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ALASKA DEPARTMENT OF FISH AND GAME

STAFF COMMENTS ON
COMMERCIAL, SPORT, AND SUBSISTENCE FINFISH
REGULATORY PROPOSALS,
COMMITTEE OF THE WHOLE, COMMITTEES A AND B,

FOR THE ARCTIC-YUKON-KUSKOKWIM MANAGEMENT AREAS

ALASKA BOARD OF FISHERIES MEETING,
ANCHORAGE, ALASKA

January 15 – 20, 2013

Regional Information Report No. 3A12-05

The following staff comments were prepared by the Alaska Department of Fish and Game for use at the Alaska Board of Fisheries (board) meeting, January 15–20, 2013 in Anchorage, Alaska. The comments are forwarded to assist the public and board. The comments contained herein should be considered preliminary and subject to change, as 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 staff comments on commercial, sport, subsistence, and personal use finfish regulatory proposals for the Arctic – Yukon - Kuskokwim Management Areas. These comments were prepared by the department for use at the Alaska Board of Fisheries meeting, January 15–20, in Anchorage, Alaska. The comments are forwarded to assist the public and board. The comments contained herein should be considered preliminary and subject to change, as new information becomes available. Final department positions will be formulated after review of written and oral public testimony presented to the board.

Key words: Alaska Board of Fisheries (board), Alaska Department of Fish and Game (department) staff comments, Arctic, Yukon, Kuskokwim, finfish, management, management plan, regulatory proposals, inriver, subsistence, personal use, sport, guided sport, commercial fisheries, biological escapement goal (BEG), sustainable escapement goal (SEG), optimal escapement goal (OEG).

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Summary of Department Positions, Arctic – Yukon – Kuskokwim Finfish Board of Fish Meeting, January, 2013.

Proposal No.	Dept. Position	Issue
88	**S**	Close Rainbow Lake to sport fishing from October 1–May 14
89	**S**	Close Little Harding Lake to sport fishing for northern pike
90	**N**	Tanana River Area Stocked Waters Management Plan
91	**S**	Updates to the Tanana River Area Stocked Waters Management Plan
92	**S**	Allow large multiple hooks for non-salmon species in A-Y-K flowing waters
93	**S**	Regulatory language for unbaited, single-hook, artificial lures waters
94	**S**	Methods and means regulations for the Chena River.
95	**N**	Definition of bait in the waters of the Kuskokwim-Goodnews Area
96	**S**	Tanana drainage northern pike seasons
97	**O**	Yukon River northern pike bag and possession limits
98	**O/N**	Limitations on Yukon River hook and line subsistence
99	**S**	Tanana River subsistence closed areas
100	**S**	Northern pike retention on Tanana/Yukon subsistence salmon fisheries
101	**O/N**	Prohibit subsistence gillnetting in Ten Mile and Mark lakes
102	**O**	Nome River subsistence Arctic grayling
103	**N**	Kuskokwim, Yukon, Norton Sound-Port Clarence, and Kotzebue Salmon Management Plans
104	**S/N**	Kuskokwim River Salmon Amount Necessary for Subsistence
105	**S**	Kuskokwim River Salmon Rebuilding Management Plan
106	**N**	Kuskokwim River Salmon Rebuilding Management Plan
107	**N**	Kuskokwim River Subsistence king salmon possession limits
108	**N**	Kuskokwim River Subsistence Salmon Permits
109	**N**	Kuskokwim River customary trade of subsistence-taken finfish
110	**N**	Kuskokwim District 1 Gillnet specifications
111	**O/N**	Close the Eek River to sport fishing
112	**O**	Kwethluk sport and Kuskokwim subsistence fishing regulations
113	**O**	Prohibit catch-and-release fishing in the Kanektok and Arolik rivers
114	**O**	Kanektok and Arolik sport salmon fishing
115		Norton Sound-Port Clarence customary trade of subsistence-taken finfish
116	**N**	Norton Sound District chum salmon management plan
117	**N**	Open Norton Sound Subdistrict 1 west of Cape Nome to commercial salmon fishing
118	**N**	Allow commercial salmon fishing in Golovin Bay after 4,800 coho have escaped
119	**S**	Norton Sound District Salmon Management Plan, Subdistricts 2 and 3
120	**S**	Norton Sound District and Unalakleet King Salmon Management Plans
121	**S**	Allow beach seines for subsistence use in Norton Sound Subdistricts 5 and 6
122	**S**	Allow subsistence fishing in Norton Sound Subdistrict 1
123	**S**	Allow subsistence fishing with beach seines in Norton Sound Subdistrict 1
124	**S**	Allow subsistence harvest of sockeye salmon by beach seine in the Sinuk River
125	**S**	Allow dipnet gear in the Pilgrim River subsistence salmon fishery
126	**S**	Allow for extension of commercial coho season in Norton Sound subdistricts
N = Neutral; S= Support; O = Oppose; NA = No Action, O/N = Oppose, neutral on allocative aspects		

continued

Summary of Department Positions, Arctic – Yukon – Kuskokwim Finfish Board of Fish Meeting, January, 2013. (page 2 of 2)

Proposal No.	Dept. Position	Issue
127	**S**	Norton Sound District gillnet specifications
128	**N**	Use of pink salmon for bait in Norton Sound-Port Clarence Area
129	**S/N**	Open waters of Norton Sound to sport fishing for chum salmon
130	**S**	Yukon-Northern Area amount necessary for subsistence
131	**O**	Yukon River King Salmon Management Plan (pulse protection)
132	**O**	Prohibit sale of Yukon River king salmon caught outside of directed commercial king salmon fisheries
133	**N**	Yukon River Summer Chum Salmon Management Plan
134	**N**	Yukon River Summer Chum Salmon Management Plan
135	**O**	Yukon River Summer Chum Salmon Management Plan
136	**O**	Yukon River Summer Chum Salmon Management Plan
137	**N**	Yukon River Summer Chum Salmon Management Plan
138	**O/N**	Yukon River Drainage Fall Chum Salmon Management Plan trigger point
139	**S**	Yukon River subsistence salmon fishing seasons and periods
140	**O**	Yukon River King Salmon Management Plan
141	**O**	Yukon River subsistence salmon fishing seasons and periods
142	**O**	Yukon River District 5-D subsistence salmon fishing seasons and periods
143	**N**	Yukon River subsistence salmon fishing seasons and periods
144	**N**	Yukon River subsistence and commercial lawful gear and gear specifications
145	**N**	Yukon River subsistence and commercial lawful gear and gear specifications
146	**O**	Yukon River subsistence and commercial lawful gear and gear specifications
147	**O/N**	Yukon River subsistence lawful gear and gear specifications
148	**O/N**	Yukon River subsistence and commercial lawful gear and gear specifications
149	**O**	Yukon River subsistence salmon marking and use
150	**O**	Yukon River subsistence salmon marking and use
151	**O/N**	Yukon River subsistence salmon marking and use
152	**S**	Yukon River commercial fishing districts and subdistricts
153	**S**	Repeal the regulation that closes Fielding Lake to salmon fishing
154	**O**	Close the Black River to king salmon sport fishing
237	**O**	Remove Rainbow Lake from the special management
240	**S**	Allow dipnets and beach seines as commercial gear in Yukon District 1-3.
241	**S**	EO authority in Yukon District 6 for fish wheel use and live king salmon release

N = Neutral; S= Support; O = Oppose; NA = No Action, O/N = Oppose, neutral on allocative aspects

COMMITTEE OF THE WHOLE: (24 PROPOSALS)

Kuskokwim Area Salmon (4)

Yukon Area Salmon (12)

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PROPOSAL 104 – 5 AAC 01.286. Customary and traditional subsistence uses of fish stocks and amounts necessary for subsistence uses.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal provides an opportunity for the Alaska Board of Fisheries (board) and public to review the amounts necessary for subsistence uses (ANS) for salmon stocks with a positive customary and traditional (C&T) use finding in the Kuskokwim River drainage and remainder of the Kuskokwim Area. There may be enough pink salmon harvest data to allow the board to establish an ANS for pink salmon.

