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ALASKA DEPARTMENT OF FISH AND GAME

STAFF COMMENTS ON SUBSISTENCE, PERSONAL USE, SPORT, AND COMMERCIAL FINFISH REGULATORY PROPOSALS FOR THE ARCTIC-YUKON-KUSKOKWIM MANAGEMENT AREA

ALASKA BOARD OF FISHERIES MEETING FAIRBANKS, ALASKA

JANUARY 26-31, 2010

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The following staff comments were prepared by the Alaska Department of Fish and Game (department) for use at the Alaska Board of Fisheries (board) meeting, January 26-31, 2010 in Fairbanks, Alaska and are prepared to assist the public and board. The stated comments should be considered preliminary and subject to change, if or when new information becomes available. Final department positions will be formulated after review of written and oral public testimony presented to the board.

ABSTRACT

This document contains Alaska Department of Fish and Game (department) staff comments on subsistence, personal use, sport, and commercial finfish regulatory proposals for the Arctic-Yukon-Kuskokwim area. These comments were prepared by the department for use at the Alaska Board of Fisheries (board) meeting, January 26–31, 2010 in Fairbanks, Alaska to assist the public and board. The stated staff comments should be considered preliminary and subject to change, if or when, new information becomes available. Final department positions will be formulated after review of written and oral testimony presented to the board.

Key words: Alaska Board of Fisheries, staff comments, Arctic-Yukon-Kuskokwim, subsistence, personal use, sport, commercial, regulatory proposals, finfish, salmon, herring.

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TABLE OF CONTENTS

Proposal No. & Subject **Page**

Summary of Department Positions on Board of Fish 2010 Arctic-Yukon-Kuskokwim Proposals iv

COMMITTEE A - AYK RESIDENT SPECIES (17 PROPOSALS) 1

Sport:

49 – Update the Tanana River Management Area stocked waters list 1
50 – Align Wild Arctic Grayling Management Plans with area regulations 2
51 – Align Tanana River regulations with the Wild Arctic Grayling Plan.....5
52 – Clarify regulations for Chena Slough (Badger Slough).....12
53 – Clarify single-hook regulations in the Tanana River drainage 15
54 – Open the Nome River to catch-and-release fishing for Arctic grayling 18
55 – Align sport fish boundaries with commercial/subsistence boundaries 19
56 – Move sport fishing regulatory boundary in the Chatanika River 22
57 – Amend whitefish sport bag limits in the Chatanika River.....25
58 – Amend bait restrictions in Fielding Lake.....28
59 – Allow for only one closely attended line in Fielding Lake.....30
60 – Allow a single hook with trailer hook in Harding Lake 31
61 – Increase the northern pike bag limit in Volkmar Lake 33
62 – Prohibit dipnetting within 30 feet of a fish wheel.....36
63 – Align areas in the Minto Flats Northern Pike Management Plans.....38

Subsistence:

64 – Establish subsistence daily household limit for winter pike fishery.....40
65 – Require single hooks for summer sport and winter subsistence pike fishery.....45

COMMITTEE B - KUSKOKWIM, KOTZEBUE, AND NORTON SOUND-PORT CLARENCE AREAS SALMON AND HERRING (15 PROPOSALS) 49

Kuskokwim Sport:

66 – Allow retention of chum salmon in Aniak River sport fishery.....49

Kuskokwim Commercial:

67 – Change maximum mesh size from 8 inch to 6 inch in Kuskokwim River 50

Kotzebue Area Subsistence:

68 – Expand hook and line use for subsistence from Wales to Point Hope 52

TABLE OF CONTENTS (Continued)

Proposal No. & Subject **Page**

Norton Sound-Port Clarence Area Subsistence:

69 – Expand hook and line use for subsistence in Norton Sound.....57
70 – Allow snagging for non-salmon species in Nome and Port Clarence 62
71 – Allow seining for salmon in Nome Subdistrict 66
72 – Review Unalakleet king salmon management plan and modify mesh size 67

Norton Sound-Port Clarence Area Commercial:

73 – Change opening date for Port Clarence District sockeye fishery 69
74 – Expand boundaries of Norton Sound Subdistrict 3.....71
75 – Expand use of drift gillnets to Port Clarence District.....73
76 – Allow purse seines to harvest pink salmon in Norton Sound.....74
77 – Allow purse and beach seines in Norton Sound-Port Clarence.....76
78 – Allow closed pounding for herring spawn-on-kelp in Norton Sound.....77
79 – Allow closed pounding for herring in Norton Sound and Port Clarence.....79

Norton Sound-Port Clarence Area Sport:

80 – Amend sport fishing bag limits for chum salmon in Norton Sound.....82

COMMITTEE C - YUKON AREA SALMON AND FRESHWATER FISH (23 PROPOSALS) 87

Subsistence:

81 – Clarify subsistence fishing schedule in Subdistricts 4-B and 4-C 87
82 – Modify subsistence fishing schedule in Subdistrict 4-A.....88
83 – Require recording subsistence harvest on catch calendars 90
84 – Extend Subdistricts 4-B and 4-C drift gillnet area for king salmon 93
85 – Extend Subdistricts 4-B and 4-C drift gillnet area for king and fall chum salmon 97
86 – Allow set gillnets to be tied up during closures in Subdistrict 5-D 99

Subsistence and Commercial:

87 – Review triggers, GHR, fishing schedule in king salmon management plan 101
88 – Prohibit drift gillnet gear for subsistence and commercial fishing.....104
89 – Restrict depth of subsistence and commercial 6 inch mesh to 35 meshes 106
90 – Prohibit subsistence and commercial gillnets over 6 inch mesh size 107
193 – Yukon River Summer Chum Salmon Management Plan 109
194 – Yukon River Fall Chum Salmon Management Plan.....112

TABLE OF CONTENTS (Continued)

Proposal No. & Subject **Page**

Commercial:

91 – Limit commercial king salmon harvest during chum directed fisheries 114
92 – Prohibit sale of king salmon during non-king directed fisheries 115
93 – Prohibit retention of king salmon during chum salmon-directed mainstem fisheries.....117
94 – Require windows schedule during lower river commercial fishery 118
95 – Reallocate commercial king salmon harvest.....120
96 – Reallocate commercial summer chum salmon harvest.....121
97 – Reallocate commercial fall chum salmon harvest 122
98 – Open commercial fishing between Black River and Chris Point 123
99 – Open Andreafsky River to commercial fishing 126
199 – Yukon River Coho Salmon Management Plan.....126

Sport:

100 – Close the Tok River drainage to sport fishing for salmon.....127

SUMMARY OF DEPARTMENT POSITIONS ON 2010 ARCTIC-YUKON-KUSKOKWIM PROPOSALS

Committee A

Proposal #	Department Position	Issue
49	**S**	Update the Tanana River Management Area stocked waters list
50	**S**	Align Wild Arctic Grayling Management Plans with area regulations
51	**S**	Align Tanana River regulations with the Wild Arctic Grayling Plan
52	**S**	Clarify regulations for Chena Slough (Badger Slough)
53	**S**	Clarify single-hook regulations in the Tanana River drainage
54	**W**	Open the Nome River to catch-and-release fishing for Arctic grayling
55	**S**	Align sport fish boundaries with commercial/subsistence boundaries
56	**S**	Move sport fishing regulatory boundary in the Chatanika River
57	**S**	Amend whitefish sport bag limits in the Chatanika River
58	**O**	Amend bait restrictions in Fielding Lake
59	**O**	Allow for only one closely attended line in Fielding Lake
60	**O**	Allow a single hook with trailer hook in Harding Lake
61	**S**	Increase the northern pike bag limit in Volkmar Lake
62	**S**	Amend open season for northern pike in Volkmar Lake
63	**S**	Align areas in the Minto Flats Northern Pike Management Plans
64	**N**	Establish subsistence daily household limit for winter pike fishery
65	**O**	Require single hooks for summer sport and winter subsistence pike fishery

Committee B

66	**S**	Allow retention of chum salmon in Aniak River sport fishery
67	**N**	Change maximum mesh size from 8 inch to 6 inch in Kuskokwim River
68	**N**	Expand hook and line use for subsistence from Wales to Point Hope
69	**N**	Expand hook and line use for subsistence in Norton Sound
70	**O**	Allow snagging for non-salmon species in Nome and Port Clarence

Note:
N = Neutral
S = Support
O = Oppose
O/N = Oppose but Neutral on Allocative Aspects
NP = No Position

SUMMARY OF DEPARTMENT POSITIONS ON 2010 ARCTIC-YUKON-KUSKOKWIM PROPOSALS

Committee B (Continued)

Proposal #	Department Position	Issue
71	**O**	Allow seining for salmon in Nome Subdistrict
72	**S**	Review Unalakleet king salmon management plan and modify mesh size
73	**N**	Change opening date for Port Clarence District sockeye fishery
74	**S**	Expand boundaries of Norton Sound Subdistrict 3
75	**N**	Expand use of drift gillnets to Port Clarence District
76	**N**	Allow purse seines to harvest pink salmon in Norton Sound
77	**N**	Allow purse and beach seines in Norton Sound-Port Clarence
78	**N**	Allow closed pounding for herring spawn-on-kelp in Norton Sound
79	**N**	Allow closed pounding for herring in Norton Sound and Port Clarence
80	**N**	Amend sport fishing bag limits for chum salmon in Norton Sound

Committee C

81	**S**	Clarify subsistence fishing schedule in Subdistricts 4-B and 4-C
82	**S**	Modify subsistence fishing schedule in Subdistrict 4-A
83	**O**	Require recording subsistence harvest on catch calendars
84	**N/O**	Extend Subdistricts 4-B and 4-C drift gillnet area for king salmon
85	**N/O**	Extend Subdistricts 4-B and 4-C drift gillnet area for king and fall chum salmon
86	**O**	Allow set gillnets to be tied up during closures in Subdistrict 5-D
87	**S**	Review triggers, GHR, fishing schedule in king salmon management plan
88	**N**	Prohibit drift gillnet gear for subsistence and commercial fishing
89	**O**	Restrict depth of subsistence and commercial 6 inch mesh to 35 meshes
90	**N/O**	Prohibit subsistence and commercial gillnets over 6 inch mesh size
193	**O/N**	Yukon River Summer Chum Salmon Management Plan
194	**N**	Yukon River Drainage Fall Chum Salmon Management Plan
91	**O/N**	Limit commercial king harvest during chum salmon-directed fisheries
92	**O**	Prohibit sale of king salmon during non-king salmon-directed fisheries

Note:
N = Neutral
S = Support
O = Oppose
O/N = Oppose but Neutral on Allocative Aspects
NP = No Position
O/S = Support but Neutral on Allocative Aspects

SUMMARY OF DEPARTMENT POSITIONS ON 2010 ARCTIC-YUKON-KUSKOKWIM PROPOSALS

Committee C (Continued)

Proposal #	Department Position	Issue
93	**O**	Prohibit retention of king salmon during chum salmon-directed main stem fisheries
94	**O**	Require windows schedule during lower river commercial fishery
95	**N**	Reallocate commercial king salmon harvest
96	**N**	Reallocate commercial summer chum salmon harvest
97	**N**	Reallocate commercial fall chum salmon harvest
98	**N**	Open commercial fishing between Black River and Chris Point
99	**O**	Open Andreafsky River to commercial fishing
199	**S**	Yukon River Coho Salmon Management Plan
100	**S**	Close the Tok River drainage to sport fishing for salmon

Note:
N = Neutral
S = Support
O = Oppose
O/N = Oppose but Neutral on Allocative Aspects
NP = No Position
O/S = Support but Neutral on Allocative Aspects

COMMITTEE A - AYK RESIDENT SPECIES
(17 PROPOSALS)

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BACKGROUND: This is a housekeeping proposal. In conjunction with the board cycle, the department reviews the stocked waters list for the various management areas. Stocked waters are removed from the list due to a loss of public access, poor fish growth or survival, or insufficient fishing effort. As new waters are identified and included in the stocking plan they are added to the list. The proposed language will update the Tanana River Management Area stocked waters list.

DEPARTMENT COMMENTS: The department submitted this proposal and continues to **SUPPORT** it. It will eliminate confusion and apply the correct regulations to newly stocked waters and waters no longer stocked.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

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PROPOSAL 50 – 5 AAC 69.155. North Slope Area Wild Arctic Grayling Management Plan, 5 AAC 70.055. Northwestern Area Wild Arctic Grayling Management Plan, 5 AAC 71.055. Kuskokwim-Goodnews Area Wild Arctic Grayling Management Plan, 5 AAC 73.055. Yukon River Area Wild Arctic Grayling Management Plan and 5 AAC 74.055. Tanana River Area Wild Arctic Grayling Management Plan.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? Align the *Wild Arctic Grayling Management Plan* with management area regulations.

WHAT ARE THE CURRENT REGULATIONS? 5 AAC 69.155. North Slope Area Wild Arctic Grayling Management Plan.

(d) Regional management approach. Under the regional management approach, sport anglers may use baited or unbaited artificial lures and the bag and possession limit is five fish. The season is open year round, however there are fisheries where catch-and-release fishing is imposed during part or all of the spawning period from April 1 through May 30.

(e) Conservative management approach. Under the conservative management approach, sport anglers may use baited or unbaited-single-hook artificial lures. The bag and possession limit is two fish. The fishing season is open year round, and is restricted to catch-and-release fishing during the spawning period of April 1 through May 30. The use of size limits does apply to certain stocks and fisheries under this approach. If a fishery for a species other than Arctic grayling occurs in the water body, the use of larger multiple hooks and bait on larger single and multiple hooks is allowed.

(g) Special management approach. Under the special management approach, only unbaited single-hook artificial lures and unbaited single-hook artificial flies may be used. Size limits may be imposed for certain fisheries and may include trophy designation, which is a fish 18 inches or greater in length. The bag limit is one fish, except that a fishery may be restricted to catch-and-release fishing, or closed. Single-hook waters may be established.

The fishing season is open year round, but fishing is restricted to catch-and-release fishing during the April 1 through May 30 spawning period. If a fishery for a species other than Arctic grayling occurs in the same water body, the use of larger multiple hooks and bait on larger single and multiple hooks is allowed.

5 AAC 70.055. Northwestern Area Wild Arctic Grayling Management Plan.

(d) Regional management approach. Under the regional management approach, sport anglers may use baited or unbaited artificial lures and the bag and possession limit is five fish. The season is open year round, however there are fisheries where catch-and-release fishing is imposed during part or all of the spawning period from April 1 through May 30.

(e) Conservative management approach. Under the conservative management approach, sport anglers may use baited or unbaited-single-hook artificial lures. The bag and possession limit is two fish. The fishing season is open year round, and is restricted to catch-and-release fishing during the spawning period of April 1 through May 30. The use of size limits does apply to certain stocks and fisheries under this approach. If a fishery for a species other than Arctic grayling occurs in the water body, the use of larger multiple hooks and bait on larger single and multiple hooks is allowed.

(h) Special management approach. Under the special management approach, only unbaited single-hook artificial lures and unbaited single-hook artificial flies may be used. Size limits may be imposed for certain fisheries and may include trophy designation, which is a fish 18 inches or greater in length. The bag limit is one fish, except that a fishery may be restricted to catch-and-release fishing, or closed. Single-hook waters may be established. The fishing season is open year round, but fishing is restricted to catch-and-release fishing during the April 1 through May 30 spawning period. If a fishery for a species other than Arctic grayling occurs in the same water body, the use of larger multiple hooks and bait on larger single and multiple hooks is allowed.

5 AAC 71.055. Kuskokwim – Goodnews Area Wild Arctic Grayling Management Plan.

(d) Regional management approach. Under the regional management approach, sport anglers may use baited or unbaited artificial lures and the bag and possession limit is five fish. The season is open year round, however there are fisheries where catch-and-release fishing is imposed during part or all of the spawning period from April 1 through May 30.

(e) Conservative management approach. Under the conservative management approach, sport anglers may use baited or unbaited-single-hook artificial lures. The bag and possession limit is two fish. The fishing season is open year round, and is restricted to catch-and-release fishing during the spawning period of April 1 through May 30. The use of size limits does apply to certain stocks and fisheries under this approach. If a fishery for a species other than Arctic grayling occurs in the water body, the use of larger multiple hooks and bait on larger single and multiple hooks is allowed.

(g) The department shall manage the Aniak River drainage, Holitna River, Kanektok River, and Goodnews River under the conservative management approach.

(h) Special management approach. Under the special management approach, only unbaited single-hook artificial lures and unbaited single-hook artificial flies may be used. Size limits may be imposed for certain fisheries and may include trophy designation, which is a fish 18 inches or greater in length. The bag limit is one fish, except that a fishery may be restricted to catch-and-release fishing, or closed. Single-hook waters may be established.

The fishing season is open year round, but fishing is restricted to catch-and-release fishing during the April 1 through May 30 spawning period. If a fishery for a species other than Arctic grayling occurs in the same water body, the use of larger multiple hooks and bait on larger single and multiple hooks is allowed.

5 AAC 73.055. Yukon River Area Wild Arctic Grayling Management Plan.

(d) Regional management approach. Under the regional management approach, sport anglers may use baited or unbaited artificial lures and the bag and possession limit is five fish. The season is open year round, however there are fisheries where catch-and-release fishing is imposed during part or all of the spawning period from April 1 through May 30.

(e) Conservative management approach. Under the conservative management approach, sport anglers may use baited or unbaited-single-hook artificial lures. The bag and possession limit is two fish. The fishing season is open year round, and is restricted to catch-and-release fishing during the spawning period of April 1 through May 30. The use of size limits does apply to certain stocks and fisheries under this approach. If a fishery for a species other than Arctic grayling occurs in the water body, the use of larger multiple hooks and bait on larger single and multiple hooks is allowed.

(g) Special management approach. Under the special management approach, only unbaited single-hook artificial lures and unbaited single-hook artificial flies may be used. Size limits may be imposed for certain fisheries and may include trophy designation, which is a fish 18 inches or greater in length. The bag limit is one fish, except that a fishery may be restricted to catch-and-release fishing, or closed. Single-hook waters may be established. The fishing season is open year round, but fishing is restricted to catch-and-release fishing during the April 1 through May 30 spawning period. If a fishery for a species other than Arctic grayling occurs in the same water body, the use of larger multiple hooks and bait on larger single and multiple hooks is allowed.

5 AAC 74.055. Tanana River Area Wild Arctic Grayling Management Plan.

(d) Regional management approach. Under the regional management approach, sport anglers may use baited or unbaited artificial lures and the bag and possession limit is five fish. The season is open year round, however there are fisheries where catch-and-release fishing is imposed during part or all of the spawning period from April 1 through May 30.

(e) Conservative management approach. Under the conservative management approach, sport anglers may use baited or unbaited-single-hook artificial lures. The bag and possession limit is two fish. The fishing season is open year round, and is restricted to catch-and-release fishing during the spawning period of April 1 through May 30. The use of size limits does apply to certain stocks and fisheries under this approach. If a fishery for a species other than Arctic grayling occurs in the water body, the use of larger multiple hooks and bait on larger single and multiple hooks is allowed.

(g) The department shall manage the Five-Mile Clearwater River under the conservative management approach.

(h) Special management approach. Under the special management approach, only unbaited single-hook artificial lures and unbaited single-hook artificial flies may be used. Size limits may be imposed for certain fisheries and may include trophy designation, which is a fish 18 inches or greater in length. The bag limit is one fish, except that a fishery may be restricted to catch-and-release fishing, or closed. Single-hook waters may be established.

The fishing season is open year round, but fishing is restricted to catch-and-release fishing during the April 1 through May 30 spawning period. If a fishery for a species other than Arctic grayling occurs in the same water body, the use of larger multiple hooks and bait on larger single and multiple hooks is allowed.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? In each of the five management areas, catch-and-release spawning season dates would change by one day (May 30 to May 31) to align the regulations with the dates specified in the management plan. In regulations for the Kuskokwim – Goodnews Area, the Arolik River drainage would be added to the water bodies listed within the conservative management approach. In Tanana River Area regulations under water bodies listed within the conservative management approach, the name of Five-Mile Clearwater River would be corrected to Five-Mile Clearwater Creek and the Tok River drainage would be added. The current regulations in both the Arolik River drainage and Tok River drainage are within the recommended regulations of the conservative management approach.

BACKGROUND: This is a housekeeping proposal. The board adopted the *Wild Arctic Grayling Management Plan* (5 AAC 70.055) at the January 2004 meeting. The intent of the plan was to provide protection to spawning Arctic grayling over the two month period during which spawning occurs, April 1 – May 31. Inadvertently, the date of May 30 instead of May 31 was included in the plan.

DEPARTMENT COMMENTS: The department submitted this proposal and continues to **SUPPORT** it.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs to private individuals to participate in this fishery.

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PROPOSAL 51 – 5 AAC 74.010. Seasons, bag, possession, and size limits, and methods and means in the Tanana River Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal brings several rivers in the Tanana River Management Area into compliance with the *Tanana River Area Wild Arctic Grayling Management Plan* (5 AAC 74.055) regional management approach by removing spawning closures, length, and gear restrictions in these systems.

WHAT ARE THE CURRENT REGULATIONS?

5 AAC 74.010(c)(2) in the Chatanika River and its tributaries,

(B) Arctic grayling may be taken from

(i) June 1 through March 31, with a bag and possession limit of five fish, 12 inches or greater in length; all Arctic grayling caught that are less than 12 inches in length must be released immediately;

(ii) April 1 through May 31, by catch-and-release fishing only;

5 AAC 74.010(d)(2) from April 1 though May 31, in the Chatanika River and its tributaries upstream from an ADF&G regulatory marker located approximately one mile upstream from the Elliott Highway Bridge, only unbaited single-hook, artificial lures may be used

5 AAC 74.010(c)(19) in the Richardson Clearwater drainage, Arctic grayling may be taken from

(A) April 1 through May 31, by catch-and-release fishing only;

(B) June 1 through March 31, with a bag and possession limit of five fish, 12 inches or greater in length; all Arctic grayling caught that are less than 12 inches in length must be released immediately;

5 AAC 74.010(c)(20) in the Salcha River and its tributaries,

(B) Arctic grayling may be taken from

(i) April 1 through May 31, by catch-and-release fishing only;

(ii) June 1 through March 31, with a bag and possession limit of five fish, 12 inches or greater in length; all Arctic grayling caught that are less than 12 inches in length must be released immediately;

5 AAC 74.010(c)(21) in the Shaw Creek drainage and its tributaries, Arctic grayling may be taken from

(A) April 1 through May 31, by catch-and-release fishing only;

(B) June 1 through March 31, with a bag and possession limit of five fish, 12 inches or greater in length; all Arctic grayling caught that are less than 12 inches in length must be released immediately;

5 AAC 74.010(c)(23) in the Tanana River and its tributaries within a two-mile radius of its confluence with Shaw Creek, Arctic grayling may be taken from

(A) April 1 through May 31, by catch-and-release fishing only;

(B) June 1 through March 31, with a bag and possession limit of five fish, 12 inches or greater in length; all Arctic grayling caught that are less than 12 inches in length must be released immediately;

WHAT WOULD BE THE EFFECTS IF THE PROPOSAL IS ADOPTED? Regulations for these rivers will become consistent with the *Wild Arctic Grayling Management Plan* regional regulations. Sport fishing harvest opportunity will be increased through removal of spawning closures, liberalizing the bag and possession limits, and removing gear restrictions.

BACKGROUND: The board adopted the *Tanana River Area Wild Arctic Grayling Management Plan* (WAGMP) in 2004. The plan has three management approaches: regional, conservative, and special. The Chatanika, Richardson Clearwater, and Salcha Rivers; and Shaw Creek were classified under the regional management approach. Regulations under the WAGMP regional management approach are defined as: "*Under the*

regional management approach, sport anglers may use baited or unbaited artificial lures and the bag and possession limit is five fish. The season is open year round, however there are fisheries where catch-and-release is imposed during part or all of the spawning period from April 1 through May 30."

This proposal does three things which will align these areas with the WAGMP regional management approach: 1) it removes the Arctic grayling size restrictions on all four rivers and that portion of the Tanana River near the mouth of Shaw Creek; 2) it removes the Arctic grayling spawning restrictions on the Chatanika, Richardson Clearwater, and Salcha rivers; 3) it retains the Arctic grayling spawning restriction for Shaw Creek and that portion of the Tanana near Shaw Creek because this is a critical spawning area for Arctic grayling from several systems; and 4) it modifies the gear regulations on the Chatanika River.

DEPARTMENT COMMENTS: The department submitted this proposal and continues to **SUPPORT** it as current regulations are overly restrictive based on effort, harvest, and recent stock assessment. If adopted, these changes will simplify regulations in the Tanana River drainage and align the regulations with the *Wild Arctic Grayling Management Plan* regional management approach.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

Table 51-1.–Estimated sport harvest, catch, and abundance of Arctic grayling in the Chatanika River, 1990-2008.

Year	Harvest	Catch	Effort[1]	Abundance[2]
1990	4,237	17,960	11,801	
1991	2,642	12,830	8,085	
1992	1,751	11,750	6,775	
1993	2,001	14,283	7,671	
1994	2,659	24,750	7,272	
1995	2,108	15,859	13,145	3,027
1996	420	11,928	12,032	
1997	1,550	24,484	7,125	
1998	915	14,384	6,000	
1999	1,462	13,851	8,747	
2000	773	9,204	5,748	
2001	317	3,002	2,680	
2002	1,357	15,313	3,844	
2003	955	13,178	4,683	
2004	583	8,729	5,487	
2005	607	9,326	4,605	
2006	644	7,885	3,947	
2007	461	10,394	5,312	2,132
2008	989	11,229	3,558	
1998-2007 Average	807	10,527	5,105	
2003-2007 Average	650	9,902	4,807	

[1] Sport fishing effort is measured in number of days fished and is not apportioned by species.
[2] Abundance of Arctic grayling >270mm (~10.5 inches) in a 29.6 km (16 mile) section of the Chatanika River from 3.2 km (1.7 mile) above the Elliott Hwy Bridge downstream to the mouth of Any Creek.

Table 51-2.–Estimated sport harvest, catch, and abundance of Arctic grayling in the Salcha River, 1990-2008.

Year	Harvest	Catch	Effort[1]	Abundance[2]
1990	1,992	8,609	9,783	1,564
1991	1,688	4,697	11,242	1,756
1992	1,592	8,265	4,833	2,235
1993	1,768	11,254	7,313	3,031
1994	2,308	9,995	7,653	2,767
1995	2,685	12,173	14,516	
1996	2,371	10,327	9,241	
1997	2,959	27,307	8,647	
1998	2,179	18,829	5,789	
1999	1,524	13,932	7,539	
2000	1,544	7,200	4,862	
2001	602	5,831	5,471	
2002	1,287	7,532	5,954	
2003	1,225	6,756	5,032	
2004	1,501	7,355	4,859	2,042
2005	806	6,525	4,851	
2006	703	2,391	4,866	
2007	1,365	11,759	5,656	
2008	576	4,531	3,394	
1998-2007 Average	1,274	8,811	5,488	
2003-2007 Average	1,120	6,957	5,053	

[1] Sport fishing effort is measured in number of days fished and is not apportioned by species.
[2] Abundance of Arctic grayling ≥270mm (~10.5 inches) for the lower 38.6 km (~24 miles) of the Salcha River (bridge to RK40) during mid to late June.

Table 51-3.–Estimated sport harvest, catch, and abundance of Arctic grayling in Shaw Creek, 1983-2008.

Year	Harvest	Catch	Effort[1]	Abundance[2]
1983	2,297	ND	2,495	12,267
1984	2,570	ND	2,195	13,994
1985	2,584	ND	1,248	14,812
1986	505	ND	2,003	78,596
1987	567	ND	797	6,080
1988	873	ND	564	
1989	411	ND	488	
1990	203	ND	1,462	
1991	453	819	773	
1992	113	759	491	
1993	383	2,203	732	
1994	515	695	541	
1995	238	1,753	868	
1996	47	272	449	
1997	59	59	189	
1998	0	356	348	
1999	45	1,043	270	
2000	86	612	868	
2001	137	472	546	
2002	0	2,138	240	
2003	98	930	435	
2004	45	136	240	
2005	0	371	355	
2006	12	129	178	
2007	128	890	973	
2008	0	0	115	
1998-2007 Average	55	708	445	
2003-2007 Average	57	491	436	

[1] Sport fishing effort is measured in number of days fished and is not apportioned by species.
[2] Abundance of Arctic grayling >200mm (~8 inches).

Table 51-4.–Estimated sport harvest, catch, and abundance of Arctic grayling in the Richardson Clearwater River, 1983-2008.

Year	Harvest	Catch	Effort[1]	Abundance[2]
1983	2,822	ND	1,349	
1984	1,376	ND	1,080	
1985	798	ND	902	3,114
1986	827	ND	596	1,418
1987	251	ND	724	2,775
1988	509	ND	255	4,599
1989	972	ND	1,364	
1990	523	996	518	
1991	1,419	2,984	1,199	
1992	436	2,104	1,355	
1993	405	1,792	514	
1994	591	5,669	553	
1995	244	1,771	1,168	
1996	49	4,306	808	
1997	105	4,964	462	
1998	125	8,408	716	
1999	139	7,987	1,253	
2000	176	2,934	736	
2001	140	2,979	846	5,651
2002	99	1,613	247	
2003	150	1,722	157	
2004	78	977	162	
2005	0	706	146	
2006	0	1,753	1,102	
2007	142	7,773	1,792	
2008	101	2,042	255	
1998-2007 Average	105	3,685	716	
2003-2007 Average	74	2,586	672	

[1] Sport fishing effort is measured in number of days fished and is not apportioned by species.
[2] 1985-1988 abundance of Arctic grayling >250mm (~10 inches).

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PROPOSAL 52 - 5 AAC 74.010. Seasons, bag, possession, and size limits, and methods and means in the Tanana River Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal clarifies the regulations for Chena Slough (aka Badger Slough) a tributary of the Chena River.

WHAT ARE THE CURRENT REGULATIONS? Chena/Badger Slough is covered under the lower Chena River regulations:

5 AAC 74.010(c)(3) in the Chena River and its tributaries,

(B) Arctic grayling may be taken by catch-and-release fishing only;

5 AAC 74.010(d)(5) in the Chena River and its tributaries,

(A) downstream of the Chena River dam.

(i) only one unbaited single-hook, artificial lure may be used, except that a treble hook with a gap between hook and shank of one-half inch or greater may be used;

(ii) bait may be used only on a single hook with a gap size larger than three-quarters of and inch;

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Arctic grayling will not be inadvertently harvested from a population that is intended to be part of a catch-and-release fishery. Sport anglers will benefit from clear and consistent regulations.

BACKGROUND: Sport anglers often do not realize that Chena Slough (aka Badger Slough) is part of the Chena River because the slough is occasionally cut off from the river due to low water levels and seasonal dewatering of the slough (Figure 52-1). Because of this anglers often attempt to harvest Arctic grayling from the slough with multi-hook lures or bait, when in fact the slough is catch-and-release, unbaited single-hook artificial lure only, just like the remainder of the lower Chena River (Table 52-1).

DEPARTMENT COMMENTS: The department submitted this proposal and continues to **SUPPORT** it as it will reduce confusion among anglers and simplify current regulations.

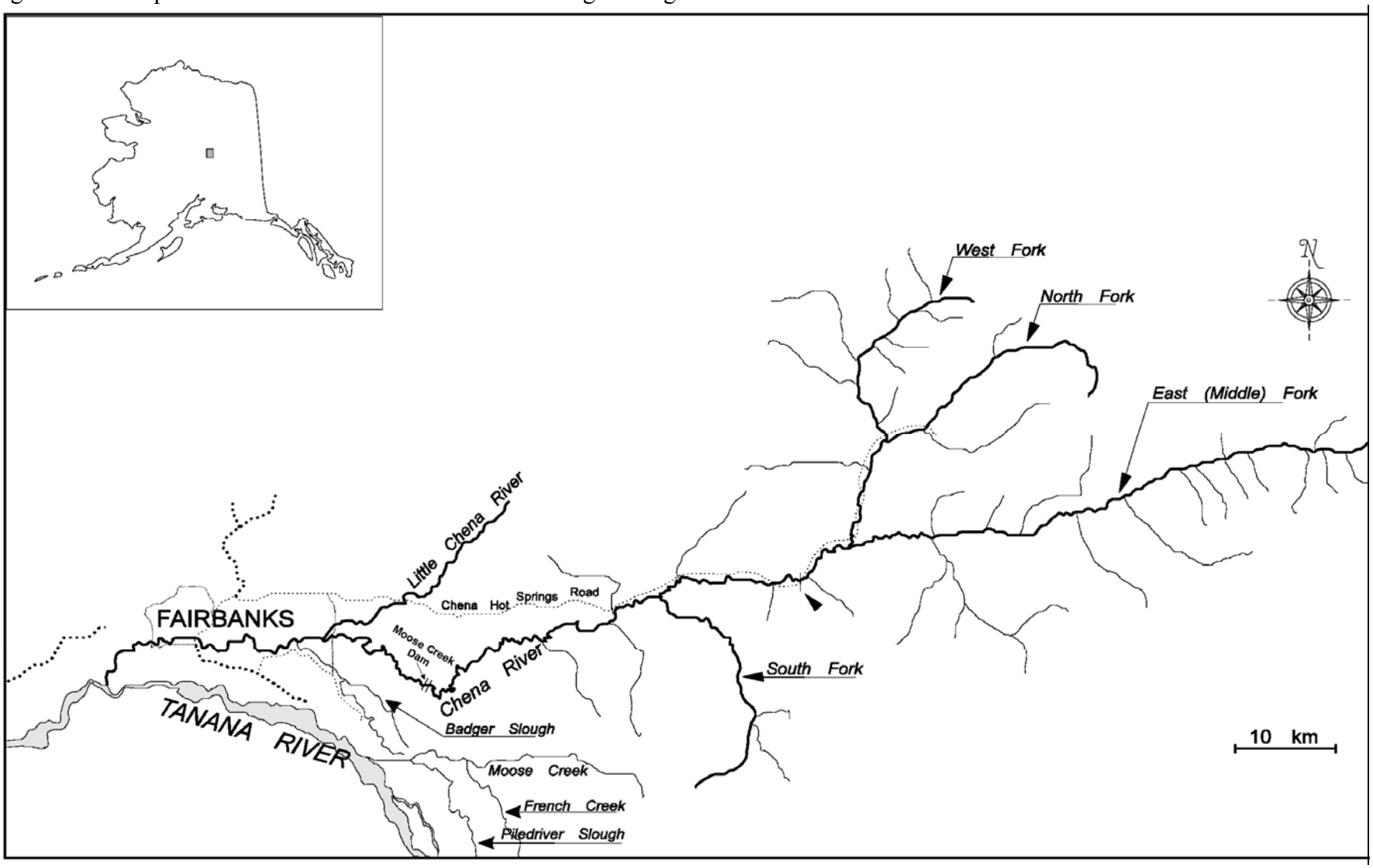
COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

Table 52-1.–Estimated sport catch and abundance of Arctic grayling in the Lower Chena River (includes Chena/Badger Slough), 1990-2008.

Year	Catch	Effort[1]	Abundance[2]
1990	22,062	18,957	
1991	14,860	12,547	1,426
1992	11,270	7,383	1,921
1993	26,805	15,383	1,533
1994	32,759	18,718	2,335
1995	15,181	23,219	2,059
1996	20,786	29,555	2,780
1997	33,775	16,957	2,044
1998	37,511	15,277	1,804
1999	27,511	20,834	
2000	16,296	11,138	
2001	17,403	12,346	
2002	29,584	14,017	
2003	15,431	14,454	
2004	20,666	20,165	
2005	10,659	8,718	2,190
2006	10,837	9,115	
2007	14,307	14,519	
2008	8,594	9,114	
1998-2007 average	20,021	14,058	
2003-2007 average	14,380	13,394	

[1] Sport fishing effort is measured in number of days fished and is not apportioned by species.
[2] Abundance of Arctic grayling ≥270mm (~10.5 inches) for the lower 72 km (45 miles) of the Chena River.

Figure 52-1.–Map of Chena River and location of Chena/Badger Slough.



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PROPOSAL 53 – 5 AAC 74.010. Seasons, bag, possession, and size limits, and methods and means in the Tanana River Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal clarifies the methods and means in the water bodies in which there are either catch-and-release regulations or exceptions to the general bag and possession limits for Arctic grayling.

WHAT ARE THE CURRENT REGULATIONS?

