all salmon caught in the live boxes in fishwheels would prevent species selection by subsistence fishers.
- Does not want the requirement that the first 500 salmon must be kept.

General: General support for ANS amount (Option 1A).

POSITIONS AND RECOMMENDATIONS

Public Panel Recommendation: No consensus.

Board Committee Recommendation: Consensus to oppose the proposal as written.

Substitute Language:

5 AAC 01.566. Customary and traditional subsistence uses of fish stocks and amount necessary for subsistence uses.

5 AAC 01.566(a)(1)(C) is amended to read:

(C) except king salmon in the Yentna River drainage outside the Anchorage-Matsu-Kenai Nonsubsistence Area described in 5 AAC 99.015(a)(3);

5 AAC 01.566 a new subsection is added to read:

(e) The board finds that 400 - 700 salmon, except king salmon, are reasonably necessary for subsistence uses in the Yentna River drainage described in 5 AAC 99.015(a)(3);

5 AAC 01.593. Upper Yentna River subsistence salmon fishery.

5 AAC 01.593(5) is repealed to read:

(5) repealed.[THE COMMISSIONER SHALL CLOSE THE SUBSISTENCE FISHERY, BY EMERGENCY ORDER AS NECESSARY, TO ENSURE THAT NO MORE THAN 2,500 SALMON ARE TAKEN DURING THE ENTIRE SEASON UNDER THIS SECTION.]

APPENDIX E.— ADF&G STAFF COMMENTS ON THE PETITION



THE STATE
of **ALASKA**
GOVERNOR BILL WALKER

Department of Fish and Game
DIVISION OF SUBSISTENCE AND SPORT FISH

333 Raspberry Road
Anchorage, Alaska 99518-1565
Main: 907.267.2100

MEMORANDUM

TO: John Jensen, Chair
Alaska Board of Fisheries

DATE: April 12, 2018

SUBJECT: Petition to allow the harvest
of king salmon in the Upper
Yentna Subsistence Fishery

THRU: Hazel Nelson, Director
Division of Subsistence
Tom Brookover, Director
Division of Sport Fish

FROM: Lisa Olson, Deputy Director
Division of Subsistence
Tom Taube, Deputy Director
Division of Sport Fish

This letter provides Alaska Department of Fish and Game (department) staff assessment of a petition submitted by the Mt. Yenlo Fish and Game Advisory Committee dated March 26, 2018 to the Alaska Board of Fisheries (board) to consider an emergency action out of cycle.

Action Requested

This petition requests the board to allow harvest of king salmon in the Upper Yentna River Subsistence Fishery.

Background

Current subsistence regulations include a negative customary and traditional use determination for king salmon and a positive finding for other salmon in the Yentna River drainage in 5 AAC 01.566(a)(1)(C) and do not include king salmon in the amount of salmon reasonably necessary for subsistence uses in that drainage in 5 AAC 01.566(e). In 5 AAC 01.593(3)(C), permit holders in the Upper Yentna River subsistence salmon fishery shall be present to attend the fish wheel at all times while the fish wheel is in operation, and king salmon and rainbow trout must be returned alive to the water.

The board's actions and the regulations pertaining to this fishery have a complex history; a summary may be relevant for evaluating the Mt. Yenlo Fish and Game Advisory Committee's emergency petition.