WHAT ARE THE CURRENT REGULATIONS? The current ANS findings were set by the board in 2001 based upon the harvest history in the Kuskokwim Area during the years 1990–1999. The ANS ranges were based upon the low harvest and the mean (average) harvest over 10 years, are found in 5 AAC 01.286, and are summarized below in Subsistence Regulatory Review item 4.

The Kuskokwim River drainage includes communities along the drainage, as well as in North Kuskokwim Bay (i.e., Kipnuk, Kwingillingok, and Kongiganak). The Kuskokwim Area includes communities in South Kuskokwim Bay (i.e., Quinhagak, Goodnews Bay, and Platinum) and along the Bering Sea Coast (i.e., Mekoryuk, Newtok, Nightmute, Toksook Bay, Tununak, and Chefornak).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would establish new ANS ranges based upon the best available harvest information.

BACKGROUND: The department has been estimating Kuskokwim Area subsistence salmon harvests annually since 1960: by the Division of Commercial Fisheries in 1960–1987 and by the Division of Subsistence in 1988–2007. In 2008, the responsibility for estimating the subsistence salmon harvest in the Kuskokwim Area was returned to the Division of Commercial Fisheries. Upon this transition, the Division of Commercial Fisheries reviewed the archived data, applied some revised methods, and developed estimated harvests from reported harvests that were stratified and expanded to represent total annual harvests from non-surveyed households and communities, based on their historical harvest patterns. This new method is thought to provide a more complete estimation of subsistence salmon harvests by species than previous methods; however, the revised expanded harvest estimates tend to be higher than those previously published. The current ANS findings, adopted in 2001, are therefore based on estimates that, after revision of harvest estimation methods, appear to have been too low.

While the 2001 C&T use finding did include pink salmon, the board has not established an ANS range.

The department will be presenting ANS options to the board and public in separate written and oral reports.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** reviewing the ANS ranges for salmon in the Kuskokwim Area; the department is **NEUTRAL** on any allocative aspects of this proposal. However, the department does recommend the board establish separate ANS findings for South Kuskokwim Bay and the Bering Sea Coasts, if the board chooses to revise current ANS findings.

COST ANALYSIS: Approval of this proposal is not expected to 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? No.

2. Is the stock customarily and traditionally taken or used for subsistence? Yes; the board has made a positive C&T use finding for salmon in the Kuskokwim Area (5 AAC 01.286(a)(2), and specifically for king, chum, sockeye, coho, and pink salmon in the Kuskokwim River drainage (5 AAC 01.286(a)(3)).

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

4. What amount is reasonably necessary for subsistence uses? The board has found that 64,500–83,000 king salmon; 39,500–75,500 chum salmon; 27,500–39,500 sockeye salmon; and 24,500–35,000 coho salmon in the Kuskokwim River drainage are reasonably necessary for subsistence uses (5 AAC 01.286 (b)(1–4)), and that 7,500–13,500 salmon in the remainder of the Kuskokwim Area are reasonably necessary for subsistence uses (5 AAC 01.286(b)(5)).

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.

PROPOSAL 105 – 5 AAC 07.365. Kuskokwim River Salmon Rebuilding Management Plan.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would eliminate the set subsistence fishing schedule in June and July, and reflect current management practices. This proposal would also direct the department to manage the commercial salmon fishery based on the most abundant species.

WHAT ARE THE CURRENT REGULATIONS? Kuskokwim River salmon are managed according to the *Kuskokwim River Salmon Rebuilding Management Plan* (5 AAC 07.365).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, regulations would reflect current management practices and provide more flexibility in management of overlapping multi-species salmon runs.

BACKGROUND: In January 2001, the Alaska Board of Fisheries (board) modified the *Kuskokwim River Salmon Rebuilding Management Plan* to provide guidelines for management of subsistence, commercial, and sport fisheries. Since the plan was adopted, there have been changes in management practices, such as timing of commercial fishing periods and the area of District 1 to be opened during the first period of the season. A set subsistence schedule was established within the original plan, but is not necessary every year. During large king salmon runs in 2004–2006, it was not necessary to reduce subsistence fishing time. Therefore, the normal subsistence fishing schedule should be seven days per week, except for the closure before, during, and after commercial fishing periods. When runs are poor, the current subsistence fishing schedule does not provide sufficient conservation strategies to meet escapement goals. The department needs flexibility in the duration of closures and to progressively implement closures upstream as salmon migrate upriver during poor runs. Measures taken to conserve king salmon in recent years have resulted in forgone commercial chum salmon harvest; these fish continue to be underexploited despite available harvestable surpluses beyond escapement and subsistence needs.

DEPARTMENT COMMENTS: The department submitted this proposal and continues to **SUPPORT** modifications to the *Kuskokwim River Salmon Management Plan*. This proposal has become a vehicle for stakeholder involvement in cooperatively modifying the plan. It is expected that an amended proposal for the management plan will be submitted by the public at the January board meeting. To date, the department has not endorsed all changes to the plan by stakeholders. The original proposal aims to align language in the plan with current management strategies and clarify management of overlapping salmon runs. While addressing this proposal, the board should evaluate whether proposed changes to the management plan still provide a reasonable opportunity for subsistence uses.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 106 – 5 AAC 07.365. Kuskokwim River Salmon Rebuilding Management Plan.

PROPOSED BY: Association of Village Council Presidents.

WHAT WOULD THE PROPOSAL DO? This proposal would establish an optimal escapement goal (OEG) for king salmon in the Kuskokwim River drainage and amend escapement goals on several of its tributaries. This proposal would also amend the *Kuskokwim River Salmon Rebuilding Management Plan* to include preseason and inseason guidelines for achieving escapement goals, as well as to consider the minimum number of female king salmon at monitored tributary escapements.

WHAT ARE THE CURRENT REGULATIONS? Kuskokwim River king salmon are currently managed in accordance with the *Kuskokwim River Salmon Rebuilding Management Plan* (5 AAC 07.365) and 11 established tributary sustainable escapement goals (SEG), of which four are assessed with weirs and seven with aerial surveys.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If an OEG is adopted that is higher than the department recommended drainagewide SEG, this proposal could increase the likelihood of taking restrictive actions in the subsistence, commercial, and sport fisheries through gear restrictions and area closures that may be unnecessary for achievement of sustainable escapement levels. A higher OEG also has the potential to reduce the likelihood of producing higher sustainable yields.

BACKGROUND: Currently, there is no established drainagewide escapement goal for the Kuskokwim River king salmon stock. Department staff has recommended, to the directors of the divisions of Commercial Fisheries and Sport Fish, establishment of a Kuskokwim River drainagewide SEG, revision of three tributary SEGs, and removal of one tributary SEG for king salmon. The recommendations are based on a Bayesian spawner-recruit analysis (Hamazaki et al. 2012) of data from a maximum likelihood model that estimates total run and escapement for Kuskokwim River king salmon from 1976–2011 (Bue et al. 2012).

The department submitted Proposal 105 to update and revise the *Kuskokwim River Salmon Rebuilding Management Plan* with foresight that these recommended goals would be established. While many of the considerations mentioned in Proposal 106 are intended to be part of this revised management plan, designating specific management triggers in the plan may result in limitations for management of the king salmon run in the Kuskokwim River given dynamic run timing and species overlap. These factors change on an annual basis and, depending on the abundance of other salmon species, management decisions for king salmon may be closely related to management of chum or sockeye salmon.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on establishment of an OEG. While addressing this proposal, the board should evaluate whether proposed changes still provide a reasonable opportunity for subsistence uses. If an OEG is adopted that is higher than the SEG, this could increase the likelihood of taking restrictive actions in the subsistence fishery

through gear restrictions and area closures that may be unnecessary for achievement of sustainable escapement levels. It also has the potential to reduce the likelihood of producing higher sustainable yields. Additionally, *Kuskokwim River Salmon Rebuilding Management Plan* considerations will be difficult to incorporate without knowledge of the specific range of a potential OEG and what it entails.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 109 – 5 AAC 01.2XX. Customary trade of subsistence-taken finfish.