5 AAC 74.010(d)(5) in the Chena River and its tributaries,

(A) downstream of the Chena River dam,

(i) only one unbaited single-hook, artificial lure may be used, except that a treble hook with a gap between hook and shank of one-half inch or greater may be used;

(ii) bait may be used only on a single hook with a gap size larger than three-quarters of an inch;

(B) upstream from the Chena River dam, only unbaited, single hook, artificial lures may be used;

5 AAC 74.010(d)(6) in the Delta Clearwater River drainage, including the Clearwater Lake drainage, from

(A) January 1 through August 31, only unbaited, single-hook, artificial lures may be used;

5 AAC 74.010(d)(8) in Five-Mile Clearwater Creek, from

(A) January 1 through August 31, only unbaited, single-hook, artificial lures may be used;

5 AAC 74.010(d)(13) in Piledriver Slough upstream from its confluence with Moose Creek, only unbaited, single hook, artificial lures may be used;

5 AAC 74.010(d)(16) in Shaw Creek,

(A) upstream from the Richardson Highway Bridge, only unbaited, artificial lures may be used;

WHAT WOULD BE THE EFFECT IF THE PROPSAL WERE ADOPTED? Sport anglers will no longer be allowed to use two single hooks or two flies in systems where there are conservation or other management concerns for Arctic grayling.

BACKGROUND: The Tok and Five-Mile Clearwater Creek Arctic grayling fisheries are managed under the conservative management approach of the *Tanana River Area Wild Arctic Grayling Management Plan* (5 AAC 74.055) to maintain current population characteristics or levels, or rebuild the population to previous population characteristics or levels (Tables 53-1 and 53-2). The Chena and Delta Clearwater rivers and Piledriver Slough are managed under the special management approach of the *Tanana River Area Wild Arctic Grayling Management Plan* to maintain a high quality Arctic grayling fishing experience (a higher percentage of large fish). Under the conservative or special management approach of

the *Tanana River Area Wild Arctic Grayling Management Plan* it is appropriate to restrict gear to one single-hook, artificial lure rather than allowing two single hooks or artificial flies per line.

Shaw Creek is managed under the regional management approach and is currently restricted to catch-and-release during the spawning period. This area is utilized for spawning by multiple Tanana River Arctic grayling stocks and is easily accessible via the Richardson Highway. Due to the potential for high exploitation or hooking mortality on multiple stocks the use of one single-hook, artificial lure is preferred to allowing two single hooks or artificial flies per line.

DEPARTMENT COMMENTS: The department submitted this proposal and continues to **SUPPORT** it as it will clarify and simplify current regulations, and continues to provide protection to Shaw Creek and Tok River populations.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

Table 53-1.–Estimated sport catch and harvest of Arctic grayling in the Chena River, Piledriver Slough, and Delta Clearwater River, 1990-2008.

	Chena River			Piledriver Slough			Delta Clearwater River		
Year	**Effort[1]**	**Harvest**	**Catch**	**Effort[1]**	**Harvest**	**Catch**	**Effort[1]**	**Harvest**	**Catch**
1990	11,801	4,507	32,831	27,705	2,380	38,480	4,853	1,772	12,424
1991	8,085	3,719	29,548	17,703	3,987	20,815	5,594	2,165	7,998
1992	6,775	0	21,196	13,607	1,030	15,252	3,756	797	6,086
1993	7,671	0	44,033	17,253	759	32,036	4,909	437	5,712
1994	7,272	114	60,539	11,369	57	31,324	3,984	1,411	9,306
1995	13,145	212	39,816	12,613	0	17,431	6,261	926	5,974
1996	12,032	0	50,083	11,736	0	16,667	3,424	1,218	4,642
1997	7,125	0	98,628	6,791	0	24,585	2,161	54	2,215
1998	6,000	0	87,243	5,126	0	24,203	3,415	0	3,415
1999	8,747	0	86,220	8,955	0	19,571	5,705	0	5,705
2000	5,748	0	43,844	6,234	0	7,224	2,647	0	2,647
2001	2,680	0	35,881	5,190	0	4,927	4,670	91	4,761
2002	3,844	0	51,065	4,246	32	8,199	4,580	51	4,631
2003	4,683	0	36,098	2,317	0	6,037	6,006	0	6,006
2004	5,487	0	55,376	2,546	0	4,789	3,357	111	3,468
2005	4,605	0	31,026	1,079	0	3,962	4,504	4,504	19,922
2006	3,947	0	26,322	1,293	0	2,972	4,850	85	12,542
2007	5,312	0	45,673	1,519	0	3,316	5,116	172	22,112
2008	3,558	0	28,909	1,900	0	5,030	2,248	214	8,912
1998-2007 Average	5,105	0	49,875	3,851	3	8,520	4,485	501	8,521
2003-2007 Average	4,807	0	38,899	1,751	0	4,215	4,767	974	12,810

[1] Sport fishing effort is measured in number of days fished and is not apportioned by species.

Table 53-2.–Estimated sport catch and harvest of Arctic grayling in Shaw Creek and Tok River, 1990-2008.

	Shaw Creek			Tok River		
Year	**Effort[1]**	**Harvest**	**Catch**	**Effort[1]**	**Harvest**	**Catch**
1990	1,462	203	ND	1,527	1,097	2,515
1991	773	453	819	1,332	2,886	2,886
1992	491	113	759	480	556	556
1993	732	383	2,203	778	455	455
1994	541	515	695	1,451	1,618	1,618
1995	868	238	1,753	1,165	2,036	2,036
1996	449	47	272	518	3,152	3,152
1997	189	59	59	582	1,643	1,643
1998	348	0	356	355	1,935	1,935
1999	270	45	1,043	762	2,617	2,617
2000	868	86	612	0	0	0
2001	546	137	472	618	0	0
2002	240	0	683	277	90	90
2003	435	98	930	384	218	1,393
2004	240	45	136	99	68	604
2005	355	0	371	1,162	430	2,117
2006	178	12	129	421	157	371
2007	973	128	890	855	144	1,299
2008	115	0	0	189	0	51
1998-2007 Average	445	55	562	493	566	1,043
2003-2007 Average	436	57	491	584	203	1,157

[1] Sport fishing effort is measured in number of days fished and is not apportioned by species.

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BACKGROUND: The Nome River is located near the town of Nome and is its most popular fishing destination for several species, including coho salmon, pink salmon, and Dolly Varden. However, sport fishing for Arctic grayling in the Nome River has been closed since 1992 due to low abundances resulting from several years of high harvests. In 2004, the board adopted the *Wild Arctic Grayling Management Plan* (5 AAC 70.055), in which the Nome River was assigned to the special management approach, a designation given to Arctic grayling fisheries exhibiting particular conservation, biological, or restoration issues. The department has established a management objective to allow a catch-and-release sport fishery in the Nome River once stock assessment determines that the abundance of Arctic grayling has reached 2,000 fish ≥ 15 inches within a designated study area (26 mi. reach of river).

DEPARTMENT COMMENTS: The department submitted this proposal, and requests that this proposal be **WITHDRAWN**. The department conducted a stock assessment experiment in the Nome River during June 2009 and determined that the abundance of Arctic grayling ≥ 15 inches within the study area was well below the objective of 2,000 fish.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

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PROPOSAL 55 – 5 AAC 69.105. Description of the North Slope Area, 70.005. Description of the Northwestern Area, and 73.005. Description of the Yukon Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal will align the sport fish management area boundaries for the North Slope, Northwestern, and Yukon areas with the existing boundaries of the commercial and subsistence regulatory areas.

WHAT ARE THE CURRENT REGULATIONS? 5 AAC 69.105. The North Slope Area consists of all northerly flowing fresh waters, including lakes, draining into, and including, the Arctic Ocean, the Beaufort Sea, and the Chukchi Sea, west of the Canadian border and east of Cape Lisburne.

5 AAC 70.005. The Northwestern Area consists of all waters draining into and including the Bering Sea, the Chukchi Sea, Kotzebue Sound, and Norton Sound south of Cape Lisburne and north of Canal Point Light.

5 AAC 73.005. The Yukon River Area consists of all waters of the Yukon river drainage, excluding the Tanana River drainage, and all waters draining into, and including, Norton Sound and the Bering Sea south of Canal Point Light and north of the westernmost point of Naskonat Peninsula.

5 AAC 01.100. The Kotzebue Area includes all waters of Alaska between the latitude of the westernmost tip of Point Hope and the latitude of the westernmost tip of Cape Prince of Wales, including those waters draining into the Chukchi Sea.

5 AAC 03.100. The Kotzebue Area includes all waters of Alaska between the latitude of the westernmost tip of Point Hope and the latitude of the westernmost tip of Cape Prince of Wales including those waters draining into the Chukchi Sea.

5 AAC 01.150. The Norton Sound-Port Clarence Area includes all waters of Alaska between the latitude of the westernmost tip of Cape Prince of Wales and the latitude of Point Romanof, including the waters of Alaska surrounding St. Lawrence Island and those waters draining into the Bering Sea.

5 AAC 04.100. The Norton Sound-Port Clarence Area includes all waters of Alaska between the latitude of the westernmost tip of Cape Prince of Wales and the latitude of Point Romanof, including the waters of Alaska surrounding St. Lawrence Island and those waters draining into the Bering Sea.

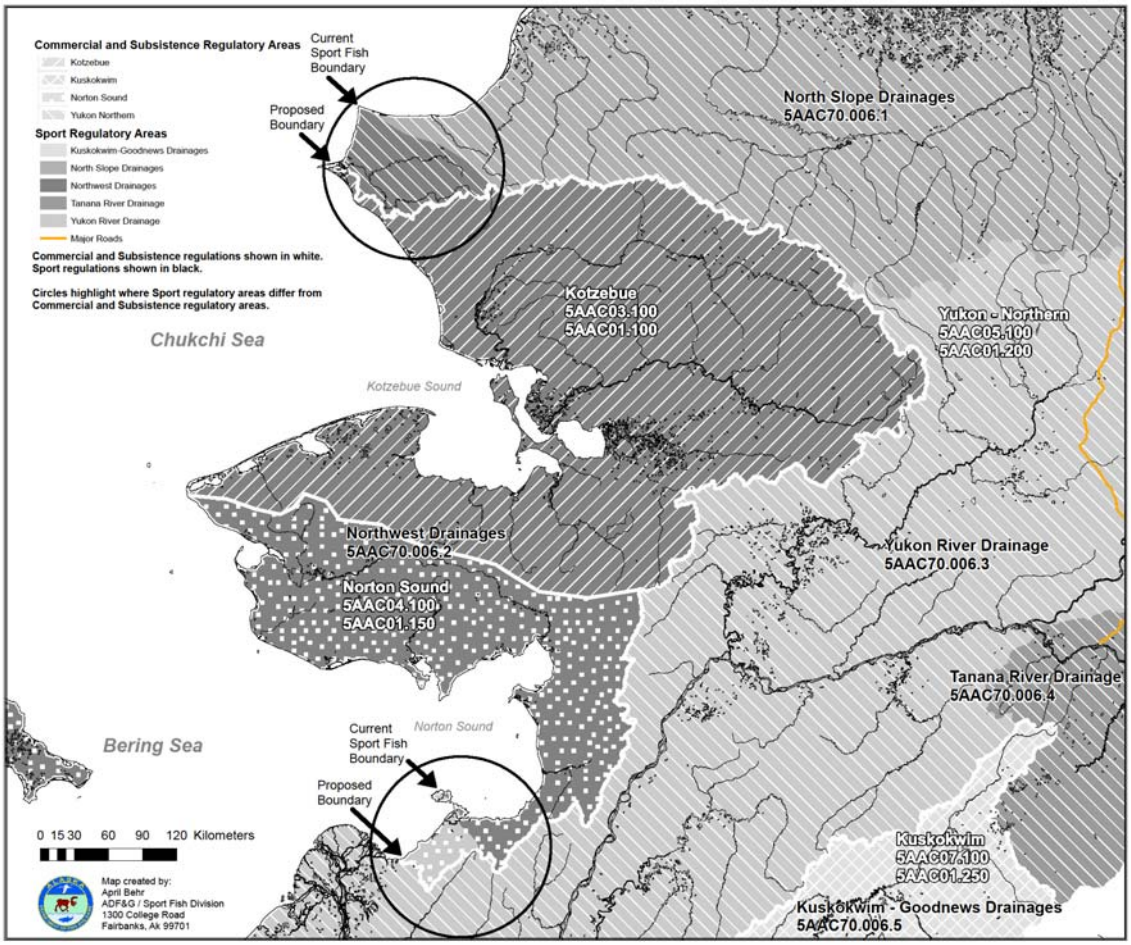
WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? By modifying the boundaries of these sport fish management areas to align with the commercial and subsistence regulatory areas, the potential ambiguity regarding regulatory boundaries and management actions in these areas will be eliminated.

BACKGROUND: The individual regulatory areas for Sport Fish and Commercial Fisheries divisions generally have the same boundaries for regulatory consistency. Two exceptions currently exist in western Alaska;: the Norton Sound-Port Clarence commercial and subsistence regulatory area slightly overlaps the sport fish regulatory areas for the Northwest and Yukon management areas, and the Kotzebue commercial and subsistence area slightly overlaps the sport fish regulatory areas for the Northwest and North Slope management areas (Figure 55-1). There is potential for confusion regarding fisheries regulations in areas where two different regulatory areas overlap.

DEPARTMENT COMMENTS: The department submitted this proposal and continues to **SUPPORT** it. The adoption of this proposal will simplify regulatory boundaries in northwest and western Alaska with little or no impact on existing fisheries.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

Figure 55-1.–Proposed changes to sport fish regulatory areas and boundaries of commercial and subsistence regulatory areas.



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PROPOSAL 56 – 5 AAC 74.010. Seasons, bag, possession, and size limits, and methods and means in the Tanana River Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal moves an existing regulatory boundary in the Chatanika River one mile downstream to the more recognizable and permanent location of the Elliot Highway Bridge.

WHAT ARE THE CURRENT REGULATIONS? The boundary used for salmon and whitefish retention; and the seasonal unbaited single-hook, artificial lure boundary is currently located approximately one mile upstream from the Elliott Highway Bridge.

5 AAC 74.010(c)(2)(A) sport fishing for salmon is closed upstream from an ADF&G regulatory marker located approximately one mile upstream from the Elliott Highway bridge;

5 AAC 74.010(c)(2)(C) whitefish except least cisco may be taken from

(ii) May 1 through September 30, downstream from an ADF&G regulatory marker located approximately one mile upstream from the Elliott Highway Bridge, with a bag and possession limit of five fish, with no size limit;

5 AAC 74.010(d)(2) from April 1 through May 31, in the Chatanika River and its tributaries upstream from an ADF&G regulatory marker located approximately one mile upstream from the Elliott Highway Bridge, only unbaited single-hook, artificial lures may be used;

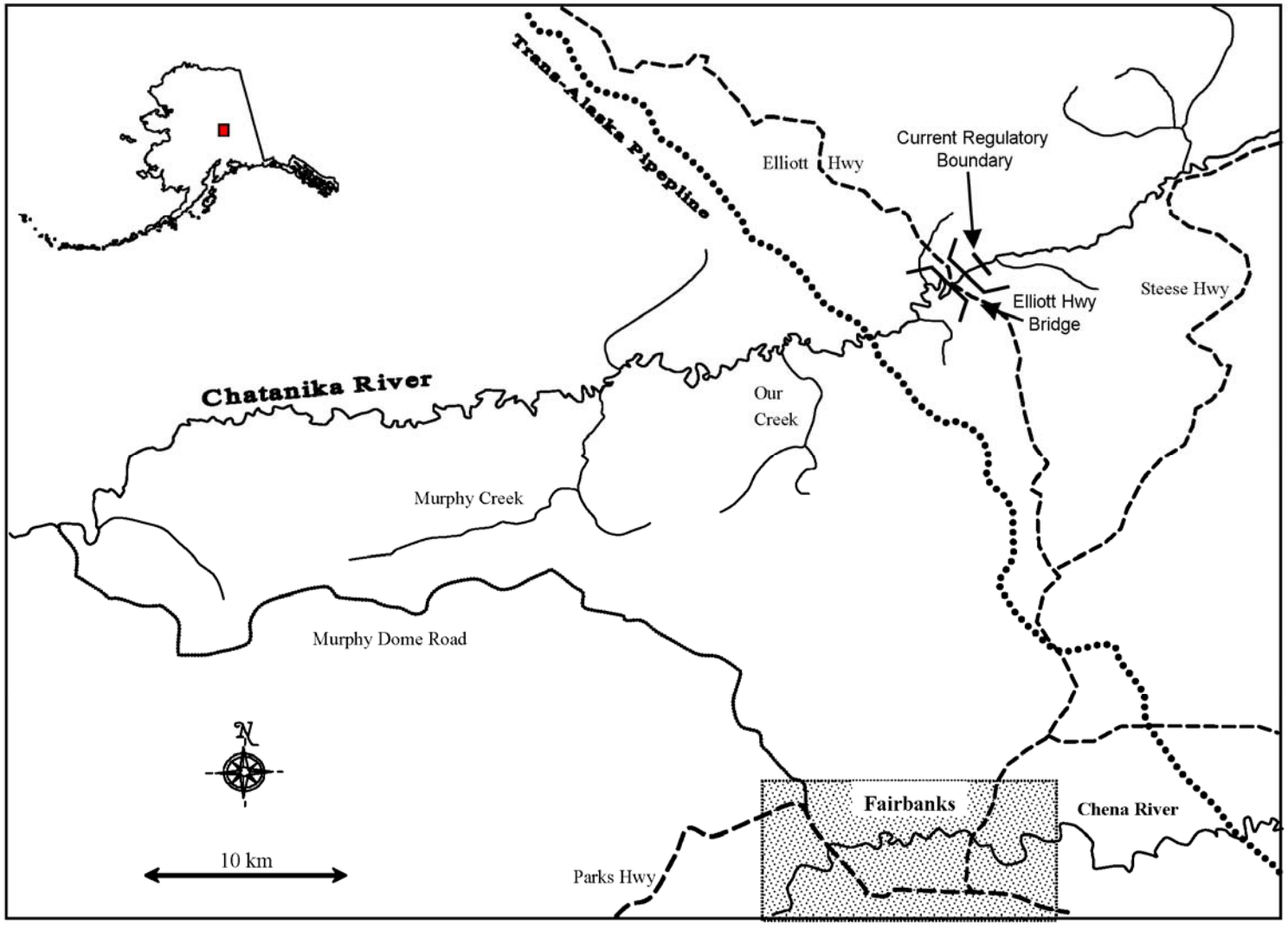
WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The section of the Chatanika River where salmon and whitefish may be retained will be shortened by approximately one mile; the area where unbaited single-hook, artificial lures are required in the spring will be increased by approximately one mile (Figure 56-1). However, the boundary will be more easily identified and should reduce confusion by anglers.

BACKGROUND: The Elliott Highway Bridge provides a more permanent and recognizable boundary marker, rather than an easily removed, destroyed, or obscured regulatory sign. The current regulatory boundary on the Chatanika River (an ADF&G marker located one mile upstream from the Elliott Hwy. Bridge) was originally put in place for the sport whitefish spear fishery that occurred in the area through 1993. Other regulations used this point as a reference in order to maintain consistency. The sport whitefish spear fishery is closed by regulation and the personal use whitefish spear fishery now occurs in a different location.

DEPARTMENT COMMENTS: The department submitted this proposal and continues to **SUPPORT** it. The limited negative impacts to anglers are outweighed by the simplified and permanent location of the regulatory boundary.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

Figure 56-1.–Map of Chatanika River showing Elliott Highway Bridge and approximate location of the current regulatory boundary.



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PROPOSAL 57 – 5 AAC 74.010. Seasons, bag, possession, and size limits, and methods and means in the Tanana River Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would repeal the exceptions to the general bag and possession limits and seasonal closures for whitefish in the Chatanika River.

WHAT ARE THE CURRENT REGULATIONS?

5 AAC 74.010(c)(2)(C) whitefish except least cisco may be taken from

(i) May 1 through August 31, throughout the entire Chatanika River drainage, with a bag and possession limit of 5 fish, with no size limit;

(ii) May 1 through September 30, downstream of an from an ADF&G regulatory marker located approximately one mile upstream from the Elliott Highway bridge, with a bag and possession limit of 5 fish, with no size limit;

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Sport anglers will be able to retain whitefish year round in the Chatanika River, and the bag and possession limits will revert to the background bag limit of 15 fish.

BACKGROUND: The current language is confusing as it allows anglers to fish for whitefish throughout the Chatanika River drainage from May 1 – August 31, in the portion of the river downstream of a regulatory marker from Sept 1 – 30, and then the sport fishery is closed in the entire river from October 1 through April 30. This will simplify sport fishing regulations and liberalize harvest opportunity for whitefish in the Chatanika River.

In 2007, the board authorized a personal use spear fishery for whitefish in that portion of the Chatanika River within the Fairbanks Nonsubsistence Area. This personal use spear fishery occurs where sport fishing is currently closed from October 1 – April 30. This regulatory change will not affect the personal use spear fishery.

There is not a conservation concern in opening the hook and line sport fishery for whitefish year round, as whitefish are difficult to harvest using hook and line gear compared to personal use gear (spear)(Figure 57-1). From 2003-2007, the catch and harvest of whitefish in the Chatanika River by hook and line averaged 194 and 60 fish, respectively (Table 57-1). This change will reduce the complexity of the regulations for the Chatanika River as the sport fishing regulations for whitefish will revert back to the area-wide season and bag limits.

DEPARTMENT COMMENTS: The department submitted this proposal and continues to **SUPPORT** it as there is no conservation concern for these fish stocks. The proposal simplifies the regulations and increases harvest opportunity.

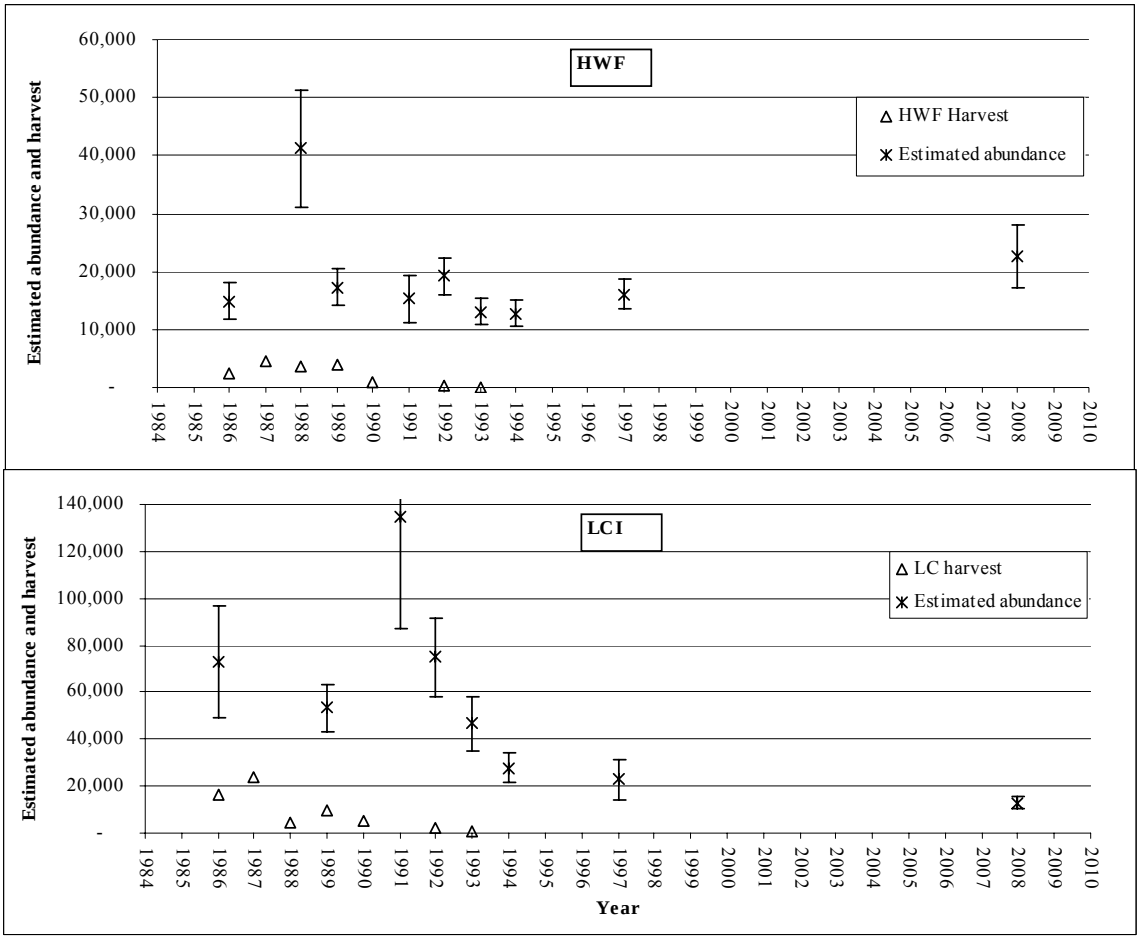
COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

Table 57-1.–Estimated sport harvest and catch, and personal use harvest of whitefish in the Chatanika River, 1983-2009.

	Sport		Personal Use
Year	**Harvest**	**Catch**	**Harvest**
1983	5,895	ND	
1984	9,268	ND	
1985	14,350	ND	
1986	22,038	ND	
1987	25,074	ND	
1988	7,983	ND	
1989	15,542	ND	
1990	5,216	5,334	
1991	0	23	
1992	2,033	2,033	
1993	558	558	
1994	97	436	
1995	9	71	
1996	46	320	
1997	24	95	
1998	0	60	
1999	0	14	
2000	0	361	
2001	0	245	
2002	28	181	
2003	152	607	
2004	45	196	
2005	0	16	
2006	63	63	
2007	38	90	267
2008	71	102	514
2009	NA	NA	280[1]
1998-2007 Average	33	183	
2003-2007 Average	60	194	

[1] 2009 personal use harvest is preliminary as of 10/30/09 with 25% of permits returned.

Figure 57-1.–Estimated sport harvest and abundance of humpback whitefish (HWF) ≥360 mm FL (~14 inches) and least cisco (LCI) ≥290 mm FL (~11 inches) in the Chatanika River from 1986 to 2008. (Includes sport spear fishery harvest prior to 2007.)



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PROPOSAL 58 – 5 AAC 5 AAC 74.010. Seasons, bag, possession, and size limits, and methods and means in the Tanana River Management Area.

PROPOSED BY: Ethan Birkholz.

WHAT WOULD THE PROPOSAL DO? This proposal would amend the current unbaited, single-hook, artificial lure regulation for Fielding Lake by allowing the use of bait from November 1 through March 31.

WHAT ARE THE CURRENT REGULATIONS? 5 AAC 74.010(d)(7) in Fielding Lake, (A) the use of set lines is prohibited; (B) only unbaited single-hook, artificial lures may be used.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The use of bait would only be permitted from November 1 through March 31.

BACKGROUND: Since 2001, the board has adopted various regulations to reduce sport harvest of lake trout in Fielding Lake. These included increasing the minimum size limit from 22" to 26", establishing a spawning closure in September, and allowing only single hooks for lake trout and burbot to reduce hooking mortality. In 2007 the board adopted the *Tanana River Area Wild Lake Trout Management Plan* (5 AAC 74.040). This plan provides guideline management actions to assist the department in managing lake trout harvest at sustainable levels. In addition, a regulation was adopted to allow the use of only unbaited, single-hook artificial lures in Fielding Lake. Prior to this action in 2007, the other restrictions to reduce lake trout harvest below the sustainable yield of 78 lake trout were unsuccessful (Table 58-1).

Since the bait restriction went into effect, lake trout harvest was 40 fish in 2007 and 7 fish in 2008, averaging 24 lake trout during these two years. During 2007-2008, total fishing mortality (harvest and an estimated 10% hooking mortality applied to catch after harvest is subtracted) averaged 38 lake trout; while the harvest from 2002 – 2006 averaged 81 fish with total fishing mortality averaging 124 fish (Table 58-1).

The most recent abundance of spawning lake trout was estimated at 386 in 1999. Approximately 29% of all fish sampled from 1998 – 2000 were above the 26-inch minimum size limit. Fishing effort has remained relatively stable in recent years, averaging over 1,000 angler days (Table 58-2). Nearly 90% of all lake trout caught in Fielding Lake are released, studies indicate that hooking mortality occurs at a higher rate when bait is used than with unbaited, artificial lures.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. Given the low abundance of lake trout and the high proportion that are caught and released, the use of bait and associated hooking mortality will likely result in the total lake trout mortality exceeding sustainable levels in Fielding Lake.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

Table 58-1.–Estimated total fishing mortality of lake trout in Fielding Lake, 1997 - 2008.

Year	Harvest	Catch	Catch Mortality	Total Mortality
1997	55	245	19	74
1998	19	341	32	51
1999	43	279	24	67
2000	18	221	20	38
2001	12	106	9	21
2002	0	137	14	14
2003	83	423	34	117
2004	101	520	42	143
2005	112	862	75	187
2006	108	634	53	161
2007	40	227	19	59
2008	7	103	10	17
1997-2001 Average	29	238	21	50
2002-2006 Average	81	515	43	124
2007-2008 Average	24	165	14	38

Table 58-2.–Estimated sport harvest, catch, and percent released of lake trout and burbot in Fielding Lake, 1999-2008.

Year	Effort[1]	Harvest	Catch	Percent Released
1997	1,259	55	245	78
1998	1,602	19	341	94
1999	1,154	43	279	85
2000	827	18	221	92
2001	525	12	106	89
2002	826	0	137	100
2003	840	83	423	80
2004	1,010	101	520	81
2005	1,248	112	862	87
2006	1,034	108	634	83
2007	1,139	40	227	82
2008	1,203	7	103	93
1997-2001 Average	1,073	29	238	87
2002-2006 Average	992	81	515	86
2007-2008 Average	1,171	24	165	88

[1] Sport fishing effort is measured in number of days fished and is not apportioned by species.

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PROPOSAL 59 – 5 AAC 74.010. Seasons, bag, possession, and size limits, and methods and means for the Tanana River Area.

PROPOSED BY: Ethan Birkholz.

WHAT WOULD THE PROPOSAL DO? This proposal would allow for only one closely attended line while fishing through the ice in Fielding Lake.

WHAT ARE THE CURRENT REGULATIONS? 5 AAC 74.010(d)(7) in Fielding Lake,

(A) the use of set lines is prohibited;
(B) only unbaited single-hook, artificial lures may be used;

There are no specific regulations for Fielding Lake regarding the number of lines that can be used; the statewide regulation which applies is 5 AAC 75.021.(a): Sport fishing through the ice is permitted with the use of two closely attended lines, provided only one hook or artificial lure is used on each line.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would prohibit the use of a second line while ice fishing in Fielding Lake. The proposal author would like to allow the use of bait during the winter months (proposal 58) in combination with only one line allowed for ice fishing to attempt to reduce harvest, yet improve catch rates of lake trout and burbot.

BACKGROUND: Since 2001, the board has adopted various regulations to reduce sport harvest of lake trout in Fielding Lake. These included increasing the minimum size limit from 22" to 26", establishing a spawning closure in September, and allowing only single hooks for lake trout and burbot to reduce hooking mortality. In 2007 the board adopted the *Tanana River Area Wild Lake Trout Management Plan* (5 AAC 74.040). This plan provides guideline management actions to assist the department in managing lake trout harvest at sustainable levels. In addition, a regulation was adopted to allow the use of only unbaited, single-hook artificial lures in Fielding Lake. Prior to this action in 2007, the other restrictions to reduce lake trout harvest below the sustainable yield of 78 lake trout were unsuccessful (Table 58-1).

Since the bait restriction went into effect, lake trout harvest was 40 fish in 2007 and 7 fish in 2008, averaging 24 lake trout during these two years. During 2007-2008, total fishing mortality (harvest and an estimated 10% hooking mortality applied to catch after harvest is subtracted) averaged 38 lake trout; while the harvest from 2002 – 2006 averaged 81 fish with total fishing mortality averaging 124 fish (Table 58-1).

The most recent abundance of spawning lake trout was estimated at 386 in 1999. Approximately 29% of all fish sampled from 1998 – 2000 were above the 26-inch minimum size limit. Fishing effort has remained relatively stable in recent years, averaging over 1,000 angler days (Table 58-2). Nearly 90% of all lake trout caught in

Fielding Lake are released, past studies indicate that hooking mortality occurs at a higher rate when bait is used than with unbaited, artificial lures.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. If passed, this would further complicate the regulations and if the previous proposal is adopted the reduction of one line would not offset the potential for increased hooking mortality using bait. The department believes the current regulations provide lake trout fishing opportunity and provide the most potential for the lake trout population to recover to historic levels.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

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Due to conservation concerns and to maintain a trophy lake trout fishery, the board in 2007 increased the minimum size limit of lake trout that could be retained from Harding Lake to 30 inches or greater, and changed the legal fishing gear to single hook only. With the current 30 inches minimum size limit it is estimated that a yield of 92 fish is sustainable (Table 60-1).

From 2001-2006, when the minimum size limit for lake trout was 26 inches, the average catch was 646 fish and harvest was 71 fish. The 2007-2008 average sport catch of lake trout on Harding Lake was 184 fish and the harvest was 26 fish (Table 60-2). The 30 inch minimum size limit was in effect for only a portion of the 2007 season, since it did not take effect until April 2007. As a result, 2008 is the only year in which the recent minimum size limit was in effect for the entire year. The lower catch and harvest rates, including a 10% mortality rate for released fish, result in a total fishing mortality that is believed to be sustainable at this time. Furthermore, since there is only one year of harvest data to measure the recent regulatory change, it is unadvisable at this time to change the current regulations, until several additional years of harvest data is available to determine if the regulations are effective at maintaining a total fishing mortality within the management guidelines.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal as there is potential for increased lake trout harvest and hooking mortality due to increased gear effectiveness.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

Table 60-1.–Annual yield estimates for lake trout in Harding Lake.

	Area (ha)	Length Limit (in)	Mean Size (kg)	Yield kg/yr	Yield kg/ha/yr	Yield Number
Harding Lake	1,015	none	1.8	582	0.57	323
		24	3.2	582	0.57	182
		26	4.7	582	0.57	124
		30	6.4	582	0.57	92
		36	9.3	582	0.57	62

Table 60-2.–Estimated sport harvest, catch, and total fishing mortality for lake trout in Harding Lake, 1990-2008.

	Lake Trout		Total	
Year	**Harvest**	**Catch**	**Mortality**	**Effort[1]**
1990	51	186	65	3,895
1991	133	148	135	5,155
1992	200	517	232	5,068
1993	132	438	163	4,885
1994	66	280	87	4,913
1995	177	258	185	6,743
1996	121	556	165	6,734
1997	90	462	127	3,383
1998	44	311	71	3,410
1999	89	807	161	2,973
2000	67	258	86	2,538
2001	44	435	83	1,038
2002	48	597	103	2,094
2003	41	518	89	2,246
2004	72	479	113	2,675
2005	48	707	114	1,118
2006	171	1,140	268	1,913
2007	28	263	52	749
2008	23	104	31	1,504
1993-2000 Average	98	421	131	4,447
2001-2006 Average	71	646	128	1,847
2007-2008 Average	26	184	42	1,127

[1] Sport fishing effort is measured in number of days fished and is not apportioned by species.