1. In March 1988, the board considered Proposal 405, submitted by five residents of Skwentna, to adopt regulations for subsistence fishing for salmon in a portion of the Yentna River. As a first step, the board reviewed a customary and traditional (C&T) use worksheet with background on the eight criteria used by the board to identify fish stocks with C&T uses (5 AAC 99.010(b)), prepared by the department and supplemented by public testimony. The board made a negative C&T finding: that there were no customary and traditional uses of the salmon in this area.
2. A similar proposal (Proposal 7) was considered by the board in December 1988. The board affirmed its March 1988 decision and adopted written findings explaining its action (FB-124-88).
3. Subsequently, in 1989, Skwentna residents Tom and Diane Payton filed a lawsuit in Alaska Superior Court challenging the board's actions. The court ruled in favor of the board and the Paytons appealed. The Alaska Supreme Court then ruled in the appeal that its December 1989 decision in *McDowell* (overturning portions of the 1986 state subsistence law) rendered the Paytons' case moot.
4. In November 1992 (following passage of current state subsistence law), the board considered Proposal 362, submitted by the Paytons, again to establish a subsistence fishery in a portion of the Yentna River. The board rejected the proposal, citing its earlier decisions and stating that no new relevant information had been provided.
5. In response to the board's decision, in February 1994 the Paytons filed a new lawsuit. In October 1995, the Superior Court ruled against the Paytons' claims. The Paytons subsequently appealed to the Alaska Supreme Court.
6. At the February 1996 board meeting, there were three more proposals before the board (proposals 150, 521, and 522) to open a portion of Yentna River to subsistence salmon fishing. ADF&G updated the earlier 1988 C&T work sheet, resulting in a 1996 C&T worksheet. The board again declined to reverse the negative C&T finding and did not adopt subsistence fishing regulations. However, at this meeting the board did create personal use regulations (5 AAC 77.526. *Skwentna River Personal Use Salmon Fishery*) allowing the use of fish wheels in a portion of the Yentna River. This fishery focused on sockeye salmon and excluded any retention of king salmon. The season ran from July 15 to July 31 on Mondays, Wednesdays, and Fridays. The seasonal limits were 25 salmon (excluding king salmon) for the permit holder and 10 additional salmon (other than king salmon) for each additional household member. A personal use permit was required. The new regulations included specifications for fish wheels (including a live box) and attendance at the fish wheel whenever it was in operation. King salmon and rainbow trout were required to be returned to the water alive.
7. In response to the Payton's appeal, in June 1997, the Alaska Supreme Court reversed the lower court's October 1995 ruling and found in favor of the Paytons. The court ruled that "the board erroneously required a familial relationship between current and past generations of users of upper Yentna River area salmon" and "erred when it concluded that current users of salmon in the upper Yentna River areas do not handle, prepare, preserve, and store salmon based on traditional practices." The Supreme Court also concluded that new information had been

provided to the board by the department at the 1992 board meeting for Proposal 362 but that the board had not properly considered this new information.

8. As part of this 1997 ruling, the Supreme Court remanded an evaluation of Proposal 362 (first considered in 1992 by the board) back to the board "in a manner consistent with this opinion," including consideration of the new information submitted by the department in 1992 plus any additional information made available since that time.
9. In February 1998, the board reviewed the 1996 meeting C&T worksheet and other documents provided by the department in light of the court's direction, including the information provided as new information at the 1992 meeting. The board then made a positive C&T finding as follows (see record copy (RC) 149 from the 1998 meeting that includes the 1998 C&T language):

5 AAC 01.566. CUSTOMARY AND TRADITIONAL USES OF FISH STOCKS. The Alaska Board of Fisheries finds that the following stocks are customarily and traditionally taken or used for subsistence:

(1) Salmon in the following waters :

(A)...

(B)...

(C) in the Yentna River drainage outside the Anchorage-Matsu-Kenai Nonsubsistence Area as defined in 5 AAC 99.015(3).

10. Note that the board did not explicitly exclude king salmon from this 1998 positive finding. The C&T worksheet provided by the department that was the basis for this positive finding references harvests and uses of king salmon under 5 AAC 99.010(b) Criterion 1 and Criterion 2. Under Criterion 1, findings from comprehensive household surveys conducted by the department in Skwentna in the 1980s were summarized in tables that documented harvests and uses of king salmon (and the other four species). Under Criterion 2, the worksheet noted that "Upper Yentna Area residents harvest each salmon species as it becomes available locally. King salmon are taken in early June into July, accompanied by sockeye salmon." The worksheet was referring to harvests with rod and reel under sport fishing regulations, since the subsistence fishery had been closed in this area since the early 1960s.
11. At the 1998 meeting, the board adopted a harvest cap of 2,500 salmon for the subsistence fishery (this was the harvest cap in place for the personal use fishery), but did not adopt an "amount reasonably necessary for subsistence" (ANS) finding in regulation.
12. This C&T finding was in regulation, without any changes, from 1998 to 2011.
13. At the February 1998 meeting, following the positive C&T finding for salmon, the board adopted subsistence regulations virtually identical to those that had been in place for the personal use fishery (5 AAC 01.593, *Upper Yentna River Subsistence Salmon Fishery*). These subsistence regulations retained the prohibition against the retention of king salmon that was in place for the personal use fishery (5 AAC 01.593 stated: "In the Yentna River drainage outside the Anchorage-MatSu-Kenai nonsubsistence area described in 5 AAC 99.015(a), salmon, other than

king salmon, may be taken for subsistence purposes only as follows . . ."). The season for this fishery was later extended through August 7 when the board adopted Proposal 307 in February 2014.