PROPOSED BY: Orutsararmiut Native Council.

WHAT WOULD THE PROPOSAL DO? This proposal would allow limited, noncommercial sales of subsistence-caught fish as customary trade within the Kuskokwim Area following the reporting requirements and restrictions outlined in 5 AAC 01.188, and with an annual household limit of $500.

WHAT ARE THE CURRENT REGULATIONS? Customary trade of subsistence-taken finfish in the Kuskokwim Area has not been authorized by the Alaska Board of Fisheries (board). Under 5 AAC 01.010(d), *Methods, means, and general provisions*, it is unlawful to buy or sell subsistence-taken fish, their parts, or their eggs, unless specifically allowed by the board. Under 5 AAC 01.010(j), persons licensed under AS 43.75.011 to engage in a fisheries business may not receive for commercial purposes, or barter, or solicit to barter, for subsistence taken salmon or their parts.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would allow all Alaska state residents to sell subsistence-taken fish from the Kuskokwim River under the terms of a permit that would specify species, locations, dates, and dollar amounts of each sale; the buyer's name and address; and the form of processing used. Sales could not exceed $500 per household in a calendar year and could only occur within the Kuskokwim Area.

BACKGROUND: Alaska state law recognizes customary trade as a subsistence use (AS 16.05.940(33)) and provides a definition at AS 16.05.940(8). This proposal represents the first time the board will evaluate whether customary trade of finfish represents a customary and traditional subsistence use in the Kuskokwim Area.

Small person-to-person sales of subsistence-taken fish reportedly occur throughout the Kuskokwim Area. In general, customary trade of fish has been allowed by federally-qualified rural residents for fish taken from waters adjacent to federal lands since 1999 (50 CFR § 100.27). It has been determined in federal contexts that the sale of fish under customary trade regulations must comply with state food safety laws.

The board has recognized customary trade in only two areas of the state: for subsistence-harvested herring roe on kelp in Southeast Alaska (5 AAC 01.717), and for subsistence-harvested finfish in Norton Sound-Port Clarence Area (5 AAC 01.188). The Kuskokwim Area currently has no provisions for this subsistence use under state regulations.

While standing on state and private lands (including state-owned submerged lands, shorelands, and waters), persons must comply with state laws and regulations and cannot sell subsistence-caught fish, with the two exceptions specified above. Federal subsistence regulations, particularly customary trade regulations, pertain only to fishing on and use of fish caught on federal public lands and those waters where federal subsistence jurisdiction is claimed. The sale of subsistence-caught fish on all lands and waters (federal, state, or private) is limited by state regulations except to the extent superseded by federal law on federal lands. The State of Alaska maintains jurisdiction of food safety and food processing regulations.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. No data exist to determine whether subsistence finfish harvest in the Kuskokwim Area would increase, decrease, or stay the same if customary trade were allowed. Monetary incentives could potentially increase subsistence harvests of finfish, particularly for king salmon. The department is concerned about the difficulty of enforcing customary trade regulations; specifically, the annual household limitation on sales. As a result, the department recommends the board evaluate, with the Alaska Department of Public Safety, if there are enforcement concerns in Norton Sound and whether problems with customary trade have been identified from the Kuskokwim area with respect to illegal customary trade in finfish from state waters or abuses of federal customary trade regulations. The department continues to have concerns about the lack of monitoring of federal customary trade by the federal subsistence program. The department has also submitted a proposal to the Alaska Joint Board of Fisheries and Game to add a statewide definition of "noncommercial" as it applies to the exchange of fish and game taken in subsistence fisheries, hunts, and trapping. If this proposal were adopted, the department recommends keeping the limitation on commercial fishermen found at 5 AAC 01.010.

COST ANALYSIS: Approval of this proposal is not expected to 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? No.

2. Is the stock customarily and traditionally taken or used for subsistence? Yes; the board has made positive customary and traditional use findings for halibut, Pacific cod, salmon, and all other finfish in the Kuskokwim Area; king, chum, sockeye, coho, and pink salmon in the Kuskokwim River drainage; and herring and herring roe along the coast between the westernmost tip of the Naskonat Peninsula and the terminus of the Ishowik River, and along the coast of Nunivak Island (5 AAC 01.286).

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

4. What amount is reasonably necessary for subsistence uses? The board found the amounts reasonably necessary for subsistence uses to be 64,500–83,000 king salmon; 39,500–75,500 chum salmon; 27,500–39,500 sockeye salmon; and 24,500–35,000 coho salmon in the Kuskokwim River drainage (5 AAC 01.286(b)(1-4)); and 7,500–13,500 salmon in the remainder of the Kuskokwim Area (5 AAC 01.286(b)(5). The board previously made administrative findings for other fish stocks, but these findings have not been codified.

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.

PROPOSAL 130 – 5 AAC 01.236. Customary and traditional uses of fish stocks and amounts necessary for subsistence uses.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal provides an opportunity for the Alaska Board of Fisheries (board) and the public to review (and in the case of pink salmon, establish) amounts reasonably necessary (ANS) for salmon stocks with a positive customary and traditional use finding (C&T) in the Yukon Area. The data suggest that while C&T use patterns of harvest and use of summer and fall chum salmon have not changed, harvest levels have changed and may warrant revision based upon more recent subsistence salmon harvest levels. Additionally, alignments in departmental expansion methods may justify an adjustment to the king salmon ANS. Finally, there may be enough pink salmon harvest data to allow the board to establish an ANS for pink salmon.

WHAT ARE THE CURRENT REGULATIONS? In 2001, the board found that the ANS for salmon in the Yukon-Northern Area are 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 (5 AAC 01.236(b)).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would revise ANS ranges by supplementing the harvest history from 1990–1999 used to establish the ANS ranges in 2001 with more recent data from 2000 up to the present.

BACKGROUND: Yukon River subsistence salmon harvests have been estimated by Division of Commercial Fisheries annually; the estimates are comparable from 1988 through the present day and among years utilized to establish the current ANS ranges. The ANS for subsistence were set by the board in 2001 based upon the harvest history on the Yukon River during the years 1990–1999. The ANS ranges were based upon the low harvest and the high harvest over the 10 years, although years when there were subsistence fishing restrictions were not included in the analysis. While the 2001 C&T use finding did include pink salmon, the board has not established an ANS range.

The department recommends an adjustment to the king salmon ANS range because a 2004 alignment in expansion methods between divisions of Commercial Fisheries and Subsistence data may warrant adjustment to the king salmon ANS range. The original species-specific ANS ranges were established by the board in 2001 based on Division of Subsistence data. After alignment in data analysis methods, the high harvest of 66,704 salmon was adjusted to 63,915 (1993). Except for recent years when restrictions to subsistence fishing have limited harvests, king salmon harvests have been stable through time. While harvest levels of king salmon have fallen below the lower boundary of the ANS range for the last several years, this is likely due to fishing restrictions and poor abundance rather than changing C&T harvest patterns or levels. The department does not recommend changes to the coho salmon ANS range. Coho salmon harvests have been tied to fall chum harvests by regulation until recently; therefore, any changes in the harvests of coho salmon do not necessarily reflect changes in harvesting coho salmon but rather fall chum salmon management actions.