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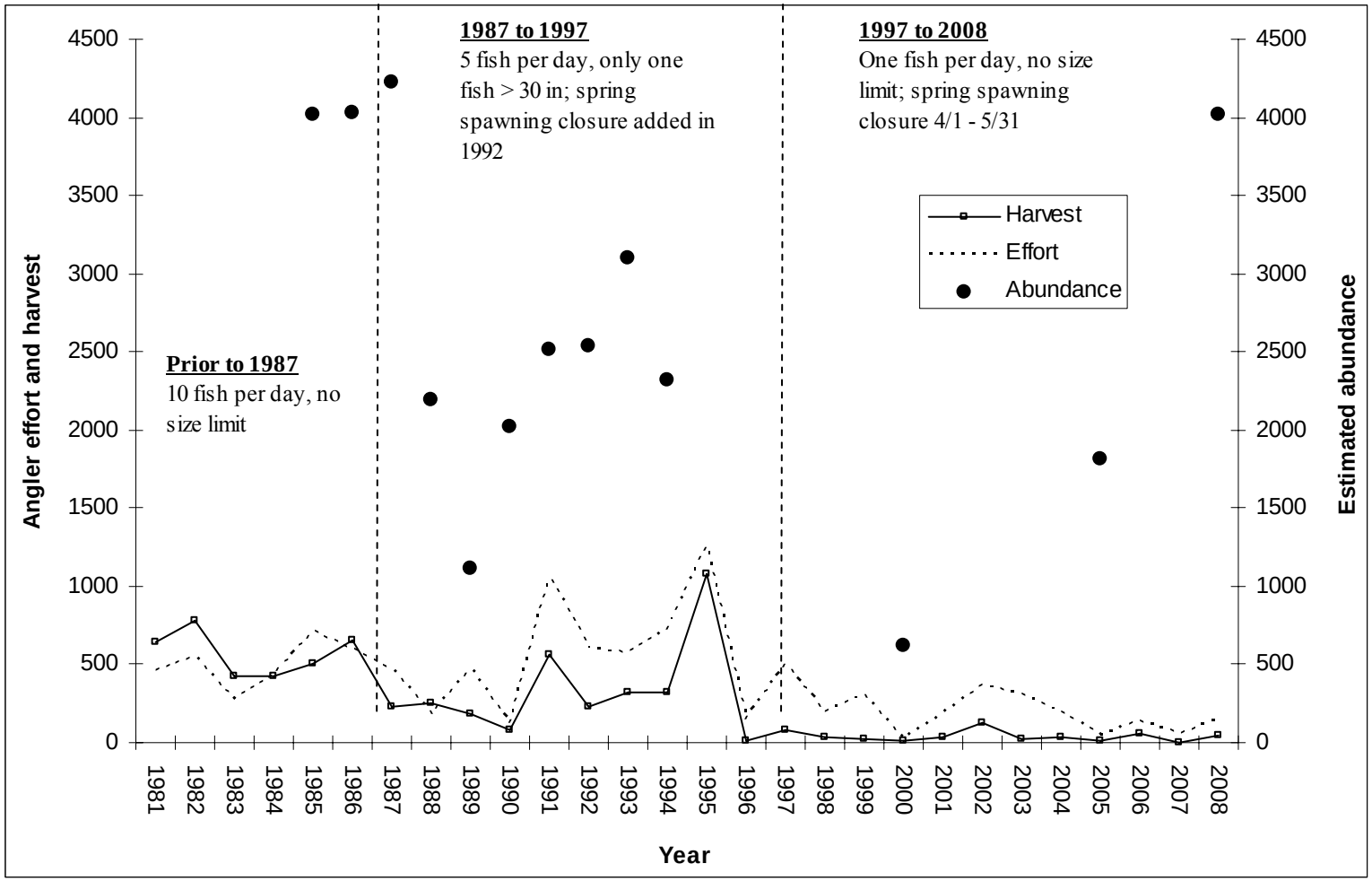
WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The bag and possession limit for northern pike in Volkmar Lake would be increased to three fish, of which only one fish may be over 30 inches. This would increase the overall harvest of northern pike in Volkmar Lake. However, based on recent stock assessment, the population has increased to sufficient levels to allow additional harvest opportunity.

BACKGROUND: The northern pike population in Volkmar Lake declined as a result of excessive harvests in the mid-1990s. In 1995, a record 1,263 angler-days occurred on Volkmar Lake with a harvest of 1,084 pike (Figure 61-1). The board adopted the current bag and possession limit of one fish, no size limit, at the 1997 meeting as a conservation measure. Stock assessment in 2000 estimated the population at only 615 northern pike greater than 18 inches in length. In 2005, the abundance was estimated at 1,630 northern pike greater than 18 inches, and in 2009 abundance was 4,017 northern pike greater than 18 inches. The management objective for the Volkmar Lake northern pike is to maintain an abundance of 2,000 northern pike greater than 18 inches.

DEPARTMENT COMMENTS: The department submitted this proposal and continues to **SUPPORT** it. The northern pike population has increased above the management objective and additional harvest opportunity may be permitted.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

Figure 61-1.–Estimated angler effort, sport harvest, and abundance of northern pike in Volkmar Lake, 1981-2008.



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PROPOSAL 62 – 5 AAC 74.010. Seasons, bag, possession, and size limits, and methods and means in the Tanana River Management Area.

PROPOSED BY: Fairbanks Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would increase the open season for northern pike in Volkmar Lake by 20 additional days.

WHAT ARE THE CURRENT REGULATIONS? 5 AAC 74.010(c)(28) in Volkmar Lake, northern pike may be taken only from June 1 through March 31**,** with a bag and possession limit of one fish, with no size limit;

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? An additional 20 days will be added to the open season for northern pike in Volkmar Lake.

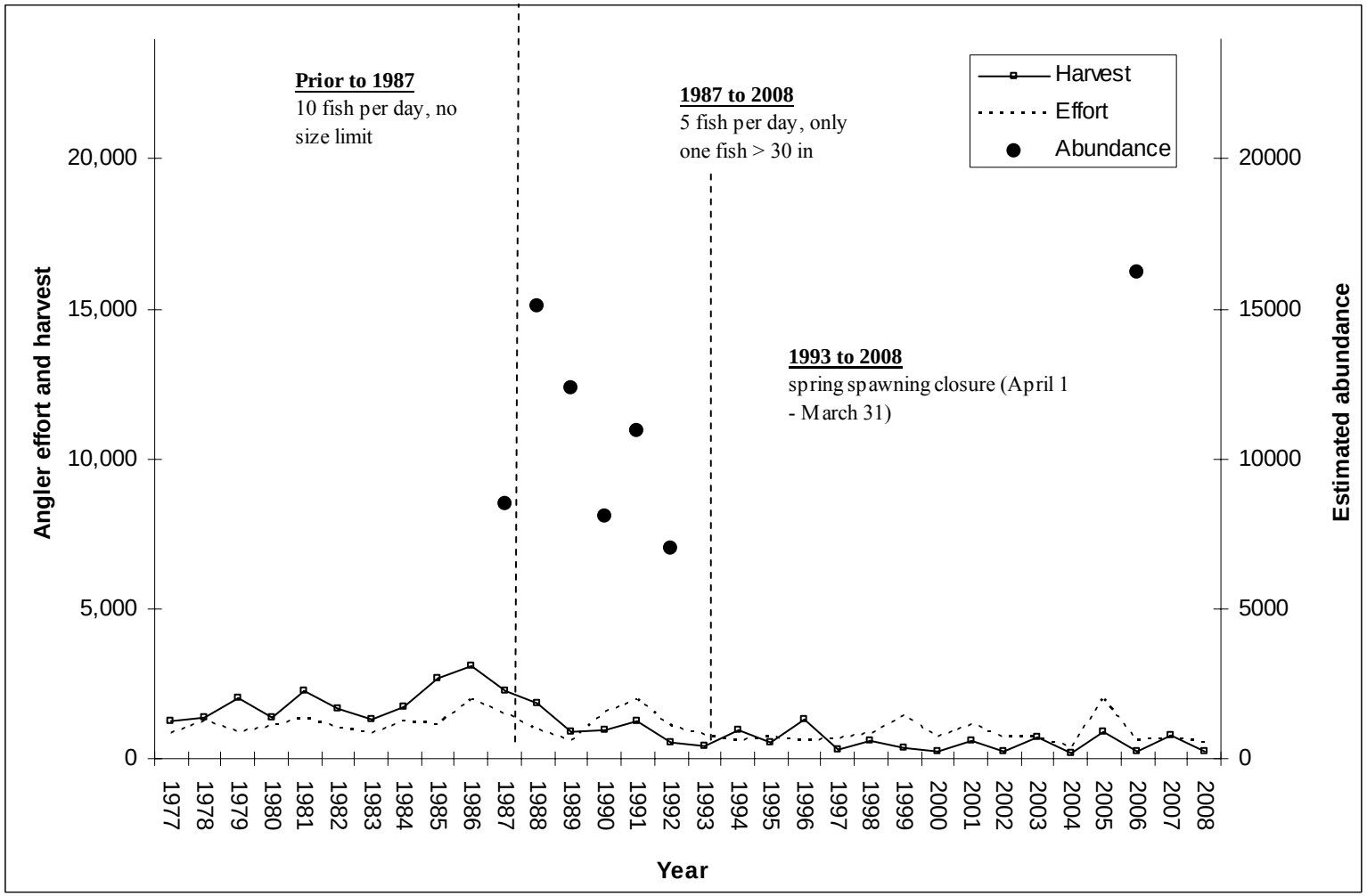
BACKGROUND: The northern pike population in Volkmar Lake declined as a result of excessive harvests in the mid-1990s. In 1995, a record 1,263 angler-days occurred on Volkmar Lake with a harvest of 1,084 pike (Figure 61-1). The board adopted the current bag and possession limit of one fish, no size limit at the 1997 meeting as a conservation measure. Stock assessment in 2000 estimated the population at only 615 northern pike greater than 18 inches in length. In 2005, the abundance was estimated at 1,630 northern pike greater than 18 inches, and in 2009 abundance was 4,017 northern pike greater than 18 inches. The management objective for the Volkmar Lake northern pike is to maintain an abundance of 2,000 northern pike greater than 18 inches.

In 1992, the board established a seasonal closure for northern pike from April 1 through May 31 in all waters of the Tanana River drainage (open season from June 1 through March 31) to reduce northern pike harvest. In 1997, this regulation was modified to provide year-round open season for northern pike in all flowing waters of the Tanana River (except the Tolovana River drainage), and extended the open season for northern pike in all but three lakes (George, Volkmar, and Harding lakes) of the Tanana River drainage for an additional 20 days (from June 1 to April 20).

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal as it allows additional fishing opportunity and simplifies area regulations. For consistency in area regulations, the department recommends that the board amend the open season for George Lake and George Creek (5 AAC 74.010(c)(11)) to the same dates. Recent estimates of abundance indicate that northern pike populations in both lakes have increased and can sustain additional fishing effort (Figures 61-1 and 62-1).

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in the Volkmar Lake fishery.

Figure 62-1.–Estimated angler effort, sport harvest, and abundance of northern pike in George Lake, 1977-2008.



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PROPOSAL 63 - 5 AAC 74.044. Minto Flats Northern Pike Management Plan. Align areas in the Minto Flats Northern Pike Management Plans as follows:

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal aligns language in the sport fish *Minto Flats Northern Pike Management Plan* (5 AAC 74.044) with that in the subsistence *Minto Flats Northern Pike Management Plan* (5 AAC 01.244).

WHAT ARE THE CURRENT REGULATIONS?

In the subsistence plan:
5 AAC 01.244(b)(1) the maximum exploitation rate of northern pike in the lakes and flowing waters of the Minto Flats by all users may not exceed 20 percent annually;

In the sport fish plan:
5 AAC 74.044(b)(1) the maximum exploitation rate of northern pike in the lower Chatanika River and Minto Lakes/Goldstream Creek area by all users may not exceed 20 percent annually;

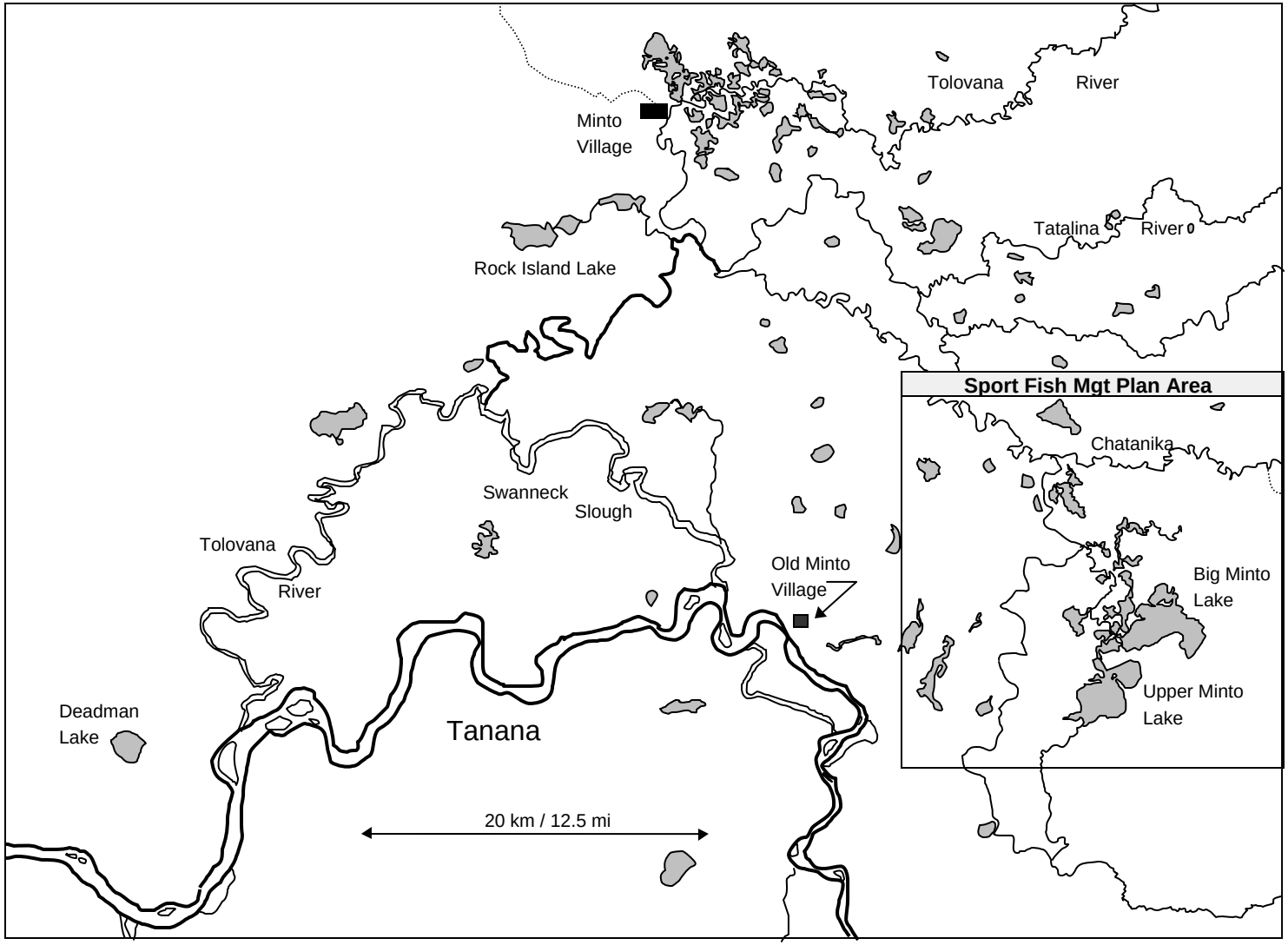
WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The two management plans will be aligned and they will reference the same portion of the Minto Flats northern pike population.

BACKGROUND: This is a housekeeping proposal. The description of the area used to estimate the exploitation rate of northern pike in the Minto Flats subsistence and sport fish versions of the *Minto Flats Northern Pike Management Plan* is not the same (Figure 63-1). The intent of the plan is to include the same area and fish stocks. Currently, the plans describe two different areas. The proposed language will align the description of the area for which the exploitation rate is calculated.

DEPARTMENT COMMENTS: The department submitted this proposal and continues to **SUPPORT** it.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

Figure 63-1.–Minto Flats wetland complex with demarcation of subsistence management plan area (entire map) and the sport fish management plan area.



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Subsistence (2 proposals):

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PROPOSAL 64 – 5 AAC 01.244. Minto Flats Northern Pike Management Plan.

PROPOSED BY: Fairbanks AC.

WHAT WOULD THE PROPOSAL DO? This proposal would establish a daily (25) and possession (50) limit for northern pike in the winter subsistence fishery that occurs in that portion of the Chatanika River upstream from the confluence of the Chatanika River and Goldstream Creek.

WHAT ARE THE CURRENT REGULATIONS? Currently, there are no bag or possession limits in this northern pike subsistence fishery.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, each household that fishes for northern pike in that portion of the Chatanika River upstream from the confluence of the Chatanika River and Goldstream Creek during the winter subsistence fishery would have a daily limit of 25 fish and a possession limit of 50 fish.

BACKGROUND: Northern pike are known to overwinter in high concentrations near the confluence of the Chatanika River and Goldstream Creek (Figure 64-1). Because of this area's close proximity to Fairbanks, along with good winter trail access, there has been an increase in winter subsistence fishing activity in recent years coming mainly from Fairbanks residents (Table 64-1).

In 1997, in order to provide a reasonable opportunity for subsistence uses as well as other uses, the board adopted the *Minto Flats Northern Pike Management Plan* (5 AAC 01.244 and 5 AAC 70.044) which established annual harvest trigger points and management actions that would be taken when the winter fishery reached those levels of harvest. Annual household permits for subsistence northern pike fishing are required, with weekly reporting when fishing in that portion of the Chatanika River upstream from the confluence of the Chatanika River and Goldstream Creek during the winter. When the reported harvest exceeds 750 northern pike within the prescribed winter subsistence harvest area, the northern pike sport fish daily limit for the Chatanika and Tolovana river drainages is reduced by emergency order from 5 to 2 fish for the summer sport fishing season. When the harvest threshold exceeds 1,500 northern pike within the prescribed winter subsistence harvest area, the prescribed area is closed to subsistence fishing by emergency order. Sport fishing for northern pike is closed during the winter throughout the Chatanika and Tolovana river drainages. The open season is June 1 through October 14.

In 2007, a small number of subsistence users from Fairbanks harvested a large number of northern pike early in the season, which triggered a closure of the localized area forcing the remaining permit holders to move their fishing effort to less productive areas or not fish at all. Following the management plan, the sport fish daily limit was reduced from 5 fish per day to 2 fish per day. In 2008, the winter subsistence harvest did not trigger the area subsistence closure, but did trigger the sport fish bag reduction. In 2009, neither threshold was exceeded; thereby, no management actions were necessary. On average, 65% of the subsistence fishing households harvest 20 or fewer northern pike in a year, which is typically more than one fishing day (Figure 64-2). In addition, an average of 6% of the household permits harvest approximately 50% of the total northern pike harvest.

Subsistence permit data demonstrate that, since adoption of the management plan, the majority of subsistence pike harvest is no longer from Minto village, but represent a predominance of Fairbanks fishers (Table 64-1). However, it is unknown why the Minto village harvest has decreased through time. A 1984 subsistence harvest survey of 94% of Minto village households estimated a total community harvest of 3,003 pike, which accounted for 44% of all non-salmon fish harvested based on weight, representing 74.7 pounds of pike per person. In contrast, in 2004, based upon a 93% sample of Minto village households, Minto residents harvested an estimated total of 974 pike, representing 46% of all non-salmon fish harvested and 4.6 pounds of pike per person.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. The current *Minto Flats Northern Pike Management Plan* effectively protects the major spawning segment of the northern pike stock from local depletion. Whether the management plan, as changed by this proposal, would still effectively provide a reasonable opportunity for subsistence uses is a board determination. The addition of bag limits to this management plan may spread the subsistence harvest over a longer time period, allowing more subsistence users the opportunity to participate in this fishery.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

SUBSISTENCE REGULATION REVIEW:

1. Is this stock in a nonsubsistence area? A portion of the Minto Flats northern pike stock migrates into the Fairbanks Nonsubsistence Area (upper Chatanika River).

2. Is the stock customarily and traditionally taken or used for subsistence? Yes; the board made a positive customary and traditional use determination for freshwater finfish species including northern pike (5 AAC 01.236(2)).

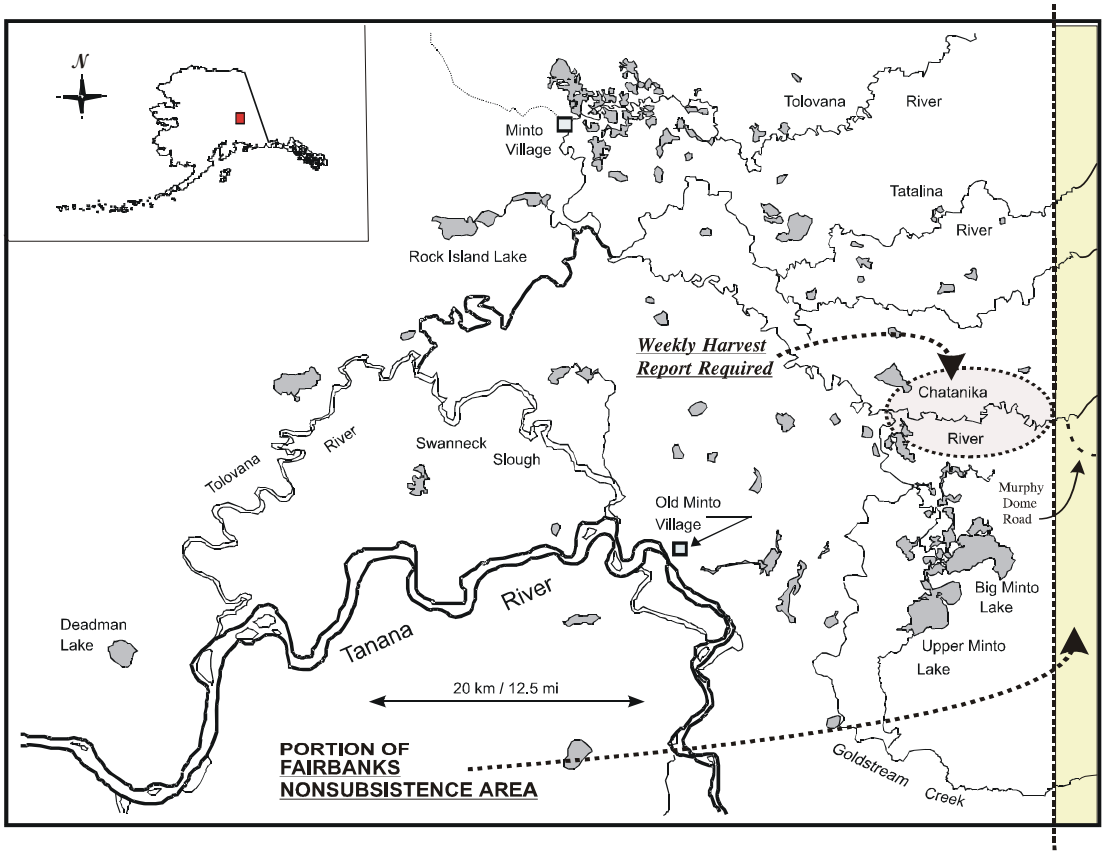
3. Can a portion of the stock be harvested consistent with sustained yield? Yes.

4. What amount is reasonably necessary for subsistence use? The board determined the amount reasonably necessary for subsistence to be 133,000 to 2,850,000 pounds of freshwater fish, including sheefish, whitefish, burbot, Arctic grayling, northern pike, char, blackfish, sucker, and lamprey for the Yukon Area (BOF December 1997, RC1, Tab 14).

5. Do the regulations provide a reasonable opportunity for subsistence use? This is a board determination.

6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence use? This is a board determination.

Figure 64-1.–Minto Flats northern pike management plan area (entire map) and special winter subsistence harvest report area.



Tolovana River Drainage Northern Pike Subsistence Fishing Area.

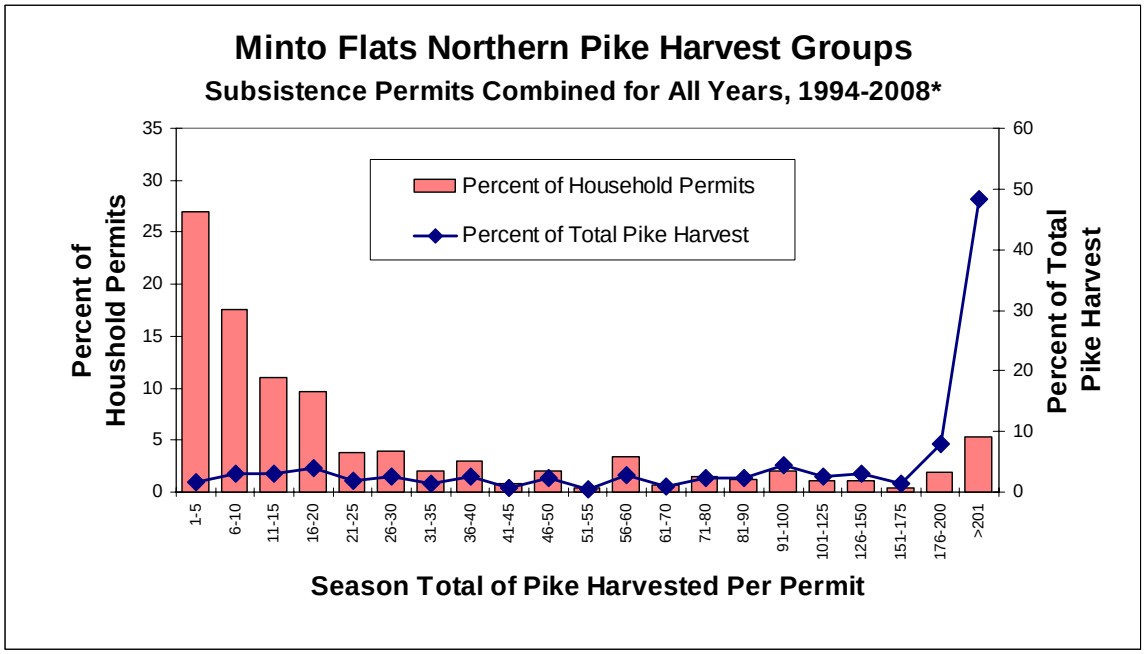
Table 64-1.–Minto Flats northern pike subsistence and sport harvest, 1983 – 2008.[a, b]

	Subsistence Fishery			Sport Fishery		
	Minto Resident	North Star Borough Resident	Total Subsistence Harvest	Minto Flats Complex		Total Combined Harvest
Year	Harvest	Harvest		Catch	Harvest	
1983	ND	ND	ND	ND	3,461	
1984	ND	ND	ND	ND	3,128	
1985	ND	ND	ND	ND	5,256	
1986	ND	ND	ND	ND	6,488	
1987	ND	ND	ND	ND	2,401	
1988	ND	ND	ND	ND	1,965	
1989	ND	ND	ND	ND	2,596	
1990	ND	ND	ND	6,060	2,009	
1991	ND	ND	ND	6,111	2,586	
1992	ND	ND	ND	6,585	1,325	
1993	ND	ND	ND	24,378	3,420	
1994	911	84	995	52,191	9,489	10,484
1995	903	120	1,023	29,193	4,480	5,503
1996	1,537	79	1,616	16,479	2,716	4,332
1997	1,266	67	1,333	11,253	1,246	2,579
1998	394	37	431	4,704	772	1,203
1999	375	25	400	3,636	1,098	1,498
2000	351	1	352	1,784	390	742
2001	214	0	214	2,916	654	868
2002	507	14	521	10,085	650	1,171
2003	572	394	966	12,997	1,284	2,250
2004	283	110	393	21,159	1,390	1,783
2005	226	148	374	16,768	2,052	2,426
2006	358	428	786	8,447	1,204	1,990
2007	231	1,605	1,836	14,077	1,809	3,645
2008	65	1,256	1,321	3,796	374	1,695
10 yr Avg (1999-2008)	318	398	716	9,567	1,091	1,807
5 yr avg (2004-2008)	233	709	942	12,849	1,366	2,308

[a] Includes Minto Flats, Tolovana River, and the lower Chatanika River.

[b] Subsistence harvest information obtained from household fishing permits.

Figure 64-2.–Percent of permitted households that reported subsistence fishing for northern pike in Minto Flats by harvest group and the percent of total harvest taken by each harvest group, 1994-2008.



* Permits include both summer and winter subsistence fisheries that occur both within and outside the winter subsistence harvest report area.

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PROPOSAL 65 - 5 AAC 5 AAC 01.244. Minto Flats Northern Pike Management Plan. and 70.044(d). Minto Flats Northern Pike Management Plan.

PROPOSED BY: Fairbanks AC.

WHAT WOULD THE PROPOSAL DO? Limit the summer sport fishery and winter subsistence fishery in the Chatanika River, Minto Lakes, and Goldstream Creek to a single hook or multiple single hooks.

WHAT ARE THE CURRENT REGULATIONS?

5 AAC 74.010(d)

(2) from April 1 through May 31, in the Chatanika River and its tributaries upstream from an ADF&G regulatory marker located approximately one mile upstream from the Elliott Highway Bridge only unbaited single-hook artificial lures may be used;

(3) in the Chatanika River drainage upstream from the confluence of the Chatanika River and Goldstream Creek to an ADF&G regulatory marker located at the boundary of the Fairbanks Nonsubsistence Area, which is located approximately one mile downstream from the Murphy Dome Road, only single-hooks may be used;

(Note: There are no special gear restrictions for the Tolovana River drainage, Minto Lakes & Goldstream Creek sport fisheries.)

5 AAC 74.044(D) in the Chatanika River drainage upstream from the confluence of the Chatanika River and Goldstream Creek to an ADF&G regulatory marker located at the boundary of the Fairbanks Nonsubsistence Area (approximately one mile downstream from the Murphy Dome Road), only single hooks may be used.

5 AAC 01.244(G) in the Chatanika River drainage upstream from the confluence of the Chatanika River and Goldstream Creek to an ADF&G regulatory marker located at the boundary of the Fairbanks Nonsubsistence Area (approximately one mile downstream from the Murphy Dome Road), only single hooks may be used.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Fishermen who participate in the winter subsistence northern pike fishery and/or the summer sport fishery in the Chatanika River, Minto Lakes, and/or Goldstream Creek will be limited to fishing with single hooks (including multiple single hooks on a single lure).

BACKGROUND: In both the summer sport fishery and the winter subsistence fishery, many anglers practice catch-and-release techniques in order to retain a certain quality and/or size of fish. Many of these northern pike are caught with treble hooks, and are often not handled properly to promote survival when released. It is widely believed that single hooks facilitate release back into the water and may reduce the mortality of northern pike. Current regulations for the winter subsistence fishery require that only single hooks may be used.

Northern pike hooking mortality studies conducted by the department involving single and treble hook artificial lures indicate relatively low (<5%) rates of mortality in northern pike caught and released with treble hooks.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal as the current regulatory management plan provides sufficient tools to manage this fishery for sustained yield.

COST ANALYSIS: The department does not believe that approval of this proposal will result in an additional direct cost for a private person to participate in this fishery.

SUBSISTENCE REGULATION REVIEW:

1. Is this stock in a nonsubsistence area? A portion of the Minto Flats northern pike stock migrates into the Fairbanks Nonsubsistence Area (upper Chatanika River).

2. Is the stock customarily and traditionally taken or used for subsistence? Yes; the board made a positive customary and traditional use determination for freshwater finfish species including northern pike (5 AAC 01.236(2)).

3 Can a portion of the stock be harvested consistent with sustained yield? Yes.

4 What amount is reasonably necessary for subsistence use? The board determined the amount reasonably necessary for subsistence to be 133,000 to 2,850,000 pounds of freshwater fish, including sheefish, whitefish, burbot, Arctic grayling, northern pike, char, blackfish, sucker, and lamprey for the Yukon Area (BOF December 1997, RC1, Tab 14).

5. Do the regulations provide a reasonable opportunity for subsistence uses? This is a board determination.

6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence uses? This is a board determination.

Table 65-1–Subsistence harvest, estimated sport catch and harvest, abundance, and exploitation rate of northern pike in the Minto Flats Complex, 1990-2008.

Year	Minto Flats Complex[1] Harvest	Minto Flats Complex[1] Catch	Total Sport Mortality[3]	Subsistence Harvest (from permits)	Total Exploitation	Abundance[2]	Exploitation Rate
1990	2,009	6,060	2,414				
1991	2,586	6,111	2,939				
1992	1,325	6,585	1,851				
1993	3,420	24,378	5,516				
1994	9,489	52,191	13,759	995	14,754		
1995	4,480	29,193	6,951	1,023	7,974		
1996	2,716	16,479	4,092	1,616	5,708	23,850	24%
1997	1,246	11,253	2,247	1,333	3,580	16,547	22%
1998	772	4,704	1,165	431	1,596	16,547	10%
1999	1,098	3,636	1,352	400	1,752	16,547	11%
2000	390	1,784	529	352	881	16,547	5%
2001	654	2,916	880	214	1,094	16,547	7%
2002	650	10,085	1,594	521	2,115	16,547	13%
2003	1,284	12,997	2,455	966	3,421	25,227	14%
2004	1,390	21,159	3,367	393	3,760	25,227	15%
2005	2,052	16,768	3,524	386	3,910	25,227	15%
2006	1,204	8,447	1,928	786	2,714	25,227	11%
2007	1,809	14,077	3,036	1,837	4,873	25,227	19%
2008	374	3,796	716	1,339	2,055	9,854	21%
1998-2007 average	1,130	9,657	1,983	629	2,612	20,887	12%
2003-2007 average	1,548	14,690	2,862	874	3,736	25,227	15%

[1] Includes Minto Flats, Tolovana River, and the lower Chatanika River.

[2] Includes all northern pike ≥400mm (~16 inches).

[3] Sport harvest + 0.10 * (sport catch – sport harvest)

COMMITTEE B - KUSKOKWIM, KOTZEBUE, AND NORTON SOUND-PORT CLARENCE AREAS SALMON AND HERRING (15 PROPOSALS)

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Kuskokwim - Commercial (1 proposal):

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PROPOSAL 67 – 5 AAC 07.331. Gillnet specifications and operations.

PROPOSED BY: Kuskokwim River Salmon Management Working Group.

WHAT WOULD THE PROPOSAL DO? This proposal would reduce the maximum allowable gillnet mesh size to 6-inch or smaller in the Kuskokwim River District 1 commercial fishery.

WHAT ARE THE CURRENT REGULATIONS? In Districts 1 and 2, salmon may be taken only with gillnets of 6-inch or smaller mesh except that in District 1, the commissioner may open fishing periods during which gillnet mesh size may be no greater than 8-inches.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL IS ADOPTED? This proposal would repeal the regulation adopted in 2007 that allows for the use of up to 8-inch mesh gillnets in the Kuskokwim Area District 1 commercial fishery.

BACKGROUND: Gillnet mesh size in Kuskokwim River commercial fishing districts was restricted to 6-inches or less by regulation from 1986 through 2007, and commercial fishing directed at the harvest of king salmon was closed from 1987 through 2007. These restrictions were put in place as conservation measures to improve king salmon escapements, provide for the subsistence priority for king salmon, and to allow for a directed commercial fishery on more abundant chum salmon in June and July. Because of poor runs from 1998 to 2000, the Kuskokwim River king salmon stock was designated a stock of yield concern in September 2000. After record to near record escapements from 2004 to 2006, abundance has shifted to average levels. Improved runs resulted in the discontinuation of the stock of yield concern designation in January 2007 and the board adopted new regulations at that time allowing for up to 8-inch mesh gillnets in the District 1 commercial fishery by emergency order. Commercial salmon harvests in District 1 have remained minimal during late June and July because of conservative management strategies and poor market conditions for chum salmon.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. Since being placed into regulation in 2007, the department has not established any commercial fishing periods allowing the use of up to 8-inch mesh gillnets. Larger mesh size would increase the exploitation of older and larger king salmon. Presently, it is uncertain whether older and larger king salmon can sustain additional directed exploitation. A restricted mesh commercial fishery with 6-inch or smaller mesh gillnets optimizes the harvest of more abundant chum and sockeye salmon stocks whose run timing overlaps with king salmon, and increases the potential for king salmon utilization to be spread throughout all age, sex, and size classes. Although it is unlikely the department would allow the use of 8-inch mesh gear, given a strong king salmon run and

poor chum or sockeye runs, the current regulation would provide management flexibility to allow a limited directed commercial harvest of king salmon while conserving chum and sockeye salmon.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

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Kotzebue Area - Subsistence (1 proposal):

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PROPOSAL 68 – 5 AAC 01.120. Lawful gear and gear specifications.

PROPOSED BY: Kotzebue Advisory Committee.

WHAT WOULD THE PROPOSAL DO? Expand the area in which a hook and line attached to a rod or pole (rod and reel) are a legal subsistence method in the Kotzebue Area.

WHAT ARE THE CURRENT REGULATIONS? A person may use a hook and line attached to a rod or pole when subsistence fishing only (1) in state waters of and all flowing waters that drain into the Chukchi Sea or Kotzebue Sound from Cape Espenberg to Cape Prince of Wales, and (2) through the ice.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL IS ADOPTED? Any resident of Alaska would be able to use a hook and line attached to a rod or pole to fish for subsistence throughout the Kotzebue Area.