14. In February 2011, the board considered Proposal 103, submitted by the United Cook Inlet Drift Association, which asked the board to "review/remove/peel the [Yentna River salmon] customary and traditional (C&T) finding," and/or reduce the harvest cap for the fishery from 2,500 salmon to "the first 500 salmon harvested."
15. The Alaska Department of Law (DOL) comments on Proposal 103 stated that "the board should be careful in addressing the proposal and should first determine whether there was an error in its previous [1998 C&T] finding or whether significant new information is now available to support reconsideration of its earlier finding."
16. In the 2011 meeting staff comments, the department recommended making an ANS finding for this fishery, and provided options in RC 20. The preface to the options stated: "Each option includes one suboption with a range for all salmon species [except the prohibited king salmon] combined and one suboption with a range for each allowable salmon species (retention of king salmon in this fishery is not allowed)." Each ANS option specifically excluded king salmon and stated that "king salmon [are] not included in [the] positive C&T determination." However, as noted above, until modified at this February 2011 meeting, the C&T finding for this fishery was for "salmon" and did not overtly exclude king salmon. Staff evidently assumed, perhaps erroneously, that because the board had prohibited the retention of king salmon in regulation when it established this subsistence fishery in 1998, the board had also implied that there were no C&T uses for which it was required to provide harvest opportunities.
17. RC 95 from the February 2011 board meeting is the report from Committee A: Subsistence and Commercial Fishing. It included substitute language for Proposal 103 that added "except for king salmon" to the existing (1998) C&T finding. This was the basis for the board's modification of the C&T regulation. Therefore, since 2011, the modified C&T finding has been:

5 AAC 01.566. CUSTOMARY AND TRADITIONAL USES OF FISH STOCKS. (a)
The Alaska Board of Fisheries finds that the following stocks are customarily and traditionally taken or used for subsistence:

(1) Salmon in the following waters :

(A) . . .

(B) . . .

(C) salmon, other than king salmon, in the Yentna River drainage outside the Anchorage-Matsu-Kenai Nonsubsistence Area as defined in 5 AAC 99.015(3).

18. The board adopted an amended version of Proposal 103 that established an ANS of 400–700 salmon, other than king salmon, for the Yentna River Subsistence salmon fishery (5 AAC 01.566(e)).

19. At the 2011 meeting, the Division of Subsistence submitted a staff report *Overview of Subsistence Salmon Fisheries in the Tyonek Subdistrict and Yentna River, Cook Inlet, Alaska* (Special Publication No. BOF 2011-01). Regarding the Upper Yentna River subsistence fish wheel fishery, the report (p. 4) stated that “Since 1998, the Division of Subsistence has conducted no new research that would update the information previously provided about the 8 criteria for consideration of C&T uses, as summarized in the 1996 worksheet and as supplemented by a synopsis of interviews and archival data.” The department included the information it provided to the board in 1998 (including the C&T worksheet from 1996 which contained information pertaining to the use of king salmon, and the synopsis of interviews) as Part Three of this 2011 board report.
20. During the February 2011 meeting, the department and the Department of Law stated they were uncertain regarding why the board prohibited retention of king salmon when it adopted the subsistence regulations for this fishery in 1998. Because the department stated it had no new information, the board did not review the C&T criteria for Yentna River king salmon, or any other Yentna River salmon. As just noted, staff provided a copy of the earlier C&T worksheet for Yentna River salmon, but the board did not ask staff to orally review uses of king salmon as summarized in the 1996 worksheet before the board modified the C&T finding to exclude king salmon in 2011.

To summarize:

21. C&T worksheets prepared by the department in 1988 and 1996 described harvests and uses of Yentna River king salmon stocks, along with other salmon stocks.
22. A C&T finding for Yentna River “salmon,” which did not exclude king salmon, was in place in regulation 1998–2011.
23. When the board created subsistence regulations for this fishery in 1998, it used the regulations for the personal use fishery already in place in the Yentna River, which prohibited the retention of king salmon.
24. The C&T finding was revised in 2011 to exclude king salmon; the record shows this decision was made based on the language in the 1998 regulations governing the fishery, not on an examination of information specifically about king salmon in the C&T worksheet provided by the department.

Estimates of sport harvest and catch in the Yentna River drainage (including Kahiltna, Yentna, Talachulitna rivers, and Lake Creek) from 2014–2016 (2017 currently not available) averaged 1,283 and 9,425 king salmon, respectively. Sport fishing regulations allow a bag of one king salmon, 20 inches or larger in length and possession limit of two king salmon, with an annual limit of five king salmon for the entire Cook Inlet area. The open season for king salmon is January 1–July 13. From May 15–July 13, in waters open to king salmon fishing, fishing is not allowed from 11 p.m. to 6 a.m. In addition, king salmon may not be removed from the water before releasing the fish.