Harvest data suggest that harvest levels of Yukon River summer chum and fall chum salmon stocks have fluctuated over the last decade. In the 11 years since 2001, when the board made species-specific ANS ranges, subsistence harvests of summer chum salmon have fallen below the lower bound of the ANS range four times (see Table 4); three of those years are excluded from the ANS re-evaluation because of subsistence restrictions resulting from low run abundance. The most recent 10-year (all years included between 2002–2011) average of summer chum subsistence harvests is 89,997, however, which is still within the 2001 ANS range. Prior to 1997, when the salmon roe market declined, subsistence harvests of summer chum salmon were regularly estimated between 115,000 and 140,000 fish. Fishers harvested summer chum salmon for roe and kept most of the carcasses primarily for dog food; these fish were counted in the subsistence harvest. After the post-1997 disappearance of the salmon roe market and a series of poor runs from 1998 through 2001, subsistence harvests appear to have restabilized at lower levels, ranging from 77,934 (2004) to 115,078 fish (2006), although these levels have largely fallen within the existing ANS range, especially within recent years. Summer chum salmon may play a larger role in subsistence salmon harvests if king salmon continue to decline.

Fall chum salmon harvests have shown similar declines, although they are not linked to a commercial market. Fall chum salmon are used as both human food and dog food, depending on quality and timing of harvests within the run. Between 1990 and 1999, fall chum salmon subsistence harvests ranged from 89,940 to 167,900 fish (except for 1993 and 1998, when runs were very poor). Excluding the years 2000 through 2003, 2009, and 2010, when subsistence restrictions were in place, subsistence harvests since 2000 have ranged from 62,526 (2004) to 101,221 (2007). The most recent 10-year (all years included between 2002–2011) average of fall chum subsistence harvests is 72,021 and the most recent 5-year (all years included between 2007–2011) harvest average is 81,109 fish, both below the lower end of the 2001 ANS range of 89,500 fish. Declines in maintenance of dog teams along the river likely account for this change in harvest levels.

Finally, data and options are provided in oral and written reports to assist the board in considering an ANS range for pink salmon. The board made a positive C&T use determination for Yukon River pink salmon in 1993 (5 AAC 01.236). Harvest data have been estimated since 2000 and may provide the board with enough information to establish an ANS. While pink salmon abundance and harvest cycle through odd and even years, the department will present just one range that encompasses both odd and even years because the subsistence fishery harvest rate is very low.

The department will present ANS options with supporting data to the board and public in separate written and oral reports.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** the board reviewing ANS ranges for salmon species on the Yukon River drainage based upon more recent information.

COST ANALYSIS: Approval of this proposal is not expected to 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 these salmon stocks migrate through the Fairbanks Nonsubsistence Area (5 AAC 99.015(a)(4)).

2. Is the stock customarily and traditionally taken or used for subsistence? Yes; the board most recently made a positive C&T use finding for king, summer chum, fall chum, coho, and pink salmon in the Yukon-Northern Area in 2001 (5 AAC 01.236(a)(1)).

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

4. What amount is reasonably necessary for subsistence uses? The board has found the following ANS in the Yukon-Northern Area: 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 (5 AAC 01.236(b)).

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 use? This is a board determination.

PROPOSAL 131 – 5 AAC 05.360. Yukon River King Salmon Management Plan.

PROPOSED BY: Yukon River Stakeholder Group, c/o Yukon River Drainage Fisheries Association.

WHAT WOULD THE PROPOSAL DO? This proposal would mandate pulse protection into the *Yukon River King Salmon Management Plan*.

WHAT ARE THE CURRENT REGULATIONS? The department has emergency order authority to implement closures to the subsistence fishery to protect a pulse of king salmon under the current *King Salmon Management Plan* in 5 AAC 05.360(h).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal appears to mandate first pulse protection in regulation for the department to use in management of the king salmon fishery, regardless of the abundance of fish, which could result in foregone subsistence fishing opportunity and harvest when there is a surplus of fish.

BACKGROUND: The management strategy of protecting the first pulse of king salmon during times of conservation to meet escapement goals was first agreed to by managers, fishermen, tribal council representatives, and other stakeholders during a preseason stakeholder meeting in 2009. This conservative management action is intended to assist in meeting treaty objectives with Canada, to meet escapement goals in Alaska, and to share the responsibility for conservation among fishermen along the entire river. The first pulse of king salmon entering the Yukon River is typically composed of a large component of Canadian-origin fish. In 2009, 2011, and 2012, when preseason projections indicated that the king salmon run size may have been insufficient to fully support subsistence uses, the department closed subsistence fishing to protect the first pulse of king salmon. The first pulse closure entails closing one subsistence fishing period (approximately a five-day closure), beginning in the lower river, and similarly implementing this action in upriver fishing districts and subdistricts based on migratory run timing. Subsequent pulses are managed based on inseason assessments. In 2009 and 2012, the first pulse closure was followed by a closure to protect the second pulse based upon inseason assessment information indicating poor run strength.

DEPARTMENT COMMENTS: The department **OPPOSES** mandating pulse protection. Pulse protection is a management tool the department already has the authority to use if preseason and inseason run projections warrant conservation measures on king salmon. Mandating pulse protection, regardless of these projections, would reduce management flexibility and could result in unnecessary restrictions to subsistence fishing opportunity during larger runs and disproportionate harvest across the run.

While addressing this proposal, the board should evaluate whether proposed changes to the management plan still provide a reasonable opportunity for subsistence uses.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 132 – 5 AAC 05.360. Yukon River King Salmon Management Plan.

PROPOSED BY: Fairbanks Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit sale of king salmon caught in a non-king salmon directed commercial fishery throughout the Yukon River drainage. All king salmon incidentally caught would be allocated for subsistence use only.

WHAT ARE THE CURRENT REGULATIONS? King salmon harvested incidentally in the summer chum salmon-directed commercial fishery and fall chum salmon fishery may be sold as part of the legal catch or retained for personal use. In 2010, the Alaska Board of Fisheries adopted a regulation in *Yukon River King Salmon Management Plan (*5 AAC 05.360(i)) specifying that if king salmon subsistence fishing is restricted in more than one district or portion of a district, the commissioner may, by emergency order (EO), close a fishery and immediately reopen a fishery during which king salmon may be retained, but not sold.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would prohibit sale of king salmon during all non-king salmon directed commercial fisheries. It would mandate all incidentally-caught king salmon be used for subsistence purposes only, regardless of the king salmon run size.

BACKGROUND: During recent years, Yukon River summer chum salmon runs have been of sufficient strength to provide a surplus for commercial harvest, and market interest has been improving in this redeveloping fishery. However, overlapping king salmon runs have been weak, necessitating reductions in exploitation of summer chum salmon. There has been no directed king salmon commercial fishing since 2007. Subsistence fishing restrictions were implemented in three of the last five years 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 EO 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, treaty objectives with Canada, and a subsistence priority, reducing incidental harvest of king salmon has been required. Sale of king salmon has been prohibited by EO in 2009, 2011, and 2012 to provide opportunity to harvest abundant summer chum salmon, while reducing the incentive to harvest nontargeted king salmon when king salmon run strength is poor.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. This proposal would reduce flexibility for the department to allow for sale of king salmon when runs are large enough to provide a surplus beyond escapement and subsistence needs. Tying prohibition of sale of king salmon to when subsistence fishing restrictions are established to conserve king salmon is a good criterion for implementing this regulation.
While addressing this proposal, the board should evaluate whether proposed changes to the management plan still provide a reasonable opportunity for subsistence uses.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 133 – 5 AAC 05.331. Gillnet specifications and operations and 5 AAC 05.362. Yukon River Summer Chum Salmon Management Plan.

PROPOSED BY: Gene J. Sandone.

WHAT WOULD THE PROPOSAL DO? This proposal would limit gillnet mesh size to five and one-half inch, or smaller, and no more than 30 meshes deep, during times of king salmon conservation in directed summer chum commercial fisheries in districts 1–3 of the Yukon River.

WHAT ARE THE CURRENT REGULATIONS? Under the *Summer Chum Salmon Management Plan*, a directed summer chum salmon commercial fishery may be allowed through use of mesh size restrictions of six-inch or smaller mesh size by emergency order. In districts 1–3, gillnets with six-inch, or smaller, mesh size, may not be more than 50 meshes in depth.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, gillnet mesh size of five and one-half inch will likely be more efficient for harvesting summer chum salmon, but the resulting shallower nets will be less efficient than deeper nets. Thus, it is unknown what the overall effect on summer chum salmon harvests will be. It is unknown to what extent the incidental harvest of king salmon might be reduced by this proposal.