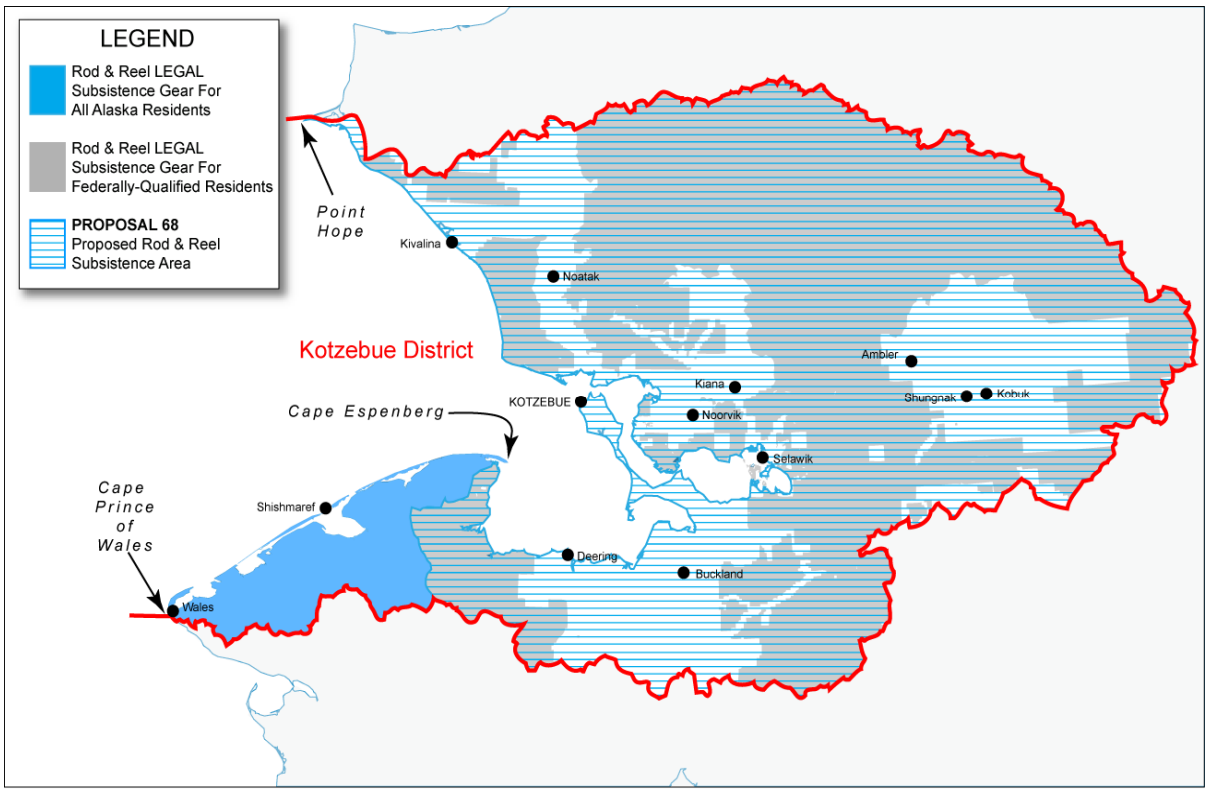

Figure 68-1.–Portions of the Kotzebue Area where a hook and line attached to a rod or pole is legal subsistence fishing gear, and portions addressed by proposal 68.

BACKGROUND: A hook and line attached to a rod or pole has been a legal subsistence method in state waters in the southwestern portion of the Kotzebue Area since 2001, and under federal regulations in waters claimed by the federal government to ensure subsistence priority for federally-qualified rural residents in the Kotzebue Area since 1999 (Figure 68-1). Elsewhere in the Kotzebue Area, a hook and line attached to a rod or pole is not a legal subsistence method and can only be used under sport fishing regulations. During the past decade, the board has adopted regulations to make a hook and line attached to a rod or pole legal subsistence gear in several Western Alaska areas, including Northern Norton Sound, Port Clarence, the southern portion of the Kotzebue Area, the lower Yukon Area, and the entire Kuskokwim River drainage. The board did not adopt similar proposals for Southeast Alaska during this same period.

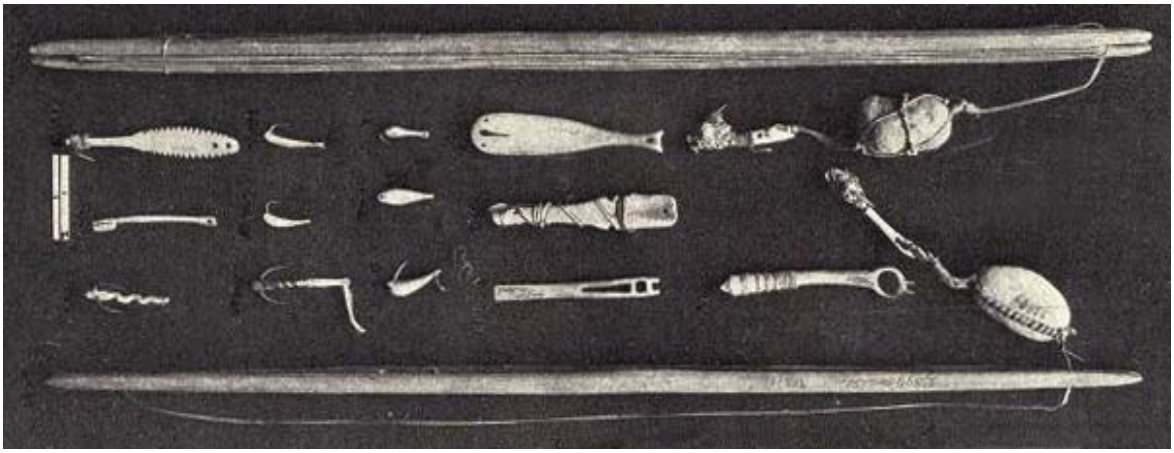

Figure 68-2.-Fishing implements collected by Edward W. Nelson in the Bering Strait area between 1877 and 1881. The pole, line, sinker, and hook outfit at top of this picture were collected at Kotzebue in 1881. (Nelson 1899 Plate LXVIII).

Northwest Alaska *Iñupiat* have long fashioned elaborate lures of ivory, baleen, and bone, and attached them to lines on rods, poles, and sticks (Figure 68-2). Many such fishing implements were collected between 1877 and 1881 by Edward W. Nelson, who wrote, "For catching salmon trout and large-fin grayling, small ornamented hooks are made of stone and ivory". Hooks and lines attached to rods or poles also were collected by John Murdoch who wrote, "We were informed that these lures were also used for catching small fish, trout, smelts, and perhaps grayling in the rivers in summer." Fishing reels were introduced during the 20th century. The Customary and Traditional Use Eight-Criteria Worksheet for Arctic freshwater finfish from the 1993 Board of Fisheries meeting described gillnet, seine, hook-and-line, and rod-and-reel fishing as the most common freshwater fishing methods.

During public testimony on previous hook-and-line subsistence proposals, the board heard testimony from the public about the efficiency and economy of a hook and a line attached to a pole. A rod and reel is less expensive to own and operate than boats and nets, and allows targeted harvests of small numbers of fish or of a particular species.

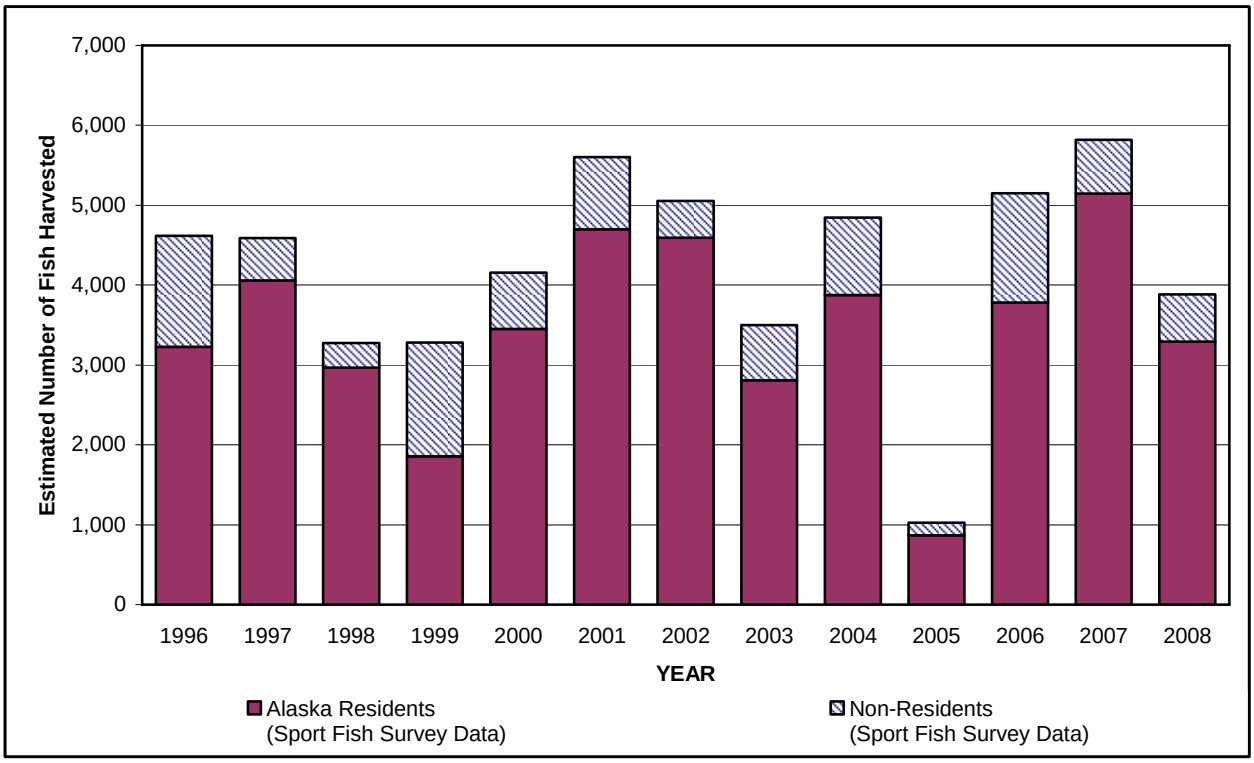

Figure 68-3.-Estimates of rod and reel harvest of all fish species in the Kotzebue Area from Division of Sport Fish statewide surveys, 1996-2008.

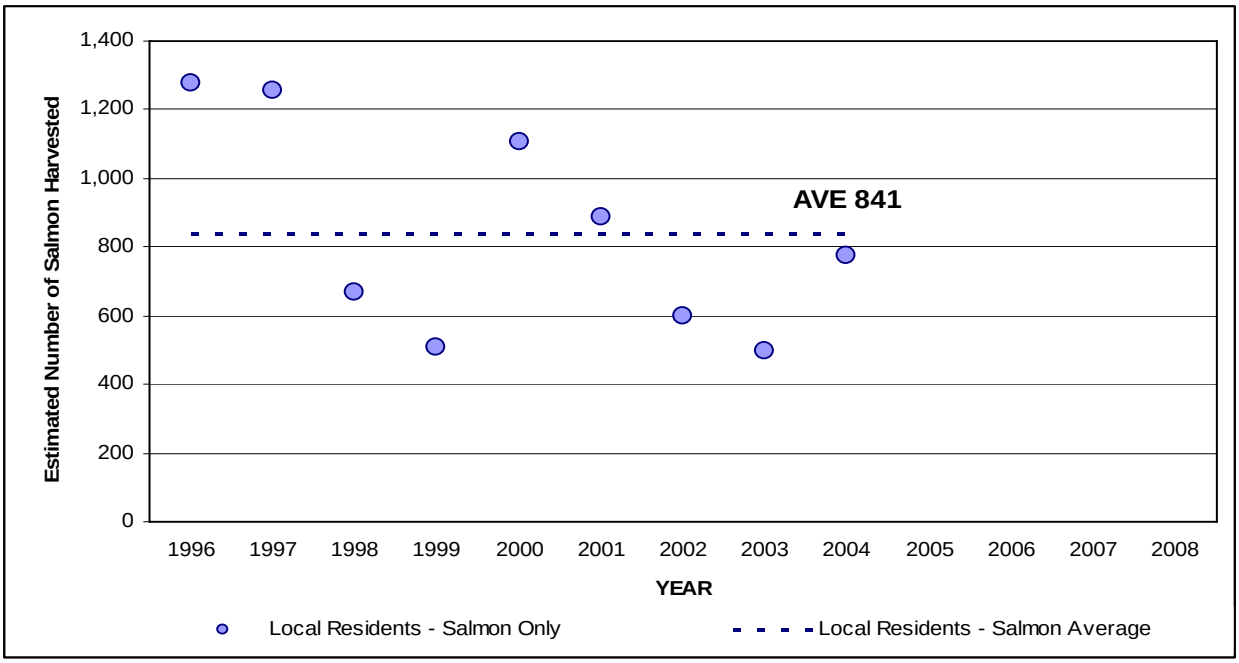

Figure 68-4.-Minimum estimates of rod and reel harvests of salmon in the Kotzebue Area from Division of Subsistence community surveys, 1996-2008.

Harvest estimates for a hook and line attached to a rod or pole were available from two sources: Statewide Harvest Survey (SWHS) conducted by the Division of Sport Fish and community harvest surveys conducted by the Division of Subsistence[1]. The SWHS estimated an average annual harvest of 4,232 fish (all species) in the Kotzebue Area (range 1,025 to 5,820) between 1999 and 2008, including an unknown amount by local residents (Figure 68-3). The community subsistence surveys collected gear-specific data for salmon only and estimated an average annual harvest of 841 salmon in 6 of the 13 Kotzebue Area communities between 1996 and 2004 (Figure 68-4). These surveys did not include Kotzebue and represent only a portion of the total salmon subsistence harvest and none of the non-salmon harvests.

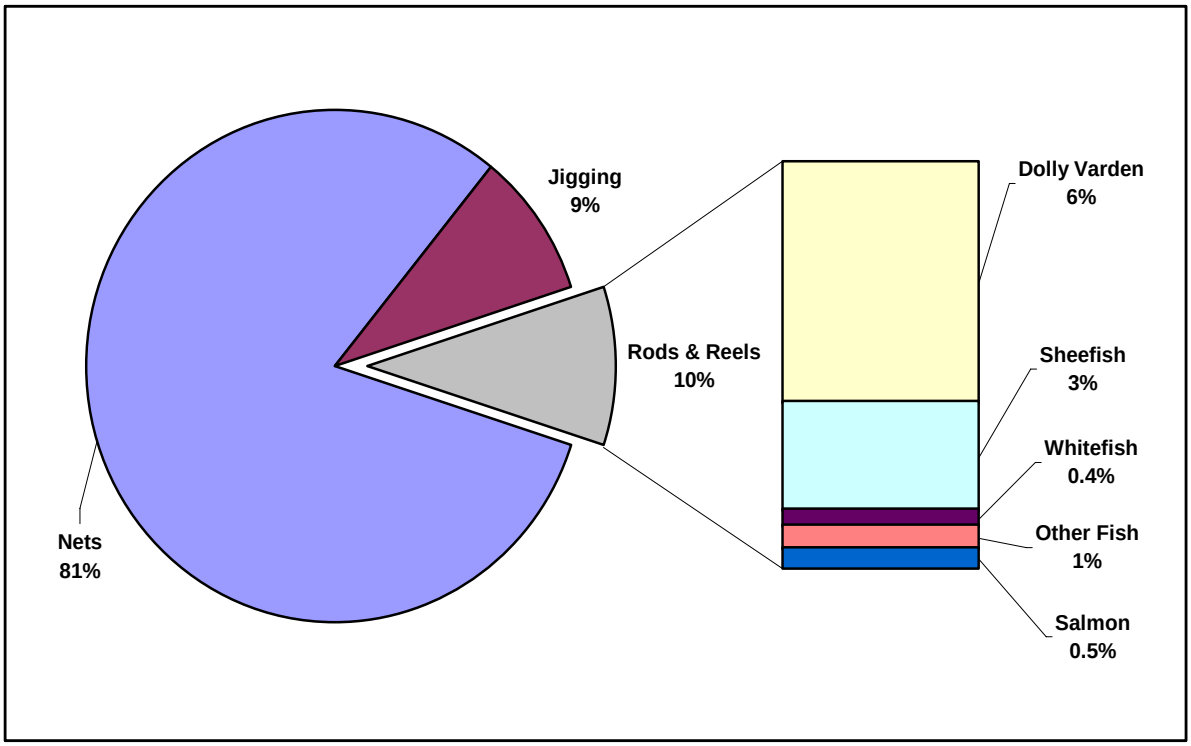

Figure 68-5.-Composition of harvests by gear type and species, from comprehensive community survey data in the Kotzebue Area.

These comprehensive community surveys indicate that fish provide residents of the Kotzebue Area with about 200 pounds of edible wild food annually, or about 40% of the estimated total harvest of 500 pounds per person per year. These fish were primarily harvested with set gillnets and beach seines, but about 10% of the total were harvested with a hook and line attached to a rod or pole (Figure 68-5). Of the total harvest, about

[1] The two data sources have important limitations. The annual subsistence salmon surveys typically surveyed about 350 households each year, but only in 6 of the 13 Kotzebue District communities, and were discontinued in 2004. The Statewide Harvest Surveys (SWHS) are conducted every year. On average, during the past 10 years, about 71 responding households reported fishing in northwest Alaska; only 16 were Northwest Alaska households. Occasionally, a household will be included in both the subsistence and SWHS, which can result in an unknown level of double counting. In addition, the SWHS provide harvest and catch data by fishing site, while the subsistence surveys provide harvest data by community.

6% were Dolly Varden caught with rods and reels, 3% were sheefish caught with rods and reels, and the remaining 1% was other fish species including whitefish, salmon, northern pike, and Arctic grayling caught with rods and reels.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal due to its allocative nature. If adopted, the department recommends the board also adopt similar regulations to those in the Northern Norton Sound – Port Clarence area in which rod and reel subsistence bag limits are linked to the sport limits.

COST ANALYSIS: The department does not believe that approval of this proposal would result in an additional direct cost for a private person to participate in this fishery.

SUBSISTENCE REGULATION REVIEW:

1. Are these stocks in a non-subsistence area? No.

2. Are these stocks customarily and traditionally taken or used for subsistence? Yes. The board made a positive customary and traditional use determination for all salmon, char, and all other finfish in the Kotzebue Area (5 AAC 01.136(2)).

3. Can a portion of these stocks be harvested consistent with sustained yield? This is a board determination.

4. What amount is reasonably necessary for subsistence use? In 1993, the board determined the amount reasonably necessary for subsistence to be 43,500 salmon, as identified in administrative record from the February 1993 Board of Fisheries meeting. In 1997, the board determined the amount reasonably necessary for subsistence to be 671,000 to 1,118,000 pounds of freshwater fish, excluding salmon.

5. Do the regulations provide a reasonable opportunity for subsistence use? This is a board determination.

6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence use? This is a board determination.

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Norton Sound-Port Clarence Area - Subsistence (4 proposals):

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PROPOSAL 69 – 5 AAC 01.170. Lawful gear and gear specifications; and 5 AAC 01.172(a). Limitations on Subsistence Fishing Gear.

PROPOSED BY: Frank Kavairlook Sr.

WHAT WOULD THE PROPOSAL DO? Expand the area in which a hook and line attached to a rod or pole (rod and reel) are a legal subsistence method in the Norton Sound – Port Clarence Area.

WHAT ARE THE CURRENT REGULATIONS? A person may use a hook and line attached to a rod or pole when subsistence fishing only (1) in state waters of and all flowing waters that drain into Northern Norton Sound from Cape Prince of Wales to Bald Point (between Elim and Koyuk), and (2) through the ice.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL IS ADOPTED? Any resident of Alaska would be able to use a hook and line attached to a rod or pole to fish for subsistence in the Norton Sound – Port Clarence Area, except in the Unalakleet River drainage.

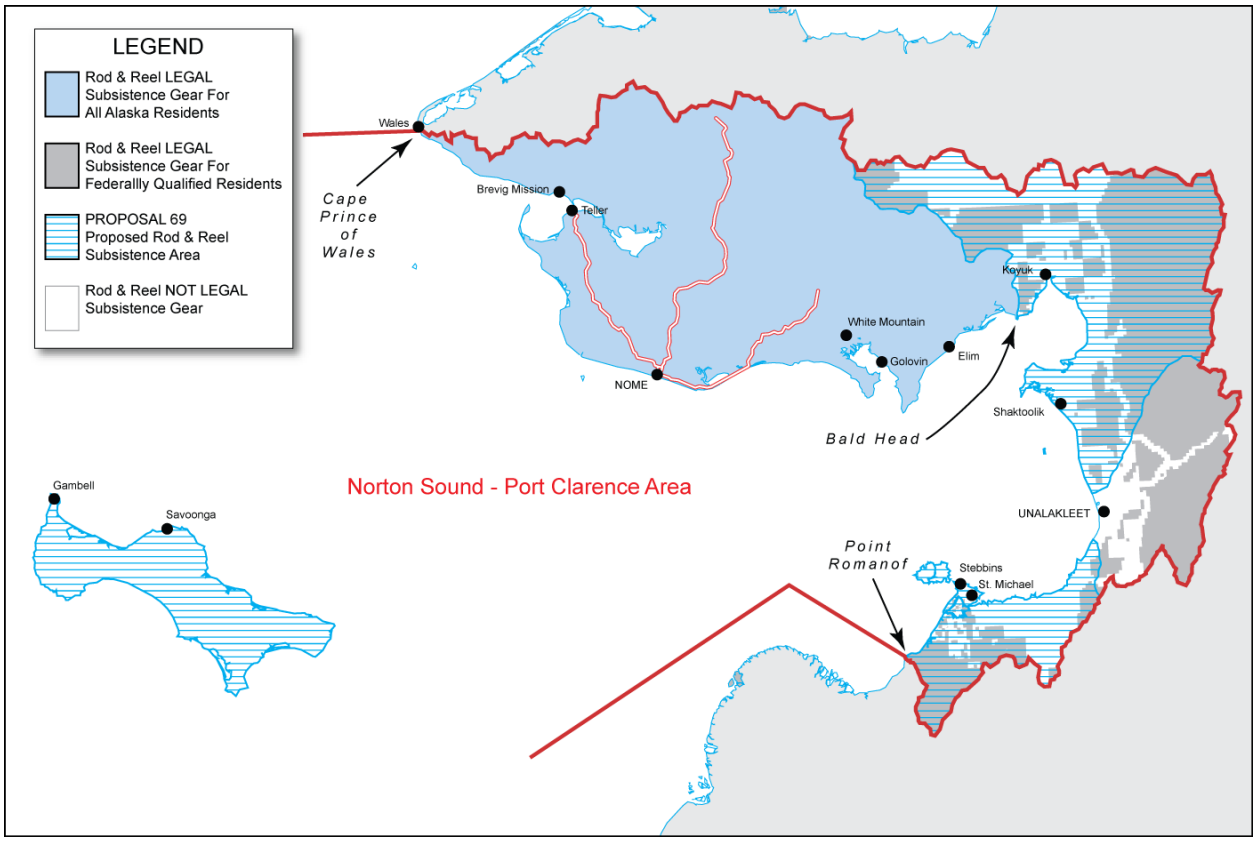

Figure 69-1.–Portions of the Norton Sound – Port Clarence Area where a hook and line attached to a rod or pole is legal subsistence gear, and areas addressed by proposal 69.

BACKGROUND: A hook and line attached to a rod or pole has been a legal subsistence method in state waters in the northern portion of the Norton Sound District and all of the Port Clarence District since 2001, and under federal regulations in waters claimed by the federal government to insure subsistence priority for federally-qualified rural residents in the Norton Sound – Port Clarence Area since 1999 (Figure 69-1). Elsewhere in the Norton Sound – Port Clarence Area, a hook and line attached to a rod or pole is not a legal subsistence method and can only be used under sport fishing regulations. During the past decade, the board has adopted regulations to make a hook and line attached to a rod or pole legal subsistence gear in several Western Alaska areas, including Northern Norton Sound, Port Clarence, the southern portion of the Kotzebue Area, the lower Yukon Area and entire Kuskokwim River drainage. The board did not adopt similar proposals for Southeast Alaska during this same period.

Figure 69-2.-Grayling hook collected by Nelson (1899:180).

Northwest Alaska Iñupiat have long fashioned elaborate lures of ivory, baleen, and bone, and attached them to lines on rods, poles, and sticks (Figure 68-2). Many such fishing implements were collected between 1877 and 1881 by Edward W. Nelson, who wrote, "For catching salmon trout and large-fin grayling, small ornamented hooks are made of stone and ivory." Hooks and lines attached to rods or poles also were collected by John Murdoch, who wrote: "We were informed that these lures were also used for catching small fish, trout, smelts, and perhaps grayling in the rivers in summer." Fishing reels were introduced during the 20th century. During public testimony on previous hook-and-line subsistence proposals, the board heard testimony from the public about the efficiency and economy of a hook and a line attached to a pole. A rod and reel is less expensive to own and operate than boats and nets, and allow targeted harvests of small numbers of fish or of a particular species. The Customary and Traditional Use Eight-Criteria Worksheet for Arctic freshwater finfish from the 1993 Board of Fisheries meeting described gillnet, seine, hook-and-line, and rod-and-reel as the most common freshwater fishing methods.

Figure 69-3 summarizes and compares estimates of salmon harvested using a hook and line attached to a rod or pole from three different sources.[2] The highest estimate, an average of 1,735 salmon per year, comes from annual community surveys conducted by ADF&G from 1995 through 2008. Kawerak's estimate of 873 does not include

[2] ADF&G's annual subsistence salmon surveys contacted 100 to 300 households each year in 1 to 4 of the 4 communities in the Proposal 69 area each year (Koyuk, Shaktoolik, Stebbins, and St. Michael). In years when fewer than 4 communities were surveyed, data were not expanded to estimate harvests in unsurveyed communities and estimates represent a minimum harvest for the area. Only salmon harvest data were collected. ADF&G's Statewide Harvest Surveys (SWHS) also are conducted each year. During the past 12 years, from 0 to 10 responding households (average 3) reported fishing in the Proposal 69 area. In 2006, Kawerak conducted surveys in Stebbins, St. Michael, and Koyuk, using methods similar to the Division of Subsistence. Occasionally, a household will be included in more than one survey, which can result in an unknown level of double counting. In addition, SWHSs provide harvest and catch data by fishing site, while the subsistence surveys provide harvest data by community.

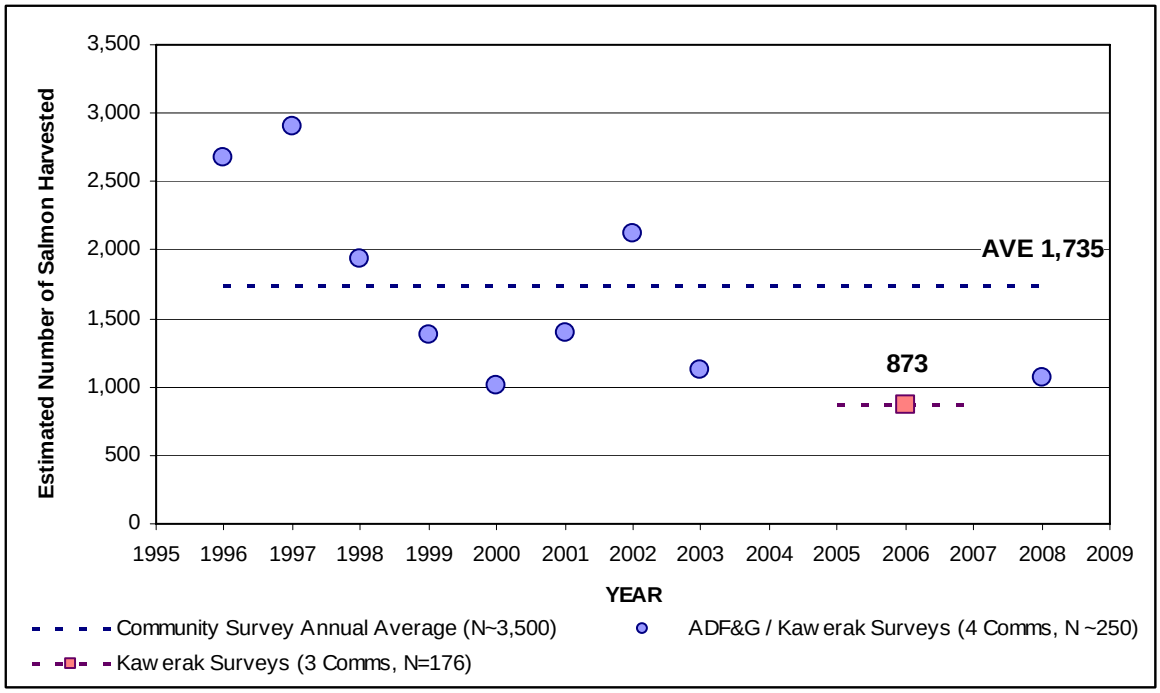

Figure 69-3.-Estimated number of salmon harvested with a hook or line attached to a rod or pole in the proposal 69 area, 1996-2008.

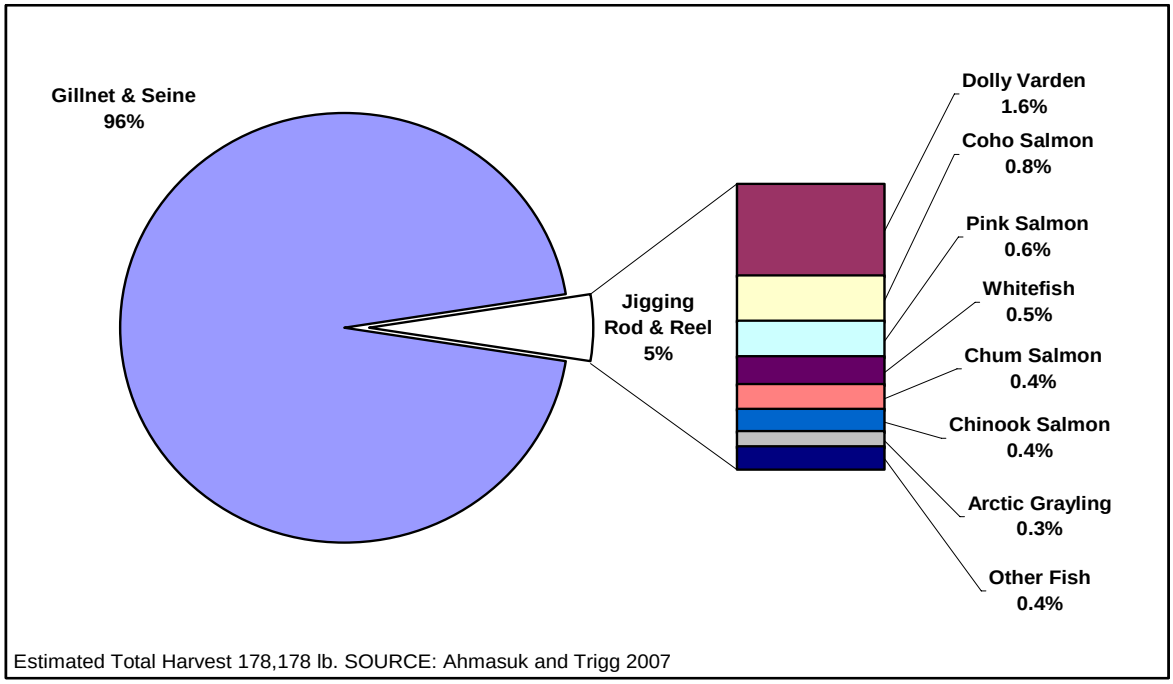

Figure 69-4.-Harvests by gear type from community survey data in three southern Norton Sound communities (Stebbins, St. Michael, and Koyuk).

Shaktoolik, which chose not to be included in the Kawerak survey project. The ADF&G Sport Fish Statewide Harvest Survey (SWHS) average annual estimate over the past 10 years was 364 salmon.

The 2006 Kawerak survey was the only recent source of subsistence harvest information. The survey treated hook-and-line fishing in open water and through the ice as a single category, so the following estimates includes an unknown amount of harvest from jigging through the ice, which would not be affected by Proposal 69. Hook-and-line fishing of all kinds accounted for an estimated 8,888 lb. (5%) of an estimated total fish harvest of 178,178 lbs (Figure 69-4). An estimated 879 Dolly Varden (2,901 lb.) were taken with hook and line, 1.6% of the total fish harvest. The hook and line estimate also included 152 coho salmon (699 lb., 0.8%), 384 pink salmon (879 lb., 0.6%) and 371 whitefish (1,113 lb, 0.5%). Hook and line gear accounted for all the burbot harvest (typically through the ice), 83% of the Dolly Varden harvest, 98% of the Arctic grayling harvest, and 92% of the northern pike harvest. Only 2% of the salmon were taken with hook and line gear, ranging from 4% of the pink salmon to 1% of the king salmon.

The author of the proposal excluded the Unalakleet River drainage. Results from the SWHS indicate that the Unalakleet River accounts for about a third of the total freshwater sport fishing effort in the Norton Sound – Port Clarence Area. Both the Unalakleet River (outside the Proposal 69 area) and the Golsovia River (inside the Proposal 69 area) have guiding operations catering to sport fishing and attract anglers from outside the local area.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal due to its allocative nature. If adopted, the department recommends the board also adopt similar regulations to those in the Northern Norton Sound – Port Clarence area in which rod and reel subsistence bag limits are linked to the sport limits.

COST ANALYSIS: The department does not believe that approval of this proposal would result in an additional direct cost for a private person to participate in this fishery.

SUBSISTENCE REGULATION REVIEW:

1. Are these stocks in a non-subsistence area? No.

2. Are these stocks customarily and traditionally taken or used for subsistence? Yes. The board made a positive customary and traditional use determination for herring along the coast between Point Romanoff and Cape Prince of Wales and along the coast of Saint Lawrence Island, and salmon and all other finfish other than salmon in the Norton Sound-Port Clarence Area (5 AAC 01.186).

3. Can a portion of these stocks be harvested consistent with sustained yield? This is a board determination.

4. What amount is reasonably necessary for subsistence use? In 1997, the board determined the amount reasonably necessary for subsistence to be 225,084 to 375,140 pounds of freshwater fish, excluding salmon. In 1998, the board

determined the amount reasonably necessary for subsistence to be 96,000-160,000 salmon (5 AAC 01.186(b)(1)).

5. Do the regulations provide a reasonable opportunity for subsistence use? This is a board determination.

6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence use? This is a board determination.

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PROPOSAL 70 – 5 AAC 01.172. Limitations on Subsistence Fishing Gear.

PROPOSED BY: Nome Eskimo Community.

WHAT WOULD THE PROPOSAL DO? Allow snagging for non-salmon species in freshwater in the Nome Subdistrict and Port Clarence drainages.

WHAT ARE THE CURRENT REGULATIONS? When using a hook and line attached to a rod or a pole to fish for subsistence in Northern Norton Sound, sport fishing methods and means apply (5 AAC 75.022). It is unlawful to intentionally snag or attempt to snag any fish in fresh water. Fish unintentionally hooked elsewhere than in the mouth must be released immediately. Snagging is allowed in marine waters.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL IS ADOPTED? When using a hook and line attached to a rod or a pole to fish for subsistence, snagging would be allowed in fresh waters in the Nome Subdistrict and Port Clarence drainages.