Restrictive management actions have been implemented at the start of the season in each year since 2012. From 2013–2016, the department issued preseason emergency orders restricting harvest or closing the sport fishery to reduce mortality to achieve escapement goals in the Yentna River drainage. This preseason strategy reduced harvest by 60 percent among Yentna River drainage streams and resulted in the majority of goals being made through this time period. From 2013–2016, the Talachulitna River drainage was restricted to catch-and-release fishing for king salmon. In the Yentna River drainage only unbaited, single-hook artificial lures were allowed, harvest of king salmon was limited to four days per week, and there was an annual limit of two king salmon for the Susitna River drainage. In 2017, in the Susitna River drainage (including the Talachulitna River) harvest was limited to four days per week and there was an annual limit of two king salmon for the Susitna River drainage. The 2017 king salmon run was lower than anticipated. Effective July 4, 2017, sport fishing for king salmon was closed for the remainder of the season and no escapement goals were achieved on the Yentna River drainage.

In March 2018, the department issued Emergency Order 2-KS-2-10-18 restricting the Deshka and Yentna rivers to catch-and-release and closing the remainder of the Susitna River drainage to sport fishing for king salmon. The Northern District commercial set gillnet fishery was also closed for the 2018 directed king salmon fishery; no commercial fishery will occur until June 25. This action was taken due to a forecast for a weak run of king salmon in 2018 and the potential for returns in 2018 to be no better than 2017, a year when 13 of 15 king salmon escapement goals were not achieved in Northern Cook Inlet.

The petitioner states that an average of 17,676 king salmon swam past the fish wheel area from 2014–2017. In trying to recreate this number, the department has determined, based on radio-telemetry data from 2015–2017, that it likely includes a portion of king salmon that spawned below the fish wheel area and that the actual passage is approximately 3,000 fish fewer during that period. The Talachulitna River is the only tributary in the Yentna River drainage upstream of the fish wheel area that has an escapement goal (SEG 2,200–5,000 king salmon) and is assessed annually by aerial survey. The escapement goal was not achieved in 2017 and just exceeded the lower bound of the goal in 2013–2015, years in which the sport fishery was catch-and-release only. With the forecast for 2018 being worse than 2017, there is likely no harvestable surplus available in 2018 on the Talachulitna River or other areas of the Yentna River drainage.

Finding of Emergency

Under the criteria listed in the Joint Board Petition Policy used by the board in determining whether or not an emergency exists, paragraph (f) of 5 AAC 96.625 reads, in pertinent part:

...In this section, an emergency is an unforeseen, unexpected event that either threatens a fish or game resource, or an unforeseen, unexpected resource situation where a biologically allowable resource harvest would be precluded by delayed regulatory action and such delay would be significantly burdensome to the petitioners because the resource would be unavailable in the future.

At this time, the department does not believe there is an unforeseen or unexpected event that threatens a fish resource. The department also does not believe there is an unforeseen, unexpected resource situation where a biologically allowable resource harvest would be precluded by delayed regulatory action.

Summary

The department believes it is unlikely that a finding of emergency under 5 AAC 96.625(f) would be satisfied by this petition. The board last heard a request for a review of the C&T use determination for king salmon at the 2011 Upper Cook Inlet meeting. At that time the board was provided copies of existing C&T use information for Yentna River salmon from the 1998 board meeting and was informed that no new information was available, and then excluded king salmon from the positive finding for salmon and set an ANS of 400–700 salmon, other than king salmon. Although a proposal submitted in 2014 sought to extend the subsistence fishery season, no proposals asking for a C&T use determination for king salmon in the Upper Yentna River subsistence salmon fishery were submitted for the 2014 or 2017 Upper Cook Inlet meetings. Given this history, the department does not believe it is unforeseen or unexpected that king salmon in the Upper Yentna River subsistence salmon fishery are excluded from the C&T use determination (which has been true since 2011), nor that it is unforeseen or unexpected that king salmon are not permitted to be taken under subsistence fishing regulations in this fishery—king salmon have never been allowed to be taken in this subsistence fishery.

The department also does not believe it is unforeseen or unexpected that the king salmon run for the Susitna River drainage, including the Yentna River drainage, is expected to be poor, potentially worse than 2017. King salmon sport fishing restrictions have been implemented either preseason or inseason annually since 2012 to achieve escapement goals. In addition, the department does not believe a biologically allowable harvest of king salmon in this fishery would be precluded by delayed regulatory action. The department has already implemented restrictions or closures prohibiting any harvest of king salmon in the Susitna River sport fishery for 2018. These actions were taken given that the department believed there would be no harvestable surplus of king salmon in the Susitna River drainage in 2018.

cc: Sam Cotten, Commissioner
Glenn Haight, Executive Director, Boards Support Section
Forrest R. Bowers, Deputy Director, Division of Commercial Fisheries