BACKGROUND: In recent years, the department has been faced with the challenge of trying to develop management strategies that address the need to conserve king salmon during poor runs while providing harvest opportunities on the available surplus of summer chum salmon. Summer chum salmon-directed commercial opportunities are weighed against the potential for incidental harvest of king salmon. From 2008–2012, to protect king salmon, the department has typically delayed opening the summer chum salmon-directed commercial fishery until nearly 75% of the king salmon run has passed. This strategy has been successful in providing protection to the earlier portion of king salmon run. However, this strategy effectively shortens the summer chum salmon commercial season, resulting in lost harvest opportunity. In 2009, 2011, and 2012, sale of king salmon has been prohibited to reduce the incentive to harvest king salmon in summer chum salmon-directed fisheries.

In 1995, the department submitted a proposal to restrict all commercial and subsistence gillnets of six-inch or smaller mesh size to no more than 50 meshes in depth. The Alaska Board of Fisheries 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 **NEUTRAL** on this proposal. Gillnet mesh-size studies conducted by Bromaghin (2005) showed that the probability of catching summer chum with five and one-half inch mesh was higher than with six-inch mesh, while the

probability of catching king salmon decreased with smaller mesh size. It is common local knowledge that larger king salmon travel deeper than chum salmon in the water column. It is commonly reported that larger king salmon are caught along the leadline. However, a Yukon River mainstem radiotelemetry study conducted in 2002–2004 by National Marine Fisheries Service showed that king salmon were randomly distributed throughout the water column; there have been no studies documenting fish size caught by mesh depth. The department does not have adequate data to evaluate the effect that reducing mesh depth to a maximum of 30 meshes would have on relative summer chum and king salmon catch efficiency. Certainly, there would still be an incidental harvest of king salmon.

The department already has the authority to restrict mesh size to six inches, or smaller, in a directed commercial summer chum salmon fishery in times of king salmon conservation. The department has restricted gillnet gear to six inch or smaller in summer chum salmon commercial fisheries the entire summer season since 2008, and has prohibited sale of king salmon in summer chum salmon-directed commercial fisheries to reduce incentive to catch king salmon in 2009, 2011 and 2012. The maximum mesh size of gillnets was changed to seven and one-half inch in 2011, which required many fishermen to obtain new gillnets.

While addressing this proposal, the board should evaluate whether proposed changes to the management plan still provide a reasonable opportunity for subsistence uses.

COST ANALYSIS: Approval of this proposal may result in an additional direct cost for a private person to participate in this fishery because fishermen may incur costs of procuring new, or modifying existing, gear.

PROPOSAL 134 – 5 AAC 05.362. Yukon River Summer Chum Salmon Management Plan.

PROPOSED BY: Frank Alstrom.

WHAT WOULD THE PROPOSAL DO? This proposal would require District 1 fishermen participating in the summer chum salmon-directed commercial fishery to register for a specified setnet area and use gillnets with a mesh size no greater than six inches and 30 meshes in depth during the months of June and July when king salmon are listed as a stock of concern.

WHAT ARE THE CURRENT REGULATIONS? Under the current *Summer Chum Salmon Management Plan*, a directed summer chum salmon commercial fishery may be allowed through use of mesh size restrictions of six-inch or smaller mesh size by emergency order. Commercial gillnets six-inch, or smaller, in mesh size may not be more than 50 meshes in depth in districts 1–3.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would require fishermen in District 1 wishing to participate in the summer chum salmon-directed commercial fishery to register for a specified setnet area prior to participation when king salmon are listed as a stock of concern. Gillnets would also be limited to a maximum depth of 30 meshes, which would decrease gillnet efficiency. It is unknown to what extent incidental harvest of king salmon might be reduced by this proposal. If adopted, it is unknown how this proposal would affect management in the remainder of District 1 outside of the specified setnet area, and in District 2.

BACKGROUND: In recent years, the department has been faced with the challenge of trying to develop management strategies that address the need to conserve king salmon during poor runs while providing harvest opportunities on the available surplus of summer chum salmon. Summer chum salmon-directed commercial opportunities are weighed against the potential for incidental harvest of king salmon. To protect king salmon, the department delayed opening the summer chum salmon-directed commercial fishery until after the midpoint, or later, of the king salmon runs from 2008–2012. This strategy has been successful in providing protection to the earlier portion of king salmon run. However, this strategy effectively shortens the summer chum salmon commercial season, resulting in lost harvest opportunity. In 2009, 2011, and 2012, sale of king salmon has been prohibited to reduce the incentive to harvest nontargeted king salmon in summer chum salmon-directed fisheries.

In 1995, the department submitted a proposal to restrict all commercial and subsistence gillnets of six-inch, or smaller, mesh size to no more than 50 meshes in depth. The Alaska Board of Fisheries 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 **NEUTRAL** on this proposal. It is common local knowledge that larger king salmon travel deeper in the water column. It is

commonly reported that larger king salmon are caught along the leadline. However, a Yukon River mainstem radiotelemetry study conducted in 2002–2004 by National Marine Fisheries Service showed that king salmon were randomly distributed throughout the water column; there have been no studies documenting fish size caught by mesh depth. The department does not have adequate data to evaluate the effect reducing mesh depth to a maximum of 30 meshes would have on relative summer chum and king salmon catch efficiency.

The department already has the authority to restrict mesh size to six inch or smaller in a directed commercial summer chum salmon fishery in times of king salmon conservation. The department has restricted gillnet gear to six inch or smaller in summer chum salmon commercial fisheries since 2008, and has prohibited sale of king salmon in summer chum salmon-directed commercial fisheries to reduce incentive to catch king salmon in 2009, 2011 and 2012. The maximum mesh size of gillnets was changed to seven and one-half inch in 2011, which required many fishermen to obtain new gillnets.

While addressing this proposal, the board should evaluate whether proposed changes to the management plan still provide a reasonable opportunity for subsistence uses.

COST ANALYSIS: Approval of this proposal may result in an additional direct cost for a private person to participate in this fishery because fishermen may incur costs of procuring new, or modifying existing, gear.

PROPOSAL 135 – 5 AAC 05.362. Yukon River Summer Chum Salmon Management Plan.

PROPOSED BY: Gene J. Sandone.

WHAT WOULD THE PROPOSAL DO? This proposal seeks to establish a summer chum salmon-directed fishery no later than July 1 in District 1, to be followed by additional fisheries in upriver districts with chronologically comparable dates.

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.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would mandate a summer chum salmon-directed commercial fishery beginning no later than July 1 in District 1 regardless of inseason assessment of the run size of summer chum and king salmon.

BACKGROUND: In recent years, the department has been faced with the challenge of trying to develop management strategies that address the need to conserve king salmon during poor runs while providing harvest opportunities on the available surplus of summer chum salmon. Summer chum salmon-directed commercial opportunities are weighed against the potential for incidental harvest king salmon. In each year from 2008–2012, to protect king salmon, the department has delayed opening of the summer chum salmon-directed commercial fishery until nearly 75% of the king salmon run has passed. However, this strategy effectively shortens the summer chum salmon commercial season, resulting in lost harvest opportunity.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. Summer chum and king salmon run timing overlap considerably, and a directed summer chum commercial fishery has the potential to incidentally harvest king salmon. Mandating a summer chum-directed commercial fishery beginning no later than July 1 in District 1 reduces flexibility to manage based on inseason assessment information. When a king salmon run is weak or the Canadian-origin king salmon stock is running later, it may be necessary to implement conservation measures after July 1 to conserve king salmon, which may include delaying a directed commercial summer chum salmon fishery.