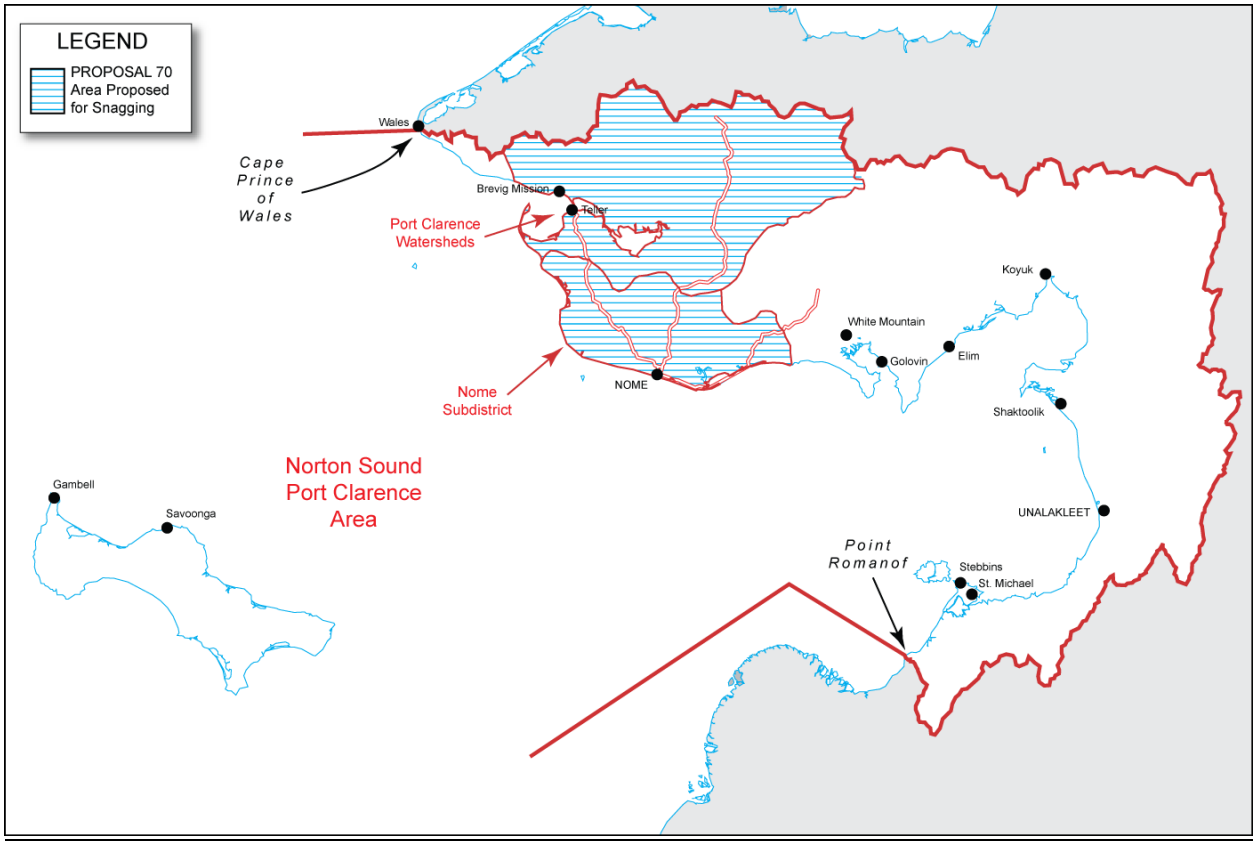

Figure 70-1.–Portions of the Norton Sound–Port Clarence Area addressed by proposal 70.

BACKGROUND: The proposal area includes three communities: Brevig Mission, Teller, and Nome. Subsistence hook-and-line harvest estimates were available from a

subsistence survey administered in 2006 by Kawerak, Inc., while sport fish harvest estimates were available from ADF&G's SWHS. For subsistence, Brevig Mission residents generally relied on nets; hook-and-line gear accounted for only 0.3% of their total subsistence fish harvest (in edible pounds).[3] In 2006, Brevig Mission residents harvested an estimated total of 15 Dolly Varden and 5 northern pike (about 5% of their freshwater fish harvest) using hook-and-line gear. Teller residents relied more heavily on hook-and-line gear, which accounted for 5% of their estimated total subsistence fish harvest (in edible pounds). Hook-and-line gear accounted for an estimated 271 Dolly Varden, 274 northern pike, and 21 whitefish (primarily humpback whitefish) harvested by Teller residents in 2006 (about 37% of their freshwater fish harvest). The subsistence data – which did not include Nome – indicated a total estimated harvest of 583 freshwater finfish, primarily Dolly Varden and northern pike (Figure 70-2).

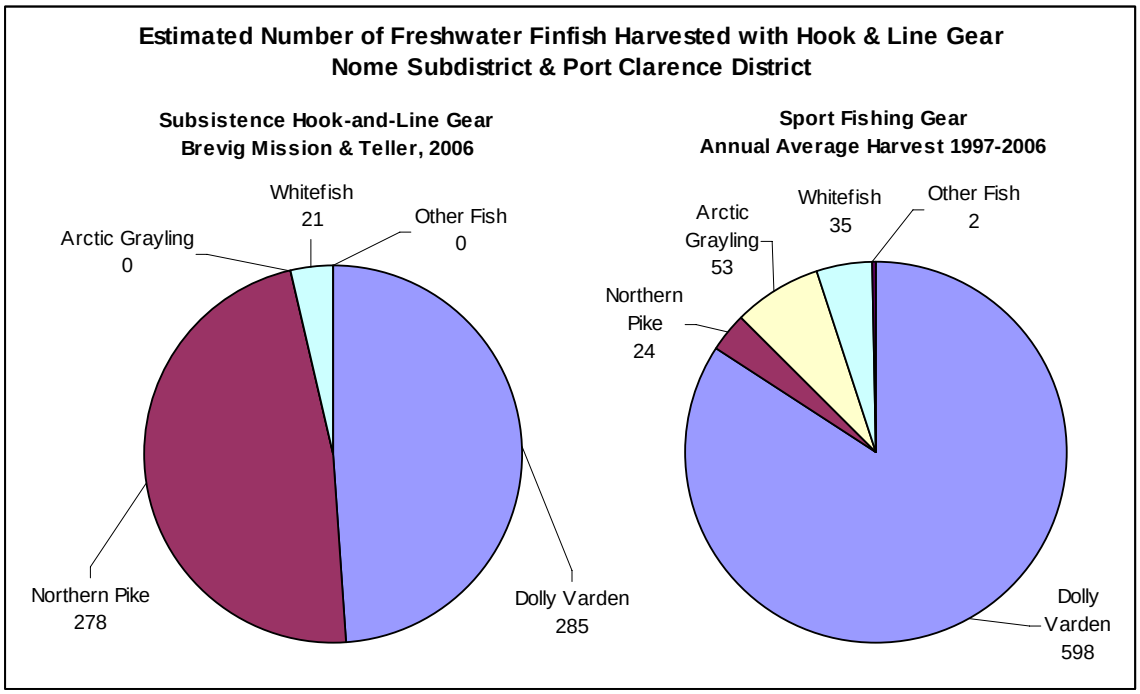

Figure 70-2.–Composition of estimated freshwater finfish harvest from subsistence hook and line gear, left, in Brevig Mission and Teller, and from sport fishing gear for all sport fishing in the proposal 70 area.

The SWHS estimated an annual harvest by Alaskan residents and non-residents of about 710 freshwater finfish from the proposal area from 1996-2007, including 598 Dolly Varden (85%), 53 Arctic grayling (7%), 35 whitefish (5%), and 24 northern pike (3%).

The department has conservation concerns about snagging in waters where salmon and other schooling non-target species (such as Dolly Varden) are present. Although the proposal targets non-salmon species, it could be difficult to avoid snagging salmon since

[3] The Brevig Mission and Teller data are from a Kawerak subsistence survey, which made no distinction between hook-and-line harvests in open water or through the ice.

the majority of snagging activity would occur during the open water period when salmon are present. This would result in some unknown level of fishing mortality, as fish that are snagged often escape with injury that may or may not be fatal. Salmon in shallow, clear-water streams typical of the Seward Peninsula, especially on spawning beds, are very vulnerable to snagging. While salmon have been a primary target of this snagging, a few Nome residents use snagging gear to catch small numbers of whitefish in the Kuzitrin River in the vicinity of the Kougarok Road, about 60 miles north of Nome. Very few salmon spawn in the Kuzitrin system above its confluence with the Pilgrim River. Nome residents drive to the Kuzitrin in September to seine whitefish, which congregate in large numbers to spawn in the vicinity of the Kougarok River Bridge. In 2006, one individual fished in the upper Kuzitrin area under a freshwater commercial fishing permit and sold 3,723 pounds of whitefish for use locally as bait. The proposal would primarily affect those Nome residents who use Nome's extensive road system to access interior Seward Peninsula rivers.

Department subsistence fishing permits are required in the Nome Subdistrict and Port Clarence District when fishing for salmon. In 2006, Nome Subdistrict permit holders reported harvesting 14,260 salmon, of which 88% were caught in fresh waters. Of all salmon caught in the subdistrict, 72% were reported caught by hook and line. In 2006, nearly all salmon were caught with nets in Brevig Mission and Teller. Brevig Mission permit holders reported a catch of 6,048 salmon in 2006, of which 6 (0.1%) were reported caught with hook and line, and Teller permit holders reported a catch of 6,856 salmon, of which 280 (4.1%) were reported caught by hook and line.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal due to conservation concerns for fish stocks, primarily salmon, not targeted by the proposal. Some portion of the fish listed in the proposal are marine species and can already be snagged in marine waters.

COST ANALYSIS: The department does not believe that approval of this proposal would result in an additional direct cost for a private person to participate in this fishery.

SUBSISTENCE REGULATION REVIEW:

1. Are these stocks in a non-subsistence area? No.

2. Are these stocks customarily and traditionally taken or used for subsistence? Yes. The board made a positive customary and traditional use determination for freshwater finfish other than salmon in the Norton Sound – Port Clarence Area (5 AAC 01.186).

3. Can a portion of these stocks be harvested consistent with sustained yield? This is a board determination.

4. What amount is reasonably necessary for subsistence use? In 1997, the board determined the amount reasonably necessary for subsistence to be 225,084 to 375,140 pounds of freshwater fish, excluding salmon. In 1998, the board determined the amount reasonably necessary for subsistence to be 96,000-160,000 salmon (5 AAC

01.186(b)(1)).

5. Do the regulations provide a reasonable opportunity for subsistence use? This is a board determination.

6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence use? This is a board determination.

****

PROPOSAL 71 – 5 AAC 01.170(e). Lawful gear and gear specifications.

PROPOSED BY: Thomas S. Sparks.

WHAT WOULD THE PROPOSAL DO? This proposal would allow beach seines to be used in the Nome area subdistrict (Subdistrict 1) during the scheduled subsistence net fishing periods: one 72-hour period per week in marine waters and two 48-hour periods per week in fresh waters.

WHAT ARE THE CURRENT REGULATIONS? Currently, beach seines are only allowed in Subdistrict 1 by emergency order.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL IS ADOPTED? If adopted, subsistence fishermen would have the opportunity to use beach seines during scheduled openings when net fishing is allowed.

BACKGROUND: Regulation changes in 1992 restricted the use of beach seines in Subdistrict 1. In the past, beach seines were viewed as an overly-effective means to harvest fish. Managers are still able to allow the use of beach seines by emergency order to harvest the more abundant species if escapement is likely to be met.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. Current management practices allow for seining in times of high salmon abundance. In even-numbered years pink salmon are in higher abundance and beach seining is allowed by emergency order during the regularly scheduled subsistence gillnet periods. If other salmon are in low abundance, the emergency order issued requires the salmon of low abundance to be released. Allowing beach seines throughout the season would result in a very effective gear type to harvest salmon before managers would be able to assess run strength.

COST ANALYSIS: Adoption of this proposal is expected to result in an additional direct cost for private individuals to participate in this fishery, because fishermen may incur a cost to purchase a beach seine.

SUBSISTENCE REGULATION REVIEW:

1. Is this stock in a nonsubsistence area? No.

2. Is the stock customarily and traditionally taken or used for subsistence? Yes. The board made a positive customary and traditional use determination for salmon and all finfish other than salmon in the Norton Sound-Port Clarence Area (5 AAC 01.186(2)) and chum salmon in Subdistrict 1 of the Norton Sound District (5 AAC 01.186(3)).

3. Can a portion of the stock be harvested consistent with sustained yield? Yes.

4. What amount is reasonably necessary for subsistence use? The board determined the amount reasonably necessary for subsistence to be 96,000–160,000 salmon for Norton Sound-Port Clarence Area (5 AAC 01.186(b)(1)), 3,430–5,716 chum salmon for Subdistrict 1 (Nome) of the Norton Sound District (5 AAC 01.186(b)(2)), 225,084–375,140 pounds of all freshwater finfish excluding salmon (BOF December 1997 RC42).

5. Do the regulations provide a reasonable opportunity for subsistence use? This is a board determination.

6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence use? This is a board determination. However, commercial and sport fishing for chum salmon is closed in Subdistrict 1.

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Norton Sound-Port Clarence Area - Commercial (7 proposals):

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PROPOSAL 72 – 5 AAC 01.170. Lawful gear and gear specifications and 5 AAC 04.395. Subdistricts 5 and 6 of the Norton Sound District and the Unalakleet River King Salmon Management Plan.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would allow additional management flexibility and subsistence fishing opportunity by allowing the use of 7-inch or smaller mesh size gillnets when there is a need to conserve king salmon.

WHAT ARE THE CURRENT REGULATIONS? Current regulations allow managers to restrict gillnet mesh size to no greater than 6-inches or no greater than 4.5-inches.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL IS ADOPTED? If adopted, this proposal would allow managers to restrict mesh size of subsistence gillnets to a smaller size that would harvest smaller king salmon, but fewer chum and pink salmon.

BACKGROUND: Subdistricts 5 and 6 king salmon runs have been below expectations since 2000 and have been designated a stock of yield concern since 2004. During recent years there have been closures to commercial fishing, restrictions and closures to subsistence fishing, and reductions in sport fish bag limits and sport fishing closures. Restricting subsistence gillnets to 6-inch or smaller mesh size to conserve king salmon has effectively closed subsistence fishing. Because of high incidental catches of chum

and pink salmon when using 6-inch mesh gear, there has been almost no effort by subsistence fishermen during these fishing periods.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. This additional management option would provide subsistence fishermen opportunity to harvest smaller king salmon while conserving larger king salmon, including females, when necessary. Seven inch mesh gear would also reduce the incidental harvest of chum and pink salmon that are caught in higher amounts when fishing with 6-inch and smaller mesh size gillnets. In the future, the department may establish mesh size restrictions earlier in the king salmon run. A restriction to 7- inch mesh or less would provide more opportunity than the current option of 6-inch mesh or less that has effectively closed king salmon fishing because of high incidental catches of chum and pink salmon in recent years.

COST ANALYSIS: Adoption of this proposal is expected to result in additional direct costs for private individuals to participate in this fishery if fishermen choose to purchase a gillnet with a mesh size between 6 and 7-inches.

SUBSISTENCE REGULATION REVIEW:

1. Is this stock in a nonsubsistence area? No.

2. Is the stock customarily and traditionally taken or used for subsistence? Yes. The board made a positive customary and traditional use determination for salmon and all finfish other than salmon in the Norton Sound-Port Clarence Area (5 AAC 01.186(2)).

3. Can a portion of the stock be harvested consistent with sustained yield? Yes.

4. What amount is reasonably necessary for subsistence use? The board determined the amount reasonably necessary for subsistence to be 96,000–160,000 salmon for Norton Sound-Port Clarence Area (5 AAC 01.186(b)(1).

5. Do the regulations provide a reasonable opportunity for subsistence use? This is a board determination.

6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence use? This is a board determination.

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PROPOSAL 73 – 5 AAC 04.310 (4). Fishing seasons.

PROPOSED BY: Norton Sound Economic Development Corporation.

WHAT WOULD THE PROPOSAL DO? This proposal would allow the Port Clarence District commercial salmon fishery to start as early as June 15.

WHAT ARE THE CURRENT REGULATIONS? Currently, the Port Clarence District is opened by emergency order from July 1 to July 31.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL IS ADOPTED? If adopted, this proposal would allow an earlier start date to commercial fishing targeting sockeye salmon returning to Salmon Lake. There would be less certainty in assessing strength of the sockeye salmon run with an earlier season start date because the first sockeye salmon passage at Pilgrim River weir is usually in late June or early July.

BACKGROUND: Sockeye salmon runs in Port Clarence District have increased by a factor of ten in the past decade. The department, Norton Sound Economic Development Corporation (NSEDC), and U.S. Bureau of Land Management sponsored a lake fertilization program in Salmon Lake for five years from 1997-2001. Smaller scale fertilization through a cooperative effort by NSEDC and department occurred in 2004 and 2007–2009. In addition to fertilization, current environmental conditions are thought to be favorable for sockeye salmon production as seen in a trend of increasing abundance in western Alaska. Although subsistence use has had a proportionate increase in harvest and effort, there have been very large sockeye salmon escapements at Salmon Lake, ranging from 20,452 to 85,417 from 2003 to 2008.

In 2007, the board adopted regulations to allow a commercial salmon fishery in Port Clarence District. Although commercial fishing requires an inriver goal of 30,000 sockeye salmon to Pilgrim River, the present escapement goal is an aerial survey goal of 4,000-8,000 sockeye salmon at Salmon Lake. The 2007 commercial fishery harvested 1,152 sockeye salmon and 3,183 chum salmon, and the 2008 commercial fishery harvested 89 sockeye, 256 chum, and 910 pink salmon. Commercial fishing was suspended in mid-July 2008 when the run projection showed that the Pilgrim River inriver goal would not be reached. In 2009, only 953 sockeye salmon passed through the weir. This resulted in no commercial fishery; subsistence net fishing for salmon was suspended in Pilgrim River and Salmon Lake remained closed to salmon fishing.

The reported subsistence harvest of sockeye salmon in the Pilgrim River was 5,266 in 2007; 3,439 in 2008; and 694 in 2009. The Port Clarence reported subsistence sockeye salmon harvest, excluding the Pilgrim River drainage, was 4,178 in 2007 and 1,659 in 2008. The 2009 fishery is still being assessed, but with about 70% of permit holders reporting by mid-October, the harvest is 650 sockeye salmon. The department makes the Pilgrim River inriver sockeye projection based on Pilgrim River weir passage at the historical midpoint of the run on July 15. However, subsistence catch reports from Port Clarence are also used to

determine relative abundance. Because of weak subsistence catches in June and early July, a commercial fishery was not allowed in 2009 and the Pilgrim River weir count confirmed a weak sockeye run.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. Although this proposal provides for more flexibility in determining the start date of the fishery, there would be less certainty in assessing run strength earlier in the season. Based upon the large sockeye escapements in recent years (2003–2007), there has been a surplus of fish available for harvest.

In 2007 and 2008, the commercial fishery harvested more chum salmon than sockeye salmon for each fishing period. In 2006, the department and NSEDC cooperatively conducted a test fishery in Grantley Harbor and found that sockeye salmon were available in the proposed fishing area with an incidental harvest of chum salmon. Test fishing results showed the ratio of sockeye salmon to chum salmon by date to be 0.75 to 1 on July 3, 2.83 to 1 on July 7, 1.28 to 1 on July 11, 0.19 to 1 on July 17, and 0.25 to 1 on July 21. An earlier start date to the fishery would likely allow for a better sockeye salmon to chum salmon catch ratio. The chum salmon run to Port Clarence District rivers has later run timing than the sockeye salmon run. Additionally, chum salmon runs from 2006 through 2008 were much higher than average.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

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PROPOSAL 74 – 5 AAC 04.200(a). Fishing districts and subdistricts.

PROPOSED BY: Morris Nakarak.

WHAT WOULD THE PROPOSAL DO? This proposal would expand the Norton Sound, Moses Point Subdistrict (Subdistrict 3) boundaries so that the western marker is located at the mouth of Carson Creek and the eastern boundary is the tip of Bald Head, also known as Isaac's Point.

WHAT ARE THE CURRENT REGULATIONS? Under current regulations, Subdistrict 3 consists of waters from Elim Point located three-fourths of mile east of Elim to the terminus of Kwik River.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL IS ADOPTED? Expanding the boundaries of Subdistrict 3 would provide opportunity to harvest salmon from other nearshore areas in close proximity to the village of Elim and spread out fishing effort that has historically been concentrated near the mouths of the Kwiniuk and Tubutulik Rivers, the largest producers of salmon in Subdistrict 3.

BACKGROUND: Norton Sound District was divided into 6 fishing subdistricts in 1962, the boundaries of which were established based on the assumption that catches in each subdistrict were comprised of salmon bound for streams in that subdistrict. The original boundaries of Subdistrict 3 were from Cape Darby to Bald Head. In 1974, the boundaries of Subdistrict 3 were changed to Elim Point, located approximately three-fourths of a mile east of Elim to the mouth of the Kwik River.

A tagging study conducted from 1978-1979 revealed that Subdistricts 5 and 6 were mixing areas with catches comprised of salmon recaptured in other subdistricts and outside the district, whereas salmon fisheries in Subdistricts 2, 3, and 4 tended to be directed almost exclusively on local salmon stocks.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal. Figure 74-1 shows a map comparing the current Subdistrict 3 boundaries with the proposed new boundaries. Expanding the Moses Point Subdistrict boundaries along the coast would likely spread out commercial fishing effort that has been typically concentrated near the mouths of the Tubutulik and Kwiniuk Rivers. Tagging studies also suggest that changing the boundaries of the Subdistrict 3 is unlikely to impact salmon stocks from neighboring subdistricts. Additionally, fishing further west and further from the major freshwater inputs may decrease the number of watermarked salmon harvested in Subdistrict 3, thereby improving the marketable quality of the salmon catch.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct cost for private individuals to participate in this fishery.

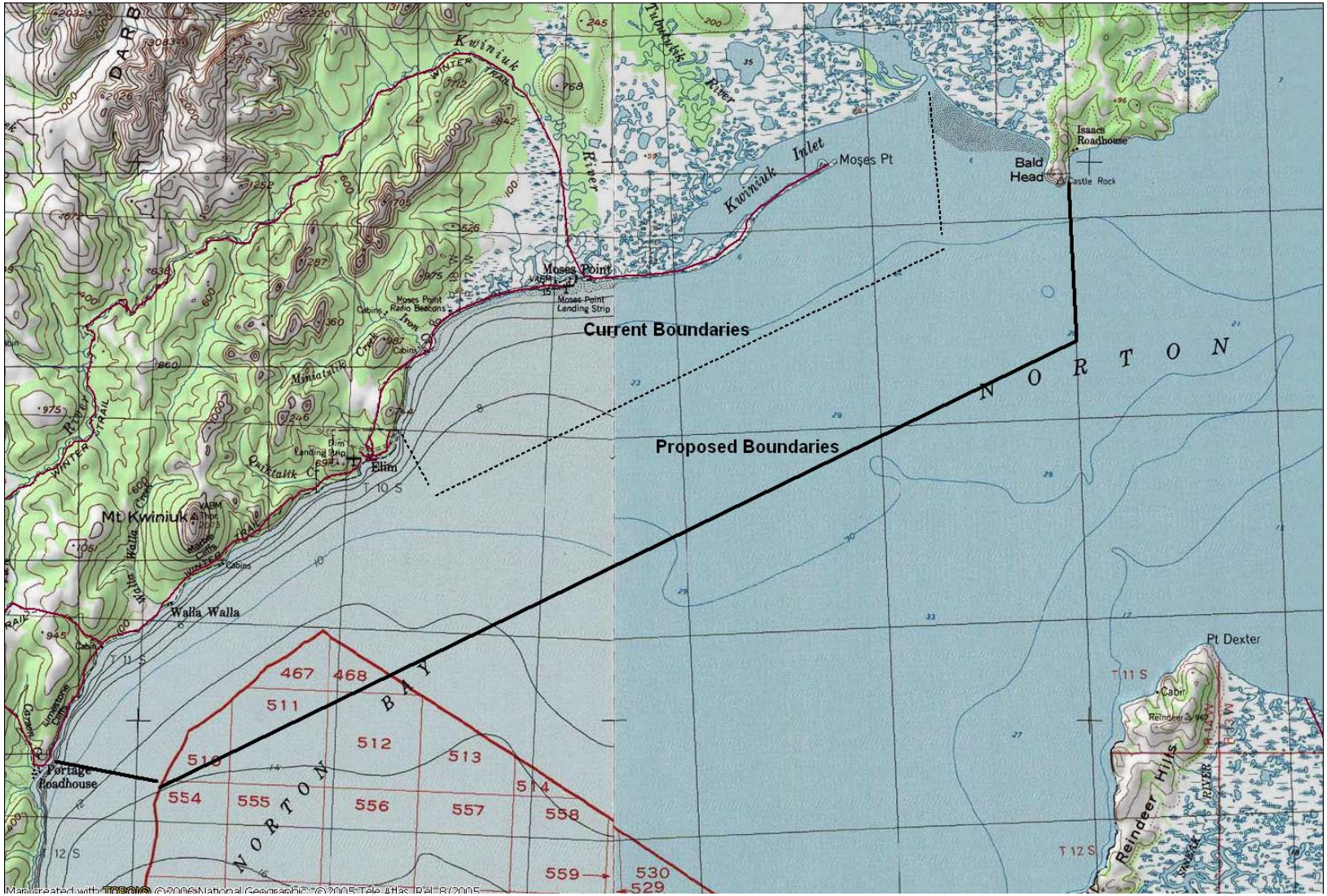

Figure 74-1.–Current and proposed commercial salmon fishing boundaries for Subdistrict 3, Norton Sound District.

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PROPOSAL 75 – 5 AAC 04.330. Gear.

PROPOSED BY: Nome Fishermen's Association.

WHAT WOULD THE PROPOSAL DO? This proposal would allow commercial salmon fishermen to use drift gillnets in the Port Clarence District.

WHAT ARE THE CURRENT REGULATIONS? Set gillnets only.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL IS ADOPTED? If adopted, this proposal would allow another method of harvest and would allow for harvest in waters where set gillnets may not be effective.

BACKGROUND: In 2007, commercial salmon fishing was allowed in the Port Clarence District for the first time since 1966. The 2007 commercial fishery harvested 1,152 sockeye salmon and 3,183 chum salmon, and the 2008 commercial fishery harvested 89 sockeye, 256 chum, and 910 pink salmon. Commercial fishing was suspended in mid-July 2008 when the run projection showed that the Pilgrim River inriver goal would not be reached. In 2009, only 953 sockeye salmon passed through the weir. This resulted in no commercial fishery; subsistence net fishing for salmon was suspended in Pilgrim River and Salmon Lake remained closed to salmon fishing. Because commercial salmon fishing had not been allowed in Port Clarence for 40 years, commercial salmon regulations did not include Port Clarence when allowing for drift gillnets to be used in the Norton Sound District. Fishermen have expressed interest in being allowed to use drift gillnets in the deeper channels near Teller.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. This proposal would allow Port Clarence District commercial fishermen to target salmon in the deeper channels. Port Clarence has a guideline harvest range (GHR) of 0–10,000 sockeye salmon and allowing the use of drift gillnets would not result in any change to the GHR.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct cost for private individuals to participate in this fishery.

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PROPOSAL 76 – 5 AAC 04.430. Gear.

PROPOSED BY: Adem Boechmann.

WHAT WOULD THE PROPOSAL DO? This proposal would allow purse seines for harvesting pink salmon in the Norton Sound District commercial fishery.

WHAT ARE THE CURRENT REGULATIONS? The current regulation allows only gillnets.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL IS ADOPTED? If adopted, this proposal would allow the department to open areas in Norton Sound District to purse seining in times of high abundance of pink salmon.

BACKGROUND: Record pink salmon runs to Norton Sound have occurred since the mid-2000s during even-numbered years. Pink salmon harvests have been minimal in recent years because of a lack of markets (Table 76.1), leaving an unharvested surplus that has resulted in very large escapements primarily in even-numbered years (Table 76.2). Recently, buyers have expressed increased interest in purchasing pink salmon.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. Although a purse seine fishery would likely allow for efficient harvest of pink salmon, the department is neutral on allocation between gear types.

COST ANALYSIS: Adoption of this proposal is expected to result in additional direct cost for private individuals to participate in this fishery because some fishermen may incur costs of procuring a purse seine and needed gear for seining.

Table 76.1. -Commercial and subsistence catch by species, by year for Subdistricts 1-6 in Norton Sound District.

	SUBDISTRICTS 1-6											
	Commercial						Subsistence					
Year	King	Sockeye	Coho	Pink	Chum	Total	King	Sockeye	Coho	Pink	Chum	Total
1985 [a]	19,491	166	21,968	3,647	134,928	180,200	1,830	119	6,496	5,312	18,457	32,214
1986 [a]	6,395	233	35,600	41,260	146,912	230,400	150	107	688	8,720	8,085	17,750
1987 [a]	7,080	207	24,279	2,260	102,457	136,283	200	107	1,100	1,251	8,394	11,052
1988 [a]	4,096	1,252	37,214	74,604	107,966	225,132	63	133	1,076	2,159	5,952	9,383
1989 [a]	5,707	265	44,091	123	42,625	92,811	24	131	5,150	18,424	4,787	4,947
1990 [a]	8,895	434	56,712	501	65,123	131,665	2,534	234	510	2,233	4,246	7,281
1991 [a]	6,068	203	63,647	-	86,871	156,789	395	166	3,432	3,749	6,375	14,117
1992 [a]	4,541	296	105,418	6,284	83,394	199,933	252	163	2,762	13,503	2,944	19,624
1993 [a]	8,972	279	43,283	157,574	53,562	263,670	420	80	3,287	2,599	3,401	9,787
1994	5,285	80	102,140	982,389	18,290	1,108,184	5,116	747	17,429	66,656	15,613	105,561
1995	8,860	128	47,863	81,644	42,898	181,393	5,339	3,316	17,811	37,363	31,707	95,536
1996	4,984	1	68,206	487,441	10,609	571,241	4,944	586	21,040	60,676	20,286	107,532
1997	12,573	161	32,284	20	34,103	79,141	6,104	785	11,600	22,438	12,866	53,793
1998	7,429	7	29,623	588,013	16,324	641,396	5,063	307	10,418	24,721	5,036	45,545
1999	2,508	0	12,662	0	7,881	23,051	4,331	866	12,233	19,186	13,049	49,665
2000	752	14	44,409	166,548	6,150	217,873	3,690	324	13,455	37,773	12,989	68,231
2001	213	44	19,492	0	11,106	30,855	4,724	750	11,293	29,812	13,963	60,542
2002	5	1	1,759	0	600	2,365	4,792	443	11,773	56,669	13,095	86,772
2003	12	0	17,058	0	3,560	20,630	4,728	536	11,446	46,338	9,498	72,546
2004 [a]	0	40	42,016	0	6,296	48,352	4,448	541	11,579	72,887	4,541	93,996
2005 [a]	151	280	85,255	0	3,983	89,669	3,383	857	12,783	57,785	6,115	80,923
2006 [a]	11	3	130,808	0	10,042	140,864	3,258	572	19,210	56,579	5,992	85,611
2007 [a]	19	2	126,115	3,769	22,431	152,336	2,646	938	11,879	20,954	12,011	48,428
2008	83	60	120,293	75,384	25,124	220,944	2,278	361	16,520	50,438	5,379	74,976
2009 [d]		126	87,041	17,364	34,122	138,653	3,443	405	9,763	26,137	8,938	48,686
5-year avg. [b]	53	77	100,897	15,831	13,575	130,433	3,203	654	14,394	51,729	6,808	76,787
10-year avg. [c]	375	44	59,987	24,570	9,717	94,694	3,828	619	13,217	44,842	9,663	72,169

[a] Not all subdistricts were surveyed.

[b] 2004-2008.

[c] 1999-2008.

[d] King salmon caught in commercial fishery (84) were used for subsistence.

Table 76-2. - Total escapement for chum, pink, coho, and king salmon for Kwiniuk, Niukluk, Nome, and Snake Rivers (starting 1995), North River (starting 1996), and Eldorado River (starting 1997).

Year	Chum	Pink	Coho [a]	King
1995	138,317	49,409	7,333	626
1996	124,571	2,535,593	16,175	2,027
1997	109,945	163,728	11,434	5,550
1998	98,166	3,070,848	4,496	2,741
1999	55,352	73,077	10,069	1,846
2000	65,007	1,883,867	19,678	1,324
2001	70,451	79,706	30,645	1,718
2002	93,931	2,239,565	21,625	2,925
2003	49,749	392,827	13,761	2,466
2004	40,494	6,432,486	28,399	2,022
2005	68,585	2,594,334	44,351	1,530
2006	171,406	5,763,830	56,484	1,256
2007	123,394	708,663	37,112	2,324
2008	41,639	3,928,722	49,737	1,250
2009	41,809	276,669	39,610	3,053

[a] Most projects did not operate during the coho salmon season until 2001.

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PROPOSAL 77 – 5 AAC 04.430. Gear.

PROPOSED BY: Nome Fishermen's Association.

WHAT WOULD THE PROPOSAL DO? This proposal would allow purse and beach seines for commercial salmon fishing in the Norton Sound-Port Clarence Area.

WHAT ARE THE CURRENT REGULATIONS? The current regulation allows only gillnets in these commercial fisheries.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL IS ADOPTED? If adopted, this proposal would allow commercial salmon fishing with purse seines and beach seines in the Norton Sound-Port Clarence Area.

BACKGROUND: Record pink salmon runs to Norton Sound have occurred since the mid-2000s during even-numbered years. Pink salmon harvests have been minimal in recent years because of a lack of markets (Table 76.1), leaving an unharvested surplus that has resulted in very large escapements, primarily in even-numbered years (Table 76.2). Recently, buyers have expressed increased interest in purchasing pink salmon.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. Although the use of purse or beach seines in these commercial fisheries would likely allow for efficient harvest of pink salmon, ADF&G is neutral on allocation between gear types.

COST ANALYSIS: Adoption of this proposal is expected to result in additional direct cost for private individuals to participate in this fishery because some fishermen may incur costs of procuring purse and/or beach seines and needed gear for seining.

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PROPOSAL 78 – 5 AAC 27.965(m). Management for Herring Pound Spawn-On-Kelp Fishery in the Norton Sound District.

PROPOSED BY: Eric Osborne.

WHAT WOULD THE PROPOSAL DO? This proposal would allow closed pounding for herring spawn-on-kelp in Norton Sound District.

WHAT ARE THE CURRENT REGULATIONS? Current regulations only allow open herring pounds that do not have an enclosure.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL IS ADOPTED? If adopted, this proposal would allow another type of herring spawn-on-kelp fishery in Norton Sound District.

BACKGROUND: The last significant commercial harvest of herring occurred in 2000 when 4,390 tons of sac roe herring were harvested. Since 2007, the Norton Sound commercial herring fishery has been limited to a small directed bait fishery because of weak market interest. Processors have also been reluctant to deploy vessels to Norton Sound to harvest sac roe because of higher operating costs to reach Norton Sound and lower market demand in recent years for herring products. The last sac roe herring fishery in Norton Sound was in 2006. Table 78.1 summarizes herring spawn-on-kelp harvests in Norton Sound from 1978-2007. The last herring spawn-on-wild kelp (*Fucus* sp.) fishery occurred in 2007 and the last herring spawn-on-kelp fishery using open pounds (*Macrocystis* sp.) was in 2003. The current management plan, 5 AAC 27.965 *Management Plan for Herring Pound Spawn-On-Kelp Fishery in the Norton Sound District*, allows for open pounds and has been in effect since the 1998 season.

5 AAC 27.965(m) defines a "pound" in the Norton Sound District as a structure (usually a rectangular floating framing) or other means of suspending kelp in the water to provide spawning substrate for herring to be harvested as spawn-on-kelp. In the Norton Sound open-pound fishery, small diameter polypropylene lines affixed with *Macrocystis* kelp blades are deployed via a rectangular rigid frame or as single suspended or floating long-lines outfitted with buoys. Successful deposition of herring spawn and marketable quality of spawn on kelp in an open-pound fishery are dependent upon fishing location, timing of spawning herring, and weather. Open pounding is an inherently risky endeavor as kelp blades must be flown in and kept fresh with daily water changes and success hinges on the timing, location, and local weather conditions. Since herring spawn close to shore, open pounds must be placed in shallow water. Roe quality often suffers as a consequence of silt deposition on egg layers because of grounding or turbulence in the surf zone.

Table 78.1. - Historical herring spawn-on-kelp harvests in short tons (st) from imported kelp (*Macrocystis* sp.) and wild kelp (*Fucus* sp.), Norton Sound District, 1978 - 2007.

Year	Permits Fished	*Macrocystis* sp. Harvest (st)	*Fucus* sp. Harvest (st)	Total Harvest
1978	9		3.8	3.8
1979	19		13.0	13
1980	20		24.4	24.4
1981	22		46.4	46.4
1982	44		38.3	38.3
1983	35		29.2	29.2
1984	32	3.3	25.8	29.1
1985-1997 [a]				
1998	11	8.0		8
1999	2	3.7	1.1	4.8
2000	3	2.3		2.3
2001	3	2.2		2.2
2002 [a]				
2003	2	0.9		0.9
2004 [a]				
2005 [a]				
2006	1		0.6	0.6
2007	1		0.1	0.1

[a] No spawn-on-kelp harvests.

In Southeastern Alaska and Prince William Sound areas, a closed pound is defined as "a single, floating, rectangular frame structure with suspended webbing that is used to enclose herring for a period of time in order to produce spawn on kelp suspended within the pound." Regulations concerning the area, depth, and web size of the pound differ in each area. A closed pound eliminates much of the risk associated with open pounding because a school of herring can be impounded until they spawn on kelp blades, in contrast to attempting to attract herring to spawn on open pounds in nearshore areas. Additionally, once herring have been enclosed within a pound, the pound can be moved offshore where wave action is less likely to result in silt deposition on spawn. Therefore, closed pounding may significantly improve the quality of herring spawn-on-kelp.