While addressing this proposal, the board should evaluate whether proposed changes to the management plan still provide a reasonable opportunity for subsistence uses.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 136 – 5 AAC 05.362. Yukon River Summer Chum Salmon Management Plan.

PROPOSED BY: Ruby Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal seeks to limit incidental harvest of king salmon in a summer chum salmon-directed fishery by establishing a cap of 2,000 fish in districts 1 and 2.

WHAT ARE THE CURRENT REGULATIONS? Under current regulations, there is no cap on the incidental commercial harvest of king salmon during a directed summer chum salmon commercial fishery. 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. However, sale of king salmon may be prohibited by emergency order (EO) if subsistence fishing restrictions are established to conserve king salmon.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would establish a 2,000 fish cap on the incidental harvest of king salmon in districts 1 and 2, and mandate closure of the summer chum salmon commercial fishery upon reaching the cap.

BACKGROUND: During recent years, Yukon River summer chum salmon runs have been of sufficient strength to provide a surplus for commercial harvest 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. There has been no directed king salmon commercial fishing since 2007. In 2008–2009 and 2011–2012, 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 EO. However, king salmon are caught incidentally in chum salmon-directed fisheries. The need to provide for escapement of king salmon, to meet treaty objectives with Canada, and to provide for a subsistence priority, necessitates reducing incidental harvest of king salmon. 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. In 2010, the Alaska Board of Fisheries adopted a regulation in the *Yukon River King Salmon Management Plan (*5 AAC 05.360(i)) specifying that if king salmon subsistence fishing is restricted in more than one district or portion of a district, the commissioner may, by EO, close a fishery and immediately reopen a fishery during which king salmon may be retained, but not sold. By regulation, king salmon caught, but not sold, must be reported on fish tickets. Incidental harvest of king salmon since 2008 has ranged from approximately 2,400 to 9,900 fish (Table 136-1).

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. Establishing a cap to limit king salmon harvested incidentally in chum salmon-directed fisheries would likely

result in less accurate reporting of king salmon retained, but not sold. Since reaching the cap would close the fishery, there would be motivation for not reporting incidental harvest of king salmon. In addition, a cap would reduce management flexibility because the ability to manage based on inseason assessment information would be hindered. As the commercial fishery proceeds into July, incidental harvest of king salmon becomes much lower. A cap might prevent commercial fishing later in the summer season, when king salmon harvest is very low. In years when the summer chum run is strong, a large harvestable surplus could be foregone by establishing a cap. Furthermore, in years when the king salmon run is strong, the incidental harvest rate could be higher, thus reaching the cap quickly, resulting in unnecessarily limiting commercial opportunity.

While addressing this proposal, the board should evaluate whether proposed changes to the management plan still provide a reasonable opportunity for subsistence uses.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

Table 136-1.–Districts 1 and 2 salmon commercial harvests in summer chum-directed commercial fishing periods, Yukon River, 2008–2012.

			Districts 1 and 2 combined			
				Incidental king salmon [a]		Summer chum
Year	Date first commercial	Percent king salmon passage [b]	Number of periods	Sales	Caught, but not sold	salmon sales
2008	2-Jul	87	11	4,348	0	125,598
2009 [c]	29-Jun	81	13	131	3,540	157,906
2010	28-Jun	78	15	9,897	0	183,215
2011 [c]	24-Jun	62	20	0	4,090	266,510
2012 [c]	29-Jun	42	16	0	2,421	207,849

[a] Does not include king salmon caught during the fall season fishery.
[b] The proportion of king salmon run passed at the time of first commercial opening, based on lower river test fisheries.
[c] Sale of incidentally-caught king salmon prohibited during portions, or all, of summer season.

PROPOSAL 137 – 5 AAC 05.362. Yukon River Summer Chum Salmon Management Plan.

PROPOSED BY: Gene J. Sandone.

WHAT WOULD THE PROPOSAL DO? This proposal seeks to develop an optimal escapement goal (OEG) for the Yukon River summer chum salmon stock that originates above Pilot Station.

WHAT ARE THE CURRENT REGULATIONS? The current summer chum salmon management plan has a threshold of 600,000 summer chum salmon; below this, all fisheries are closed. There are other, higher threshold triggers to provide for a subsistence priority and to provide for other uses based on inseason run-size projections. When the run size is projected to be greater than 900,000, but below 1,000,000 summer chum salmon, a drainagewide commercial fishery may harvest up to 50,000 summer chum salmon. When run size is projected to exceed 1,000,000 summer chum salmon, commercial fisheries may also harvest the surplus above that amount.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would establish an OEG drainagewide for summer chum salmon spawning above Pilot Station, which may change management triggers within the management plan.

BACKGROUND: The *Yukon River Summer Chum Salmon Management Plan* was last modified by the Alaska Board of Fisheries in 2010. The main element of the plan is a threshold below which all fishing is closed to provide for a minimum level of drainagewide escapement. Subsistence fishing is provided a higher priority than other uses by allowing subsistence harvest on runs of lower abundance, and commercial harvest to only occur when projected runs exceed 900,000 summer chum salmon. The amount reasonably necessary for subsistence (ANS) for summer chum salmon is 83,500–142,192 fish, with the majority of the subsistence harvest taken in districts 1 and 2.

During the past decade, summer chum salmon production has been highly variable, encompassing both record high and low runs. Currently, there is no drainagewide escapement goal for summer chum salmon because of a lack of long-term data. Only the East Fork Andreafsky and Anvik rivers have established escapement goals. It is noteworthy that lower escapements of approximately 400,000 summer chum salmon in 1973, 2000, and 2001 resulted in adequate returns in subsequent years (Figure 137-1). Production models of Yukon River fall chum salmon indicate that there is a wide range of escapements that will provide similar yields, and the summer chum salmon stock may have similar population dynamics.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on modifying triggers within the management plan. Currently, there is no drainagewide escapement goal for summer chum salmon because of a lack of long-term data. The department is planning on addressing the summer chum salmon escapement goal in the near future and has sought funding to conduct a

radiotelemetry summer chum salmon project which would refine drainagewide escapement estimates necessary for setting a new escapement goal.

While addressing this proposal, the board should evaluate whether proposed changes to the management plan still provide a reasonable opportunity for subsistence uses.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

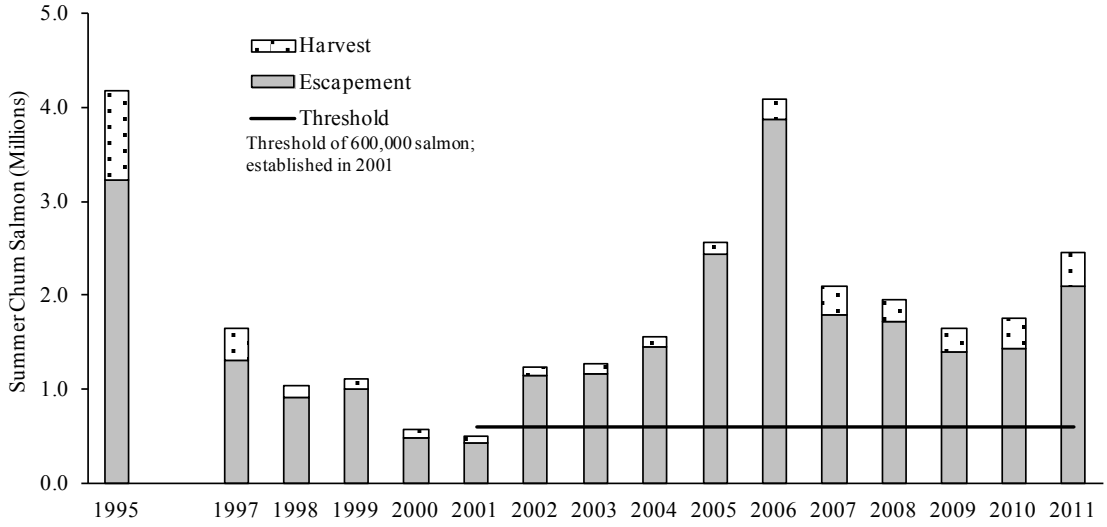

Figure 137-1.–Estimated total annual runs of summer chum salmon, by harvest and escapement and drainagewide threshold, Yukon River, 1995 and 1997–2011. Data are unavailable for 1996.

PROPOSAL 138 – 5 AAC 01.249. Yukon River Drainage Fall Chum Salmon Management Plan.

PROPOSED BY: Gene J. Sandone.

WHAT WOULD THE PROPOSAL DO? Modify the *Fall Chum Salmon Management Plan* commercial fishing trigger point from 500,000 to 400,000 fish.

WHAT ARE THE CURRENT REGULATIONS? Under the current *Fall Chum Salmon Management Plan*, a drainagewide fall chum salmon-directed commercial fishery may be allowed when projected run strength is more than 500,000 fish.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would remove a buffer of additional fall chum salmon that would contribute to escapement within the drainagewide goal range. The buffer increases the likelihood of distributing escapement across several stocks with associated tributary escapement goals, and of meeting Canadian border passage objectives. In addition, the buffer helps ensure fish are available for subsistence uses along the entire drainage.

BACKGROUND: The *Yukon River Drainage Fall Chum Salmon Management Plan* was adopted by the Alaska Board of Fisheries (board) in 1994 and has been amended several times since then. According to the plan, there is a minimum threshold, below which all harvest is prohibited to provide for a minimum level of drainagewide escapement. After conservation, subsistence is provided the highest priority over other uses by allowing subsistence harvest on runs between 300,000 and 500,000 fish. Commercial, sport, and personal use fisheries are allowed on projected harvestable surplus above escapement and subsistence uses.

Stock production levels have varied greatly over the past fifteen years. Escapements well above escapement goal ranges from 1994 through 1996 produced poor runs from 1998 through 2002. In the fall of 2000, the board designated fall chum salmon as a stock of yield concern because of low run sizes. Low escapements from 1998 through 2002 produced good runs from 2003 to 2008, with 2005 being the highest run observed in 30 years. In January 2007, the board removed the yield concern designation because of improved production observed since 2003.

The most recent amendment to the *Fall Chum Salmon Management Plan* was adopted in 2010; this amendment reduced the commercial threshold from 600,000 to 500,000 fish. This change still allowed for subsistence fishing opportunity and achieving escapement goals. Unfortunately, fluctuations in fall chum salmon production have made forecasts difficult, contributing to underutilization of available commercial surpluses. Commercial harvesting power is lower and effort distribution along the river is different than experienced in the late 1980s, which has made it difficult to increase harvest rates when an unexpected surplus is available. However, markets have shown improvement in recent years, which may increase fishing effort.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of this proposal, but **OPPOSED** to biological aspects of this proposal. The current threshold allows managers to provide for the drainagewide escapement goal and reasonable opportunity for

subsistence. Inseason run assessment is difficult because of the erratic entry pattern of fall chum salmon into the Yukon River. Because of the uncertainty of inseason sonar-based run assessment (Figure 138-1), lowering the threshold to 400,000 fish could jeopardize the likelihood of distributing escapement across several stocks with tributary escapement goals, of meeting Canadian border passage objectives, and of providing for subsistence uses along the entire drainage (Table 138-1). Currently, the majority of the commercial harvest occurs in the lower river, while the majority of the subsistence harvest is taken later in the season in the upper portion of the drainage. The department does manage the commercial fisheries conservatively to ensure the subsistence fishing priority and to meet treaty objectives. Without more precise inseason assessments, lowering the threshold could result in restrictions to the subsistence fisheries after commercial fishing has occurred.

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 these salmon stocks migrate through the Fairbanks Nonsubsistence Area (5 AAC 99.015(a)(4)).

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

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

4. What amount is reasonably necessary for subsistence uses? The board has found 89,500–167,900 fall chum salmon to be the amount reasonably necessary for subsistence in the Yukon-Northern Area (5 AAC 01.236(b)).

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 138-1.–Historical fall chum salmon run reconstruction data and select spawning escapements, sorted in descending order by escapement, Yukon River, 1974–2011.

			Tributary Escapements					
Year	Reconstructed Run Size	Total Estimated Escapement	Delta	Tanana	Chandalar	Sheenjek	Fishing Branch	Mainstem Canada
2005	2,280,434	1,990,251	28,132	372,758	496,484	342,260	119,058	437,733
1975	1,938,275	1,465,213	3,734	122,678	ND	173,371	353,282	ND
1995	1,424,707	963,560	20,587	230,643	280,999	241,855	51,971	158,092
1979	1,396,195	780,818	8,355	226,387	ND	91,372	119,898	ND
1981	1,234,583	551,192	23,508	207,094	ND	74,560	57,386	47,066
2011	1,206,441	881,309	23,639	270,846	295,335	61,882	13,085	205,617
1985	1,179,907	664,426	17,276	163,462	ND	152,768	56,223	62,010
2006	1,150,989	880,503	14,055	233,193	245,090	106,397	30,954	211,994
2007	1,116,550	910,883	18,610	357,016	228,056	39,548	32,150	254,649
1987	1,058,086	651,943	21,180	194,627	ND	153,267	49,038	80,776
1989	1,051,339	506,173	21,342	204,250	ND	99,116	44,041	35,750
1996	1,048,611	787,688	19,758	132,922	208,170	246,889	77,302	122,429
1991	1,030,228	591,132	32,905	281,356	ND	86,496	37,870	78,461
1977	962,761	514,843	16,876	172,341	ND	45,544	88,400	ND
1994	939,145	769,920	23,777	269,719	ND	150,565	65,247	98,358
1974	915,360	436,485	5,915	89,975	ND	89,966	31,841	ND
2008	905,100	687,153	23,055	264,200	178,278	42,908	19,086	174,267
1983	872,642	347,157	7,705	84,626	ND	49,392	27,200	90,875
2003	773,496	693,967	22,582	263,302	214,416	44,047	29,713	143,133
1978	754,517	320,487	11,136	127,703	ND	32,449	40,800	ND
1980	751,540	263,167	5,137	68,187	ND	28,933	55,268	22,912

Table 138-1.–Page 2 of 2.

Year	Reconstructed Run Size	Total Estimated Escapement	Tributary Escapements					
			Delta	Tanana	Chandalar	Sheenjek	Fishing Branch	Mainstem Canada
1990	721,661	369,654	8,992	107,978	ND	77,750	35,000	51,735
1986	694,402	376,374	6,703	72,572	ND	84,207	31,810	87,940
1984	682,365	270,042	12,411	117,845	ND	27,130	15,150	56,633
1988	678,822	325,137	18,024	160,240	ND	45,206	23,645	36,786
1997	651,395	481,336	7,705	88,641	199,874	80,423	27,031	85,419
2004	612,640	536,344	25,073	187,409	136,706	37,878	20,417	154,080
1976	607,884	268,841	6,312	104,302	ND	26,354	36,584	ND
2010	606,360	526,355	17,993	212,660	157,998	22,053	15,773	117,871
2009	575,730	482,411	13,492	159,828	150,000	33,203	25,828	93,626
1982	553,347	179,828	4,235	38,118	ND	31,421	15,901	31,958
1992	473,099	324,253	8,893	86,503	ND	78,808	22,539	49,082
1993	443,703	352,688	19,857	189,572	ND	42,922	28,707	29,743
2002	424,312	396,901	11,992	163,421	89,850	31,642	13,600	98,679
1999	414,961	283,786	16,534	109,309	88,662	14,229	12,958	58,552
2001	381,411	336,435	8,103	116,012	110,971	53,932	21,737	33,491
1998	322,033	251,213	7,804	82,475	75,811	33,058	13,687	46,252
2000	239,299	210,756	3,001	55,983	65,894	30,084	5,057	53,732
Current Escapement Goals:		300,000-600,000	6,000-13,000	61,000-136,000	74,000-152,000	50,000-104,000	22,000-49,000	70,000-104,000

Note: Shaded cells indicate escapements below current goal ranges. ND=no data.