DEPARTMENT COMMENTS: The department is **NEUTRAL** because of the allocative nature of this proposal. Current regulations do allow for open pounds and the guideline harvest level (GHL) for herring spawn-on-kelp may not exceed 90 tons. Allowing a pound fishery may change the allocation of the open pound herring spawn on kelp fishery and there are questions regarding the relationship between the estimated herring biomass needed to produce a given amount of spawn-on-kelp product. Currently, the biomass allocation to the herring spawn on kelp fishery is 320 tons, with a maximum of 90 tons (28% of the allocation) of herring spawn on kelp product that can be sold. In the Prince William Sound and Togiak Herring Districts, spawn-on-kelp product is equivalent to 8 and 12% of the biomass allocation respectively. These percentages are well below the 28% of the biomass used in Norton Sound. Using a 12% equivalent

percentage for Norton Sound herring spawn on kelp would require a biomass of 720 tons. Conversely, if the herring biomass is 320 tons, the allocation would be 39 tons of spawn on kelp product.

There is some evidence of increased mortality of impounded herring caused by stress and relatively high rates of transmission of parasites. Research in Prince William Sound herring pounds indicated the stress of pounding herring caused the expression of Viral Hemorrhagic Septicemia (VHS). Additionally, the virus particles were found in water around the pound and could be spread to herring outside the pounds. VHS has been correlated with declines in abundance in Prince William Sound herring. It is unknown if VHS would be a problem in Norton Sound.

The Norton Sound herring resource has been underutilized since the early 2000s and the department anticipates that if allowed, a closed pound herring fishery would represent a minimal increase in exploitation. If markets exist, allowing this fishery would provide another source of income for Norton Sound permit holders.

COST ANALYSIS: Adoption of this proposal is expected to result in additional direct cost for private individuals to participate in this fishery because of costs for procuring kelp and building a pound.

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PROPOSAL 79 – 5 AAC 27.965(a) and (m). Management for Herring Pound Spawn-On-Kelp Fishery in the Norton Sound District.

PROPOSED BY: Nome Fishermen's Association.

WHAT WOULD THE PROPOSAL DO? This proposal would allow closed pounding for herring in Norton Sound-Port Clarence Area.

WHAT ARE THE CURRENT REGULATIONS? Current regulations only allow open herring pounds that do not have an enclosure in Norton Sound District.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL IS ADOPTED? If adopted, this proposal would allow another type of herring spawn-on-kelp fishery in Norton Sound and Port Clarence Districts.

BACKGROUND: The last significant harvest of herring in the Norton Sound District occurred in 2000 when 4,390 tons of sac roe herring were harvested. Since 2007, the Norton Sound herring fishery has been limited to a small directed bait fishery because of weak market interest. Processors have also been reluctant to deploy vessels to Norton Sound to harvest sac roe because of higher operating costs to reach Norton Sound and lower market demand in recent years for herring products. The last sac roe herring fishery in Norton Sound was in 2006. Table 78.1 summarizes herring spawn-on-kelp harvests in Norton Sound from 1978-2007. The commercial herring sac roe and bait harvest in Port

Clarence has been small and sporadic because of difficult fishing conditions (Table 79.1). A guideline harvest level (GHL) of 150 metric tons (165 short tons) was set in 1983 (5AAC 27.960(c)), but was repealed in 1985. Biomass is difficult to assess in the turbid waters of Port Clarence, which has resulted in the department continuing to use a GHL of 165 tons in the herring fishery. Commercial kelp fisheries are not in regulation in Port Clarence District. In Norton Sound District, the last herring spawn-on-wild kelp (*Fucus* sp.) fishery occurred in 2007 and the last herring spawn-on-kelp fishery using open pounds (*Macrocystis* sp.) was in 2003. The *Management Plan for Herring Pound Spawn-On-Kelp Fishery in the Norton Sound District* (5 AAC 27.965) allows for open pounds and has been in effect since the 1998 season.

5 AAC 27.965 (m) defines a "pound" in the Norton Sound District as a structure (usually a rectangular floating framing) or other means of suspending kelp in the water to provide spawning substrate for herring to be harvested as spawn-on-kelp. In the Norton Sound open-pound fishery, small diameter polypropylene lines affixed with *Macrocystis* kelp blades are deployed via a rectangular rigid frame or as single suspended or floating long-lines outfitted with buoys. Successful deposition of herring spawn and marketable quality of spawn on kelp in an open-pound fishery are dependent upon fishing location, timing of spawning herring, and weather. Open pounding is an inherently risky endeavor as kelp blades must be flown in and kept fresh with daily water changes and success hinges on the timing, location, and local weather conditions. Since herring spawn close to shore, open pounds must be placed in shallow water. Roe quality often suffers as a consequence of silt deposition on egg layers caused by grounding or turbulence in the surf zone.

Table 79.1. Port Clarence District commercial herring fishery history.

Year	Fishery	Gillnet Permits	Purse Seine Permits	Harvest (pounds)
1986	Fall Bait	1		130
1987	Sac Roe	3	3	291,000
1987	Fall Bait	Unknown		1,100
1988	Sac Roe	3	3	160,000
1994	Fall Bait	4		8,706
1995	Spring Bait	8		19,193
1995	Fall Bait	2		9,119
1996	Spring Bait	4		5,546

In the Southeastern Alaska and Prince William Sound areas, a closed pound is defined as "a single, floating, rectangular frame structure with suspended webbing that is used to enclose herring for a period of time in order to produce spawn on kelp suspended within

the pound." Regulations concerning the area, depth, and web size of the pound differ in each area. Closed pound eliminates much of the risk associated with open pounding because a school of herring can be impounded until they spawn on kelp blades, in contrast to attempting to attract herring to spawn on open pounds in nearshore areas. Additionally, once herring have been enclosed within a pound, the pound can be moved offshore where wave action is less likely to result in silt deposition on spawn. Therefore, it is likely that closed pounding may significantly improve the quality of herring spawn-on-kelp.

DEPARTMENT COMMENTS: The department is **NEUTRAL** because of the allocative nature of this proposal. Regulations do allow for open pounds in Norton Sound District and the guideline harvest level (GHL) for herring spawn-on-kelp may not exceed 90 tons. However, commercial kelp fisheries are not in regulation for Port Clarence District. In Norton Sound District, allowing a pound fishery may change the allocation of the open pound herring spawn on kelp fishery and there are questions regarding the relationship between the estimated herring biomass needed to produce a given amount of spawn-on-kelp product. Currently, the biomass allocation to the herring spawn on kelp fishery is 320 tons, with a maximum of 90 tons (28% of the allocation) of herring spawn on kelp product that can be sold. In the Prince William Sound and Togiak Herring Districts, spawn-on-kelp product is equivalent to 8 and 12% of the biomass, allocation respectively. These percentages are well below the 28% of the biomass used in Norton Sound. Using a 12% equivalent percentage for Norton Sound herring spawn on kelp would require a biomass of 720 tons. Conversely, if the herring biomass is 320 tons, the allocation would be 39 tons of spawn on kelp product.

There is some evidence of increased mortality of impounded herring caused by stress and relatively high rates of transmission of parasites. Research in Prince William Sound herring pounds indicated the stress of pounding herring caused the expression of Viral Hemorrhagic Septicemia (VHS). Additionally, the virus particles were found in water around the pound and could be spread to herring outside the pounds. VHS has been correlated with declines in abundance in Prince William Sound herring. It is unknown if VHS would be a problem in Norton Sound.

The Norton Sound District herring resource has been underutilized since the early 2000s and the department anticipates that if allowed, a closed pound herring fishery would represent a minimal increase in exploitation. Port Clarence District has had very limited market interest even when herring prices were much higher. The effectiveness of a spawn-on-kelp pound fishery there is unknown because a pound fishery has never been attempted and is not in regulation. If markets exist, allowing this fishery would provide another source of income for Norton Sound permit holders.

COST ANALYSIS: Adoption of this proposal is expected to result in additional direct costs for private individuals to participate in this fishery because of costs for procuring kelp and building a pound.

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Norton Sound-Port Clarence Area - Sport (1 proposal):

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PROPOSAL 80 – 5 AAC 70.011(c)(3)(D). Seasons, bag, possession, and size limits for the Northwestern Management Area.

PROPOSED BY: Fred DeCicco.

WHAT WOULD THE PROPOSAL DO? This proposal would open the fresh water drainages and salt waters of Norton Sound between the tip of Cape Rodney and the tip of Topkok Head (including the Sinuk, Cripple, Penny, Snake, Nome, Flambeau, Eldorado, Bonanza, and Solomon rivers) to the sport harvest of chum salmon.

WHAT ARE THE CURRENT REGULATIONS? 5 AAC 70.011(c)(3)(D)…in all fresh water drainages and the salt waters of Norton Sound between the tip of Cape Rodney and the tip of Topkok Head, including the Sinuk, Cripple, Penny, Snake, Nome, Flambeau, Eldorado, Bonanza, and Solomon rivers, sport fishing for chum salmon is closed.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If this proposal is adopted, sport anglers will have the opportunity to fish for and harvest chum salmon in these waters.

BACKGROUND: Due to poor chum salmon returns to the rivers of the Nome Subdistrict, the subsistence, commercial, and sport fisheries for chum salmon were closed by emergency order in 1991. These closures were adopted into regulation in 1992. In 1999, the board designated the Nome Subdistrict a Tier II subsistence chum salmon permit fishery, and in 2000, all Nome Subdistrict chum salmon stocks were determined to be stocks of management concern based on the *Policy for the Management of Sustainable Salmon Fisheries*. In 2001, the escapements of chum salmon in the Nome Subdistrict began to improve and there is currently a Tier I subsistence salmon fishery for chum salmon in the Nome Subdistrict. In addition, a line attached to a rod or pole was designated legal subsistence gear in Northern Norton Sound in 2001. In 2007, due to improved chum salmon escapements the stock of concern designation for the Nome Subdistrict was downgraded to a yield concern. The sport fishery for chum salmon in these waters has remained closed by regulation since 1992.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal due to the allocative aspects of this proposal. Because a line attached to a rod or pole is legal subsistence gear for Alaska residents, adoption of this proposal will mainly affect non-residents who want to harvest chum salmon.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

SUBSISTENCE REGULATION REVIEW:

1. Is this stock in a nonsubsistence area? No.

2. Is the stock customarily and traditionally taken or used for subsistence? Yes; the board made a positive customary and traditional use determination for chum salmon in Subdistrict 1 of the Norton Sound District (5 AAC 01.236(2)).

3. Can a portion of the stock be harvested consistent with sustained yield? This is a biological determination. There has been a harvestable surplus of chum salmon in Subdistrict 1 of the Norton Sound District during 3 of the last 10 years.

4. What amount is reasonably necessary for subsistence use? The board determined the amount reasonably necessary for subsistence is 3,430-5,716 chum salmon in the Subdistrict 1 of the Norton Sound District (5 AAC 01.186(b)(2)).

5. Do the regulations provide a reasonable opportunity for subsistence use? This is a board determination.

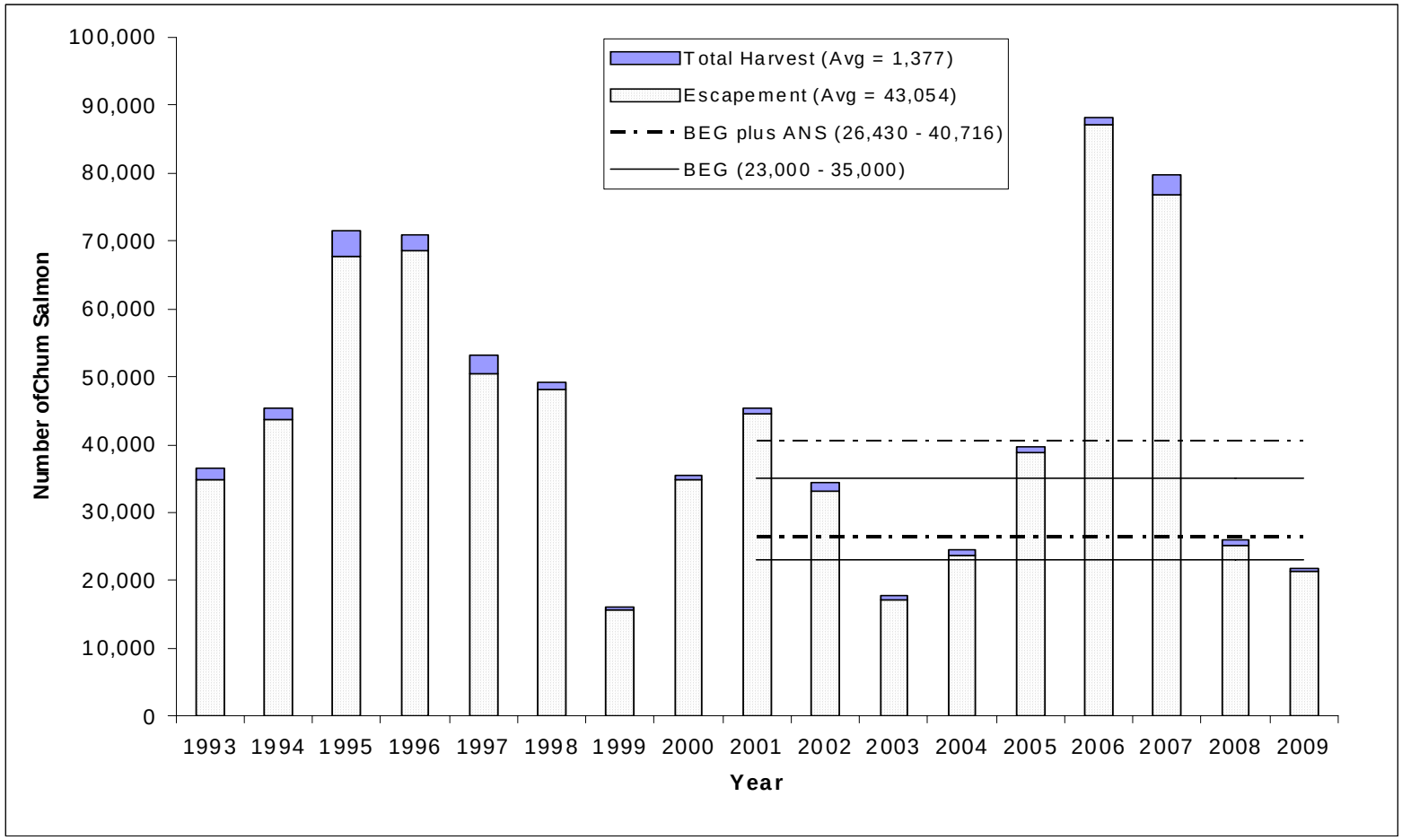
6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence use? This is a board determination.

Table 80-1.–Estimated chum salmon escapements, sport harvest, and catch in major drainages of the Nome Subdistrict, 1984 – 2008.

	Nome River (EG = 2,900-4,300)			Snake River (EG = 1,600 – 2,500)			Sinuk River[1]	
Year	Escapement	Harvest	Catch	Escapement	Harvest	Catch	Harvest	Catch
1984	ND	325	ND	ND	0	ND	143	ND
1985	ND	189	ND	ND	0	ND	0	ND
1986	ND	76	ND	ND	94	ND	ND	ND
1987	ND	0	ND	ND	ND	ND	72	ND
1988	ND	273	ND	ND	437	ND	146	ND
1989	ND	495	ND	ND	97	ND	10	ND
1990	ND	122	ND	ND	41	ND	14	ND
1991	ND	241	389	ND	93	109	47	186
1992	ND	0	266	ND	0	0	0	15
1993	ND	0	175	ND	0	37	0	28
1994	2,969	0	36	ND	7	37	0	22
1995	5,093	0	478	4,395	0	189	0	44
1996	3,339	0	432	2,772	0	111	0	200
1997	5,147	0	113	6,184	0	9	0	160
1998	1,930	0	8	11,067	0	0	0	0
1999	1,048	0	0	484	0	0	0	0
2000	4,056	0	20	1,911	0	0	0	12
2001	2,859	0	13	2,182	0	78	0	0
2002	1,720	0	220	2,776	0	0	0	23
2003	1,957	0	0	2,201	0	0	0	14
2004	3,903	0	14	2,146	0	14	0	149
2005	5,584	0	0	2,967	0	54	0	477
2006	5,677	0	122	4,160	0	116	0	709
2007	7,034	0	121	8,147	0	15	0	91
2008	2,607	0	157	1,244	0	92	0	120
2009	1,565			891				
Average 1984-1991	ND	215	389	ND	109	109	62	186
Average 1999-2008	3,645	0	67	2,822	0	37	0	160

There is currently no escapement goal or enumeration project on the Sinuk River for chum salmon.
[2] The sport fishery for chum salmon has been closed by regulation to harvest since 1992.

Figure 80-1.–Drainage-wide chum salmon escapements and harvests[1] for all flowing waters of the Nome Subdistrict 1993-2009, with BEG and ANS[2] determinations denoted.



[1] Subsistence comprised 99% of all chum salmon harvest in the Nome Subdistrict between 1993 and 2009.
[2] ANS (amount necessary for subsistence) for chum salmon in the Nome Subdistrict is 3,430 – 5,716 fish per year.

COMMITTEE C - YUKON AREA SALMON AND FRESHWATER FISH (23 PROPOSALS)

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Subsistence (6 proposals):

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PROPOSAL 81 – 5 AAC 01.210. Fishing seasons and periods.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal seeks to change the subsistence salmon fishing schedule in Yukon Area Subdistricts 4-B and 4-C during commercial fishing closures lasting longer than five days to a weekly closure of 6:00 p.m. Friday until 6:00 p.m. Sunday. Therefore, subsistence salmon fishing would be open from 6:00 p.m. Sunday until 6:00 p.m. Friday.

WHAT ARE THE CURRENT REGULATIONS? Currently, in Subdistricts 4-B and 4-C during commercial fishing closures lasting longer than five days, salmon may not be taken from 6:00 p.m. Sunday until 6:00 p.m. Tuesday. Thus, subsistence fishing is open from 6:00 p.m. Tuesday until 6:00 p.m. Sunday.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would return Subdistricts 4-B and 4-C to the traditional weekday subsistence fishing schedule.

BACKGROUND: Regulations were changed in 2004 to allow subsistence fishing on weekends in Districts 3 and 4. However, fishermen in Subdistricts 4-B and 4-C have requested that they return to the traditional schedule which was in place since the mid-1970s. The traditional fishing schedule is two 48-hour subsistence fishing periods from 6:00 p.m. Sunday until 6:00 p.m. Tuesday and from 6:00 p.m. Wednesday until 6:00 p.m. Friday. Typically, the department issues another emergency order to implement the five day per week schedule of 6:00 p.m. Sunday until 6:00 p.m. Friday which complements the weekly schedule.

DEPARTMENT COMMENTS: The department submitted this proposal and **SUPPORTS** it. Adopting this schedule would match regulations with current management practices, eliminate the need for issuing an emergency order to change the existing regulation, and be less confusing for the public.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

SUBSISTENCE REGULATION REVIEW:

1. Is this stock in a non-subsistence area? A portion of the king, chum and coho salmon stocks migrate through the Fairbanks Nonsubsistence Area (primarily Subdistrict 6-C).

2. Is the stock customarily and traditionally taken or used for subsistence? Yes. The board made a positive customary and traditional use determination for king, summer chum, fall chum, coho, and pink salmon in the Yukon-Northern Area (5 AAC 01.236(1)).

3. Can a portion of the stock be harvested consistent with sustained yield? Yes.

4. What amount is reasonably necessary for subsistence use? The board determined the amount reasonably necessary for subsistence to be 45,500-66,704 king salmon; 83,500-142,192 summer chum salmon; 89,500-167,900 fall chum salmon; and 20,500-51,980 coho salmon in the Yukon-Northern Area (5AAC 01.236(b)(1-4)).

5. Do the regulations provide a reasonable opportunity for subsistence use? This is a board determination.

6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence use? This is a board determination.

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PROPOSAL 82 – 5 AAC 01. 210. Fishing seasons and periods.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would establish a subsistence salmon fishing schedule in Subdistrict 4-A of two 48-hour periods per week during the commercial fishing season, without interruption, due to commercial salmon fishing periods.

WHAT ARE THE CURRENT REGULATIONS? Currently, during the commercial fishing season, subsistence salmon fishing is closed 12 hours immediately before, during, and 12 hours after each commercial fishing period in Subdistrict 4-A.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would allow subsistence salmon fishing in Subdistrict 4-A to be open for two 48-hour periods per week which may be concurrent with commercial fishing periods.

BACKGROUND: During the 1980s, Subdistrict 4-A had two 48-hour concurrent commercial and subsistence fishing periods per week. Commercial fishing periods were reduced to 12 to 18 hours duration in the 1990s. In 1994, regulations were changed to close subsistence salmon fishing 12 hours before, during, and 12 hours after each commercial fishing period in Subdistrict 4-A. This change was adopted in part because

Subdistrict 4-A had a large scale commercial fishery that targeted summer chum salmon for roe extraction, with heavy fishing pressure until the mid 1990s. The roe market crashed after the 1996 fishing season and was followed by a period of poor summer chum salmon runs from 1998 through 2002. This resulted in the loss of commercial fisheries infrastructure and fishing gear.

DEPARTMENT COMMENTS: The department submitted this proposal and **SUPPORTS** it. Since 2003, Subdistrict 4-A has been struggling to reestablish a viable fishery. The primary commercial fishing gear is fish wheels, which target chum salmon migrating along the riverbank. The number of fish wheels is much lower now than during the peak of the commercial fishery in the early 1990s and commercial fishing periods have been 24 to 48 hours in duration. Closing subsistence fishing 12 hours before, during, and 12 hours after each commercial fishing period will not provide adequate time for subsistence fishing. In recent years, fishery managers have allowed subsistence and commercial fishing to take place concurrently through use of emergency orders. At this time, the department does not have a concern for illegal roe entering markets because of Alaska Department of Environmental Conservation food safety and processing requirements. Additionally, most subsistence fishing in Subdistrict 4-A is conducted with drift gillnet gear to target king salmon, not summer chum salmon. Adopting this schedule would match regulations with current management practices and eliminate the need for issuing emergency orders to change existing regulations.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

SUBSISTENCE REGULATION REVIEW:

1. Is this stock in a non-subsistence area? A portion of the king, chum, and coho salmon stock migrates through the Fairbanks Nonsubsistence Area (primarily Subdistrict 6-C).

2. Is the stock customarily and traditionally taken or used for subsistence? Yes. The board made a positive customary and traditional use determination for king, summer chum, fall chum, coho, and pink salmon in the Yukon-Northern Area (5 AAC 01.236(1)).

3. Can a portion of the stock be harvested consistent with sustained yield? Yes.

4. What amount is reasonably necessary for subsistence use? The board determined the amount reasonably necessary for subsistence to be 45,500-66,704 king salmon; 83,500-142,192 summer chum salmon; 89,500-167,900 fall chum salmon; and 20,500-51,980 coho salmon in the Yukon-Northern Area (5AAC 01.236(b)(1-4)).

5. Do the regulations provide a reasonable opportunity for subsistence use? This is a board determination.

6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence use? This is a board determination.

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PROPOSAL 83 – 5 AAC 01.230. Subsistence fishing permits.

PROPOSED BY: Fairbanks AC.

WHAT WOULD THE PROPOSAL DO? This proposal would require recording the subsistence harvest of all fish species throughout the Yukon River drainage on catch calendars, which would effectively be a subsistence fishing permit.

WHAT ARE THE CURRENT REGULATIONS? Currently, subsistence fishing permits are required for all fish species during open water periods of areas adjacent to road systems near the upper Koyukuk River, near the Haul Road Bridge, near Circle and Eagle communities, and in the Tanana River above Wood River (Figure 83-1). Permits for salmon are required in Subdistricts 6-A and 6-B in the Tanana River. Permits are also required for northern pike in the Tolovana River, which is a Tanana River tributary. In the remainder of the Yukon Area, no subsistence fishing permits are required.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? All subsistence fishermen in the Yukon Area would be required to record all fish caught on harvest calendars all year long and similar to requirements under existing subsistence fishing permit regulations.

BACKGROUND: Subsistence fishing permits are required in selected areas of the Yukon River. In the remainder of the drainage, subsistence harvest information is collected by surveying households postseason. A subset of all households is sampled and the total subsistence harvest is expanded for communities and areas that are not required to have a subsistence fishing permit. As part of the postseason subsistence salmon harvest surveys, catch calendars covering the months of May through September are mailed out to Yukon River fishing households. During the past five years (2004-2008) an average of 1,514 catch calendars have been distributed, with an average response rate of 20%. Currently, completing and turning in catch calendars is voluntary.

Salmon runs declined from 1998 through 2002, with chum and coho salmon rebounding since 2002. However, king salmon runs were poor from 2007 to 2009 and some fishermen are concerned about accurate reporting of harvests and sale of subsistence caught salmon. In the Yukon River, sale of subsistence caught fish is prohibited by state regulations. However, federal rules allow customary trade with few restrictions.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal as written. However, the department is supportive of seeking methods by which improved harvest recording can be accomplished. Requiring fishermen to record their catch on a calendar in regulation would increase the response rate, but will necessitate a significant increase in programmatic outreach and department presence in Yukon River communities throughout the fishing season. Furthermore, requiring fishermen to record their catch on a calendar in regulation would not likely have any affect on the illegal sale of subsistence caught fish as this is largely an enforcement issue. A catch calendar or permit

requirement will not necessarily result in more accurate subsistence harvest information than the current postseason subsistence salmon harvest survey program. However, calendars or permits would have the potential of improving harvest timing information, if accurately completed. This proposal would be difficult to implement in a vast area making up the Yukon Area and may increase costs to effectively replace the existing systematic household survey program. The public has not been very supportive of a requiring subsistence fishing permits. For such a program to succeed it would be advantageous to have public support for such a change. If this proposal is adopted, the department would likely use an existing permit already utilized in the Yukon Area rather than a catch calendar.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

SUBSISTENCE REGULATION REVIEW:

1. Is this stock in a non-subsistence area? A portion of the king, chum, and coho salmon stock migrates through the Fairbanks Nonsubsistence Area (primarily Subdistrict 6-C).

2. Is the stock customarily and traditionally taken or used for subsistence? Yes. The board made a positive customary and traditional use determination for king, summer chum, fall chum, coho, and pink salmon and freshwater finfish in the Yukon-Northern Area (5 AAC 01.236(1) and (2).

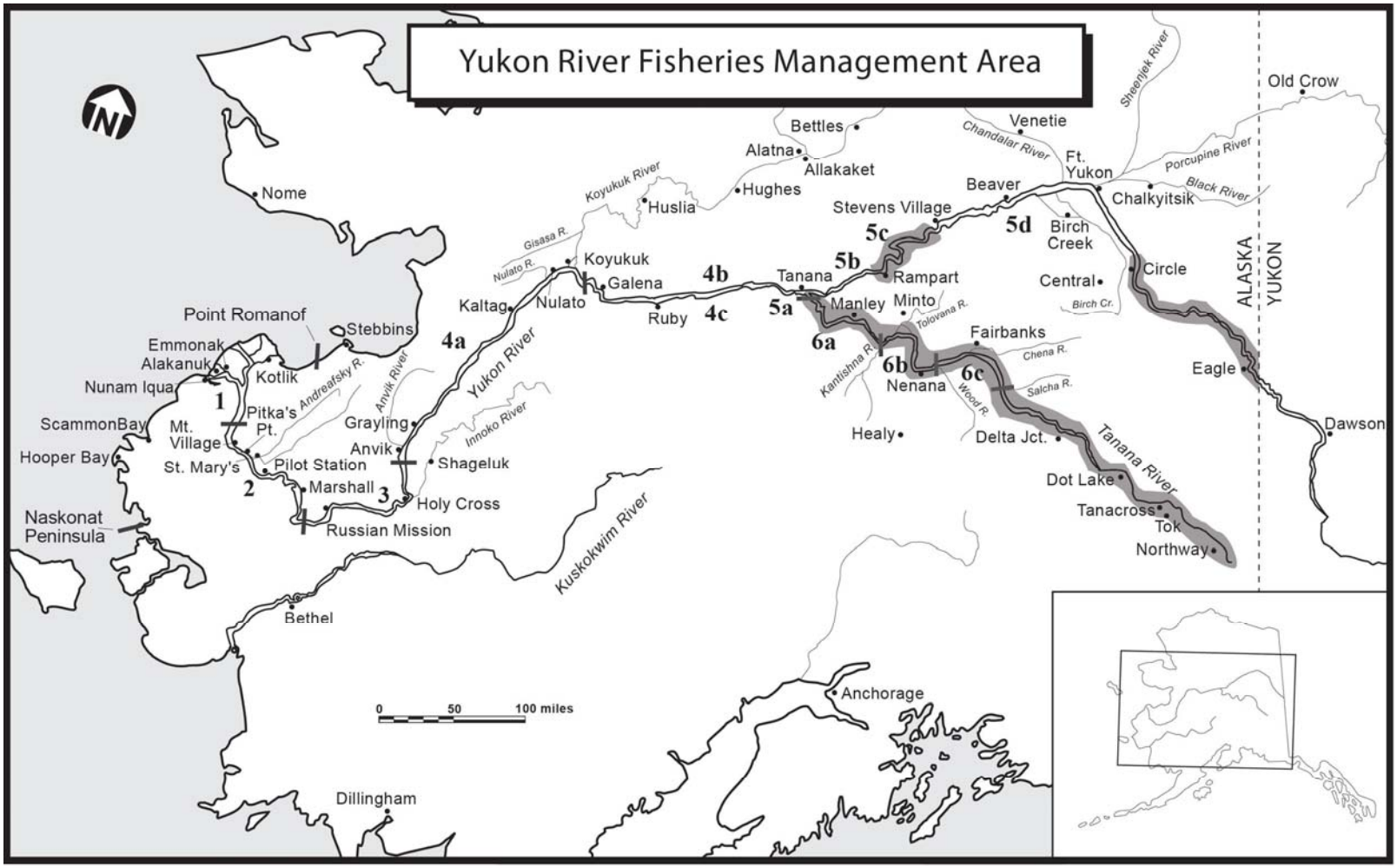
3. Can a portion of the stock be harvested consistent with sustained yield? Yes.

4. What amount is reasonably necessary for subsistence use? The board determined the amount reasonably necessary for subsistence to be 45,500-66,704 king salmon; 83,500-142,192 summer chum salmon; 89,500-167,900 fall chum salmon; and 20,500-51,980 coho salmon in the Yukon-Northern Area (5AAC 01.236(b)(1-4)), and that 133,000 to 2,850,000 pounds of freshwater fish, including sheefish, whitefish, burbot, Arctic grayling, northern pike, char, blackfish, sucker, and lamprey (BOF December 1997, RC1, Tab 14).

5. Do the regulations provide a reasonable opportunity for subsistence use? This is a board determination.

6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence use? This is a board determination.

Figure 83-1.-Yukon River locations (shaded areas) requiring state subsistence and personal use fishing permits.



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PROPOSAL 84 – 5 AAC 01.220. Lawful gear and gear specifications.

PROPOSED BY: Middle Yukon AC.

WHAT WOULD THE PROPOSAL DO? This proposal would allow use of drift gillnets as a legal subsistence fishing gear for king salmon within Subdistricts 4-B and 4-C downstream of the mouth of the Yuki River (Figure 84-1).

WHAT ARE THE CURRENT REGULATIONS? In Subdistricts 4-B and 4-C, legal gear for subsistence salmon fishing is set gillnet, beach seine, and fish wheel.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, subsistence fishing with drift gillnets in 4-B and 4-C will likely result in increased harvest of upper drainage-bound king salmon and larger female king salmon than the existing set gillnet and fish wheel harvest.

BACKGROUND: In November 1973, the board prohibited the use of drift gillnets for commercial fishing in the Yukon River above the mouth of the Bonasila River. This action was based on the use of driftnets being historically negligible in the Upper Yukon Area and to prevent possible gear conflicts in the future.

In December of 1976, prior to the passage of the state's first subsistence law, the board prohibited the use of drift gillnets, of which there was negligible use, for subsistence purposes in the Upper Yukon Area. Board discussion at that time indicated the possible increase in the use of drift gillnets, which may be efficient in capturing salmon, could seriously impact both the conservation and the allocation of Upper Yukon salmon stocks, which were being harvested at maximum levels.

Similar proposals to allow subsistence fishing with drift gillnets in Subdistricts 4-B and 4-C have come before the board in 1987, 1989/90, 1991/92, 1993/94, 1997, 2004, and 2007. The 1993 and 2001 Customary and Traditional Use Worksheets for Yukon salmon (all species) adopted by the board identified that, "Set gillnets, drift gillnets, and fish wheels are the common gear used today. In the lower river and district 4A, drift or set gillnets are commonly used while in upper river districts, set gillnets and fish wheels are the predominant gear used." At that time, drift gillnets were not allowed above Subdistrict 4-A. The board stated that ADF&G could allow increased time for subsistence fishing with current gear types by emergency order. During the commercial fishing season, subsistence and commercial periods are concurrent in Subdistricts 4-B and 4-C, and normally there are two 48-hour periods per week.

Subsistence fishermen have informed the department that there are limited fishing sites for stationary gear around Ruby and Galena. Presently, a number of fishermen from Galena travel downriver to Subdistrict 4-A to subsistence fish with drift gillnets for king salmon. Cone Point, the boundary between Subdistrict 4-A and Subdistricts 4-B and 4-C, is approximately 16 river miles downstream from Galena. Subsistence fishermen in

Subdistrict 4-A have reported that the number of fishermen that travel is increasing and that there is more competition for available drift sites.

In January 2005, the Federal Subsistence Board adopted a rule which allowed drift gillnet subsistence fishing by permit for king salmon during the last 18-hour period of weekly regulatory openings from June 10 through July 14 in waters adjacent to federal conservation units within Subdistricts 4-B and 4-C. Federal permit holders may fish from above Ruby to the District 5 boundary and from just downstream of Galena to the Subdistrict 4-A boundary (Figure 84-1). Beginning in 2008, drift gillnet fishing under federal rules has been allowed during the entire subsistence fishing time allowed within Subdistricts 4-B and 4-C. Nets may not be more than 150 feet long and no more than 35 meshes deep. The number of permits actually fished ranged from four to ten. To date, annual harvests of king salmon ranged from 13 to 58 and harvests of summer chum salmon ranged from zero to eight.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on allocative aspects of this proposal, but **OPPOSES** it because of both management and biological concerns. Subsistence harvest data and public input indicate subsistence uses are being met with the current allowable fishing gear and locations, except when restrictions are necessary to achieve escapement goals. Allowing drift gillnet fishing will likely increase harvest rate on Canadian king salmon stocks migrating farther upriver. Set gillnet and fish wheel gear, which operate near the shoreline, harvest a higher proportion of local middle river stocks based upon genetic sampling in Subdistricts 4-B and 4-C. Thus, local middle river stocks migrate closer to shore. Drift gillnets, which can be operated farther offshore, may increase the proportion of Canadian-origin king salmon and larger female king salmon in the harvest. Genetic samples taken from Subdistrict 4-A subsistence drift gillnet king salmon harvest show a high proportion of Canadian-origin stocks. A shift in the harvest toward Canadian-origin king salmon will have allocation, and possibly, Yukon Salmon Treaty implications.

Harvests to date have been small, which may be indicative of why this gear has not been used historically in this portion of the river. However, drift gillnet gear is more mobile than traditional setnet and fish wheel gear types, and fishing efficiency may well increase. There is also concern that overall harvest may increase in the future because of the allowance of sale of subsistence caught salmon under federal customary trade regulations. An increase in drift gillnet efficiency may necessitate a decrease in the traditional schedule of two 48-hour periods per week, which would reduce fishing opportunity for the less efficient gear types of set gillnet and fish wheels. This may also affect the commercial fishery, which has concurrent fishing time with subsistence fishing.

If this proposal is adopted, more proposals may be submitted to use drift gillnets further upriver which again, will increase harvest pressure on a stock of concern, in addition to having allocative and possible treaty implications.

COST ANALYSIS: Adoption of this proposal is expected to result in additional direct cost for a private person to participate in this fishery because some fishermen may have to bear the cost of procuring gillnets.

SUBSISTENCE REGULATION REVIEW:

1. Is this stock in a non-subsistence area? A portion of the king salmon stock migrates through the Fairbanks Nonsubsistence Area (primarily Subdistrict 6-C).

2. Is the stock customarily and traditionally taken or used for subsistence? Yes. The board made a positive customary and traditional use determination for king, summer chum, fall chum, coho, and pink salmon in the Yukon-Northern Area (5 AAC 01.236(1)).

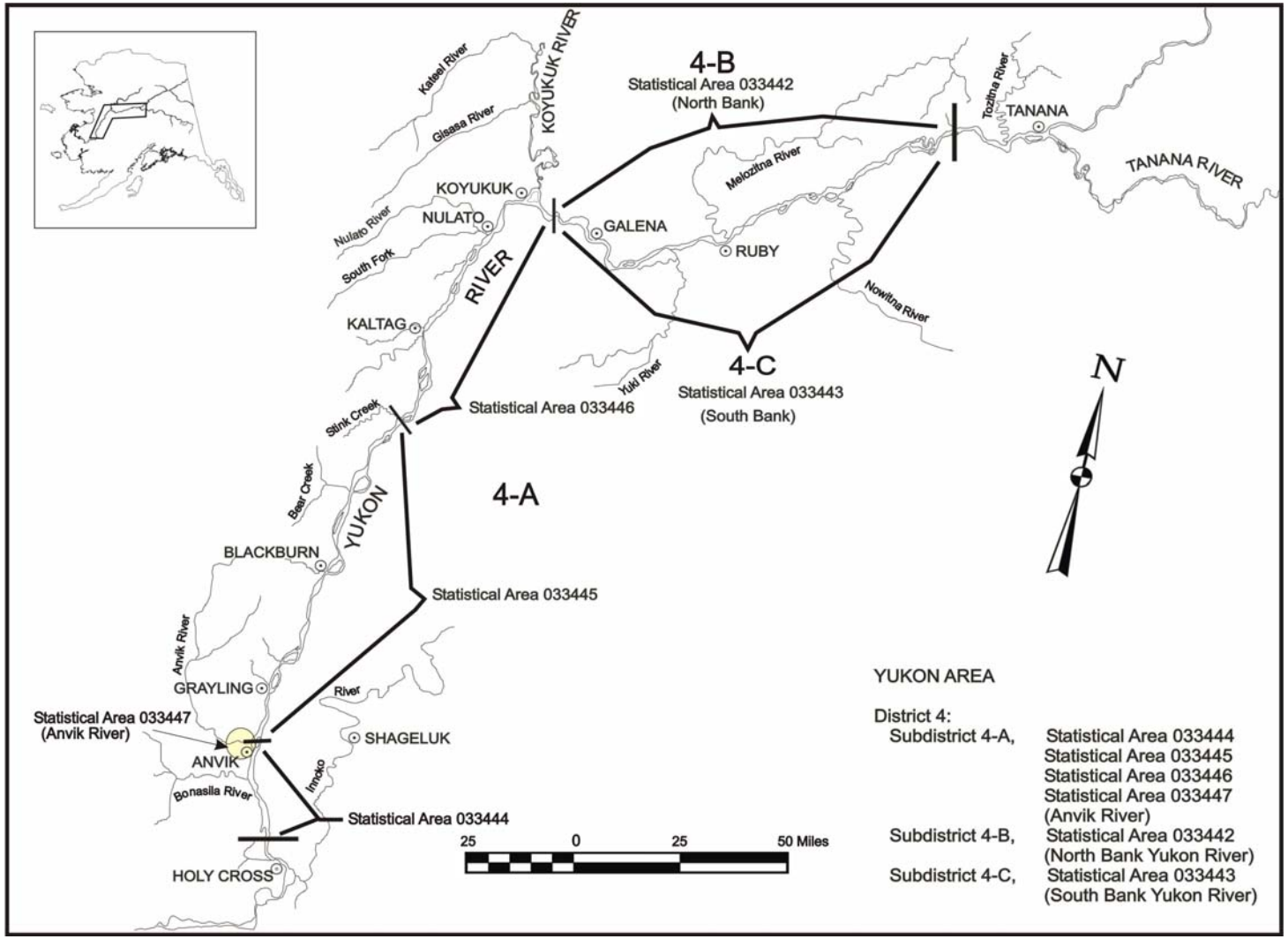
3. Can a portion of the stock be harvested consistent with sustained yield? Yes.

4. What amount is reasonably necessary for subsistence use? The board determined the amount reasonably necessary for subsistence to be 45,500-66,704 king salmon; 83,500-142,192 summer chum salmon; 89,500-167,900 fall chum salmon; and 20,500-51,980 coho salmon in the Yukon-Northern Area (5AAC 01.236(b)(1-4)).

5. Do the regulations provide a reasonable opportunity for subsistence use? This is a board determination.

6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence use? This is a board determination.

Figure 84-1. District 4 showing statistical areas, Yukon Area, 2009.



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PROPOSAL 85 – 5 AAC 01.220. Lawful gear and gear specifications.

PROPOSED BY: Middle Yukon AC.

WHAT WOULD THE PROPOSAL DO? This proposal would allow use of drift gillnets as a legal subsistence fishing gear for king and fall chum salmon within Subdistricts 4-B and 4-C downstream of the mouth of the Yuki River (Figure 84-1).

WHAT ARE THE CURRENT REGULATIONS? Currently, legal gear for subsistence fishing is set gillnet, beach seine, and fish wheel in Subdistricts 4-B and 4-C.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, the proposal would allow subsistence fishing with drift gillnets in 4-B and 4-C and likely result in increased harvest of upper drainage-bound king salmon and larger female salmon than the existing set gillnet and fish wheel harvest.

BACKGROUND: In November 1973, the board prohibited the use of drift gillnets for commercial fishing in the Upper Yukon Area above the mouth of the Bonasila River. This action was based on the use of driftnets being historically negligible in this area and to prevent possible gear conflicts in the future.

In December of 1976, prior to the passage of the state's first subsistence law, the board prohibited the use of drift gillnets, of which there was negligible use, for subsistence purposes in the Upper Yukon Area. Board discussion at that time indicated the possible increase in the use of drift gillnets, which may be efficient in capturing salmon, could seriously impact both the conservation and the allocation of Upper Yukon salmon stocks, which were being harvested at maximum levels.

Similar proposals to allow subsistence fishing with drift gillnets in Subdistricts 4-B and 4-C have come before the board in 1987, 1989/90, 1991/92, 1993/94, 1997, 2004, and 2007. The 1993 and 2001 Customary and Traditional Use Worksheets for Yukon salmon (all species) adopted by the board identified that, "Set gillnets, drift gillnets, and fish wheels are the common gear used today. In the lower river and district 4A, drift or set gillnets are commonly used, while in upper river districts, set gillnets and fish wheels are the predominant gear used". At that time, drift gill nets were not allowed above Subdistrict 4-A. The board stated that ADF&G could allow increased time for subsistence fishing with current gear types by emergency order. During the commercial fishing season, subsistence and commercial periods are concurrent in Subdistricts 4-B and 4-C and normally there are two 48-hour periods per week.

Subsistence fishermen have informed the department that there are limited fishing sites for stationary gear around Ruby and Galena. Presently, a number of fishermen from Galena travel downriver to Subdistrict 4-A to subsistence fish with drift gillnets for king salmon. Cone Point, the boundary between Subdistrict 4-A and Subdistricts 4-B and 4-C, is approximately 16 river miles downstream from Galena. Subsistence fishermen in

Subdistrict 4-A have reported that the number of fishermen that travel is increasing and that there is more competition for available drift sites during the king salmon run.

In January 2005, the Federal Subsistence Board adopted rule which allowed drift gillnet subsistence fishing by permit for king salmon during the last 18-hour period of weekly regulatory openings from June 10 through July 14 in waters adjacent to federal conservation units within Subdistricts 4-B and 4-C. Federal permit holders may fish from above Ruby to the District 5 boundary and from just downstream of Galena to the Subdistrict 4-A boundary. Beginning in 2008, drift gillnet fishing under federal rules has been allowed during the entire subsistence fishing time allowed within the subdistricts. Nets may not be more than 150 feet long and no more than 35 meshes deep. The number of permits actually fished ranged from four to ten. To date annual harvests of king salmon ranged from 13 to 58 and harvests of chum salmon ranged from zero to eight.

Under the federal permit, drift fishing is not allowed during the fall chum salmon migration. Historically, stationary gear, fish wheels in particular, has been efficient for harvesting fall chum salmon given adequate run abundance. In recent years a few fishermen from Galena have traveled downriver to Subdistrict 4-A to subsistence fish with drift gillnets for fall chum salmon.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on allocative aspects of this proposal, but the department **OPPOSES** it because of both management and biological concerns. Subsistence harvest data and public input indicate subsistence uses are being met with the current allowable fishing gear and locations, except when restrictions are necessary to achieve escapement goals. Allowing drift gillnet fishing will likely increase harvest rate on Canadian king salmon stocks migrating farther upriver. Set gillnet and fish wheel gear, which operate near the shoreline, harvest a higher proportion of local middle river stocks based upon genetic sampling in Subdistricts 4-B and 4-C. Thus, local middle river stocks migrate closer to shore. Drift gillnets, which can be operated farther offshore, may increase the proportion of Canadian-origin king salmon and larger female king salmon in the harvest. Genetic samples taken from Subdistrict 4-A subsistence drift gillnet king salmon harvest show a high proportion of Canadian-origin stocks. A shift in the harvest toward Canadian-origin king salmon will have allocation, and possibly, Yukon Salmon Treaty implications. It is believed fall chum salmon are more bank-oriented in the upper portions of the river; consequently, drift fishing further offshore could potentially shift the harvest by local fishermen to different stocks with unforeseen effects.

Harvests to date have been small, which may be indicative of why this gear has not been used historically in this portion of the river. However, drift gillnet gear is more mobile than traditional setnet and fish wheel gear types, and fishing efficiency may well increase. There is also concern that overall harvest may increase in the future because of the allowance of sale of subsistence caught salmon under federal customary trade regulations. An increase in drift gillnet efficiency may necessitate a decrease in the traditional schedule of two 48-hour periods per week, which would reduce fishing

opportunity for the less efficient gear types of set gillnet and fish wheels. This may also affect the commercial fishery, which has concurrent fishing time with subsistence fishing.

If this proposal is adopted, more proposals may be submitted to use drift gillnets further upriver which again, will increase harvest pressure on a stock of concern, in addition to having allocative and possible treaty implications.

COST ANALYSIS: Adoption of this proposal is expected to result in additional direct cost for a private person to participate in this fishery because some fishermen may have to bear the cost of procuring gillnets.

SUBSISTENCE REGULATION REVIEW:

1. Is this stock in a non-subsistence area? A portion of the king and fall chum salmon stocks migrate through the Fairbanks Nonsubsistence Area (primarily Subdistrict 6-C).

2 Is the stock customarily and traditionally taken or used for subsistence? Yes. The board made a positive customary and traditional use determination for king, summer chum, fall chum, coho, and pink salmon in the Yukon-Northern Area (5 AAC 01.236(1)).

3. Can a portion of the stock be harvested consistent with sustained yield? Yes.

4. What amount is reasonably necessary for subsistence use? The board determined the amount reasonably necessary for subsistence to be 45,500-66,704 king salmon; 83,500-142,192 summer chum salmon; 89,500-167,900 fall chum salmon; and 20,500-51,980 coho salmon in the Yukon-Northern Area (5AAC 01.236(b)(1-4)).

5. Do the regulations provide a reasonable opportunity for subsistence use? This is a board determination.

6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence use? This is a board determination.

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PROPOSAL 86 – 5 AAC 01.220. Lawful gear and gear specifications.

PROPOSED BY: Eastern Interior Alaska Subsistence Regional Advisory Council.

WHAT WOULD THE PROPOSAL DO? This proposal would allow fishermen to tie up their set gillnets instead of pulling them out of the water during subsistence fishing closures in Subdistrict 5-D.

WHAT ARE THE CURRENT REGULATIONS? Under current regulations, set gillnets for salmon must be removed completely from the water during subsistence salmon fishing closures.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would allow subsistence fishermen to be able to leave set gillnets in the water during subsistence salmon fishing closures in Subdistrict 5-D rather than pulling them completely out of the water.

BACKGROUND: Normally, subsistence salmon fishing is open seven days a week in Subdistrict 5-D. However, during poor salmon runs, subsistence fishing time may be reduced, which requires fishermen with set gillnets to remove them from the water during subsistence salmon fishing closures.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. Tying up gillnet web does not eliminate the possibility of killing salmon during fishing closures. When subsistence fishing time is reduced in Subdistrict 5-D, it is expressly done to reduce mortality of a salmon stock. Gillnet web can become dislodged and nets not closely tended may be lost. Changing the anchor float from red, orange, or white to a black float, if required, would still not allow law enforcement personnel to identify tied up nets during overflights or with river surveys. Enforcement officers would still need to visibly check set gillnets, which would not be conducive to enforcement efforts in a huge area like the Yukon River drainage. Tying up nets is not allowed elsewhere in the state and the board has no authority to set penalties for regulatory infractions.

COST ANALYSIS: Adoption of this proposal is expected to result in additional direct cost for a private person to participate in this fishery, because some fishermen would have to bear the cost of procuring new buoys.

SUBSISTENCE REGULATION REVIEW:

1. Is this stock in a non-subsistence area? No.

2. Is the stock customarily and traditionally taken or used for subsistence? Yes The board made a positive customary and traditional use determination for king, summer chum, fall chum, coho, and pink salmon in the Yukon-Northern Area (5 AAC 01.236(1) and also for freshwater species including sheefish, whitefish, burbot, Arctic grayling, northern pike, char, blackfish, sucker, and lamprey (5AAC 01.236(2) (BOF December 1997, RC1, Tab 14).

3. Can a portion of the stock be harvested consistent with sustained yield? Yes.

4. What amount is reasonably necessary for subsistence use? The board determined the amount reasonably necessary for subsistence to be 45,500–66,704 king salmon; 83,500–142,192 summer chum salmon; 89,500–167,900 fall chum salmon; and 20,500–51,980 coho salmon in the Yukon-Northern Area (5AAC 01.236(b)(1–4)) and that 133,000 to

2,850,000 pounds of freshwater fish, including sheefish, whitefish, burbot, Arctic grayling, northern pike, char, blackfish, sucker, and lamprey (BOF December 1997, RC1, Tab 14).

5. Do the regulations provide a reasonable opportunity for subsistence use? This is a board determination.

6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence use? This is a board determination.

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Subsistence and Commercial (6 proposals):

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PROPOSAL 87 – 5 AAC 05.360. Yukon River King Salmon Management Plan.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal seeks review of fishery management triggers, guideline harvest ranges for the commercial fishery, and subsistence fishing schedules in the *Yukon River King Salmon Management Plan*.

WHAT ARE THE CURRENT REGULATIONS? Currently, under 5 AAC 05.360(b)(1) of the management plan, the department may open a directed commercial king salmon fishery when increases in subsistence or test fishery net catches of king salmon have occurred over a seven to ten day period.

Under 5 AAC 05.360(b)(2), the commercial king salmon guideline harvest range of 67,350 - 129,150 king salmon is distributed as follows:

(A) Districts 1 and 2: 60,000 - 120,000 king salmon;
(B) District 3: 1,800 - 2,200 king salmon;
(C) District 4: 2,250 - 2,850 king salmon;
(D) District 5:
  (i) Subdistrict 5-B and 5-C: 2,400 - 2,800 king salmon;
  (ii) Subdistrict 5-D: 300 - 500 king salmon; and
(E) District 6: 600 - 800 king salmon;

Under 5 AAC 05.360(b)(3), when the projected king salmon harvest range for Districts 1 - 6 combined is below the low end harvest level from zero to 67,350 fish, the department shall allocate the available commercial harvest available by percentage for each district as follows:

(A) Districts 1 and 2: 89.1 percent;
(B) District 3: 2.7 percent;
(C) District 4: 3.3 percent;
(D) Subdistricts 5-B and 5-C: 3.6 percent;

(E) Subdistrict 5-D: 0.4 percent; and
(F) District 6: 0.9 percent.

Under section (d), a subsistence fishing schedule is implemented chronologically, consistent with migratory timing as the king salmon run progresses upstream. The fishing periods for subsistence fishing in the Yukon River drainage will be established by emergency order as follows:

(1) Coastal District, Koyukuk River, and Subdistrict 5-D: seven days per week;
(2) Districts 1 - 3: two 36-hour fishing periods per week;
(3) District 4 and Subdistricts 5-B and 5-C: two 48-hour fishing periods per week;
(4) Subdistrict 5-A and District 6: two 42-hour fishing periods per week; and
(5) Old Minto Area: five days per week.

(e) If inseason run strength indicates a sufficient abundance of king salmon to allow a commercial fishery, subsistence fishing shall revert to the fishing periods as specified in 5 AAC 01.210(c) - (h).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, new management triggers, different guideline harvest ranges, or a different subsistence fishing schedule would be inserted into the management plan.

BACKGROUND: This proposal was submitted to review potential changes to the *Yukon River King Salmon Management Plan*. The king salmon management plan was developed during 2000-2001 to provide direction to the department in managing the king salmon run, which was designated as a stock of yield concern. Subsistence fishing schedules were established to assist in spreading out harvest opportunity and for conservation purposes. The plan incorporated existing guideline harvest ranges for the commercial fishery, which were established in 1981. During the past year, the department has been reviewing the development of inseason management triggers.

DEPARTMENT COMMENTS: The department submitted this proposal and **SUPPORTS** a change in the subsistence fishing schedule to allow subsistence fishing 7 days per week in Innoko River drainage. This change in regulations would follow current management practices. The department has routinely established a 7 day per week subsistence fishing in the Innoko River drainage by emergency order for several years. Similar to the Koyukuk River, the Innoko River has low effort and difficult fishing conditions, which appear to affect fishing success more than abundance of fish. Thus, this drainage is unlikely to require a reduction in fishing time even during poor salmon runs.

A reduction in the overall commercial guideline harvest ranges would more accurately reflect potential harvest based upon the lower production of king salmon during the past decade. However, the department can manage the commercial fishery without any changes.

The department has been reviewing potential inseason king salmon fishery management triggers based upon Pilot Station sonar passage estimates. However, further refinements of sonar operations are being initiated. Therefore, placing additional inseason management triggers in regulation at this time would be inappropriate.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

SUBSISTENCE REGULATION REVIEW:

1. Is this stock in a non-subsistence area? Yes; a portion of the king salmon stock migrates through the Fairbanks Non-subsistence Area (primarily Subdistrict 6-C).

2. Is the stock customarily and traditionally taken or used for subsistence? Yes. The board made a positive customary and traditional use determination for king, summer chum, fall chum, coho, and pink salmon in the Yukon-Northern Area (5 AAC 01.236(1)).

3. Can a portion of the stock be harvested consistent with sustained yield? Yes.

4. What amount is reasonably necessary for subsistence use? The board determined the amount reasonably necessary for subsistence to be 45,500–66,704 king salmon; 83,500–142,192 summer chum salmon; 89,500–167,900 fall chum salmon; and 20,500–51,980 coho salmon in the Yukon-Northern Area (5AAC 01.236(b)(1–4)).

5. Do the regulations provide a reasonable opportunity for subsistence use? This is a board determination.

6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence use? This is a board determination.

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PROPOSAL 88 – 5 AAC 05.331. Gillnet specifications and operations; and 5 AAC 01.220. Lawful gear and gear specifications.

PROPOSED BY: Tanana Rampart Manley AC, Eastern Interior Regional Advisory Council, Fairbanks AC, Minto-Nenana AC, and Ruby AC.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit drift gillnet gear for subsistence and commercial fishing in the Yukon River drainage.

WHAT ARE THE CURRENT REGULATIONS? Currently, drift gillnets may be used for commercial fishing in Districts 1-3 and for subsistence fishing in Districts 1-3 and Subdistrict 4-A.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would affect a great number of subsistence and commercial salmon fishermen in Districts 1-3 and Subdistrict 4-A, as well as subsistence fishermen fishing for fish other than salmon and halibut in the remainder of the Yukon River drainage where drift gillnet is legal subsistence gear (5 AAC 01.220(f)).

BACKGROUND: Some fishermen in the Yukon River drainage have reported that king salmon have decreased in size since the 1980s. There is concern in some areas of the river that this decrease has been caused by the use of large mesh gillnets (8-inch and larger), which target larger fish. The department has documented a trend in fewer 7-year old king salmon and smaller corresponding average size fish since the 1980s. It is unknown whether this is due to selective harvest or environmental conditions. However, escapement goals have generally been met except for the Canadian mainstem stock in 2007 and 2008.

Drift gillnets are the dominant gear type used to harvest king salmon for subsistence and commercial purposes in Districts 1-3 and Subdistrict 4-A, except for the coastal area of District 1 where set gillnets predominate. Drift gillnet gear is an efficient method of harvesting salmon where utilized in these locations. Similarly, there are locations where set gillnets and fish wheels can be very efficient for harvesting salmon in the Yukon River.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of this proposal. However, there appears to be no biological basis for prohibiting use of drift gillnet gear for all fisheries year round. Drift gillnet gear, in and of itself, does not catch larger or smaller fish of a species or stock of salmon. Gillnet mesh size is related to selectivity of fishing gear. It is unclear why this proposal appears to only address king salmon which run during June and July, yet the intent of the proposal is to prohibit use of drift gillnets all year long. There is no indication that this proposal is concerned about the use of drift gillnets to harvest summer chum salmon overlapping with the king salmon run, or fall chum and coho salmon that migrate in July and August.

Drift gillnet gear is recognized in the customary and traditional (C&T) use worksheet adopted by the board, and it was noted that drift gill nets were the predominant gear type used on the lower river; however, at the time of the C&T finding, drift gillnets were prohibited above Subdistrict 4-A by regulation. Many lower and middle river subsistence fishermen would be greatly affected by adoption of this proposal. Subsistence and commercial fishermen would be required to expend more effort to harvest salmon. A decrease in harvest by subsistence and commercial drift gillnet fishermen may reallocate harvest opportunity to other gear types and user groups. Furthermore, there would be chaos with over 500 fishermen competing for new setnet sites in the ever-changing Yukon River. Without drift gillnet gear, large surpluses of salmon, such as during the record fall chum and summer chum salmon runs in 2005 and 2006, would go unharvested.

COST ANALYSIS: Adoption of this proposal is expected to result in additional direct costs for private individuals to participate in this fishery because fishermen may incur costs of procuring new gear such as fish wheels, modifying existing gear, or traveling longer distances to available setnet sites.

SUBSISTENCE REGULATION REVIEW:

1. Is this stock in a non-subsistence area? Yes; a portion of the king, chum, and coho salmon stock migrates through the Fairbanks Nonsubsistence Area (primarily Subdistrict 6-C).

2. Is the stock customarily and traditionally taken or used for subsistence? Yes. The board made a positive customary and traditional use determination for king, summer chum, fall chum, coho, and pink salmon in the Yukon-Northern Area (5 AAC 01.236(1)) and also for freshwater species including sheefish, whitefish, burbot, Arctic grayling, northern pike, char, blackfish, sucker, and lamprey (5AAC 01.236(2) (BOF December 1997, RC1, Tab 14).

3. Can a portion of the stock be harvested consistent with sustained yield? Yes.

4. What amount is reasonably necessary for subsistence use? The board determined the amount reasonably necessary for subsistence to be 45,500–66,704 king salmon, 83,500–142,192 summer chum salmon; 89,500–167,900 fall chum salmon; and 20,500–51,980 coho salmon in the Yukon-Northern Area (5AAC 01.236(b)(1–4)) and that 133,000 to 2,850,000 pounds of freshwater fish, including sheefish, whitefish, burbot, Arctic grayling, northern pike, char, blackfish, sucker, and lamprey (BOF December 1997, RC1, Tab 14).

5. Do the regulations provide a reasonable opportunity for subsistence use? This is a board determination.

6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence use? This is a board determination.

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PROPOSAL 89 – 5 AAC 05.331. Gillnet specifications and operations; and 5 AAC 01.220. Lawful gear and gear specifications.

PROPOSED BY: Tanana Rampart Manley AC, Eastern Interior Regional Advisory Council, Fairbanks AC, Minto-Nenana AC, and Ruby AC.

WHAT WOULD THE PROPOSAL DO? This proposal would restrict the depth of subsistence and commercial gillnets of 6-inch mesh to no more than 15 feet or 35 meshes for the entire drainage.

WHAT ARE THE CURRENT REGULATIONS? Currently, commercial gillnets greater than 6-inch mesh may not be more than 45 meshes in depth in Districts 1-3, and no more than 60 meshes in depth in Districts 4-6. Commercial gillnets 6-inch or smaller in mesh size may not be more than 50 meshes in depth in Districts 1-3, and no more than 70 meshes in depth in Districts 4-6. There is no restriction on depth of gillnets used to harvest salmon for subsistence purposes.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would decrease efficiency of fishermen operating gillnet gear; thus, it may require increased effort by commercial and subsistence fishers to harvest king, summer chum, fall chum, and coho salmon.

BACKGROUND: Some fishermen in the Yukon River drainage have reported that king salmon have decreased in size since the 1980s. There is concern in some areas of the river that this decrease has been caused by the use of large mesh gillnets (8-inch and larger), which target larger fish. The department has documented a trend in fewer 7-year old king salmon and smaller corresponding average size fish since the 1980s. It is unknown whether this is due to selective harvest or environmental conditions.

In 1995, the department submitted a proposal to restrict all commercial and subsistence gillnets larger than 6-inch stretched mesh to no more than 45 meshes in depth. The board adopted this regulation only for commercial gillnets in Districts 1-3. This reduction in gillnet depth was passed in an effort to reduce increased efficiency of salmon fishermen at that time.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal because it is unclear. Does the proponent only want to decrease the depth of gillnets with 6-inch mesh size? It does not appear that the proposal's intent of reducing harvest of large female king salmon would be accomplished by placing additional limits on the depth of gillnet gear of one mesh size which is used to target summer chum, fall chum, and coho salmon. It is common, although unsubstantiated, local traditional knowledge along the river that larger king salmon appear to travel deeper in the water column. It is commonly reported that larger king salmon are caught along the leadline. However, a radio telemetry study showed that king salmon were randomly distributed throughout the water column and there have been no studies documenting fish size caught by mesh

depth. A decrease in depth of gillnets may require fishermen to expend more effort to harvest salmon needed for subsistence or commercial purposes. An increase in effort required by gillnet fishermen to harvest salmon for subsistence and commercial uses may reallocate harvest opportunity to other gear types or user groups.

COST ANALYSIS: Adoption of this proposal is expected to result in additional direct costs for private individuals to participate in this fishery because some fishermen may incur costs of procuring new gear, modifying existing gear, or relocating to a more suitable fishing site that fits the gear.

SUBSISTENCE REGULATION REVIEW:

1. Is this stock in a non-subsistence area? Yes; a portion of the king chum, and coho salmon stock migrates through the Fairbanks Nonsubsistence Area (primarily Subdistrict 6-C).

2. Is the stock customarily and traditionally taken or used for subsistence? Yes. The board made a positive customary and traditional use determination for king, summer chum, fall chum, coho, and pink salmon in the Yukon-Northern Area (5 AAC 01.236(1).

3. Can a portion of the stock be harvested consistent with sustained yield? Yes.

4. What amount is reasonably necessary for subsistence use? The board determined the amount reasonably necessary for subsistence to be 45,500–66,704 king salmon; 83,500–142,192 summer chum salmon; 89,500–167,900 fall chum salmon; and 20,500–51,980 coho salmon in the Yukon-Northern Area (5AAC 01.236(b)(1–4)).

5. Do the regulations provide a reasonable opportunity for subsistence use? This is a board determination.

6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence use? This is a board determination.

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PROPOSAL 90 – 5 AAC 05.331. Gillnet specifications and operations and 5 AAC 01.220. Lawful gear and gear specifications.

PROPOSED BY: Tanana Rampart Manley AC, Eastern Interior Regional Advisory Council, Fairbanks AC, Minto-Nenana AC, and Ruby AC.

WHAT WOULD THE PROPOSAL DO? This proposal would restrict subsistence and commercial gillnets in the Yukon River drainage to no more than 6-inch mesh size.

WHAT ARE THE CURRENT REGULATIONS? Currently, with the exception of subsistence fishing gear in a few tributaries, there is no maximum mesh size specification

in the Yukon Area. The department has the ability to close and immediately reopen the subsistence fishery with mesh size restrictions based on the need to conserve king or chum salmon. The department also has the ability to direct the commercial harvest toward chum salmon by restricting gillnet mesh size to 6-inch, or smaller, and to conserve chum salmon by restricting mesh size to 8-inch, or larger, by emergency order. Additionally, fishing time and area can be adjusted to target or conserve salmon as necessary.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would likely change subsistence harvest patterns and would result in a substantial increase in the harvest of chum salmon during subsistence and commercial fishing activities targeting king salmon. Subsistence fishermen only need so many chum salmon, which may result in wastage of the resource.

BACKGROUND: Some fishers in the Yukon River drainage have reported that king salmon have decreased in size since the 1980s. There is concern in some areas of the river that this decrease has been caused by the use of large mesh gillnets (8-inch and larger), which target larger fish. The department has documented a trend in fewer 7-year old king salmon and smaller corresponding average size fish since the 1980s. It is unknown whether this is due to selective harvest or environmental conditions.

Large mesh size gillnets have been used in the Yukon River since the early 1900s to target king salmon. Commercial fishing periods restricted to gillnets of 6-inch or less mesh size are used to target chum salmon and have resulted in chum to king salmon ratios of approximately 20:1. In 2004 and 2007, the board rejected similar proposals to restrict commercial gillnet mesh size to 6-inch, or less, mesh.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of this proposal. The department is **OPPOSED** to the aspects of this proposal that limit the flexibility of managers to address inseason conditions, which is necessary to meet escapement goals and the potential for wastage of fisheries resources. Restricting subsistence gillnet mesh size to 6-inch or smaller may not provide a subsistence priority for king salmon. For subsistence fishermen, this restriction will likely result in an incidental harvest of summer chum salmon beyond desired levels, while requiring an increase in effort to harvest king salmon. Few summer chum salmon are used for subsistence purposes above Districts 1 and 2; thus, a large increase in harvest using 6-inch mesh size may result in wastage.

This proposal limits the department's flexibility to manage Yukon River salmon runs based on inseason run assessment for a given species of salmon. For example, in years of low chum abundance, the king salmon harvest may require restrictions to conserve chum salmon. In years of high summer chum salmon abundance, high incidental harvest of this non-targeted species could lead to wastage. Some fishermen may forego meeting their subsistence needs of king salmon, not because of low king abundance, but because they were unable to utilize the additional incidental chum catch. Reducing the efficiency of

only one gear type to target king salmon may reallocate harvest opportunity to other gear types and user groups.

COST ANALYSIS: Adoption of this proposal is expected to result in additional direct costs for private individual to participate in this fishery because many fishermen would have to bear the cost of procuring new gear. An example would be subsistence fishermen participating in the Subdistrict 4-A subsistence king salmon drift gillnet fishery.

SUBSISTENCE REGULATION REVIEW:

1. Is this stock in a non-subsistence area? Yes; a portion of the king, chum, and coho salmon stock migrates through the Fairbanks Nonsubsistence Area (primarily Subdistrict 6-C).

2. Is the stock customarily and traditionally taken or used for subsistence? Yes. The board made a positive customary and traditional use determination for king, summer chum, fall chum, coho, and pink salmon in the Yukon-Northern Area (5 AAC 01.236(1)).

3. Can a portion of the stock be harvested consistent with sustained yield? Yes.

4. What amount is reasonably necessary for subsistence use? The board determined the amount reasonably necessary for subsistence to be 45,500-66,704 king salmon; 83,500-142,192 summer chum salmon; 89,500-167,900 fall chum salmon; and 20,500-51,980 coho salmon in the Yukon-Northern Area (5AAC 01.236(b)(1-4)).

5. Do the regulations provide a reasonable opportunity for subsistence use? This is a board determination.

6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence use? This is a board determination.

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PROPOSAL 193 – 5 AAC 05.362. Yukon River Summer Chum Salmon Management Plan.

PROPOSED BY: Alaska Board of Fisheries.

WHAT WOULD THE PROPOSAL DO? This proposal seeks to review the *Yukon River Summer Chum Salmon Management Plan*. It would remove the OEG of 600,000 fish and replace specified numerical threshold triggers for management actions with thresholds that would be relative to a minimum necessary drainagewide escapement goal, SEG, or BEG, and the midpoint of the ANS range. Additionally, this proposal would allow commercial fishing at lower run sizes.

WHAT ARE THE CURRENT REGULATIONS? The current summer chum salmon management plan has an OEG of 600,000 summer chum salmon and threshold triggers to ensure adequate escapement and distribution of the surplus among subsistence, personal use, sport, and commercial harvesters. The plan specifies incremental levels of harvest and participation based on total inseason run size projections and provides a priority to the subsistence fishery. As surplus levels increase, additional user groups enter the fishery and escapement levels increase with run size. When the run size is projected to be greater than 1,000,000 summer chum salmon, a drainagewide commercial fishery may be opened to harvest the surplus above that amount.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would be difficult to use because numeric threshold levels are replaced with terminology relative to minimum drainagewide escapement, and optimum, biological, or sustainable escapement goal levels. As written, it appears there would be no OEG as this number is established in regulation by board. Additionally, there is no established minimum drainagewide escapement goal, SEG, or BEG for summer chum salmon to use in this plan.

BACKGROUND: The *Yukon River Drainage Summer Chum Salmon Management Plan* was last modified by the board in 2001. The main element of the plan is an OEG below which all fishing is closed to provide for a minimum level of drainagewide escapement and subsistence is provided a higher priority than other uses by allowing subsistence harvest on runs of lower abundance. Currently, there is not an established drainagewide escapement goal for summer chum salmon because of a lack of long-term data. Only the East Fork Andreafsky and Anvik rivers have BEGs. Thus, the run size projection above which other uses are allowed is not known with certainty. Escapement goal analysis of fall chum salmon indicates that there is a wide range of escapements that will provide similar yield for that chum salmon stock. It is noteworthy that the low escapements of approximately 400,000 summer chum salmon in 2000 and 2001 resulted in large runs in 2004-2006.

During the past decade, summer chum salmon production has been highly variable, encompassing both record high and low runs. ANS for summer chum salmon is 83,500-142,192 fish with the majority of the subsistence harvest taken in Districts 1 and 2. The subsistence harvest has decreased since 1997 when the District 4 commercial summer chum salmon fishery collapsed. Commercial markets have been recovering recently; however, the future of the Yukon River commercial fishery is at risk with high uncertainty that salmon will be consistently available on an annual basis.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal as written, but is **NEUTRAL** on modifying triggers within the management plan. The wording in this proposal is awkward and problematic given there is no established drainagewide escapement goal to use as suggested by this proposal. The established OEG of 600,000 fish must remain in regulation to conserve this stock. Additionally, using the midpoint of the ANS range in developing a trigger or the upper end of the range as a cap may be inappropriate because subsistence use may fluctuate through time. It appears that the

intent of this proposal is to lower the projected run size of 1,000,000 fish above which commercial fishing may be allowed. Depending on the amount of decrease, this would still provide for escapement, a subsistence priority, and allow for other uses, including limited commercial fishing on lower run sizes. Recent fluctuations in run size indicate that adherence to strict thresholds and buffered escapement does not benefit future runs as much as production rates, which are thought to be primarily environmentally influenced. To maintain commercial markets, it is necessary to have some harvest when biologically allowable. If a lower trigger level is adopted, the department recommends maintaining the existing run size projection of greater than 1,000,000 fish for intensive commercial fisheries. For run sizes below 1,000,000, limited commercial fishing could be addressed by allowing a harvest rate of 50% of the fish above the lower trigger level.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

SUBSISTENCE REGULATION REVIEW:

1. Is this stock in a non-subsistence area? A portion of the king, chum and coho salmon stocks migrate through the Fairbanks Nonsubsistence Area (primarily Subdistrict 6-C).

2. Is the stock customarily and traditionally taken or used for subsistence? Yes; the board made a positive customary and traditional use determination for king, summer chum, fall chum, coho, and pink salmon in the Yukon-Northern Area (5 AAC 01.236(1)).

3. Can a portion of the stock be harvested consistent with sustained yield? Yes.

4. What amount is reasonably necessary for subsistence use? The board determined the amount reasonably necessary for subsistence to be 45,500-66,704 king salmon; 83,500-142,192 summer chum salmon; 89,500-167,900 fall chum salmon;and 20,500-51,980 coho salmon in the Yukon-Northern Area (5AAC 01.236(b)(1-4)).

5. Do the regulations provide a reasonable opportunity for subsistence use? This is a board determination.

6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence use? This is a board determination.

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PROPOSAL 194 – 5 AAC 01.249. Yukon River Drainage Fall Chum Salmon Management Plan.

PROPOSED BY: Alaska Board of Fisheries.

WHAT WOULD THE PROPOSAL DO? This proposal seeks to review the *Yukon River Drainage Fall Chum Salmon Management Plan* with options of replacing specified numerical threshold triggers for management actions with terminology relative to current biological escapement goals and consideration for existing ANS levels. Additionally, this proposal would allow commercial fishing at lower run sizes.

WHAT ARE THE CURRENT REGULATIONS? The current fall chum salmon management plan has threshold triggers to ensure adequate escapement and distributes the surplus among subsistence, personal use, sport, and commercial harvesters. The plan provides incremental levels of harvest and participation based on total inseason run size projections.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would replace numeric threshold levels with terminology relative to biological or sustainable escapement goal levels (BEG or SEG). The low end of the escapement goal would continue to be the minimum threshold, whereby all uses would be closed. Subsistence fishermen would continue their highest priority use and be afforded opportunities to harvest amounts relative to the board ANS findings. The difference under this proposal is that the buffer of passing additional fish in order to bolster escapement during lower runs would be removed.

BACKGROUND: The *Yukon River Drainage Fall Chum Salmon Management Plan* was adopted by the board in 1994 and has been amended several times since. Stock production levels have varied greatly the past fifteen years. Excess escapement levels of fall chum salmon from 1994 through 1996 produced poor runs from 1998 through 2002. Minimal escapements from those years produced good runs from 2003 to 2008, with 2005 being the largest run in 30 years. Because of low run sizes, the board designated fall chum salmon as a stock of yield concern in the fall of 2000. The most recent amendments to the fall chum plan were adopted in 2004 which simplified the plan, allowed increased subsistence fishing opportunity on weak runs, and bolstered escapement on stronger runs. In January 2007, the board removed the yield concern designation because of the good production observed since 2003.

Currently, there is a buffer incorporated within the plan using a projected run size of 600,000 fish before allowing a drainagewide commercial fishery that provides more conservative management and an increase in escapement. The current plan allows the highest priority subsistence fishery to occur, with a view to attaining the low end of the escapement goal range of 300,000. As run size increases, additional user groups enter the fishery and escapement increases with run size. The current management plan in use since 2004 has performed well in achieving escapement goals and providing subsistence

opportunity. Unfortunately, highly variable production has made run forecasts uncertain and has contributed to underutilization of available surpluses. Harvesting power and effort distribution is much less than experienced in the late 1980s, which has made it difficult to increase harvest rates when an unexpected surge arrives. Commercial markets have been recovering recently; however, the future of the Yukon River commercial fishery is at risk with high uncertainty that salmon will be consistently available on an annual basis.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal because it could be allocative among users. In concept, this proposal provides a priority subsistence use and increases opportunity for other uses by removal of the buffer in the current management plan, while continuing to manage for the established BEG. Using the upper end of the ANS range as a cap may be inappropriate because subsistence use may fluctuate through time. In addition, inseason run assessment is difficult and has resulted in unharvested surpluses, as well as allowing commercial fishing and subsequently, restricting subsistence fishing in the past. However, recent swings in run sizes have demonstrated that adherence to strict thresholds and buffered escapement does not benefit future runs as much as production rates, which are thought to be more environmentally influenced. Spawner-recruit analysis of fall chum salmon indicates there is a wide range of escapement that will provide similar yield. To maintain commercial markets, it is necessary to have some harvest when biologically allowable. The wording in this proposal is awkward and may be difficult for many fishermen to understand. If the board is in favor of the proposal, the department could provide numerical threshold values that would reflect the level suggested in this proposal relative to the escapement goal and ANS values.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

SUBSISTENCE REGULATION REVIEW:

1. Is this stock in a non-subsistence area? A portion of the king, chum and coho salmon stocks migrate through the Fairbanks Non-subsistence Area (primarily Subdistrict 6-C).

2. Is the stock customarily and traditionally taken or used for subsistence? Yes. The board made a positive customary and traditional use determination for king, summer chum, fall chum, coho, and pink salmon in the Yukon-Northern Area (5 AAC 01.236(1)).

3. Can a portion of the stock be harvested consistent with sustained yield? Yes.

4. What amount is reasonably necessary for subsistence use? The board determined the amount reasonably necessary for subsistence to be 45,500-66,704 king salmon; 83,500-142,192 summer chum salmon; 89,500-167,900 fall chum salmon; and 20,500-51,980 coho salmon in the Yukon-Northern Area (5AAC 01.236(b)(1-4)).

5. Do the regulations provide a reasonable opportunity for subsistence use? This is a board determination.
6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence use? This is a board determination.

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Commercial (10 proposals):

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PROPOSAL 91 – 5 AAC 05.362. Yukon River Summer Chum Salmon Management Plan.

PROPOSED BY: Eastern Interior Alaska Subsistence Regional Advisory Council.

WHAT WOULD THE PROPOSAL DO? This proposal seeks to limit incidental harvest of king salmon in summer chum salmon-directed commercial fishing periods by establishing a quota of 3,000 fish harvest for the summer season. This proposal would close all commercial summer chum salmon fisheries once the quota was reached. Furthermore, this proposal seeks to implement the quota system until border escapements into Canada are achieved for six years.

WHAT ARE THE CURRENT REGULATIONS? Under the current *Summer Chum Salmon Management Plan*, a directed summer chum salmon commercial fishery may be allowed through the use of mesh size restrictions of 6-inch or smaller mesh size by emergency order. King salmon harvested incidentally in the summer chum directed commercial fishery may be sold as part of the legal catch or retained for personal use.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would establish a 3,000 fish cap on the incidental harvest of king salmon and mandate the closure of the summer chum salmon commercial fishery upon reaching the quota.

BACKGROUND: During recent years, Yukon River summer chum salmon runs have been of sufficient strength to provide commercial opportunity to harvest the available surplus and market interest has been improving in this redeveloping fishery. However, the overlapping king salmon runs have been weak, necessitating reductions in exploitation of summer chum salmon. Directed king salmon commercial fishing opportunity has been limited or closed, and in some years, such as 2008 and 2009, subsistence fishing restrictions were implemented in an effort to meet escapement goals, primarily for Canadian origin king salmon. Under the *Summer Chum Salmon Management Plan*, a directed commercial fishery on summer chum salmon can be allowed utilizing mesh size restrictions of 6-inch or smaller mesh size by emergency order. However, king salmon will be caught incidentally in these chum salmon-directed fisheries. Because of the need to provide for escapement of king salmon and provide for

a subsistence priority, reducing the incidental harvest of king salmon has been required. To further protect weak king salmon runs, the department has delayed commercial fisheries targeting summer chum salmon until the majority of king salmon have escaped the fishery.

During the 2009 season, the board met by teleconference on June 29 to consider an emergency petition regarding an amendment to the *Yukon River Summer Chum Salmon Management Plan* (5 AAC 05.362). The board adopted an emergency regulation specifying that during the summer chum season in Districts 1-5, king salmon taken may be retained, but not sold. Therefore, fishermen could release live king salmon or use them for subsistence purposes. By regulation, king salmon caught but not sold, must be reported on fish tickets. The emergency regulation also provided the department the authority to rescind the prohibition of king salmon sales by emergency order.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. Establishing a quota to limit king salmon harvested incidentally in chum salmon-directed fisheries would reduce management flexibility, as the ability to manage based on inseason assessment information would be hindered. In years when the summer chum run is strong, a large harvestable surplus could be foregone by establishing a quota. Furthermore, in years when the king salmon run is strong, the incidental harvest rate could be higher, thus reaching the quota quickly, resulting in unnecessarily limiting commercial opportunity. Additionally, it is unclear how this proposal would affect management of the Tanana River. It appears if the quota was achieved in the lower river fisheries, the Tanana River would then be closed to summer chum fisheries. Currently, the department utilizes inseason information to manage the Tanana River separately as a terminal fishery. In addition, the proposal does not designate whether achieving the escapement goal in Canada would need to occur in six consecutive years or if this requirement could be fulfilled in any six years following adoption of this regulation.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

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PROPOSAL 92 – 5 AAC 05.362. Yukon River Summer Chum Salmon Management Plan.

PROPOSED BY: Tanana Rampart Manley AC, Eastern Interior Regional Advisory Council, Fairbanks AC, Minto-Nenana AC, and Ruby AC.

WHAT WOULD THE PROPOSAL DO? This proposal seeks to prohibit the sale of king salmon during summer chum salmon-directed commercial fisheries in the entire Yukon River drainage. This proposal mandates that king salmon harvested incidentally in non-king salmon-directed commercial fisheries be used for subsistence purposes.

WHAT ARE THE CURRENT REGULATIONS? Under the current *Summer Chum Salmon Management Plan*, a directed summer chum salmon commercial fishery may be allowed through the use of mesh size restrictions of six inch or smaller mesh size by emergency order. King salmon harvested incidentally in the summer chum salmon-directed commercial fishery may be sold as part of the legal catch or retained for personal use.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would prohibit the sale of king salmon during non-king salmon-directed commercial fisheries and mandate that the incidentally-harvested king salmon harvested be used for subsistence purposes, no matter how large the king salmon run.

BACKGROUND: During recent years, Yukon River summer chum salmon runs have been of sufficient strength to provide commercial opportunity to harvest the available surplus and market interest has been improving in this redeveloping fishery. However, the overlapping king salmon runs have been weak, necessitating reductions in exploitation of summer chum salmon. Directed king salmon commercial fishing opportunity has been limited or closed and in some years such as 2008 and 2009, subsistence fishing restrictions were implemented in an effort to meet escapement goals, primarily for Canadian origin king salmon. Under the *Summer Chum Salmon Management Plan*, a directed commercial fishery on summer chum salmon can be allowed utilizing mesh size restrictions of six inch or smaller mesh size by emergency order. However, king salmon will be caught incidentally in these chum salmon-directed fisheries. Because of the need to provide for escapement of king salmon and provide for a subsistence priority, reducing the incidental harvest of king salmon has been required. To further protect weak king salmon runs, the department has delayed commercial fisheries targeting summer chum salmon until the majority of king salmon have escaped the fishery.

During the 2009 season, the board met by teleconference on June 29 to consider an emergency petition regarding an amendment to the *Yukon River Summer Chum Salmon Management Plan* (5 AAC 05.362). The board adopted an emergency regulation specifying that during the summer chum season in Districts 1-5, king salmon taken may be retained, but not sold. Therefore, fishermen could release live king salmon or use them for subsistence purposes. By regulation, king salmon caught, but not sold, must be reported on fish tickets. The emergency regulation also provided the department the authority to rescind the prohibition of king salmon sales by emergency order.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal as written. However, the department **SUPPORTS** being provided emergency order authority to require that king salmon taken may be retained, but not sold. This requirement would be utilized when there is not a surplus of king salmon available for commercial harvest. Prohibition of king salmon sales is a viable option to provide opportunity to harvest abundant summer chum salmon, while reducing the incentive to harvest non-targeted king salmon when king salmon run strength is poor.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

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PROPOSAL 93 – 5 AAC 05.360. Yukon River King Salmon Management Plan.

PROPOSED BY: Jude Henzler.

WHAT WOULD THE PROPOSAL DO? This proposal seeks to prohibit any retention and sale of king salmon during chum salmon-directed commercial fisheries in the mainstem Yukon River drainage.

WHAT ARE THE CURRENT REGULATIONS? Under the current *Summer Chum Salmon Management Plan*, a directed summer chum salmon commercial fishery may be allowed through the use of mesh size restrictions of six inch or smaller mesh size by emergency order. King salmon harvested incidentally in the summer chum salmon-directed commercial fishery may be sold as part of the legal catch or retained for personal use.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would prohibit retention and sale of king salmon during chum salmon-directed commercial fisheries and result in wastage of dead king salmon.

BACKGROUND: During recent years, Yukon River summer chum salmon runs have been of sufficient strength to provide commercial opportunity to harvest the available surplus and market interest has been improving in this redeveloping fishery. However, the overlapping king salmon runs have been weak, necessitating reductions in exploitation of summer chum salmon in order to meet king salmon spawning escapement goals. Directed king salmon commercial fishing opportunity has been limited or closed, and in some years such as 2008 and 2009, subsistence fishing restrictions were implemented in an effort to meet escapement goals, primarily for Canadian origin king salmon. Under the *Summer Chum Salmon Management Plan*, a directed commercial fishery on summer chum salmon can be allowed utilizing mesh size restrictions of six inch or smaller mesh size by emergency order. However, king salmon will be caught incidentally in these chum salmon-directed fisheries. Because of the need to provide for escapement of king salmon and provide for a subsistence priority, reducing the incidental harvest of king salmon has been required. To further protect weak king salmon runs, the department has delayed commercial fisheries targeting summer chum salmon until the majority of king salmon have escaped the fishery.

During the 2009 season, the board met by teleconference on June 29 to consider an emergency petition regarding an amendment to the *Yukon River Summer Chum Salmon Management Plan* (5 AAC 05.362). The board adopted an emergency regulation specifying that during the summer chum season in Districts 1-5, king salmon taken may be retained, but not sold. Therefore, fishermen could release live king salmon or use

them for subsistence purposes. By regulation, king salmon caught, but not sold, must be reported on fish tickets. The emergency regulation also provided the department the authority to rescind the prohibition of king salmon sales by emergency order.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal because prohibiting retention would likely result in wastage of king salmon. Prohibiting retention of king salmon would result in the inability to use the incidental harvest for subsistence purposes, which is a priority use. Furthermore, in years when the king salmon run is strong, the inability to sell the incidental king salmon harvest would negatively impact an already depressed economic area and result in the waste of salmon unnecessarily or a foregone harvest.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

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PROPOSAL 94 – 5 AAC 05.360. Yukon River King Salmon Management Plan.

PROPOSED BY: Fairbanks AC.

WHAT WOULD THE PROPOSAL DO? This proposal would impose a windowed fishing schedule for both commercial and subsistence fishing throughout the Alaskan portion of the Yukon River all year long.

WHAT ARE THE CURRENT REGULATIONS? Currently, the subsistence salmon fishing schedule is implemented by emergency order and implemented upstream, chronologically, following the migration run timing for salmon. Since 2001, the schedule has been initiated in District 1 during very late May to early June. The subsistence fishing schedule is as follows:

- Districts 1-3 are open for two 36-hour periods per week.
- District 4 is open for two 48-hour periods per week.
- Subdistricts 5-A, 5-B, and 5-C are open for two 48-hour periods per week.
- District 6 is open for two 42-hour periods per week.
- Old Minto Area is open 5-days per week.
- Coastal District, Koyukuk River, Kantishna River, and Subdistrict 5-D are open 7-days per week.

Subsistence fishing in the Innoko River drainage has been allowed 7 days per week by emergency order because of less efficient fishing conditions and low fishing effort. When a surplus above border passage (treaty obligations), escapement needs, and subsistence uses is identified, subsistence fishing reverts to the pre-2001 subsistence fishing periods. Subsistence fishing is closed 24 hours before the opening of the commercial season. During the commercial fishing season in Districts 1-3, salmon may not be taken 18 hours immediately before, during, and 12 hours after each commercial salmon fishing period prior to July 15. During the commercial fishing season in

Subdistrict 4-A, salmon may not be taken 12 hours immediately before, during, and 12 hours after each commercial salmon fishing period. When commercial periods are opened in Subdistricts 4-B and 4-C, and Districts 5 and 6, they are concurrent with subsistence fishing periods.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would only allow subsistence and commercial fishing during set windowed openings. This proposal would restrict fishermen from harvesting salmon outside of established fishing schedules regardless of inseason run assessment information. Concurrent commercial and subsistence openings in Districts 1-3 would be very difficult to enforce. This proposal may place additional limitations on fishermen in areas currently allowed to subsistence fish 7 days per week.

BACKGROUND: Prior to 2001, subsistence fishing for salmon was generally allowed seven days per week in Districts 1-5 until the opening of the commercial fishing season or, in the upper Yukon, dates set in regulation. In January 2001, the board adopted a subsistence salmon fishing schedule on the Yukon River as part of action plans to address king and chum salmon stocks of concern. This schedule was adopted by the board and supported by the communities in response to the poor salmon runs from 1998 to 2000. The intent of the schedule was to more conservatively approach the early portion of the season when run assessment is less certain, thereby reducing the risk of overly impacting any particular component of the run, in addition to spreading subsistence harvest opportunity among users. The schedule was based on current, or past, fishing schedules and the board determined that it provides a reasonable opportunity for subsistence users to meet their needs during years of average to below average runs.

During the March 2003 board meeting, a regulation was adopted to clarify discontinuing the schedule and reverting to pre-2001 subsistence fishing period regulations when there was a surplus of salmon greater than needed for escapement needs and subsistence uses. As specified under AAC 05.360., *Yukon River King Salmon Management Plan*.(e); if inseason run strength indicates a sufficient abundance of king salmon to allow a commercial fishery in that district or subdistrict, subsistence fishing shall revert to the fishing periods as specified in 5AAC 01.210(c)–(h), which is the pre-2001 subsistence fishing periods.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. This proposal would unnecessarily continue the windowed schedule throughout the fishing season. Current regulations and management practices allow relaxation of the subsistence fishing schedule when run assessment projections indicate that a surplus of salmon is available above escapement goals and subsistence uses. In addition, this proposal would not allow for reductions in the subsistence fishing schedule in the event of a poor run. The current regulatory subsistence schedule allows subsistence fishing seven days per week in Koyukuk River and Subdistrict 5-D because these locations are less efficient at harvesting salmon. It appears this proposal would reduce subsistence fishing time in these locations from current levels. Furthermore, subsistence fishermen

would be forced to directly compete with the large commercial fishing fleet in the lower river districts.

The department requires flexibility in management. For example in 2006, high water and debris affected subsistence fishing in District 4. As a result, the department allowed subsistence fishing seven days per week during July to provide additional subsistence fishing opportunity for king salmon. Additionally, this proposal would require establishing commercial periods during the subsistence windows in Districts 1-3, which would greatly hamper enforcement of regulations and limit the department's flexibility for managing an orderly fishery in lower river districts.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

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PROPOSAL 95 – 5 AAC 05.360. Yukon River King Salmon Management Plan.

PROPOSED BY: Eastern Interior Alaska Subsistence Regional Advisory Council.

WHAT WOULD THE PROPOSAL DO? This proposal would reallocate the commercial king salmon harvest for Districts 1-6. A commercial king salmon harvest of 0-60,000 fish would be reallocated as follows:

District/Subdistrict	GHR	Percent of Harvest
1-2	0-26,700	44.5
3	0-8,000	13.33
4	0-8,000	13.33
5B-C	0-8,000	13.33
5 D	0-1,300	2.16
6	0-8,000	13.33

WHAT ARE THE CURRENT REGULATIONS? Currently, the guideline harvest range and harvest allocation percentages (when total commercial harvest is 67,350 king salmon or less) are established in regulation as follows:

District/Subdistrict	GHR	Percent of Harvest
1-2	60,000-120,000	89.1
3	1,800-2,200	2.7
4	2,250-2,850	3.3
5B-C	2,400-2,800	3.6
5 D	300-500	0.4
6	600-800	0.9

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, the king salmon harvest allocation for Districts 1, 2, and 3 would be reduced by

more than one half and transferred to Districts 4-6. Adoption of this proposal would be a major fishery shift from lower to upper river fishermen and fishery infrastructure.

BACKGROUND: Guideline harvest ranges replaced quotas in 1979. The current guideline harvest ranges for king salmon were established in 1981 based upon historical harvests. There are approximately 700 CFEC permits issued for the Lower Yukon Area (Districts 1-3) and 230 CFEC permits for the Upper Yukon Area (Districts 4-6).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal because it is allocative between fishing districts. During large runs, current fishing effort and processing capacity in upper river districts will not be able to harvest the surplus available.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

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PROPOSAL 96 – 5 AAC 05.362. Yukon River Summer Chum Salmon Management Plan.

PROPOSED BY: Fairbanks AC.

WHAT WOULD THE PROPOSAL DO? This proposal seeks to reallocate the commercial summer chum salmon harvest for Districts 1-6 as follows:

District/Subdistrict	GHR	Percent of Harvest
1-2	180,000-540,000	45
3	24,000-72,000	6
4-A	120,000-360,000	30
4-B, C	36,000-108,000	9
5-B, C, D	4,000-12,000	1
6	36,000-108,000	9

WHAT ARE THE CURRENT REGULATIONS? Currently, the GHR and harvest allocation percentages (when total commercial harvest is 400,000 salmon or less) are established in regulation as follows:

District/Subdistrict	GHR	Percent of Harvest
1-2	251,000-755,000	62.9
3	6,000-19,000	1.6
4-A	113,000-338,000	28.2
4-B, C	16,000-47,000	3.9
5-B, C, D	1,000-3,000	0.3
6	13,000-38,000	3.2

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Adoption of this proposal would be a major fishery shift from lower to upper river fishermen and fishery infrastructure.

BACKGROUND: Summer chum salmon guideline harvest ranges were established in 1990 based on historic harvest levels. There are approximately 700 CFEC permits issued for the Lower Yukon Area (Districts 1-3) and 230 CFEC permits for the Upper Yukon Area (Districts 4-6).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal because it is allocative between fishing districts. During large runs, current fishing effort and processing capacity in upper river districts will not be able to harvest the surplus available.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

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PROPOSAL 97 – 5 AAC 05.365. Yukon River fall chum salmon guideline harvest ranges.

PROPOSED BY: Fairbanks AC.

WHAT WOULD THE PROPOSAL DO? This proposal seeks to reallocate commercial fall chum salmon harvests as follows:

(1) District 1, 2, and 3: 21,825 to 96,000
(2) District 4: 14,559 to 64,000
(3) Subdistricts 5 B, C, and D: 14,550 to 64,000
(4) Subdistrict 5 D: Delete
(5) District 6: 21,825 to 96,000

WHAT ARE THE CURRENT REGULATIONS? Under current commercial fishing regulations (5 AAC 05.365(a)), the department shall manage the Yukon River commercial fall chum salmon fishery for a guideline harvest range of 72,750 to 320,500 chum salmon, distributed as follows:

(1) District 1, 2, and 3: 60,000 to 220,000
(2) District 4: 5,000 to 40,000
(3) Subdistricts 5 B, C, and D: 4,000 to 36,000
(4) Subdistrict 5 D: 1,000 to 4,000
(5) District 6: 2,750 to 20,500

Under current subsistence fishing regulations (5 AAC 01.249(5)), the department shall distribute the commercial harvest levels below the low end of guideline harvest range by district or subdistrict proportional to the midpoint of the guideline harvest range.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If this proposal is adopted, the fall chum salmon harvest allocation for Districts 1, 2, and 3 would be reduced by more than two thirds and transferred to Districts 4-6. Adoption of this proposal would be a major fishery shift from lower to upper river fishermen and fishery infrastructure.

BACKGROUND: Guideline harvest ranges replaced quotas in 1979. The current guideline harvest ranges are based upon historical harvests and have been in effect since 1989. Districts 1, 2, and 3 have had an allocated harvest that ranges from 69% to 82% of the total catch. There are approximately 700 CFEC permits issued for the Lower Yukon Area (Districts 1-3) and 230 CFEC permits for the Upper Yukon Area (Districts 4-6).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal because it is allocative between fishing districts. During large runs, current fishing effort and processing capacity in upper river districts will not be large enough to harvest the available surplus.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

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PROPOSAL 98 – 5 AAC 05.200. Fishing districts and subdistricts.

PROPOSED BY: KwikPak Fisheries.

WHAT WOULD THE PROPOSAL DO? This proposal seeks to open commercial fishing in the coastal area between Black River and Chris Point (south mouth) in District 1.

WHAT ARE THE CURRENT REGULATIONS? Currently, the waters between Black River and south mouth (Chris Point) are closed to commercial fishing (Figure 98-1).

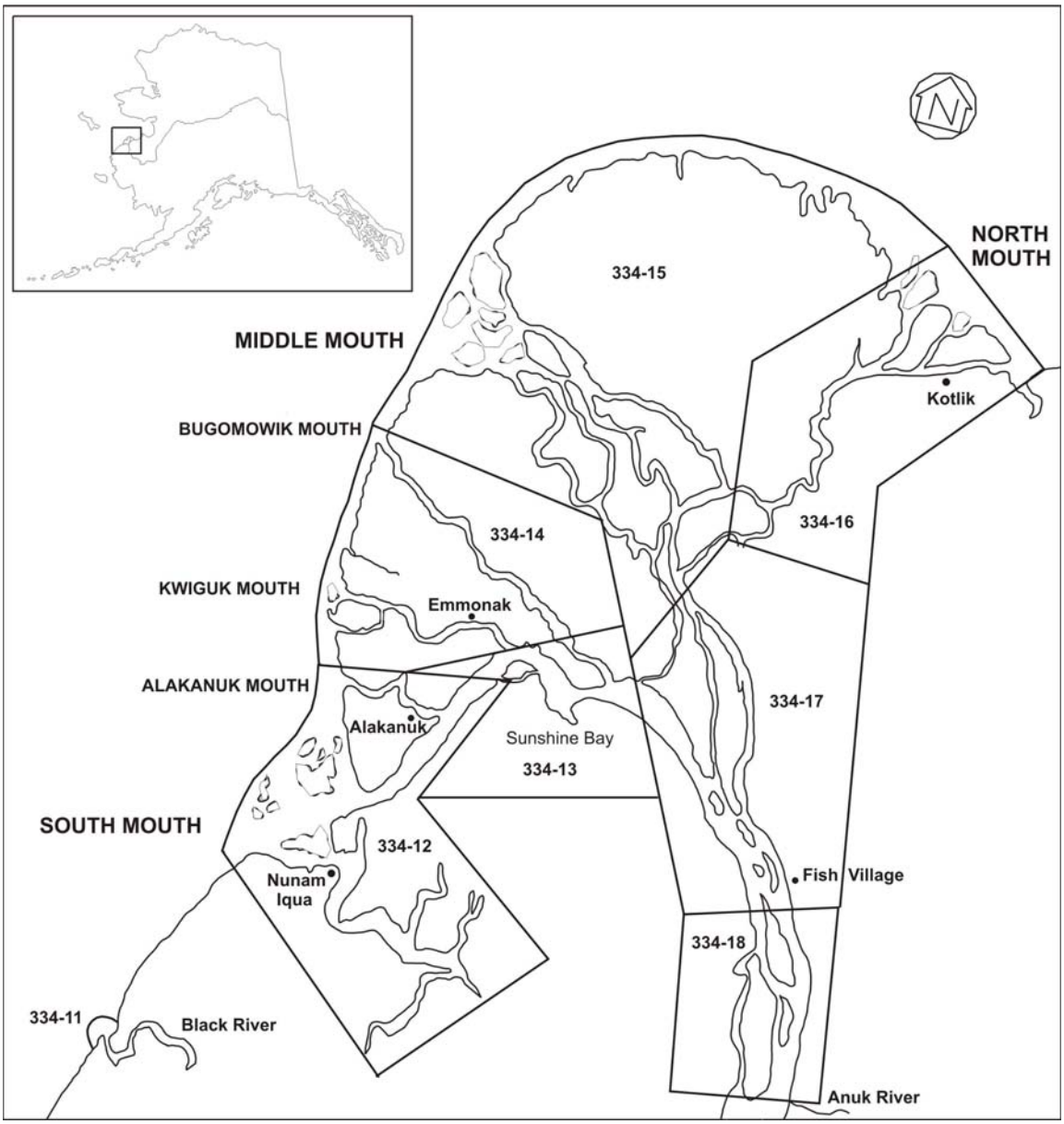
WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would increase the geographic size of District 1 by adding coastal waters between Black River and the south mouth of the Yukon River. This change may affect commercial fishing patterns in District 1.

BACKGROUND: In recent years, shorter fishing periods have reduced the fishing efficiency of coastal setnet fishermen affected by tides. Commercial fishermen have noted that changes in river morphology are decreasing the number of productive fishing sites and fishing effort is concentrated in remaining available locations. Reports of crowding are occurring despite the trend of decreased commercial participation.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal because it is allocative between fishermen in District 1. Opening this area may increase the harvest along the coast and would likely improve fish quality. The opportunity to operate fisheries that target higher quality pink salmon could become available. Pink salmon are currently underutilized due to the low flesh quality observed in the river.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

Figure 98-1.-District 1 showing statistical areas and south mouth boundary (Chris Point), Yukon Area, 2009.



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PROPOSAL 99 – 5 AAC 05.350(4). Closed Waters.

PROPOSED BY: Fairbanks AC.

WHAT WOULD THE PROPOSAL DO? This proposal seeks to open the Andreafsky River to commercial fishing.

WHAT ARE THE CURRENT REGULATIONS? Currently, waters of the Andreafsky River upstream of a line between ADF&G regulatory markers placed on each side of the river at its mouth are closed to commercial fishing.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal may result in higher exploitation of Andreafsky River salmon stocks.

BACKGROUND: The Andreafsky River has been closed to commercial fishing since at least statehood. Commercial buyers have complained about poor quality salmon harvested near the Andreafsky River mouth.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. Commercial fisheries operated in Districts 1 and 2 harvest a mix of stocks, including Andreafsky River stocks. Specifically targeting Andreafsky River stocks might increase overall harvest pressure. An increase in the harvest would not likely benefit the commercial marketplace as Andreafsky River stocks are less desirable due to more advanced maturity.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

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PROPOSAL 199 – 5 AAC 05.369. Yukon River Coho Salmon Management Plan.

PROPOSED BY: Alaska Board of Fisheries.

WHAT WOULD THE PROPOSAL DO? This proposal seeks to change the coho salmon management plan to allow for late season commercial fishing directed at coho salmon if conditions warrant.

WHAT ARE THE CURRENT REGULATIONS? Currently, the department may allow a directed coho salmon fishery provided there is a harvestable surplus of coho salmon and provided the incidental fall chum salmon harvest may only occur on the harvestable surplus of fall chum salmon above 550,000 fish.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would give the commissioner emergency order authority to consider opening a directed coho salmon commercial fishery if it is determined there is a harvestable surplus of coho salmon above escapement needs and those necessary for subsistence uses, and that a directed coho salmon commercial fishery will not have a significant impact on escapement or allocation of fall chum salmon.

BACKGROUND: The majority of Yukon River coho salmon spawn in tributaries that flow into the Yukon River from the mouth of the river up to and including the Tanana River drainage. In 1999, the Yukon River Drainage Fisheries Association (YRDFA) developed and proposed the Yukon *River Coho Salmon Management Plan* that was adopted by the board. Management of directed coho salmon fishing during the fall season is complicated by an overlapping run of more abundant fall chum salmon stocks. The board recognized that in most years the commercial harvest of coho salmon would be based upon the timing, frequency, and duration of periods established for the more numerous fall chum salmon.

In September 2009, the board responded to a petition for an emergency regulation to allow a late season coho salmon-directed fishery when the fall chum salmon run was projected to be less than 550,000 fish identified in the plan, but there was a surplus of coho salmon available for harvest. It was determined that the majority of fall chum salmon had passed upriver so there would not be a significant impact on escapement or allocation of fall chum salmon.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal. Adoption of this proposal would continue to provide conservative management while adding management flexibility to allow limited commercial fishing directed at coho salmon after the majority of the fall chum salmon run has passed.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in this fishery.

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Sport (1 proposal):

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PROPOSAL 100 – 5 AAC 74.010. Seasons, bag, possession, and size limits, and methods and means in the Tanana River Management Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would close the Tok River drainage to sport fishing for salmon.

WHAT ARE THE CURRENT REGULATIONS? There currently are no special regulations for salmon in the Tok River drainage. The general regulations for the Tanana River Area apply to the Tok River drainage, these are:

5 AAC 74.010(b)(1) king salmon 20 inches or greater in length: the bag and possession limit is one fish; (2) salmon, other than king salmon: the bag and possession limit is three fish; with no size limit;

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Sport fishing for salmon in the Tok River drainage would be prohibited.

BACKGROUND: Salmon have not been documented in the Tok River drainage prior to 2008, when approximately 50 coho salmon were observed in a tributary of the Tok River. This is believed to be a relatively small, discrete stock of coho salmon and may not be able to sustain any level of harvest.

DEPARTMENT COMMENTS: The department submitted this proposal and continues to **SUPPORT** it. It is consistent with regulations in other Tanana River tributaries (Delta River drainage, upper Chatanika, Goodpaster, and Salcha rivers) to protect small salmon stocks. Since any other salmon stocks in the Tok River drainage are also likely to be small, the department is requesting that this apply to all salmon species.

COST ANALYSIS: Adoption of this proposal is not expected to result in additional direct costs for private individuals to participate in the Tok River fishery.
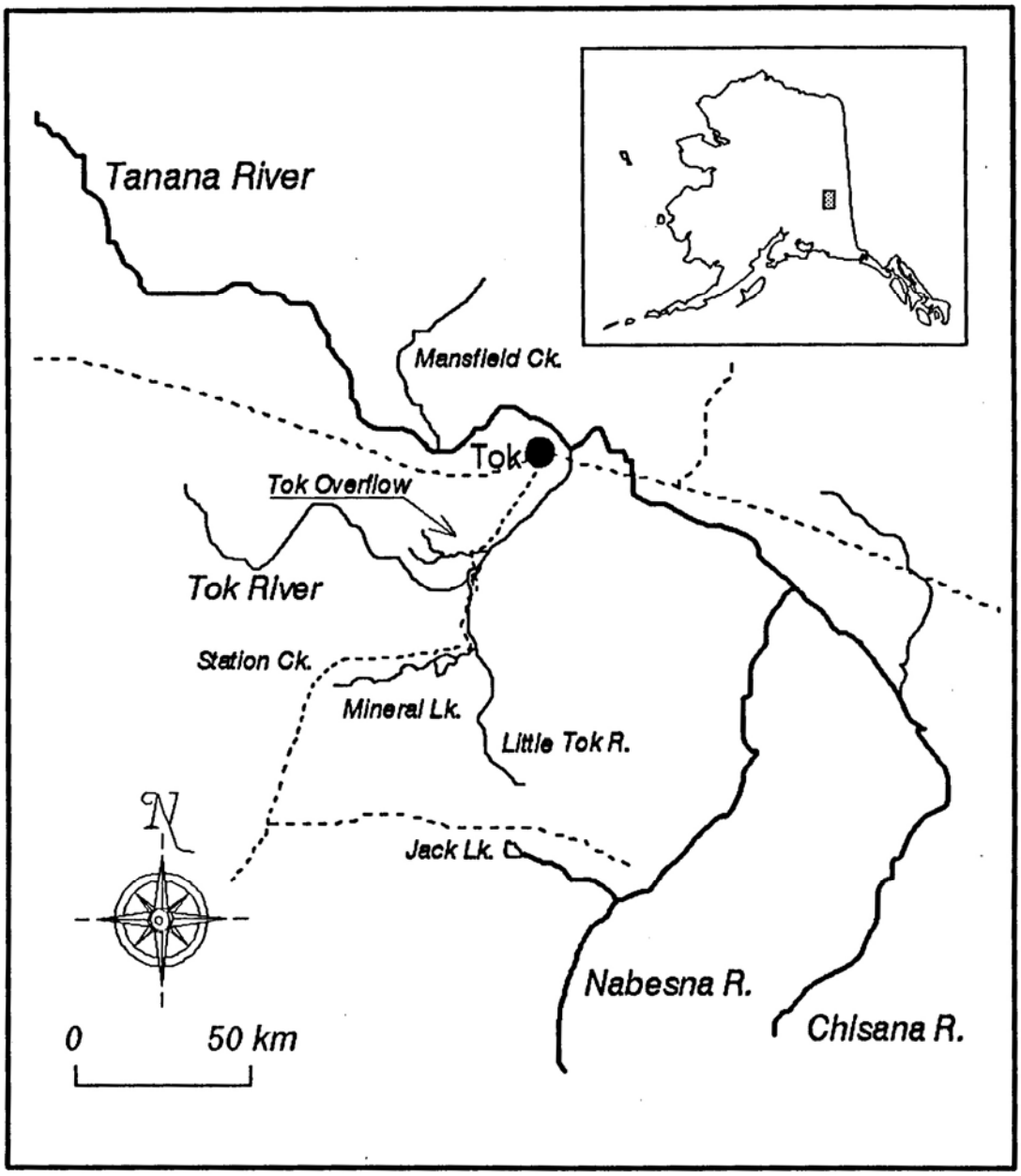
Figure 100-1.–Map of the Tok River drainage.