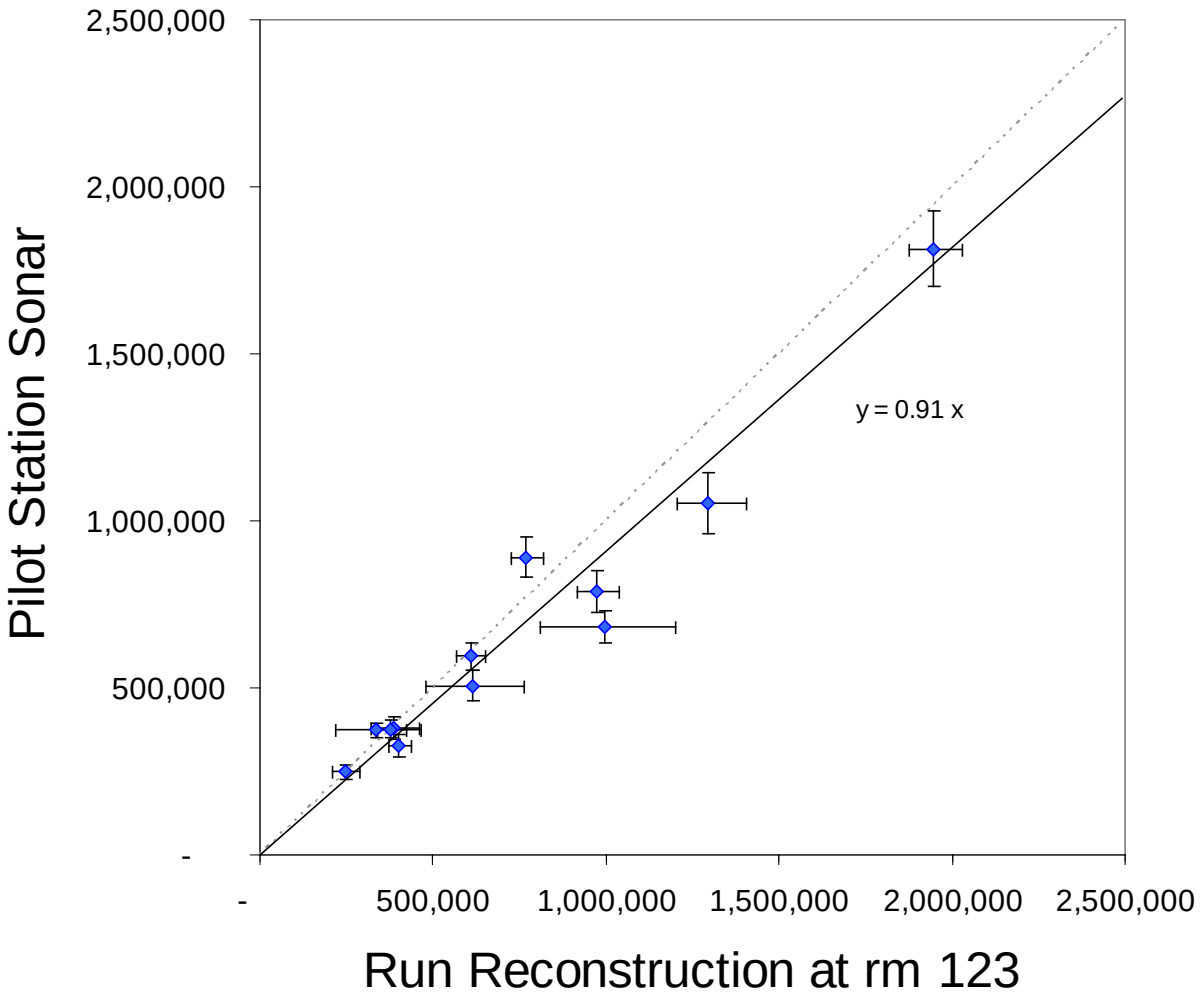

Figure 138-1.-Fall chum salmon passage estimates at Pilot Station sonar (river mile 123) versus reconstructed inriver run from Bayesian spawner-recruit model (total run minus harvest below rm 123), 1995, 1997–2007. Error bars represent 90% intervals.

PROPOSAL 146 – 5 AAC 01.220. Lawful gear and gear specifications and 5 AAC 05.331. Gillnet specifications and operations.

PROPOSED BY: Fairbanks Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would restrict commercial and subsistence gillnets to an allowable maximum mesh size of six-inch throughout the Yukon River drainage.

WHAT ARE THE CURRENT REGULATIONS? In 2011, the maximum mesh size of gillnets in the Yukon River was changed to seven and one-half inch. The department has the ability to close and immediately reopen the subsistence and commercial fisheries with mesh-size restrictions based on the need to conserve king salmon by restricting gillnet mesh size to six-inch, or smaller, 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? If adopted, this proposal would affect subsistence harvest patterns by increasing the harvest of summer chum salmon during commercial and subsistence fishing for king salmon. In the subsistence fishery, this may result in an accumulation of unwanted chum salmon by fishermen attempting to harvest king salmon, and thereby reducing subsistence fishing opportunity and the possibility of meeting subsistence needs for king 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 (eight-inch and larger), which target larger fish. The department has documented a trend in fewer seven-year old king salmon and a decline in the average size of fish since the 1980s. It is unknown whether this is due to selective harvest, environmental conditions, or other factors.

In 2010, the Alaska Board of Fisheries (board) restricted the maximum gillnet mesh size from unrestricted to seven and one-half inch or less after a department study showed that larger mesh sizes catch a higher proportion of larger and older king salmon, and a greater proportion of females. Commercial fishing periods restricted to gillnets of six-inch or less mesh size are used to target chum salmon and have resulted in chum-to-king salmon catch ratios of approximately 20:1. In 2004 and 2007, the board rejected similar proposals to restrict commercial gillnet mesh size to six-inch or less mesh.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. Restricting gillnets to six-inch or smaller mesh size, which target summer chum salmon when there is no need to conserve king salmon, 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. Historical uses of summer chum salmon for subsistence purposes upriver of districts 1 and 2 has been relatively low. Thus, a large increase in harvest of summer chum salmon using six-inch

mesh size would be a major change in the traditional harvest pattern. Some fishermen may forego meeting their subsistence needs of king salmon, not because of low king salmon abundance, but because they were unable to utilize the additional incidental chum catch. In addition, reducing efficiency of only one gear type to target king salmon may reallocate harvest opportunity to other gear types and user groups.

COST ANALYSIS: Approval of this proposal may result in an additional direct cost for a private person to participate in this fishery because fishermen may incur costs of procuring new gear.

SUBSISTENCE REGULATION REVIEW:

1. Is this stock in a nonsubsistence area? A portion of these salmon stocks migrate through the Fairbanks Nonsubsistence Area (5 AAC 99.015(a)(4)).

1. Is the stock customarily and traditionally taken or used for subsistence? Yes; the board most recently made a positive customary and traditional use finding for king, summer chum, fall chum, coho, and pink salmon in the Yukon-Northern Area in 2001 (5 AAC 01.236(a)(1)).

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

4. What amount is reasonably necessary for subsistence uses? The board has found the following amounts reasonably necessary for subsistence in the Yukon-Northern Area: 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 (5 AAC 01.236(b)).

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 use? This is a board determination.

PROPOSALS 149 and 150 – 5 AAC 01.240. Marking and use of subsistence caught salmon.

PROPOSED BY: Fairbanks Advisory Committee (Proposal 149) and Yukon River Stakeholder Group, c/o Yukon River Drainage Fisheries Association (Proposal 150).

WHAT WOULD THE PROPOSALS DO? Both proposals would create an inseason harvest reporting system for subsistence-taken salmon in the Yukon River drainage. Proposal 149 would require use of catch calendars to record subsistence harvests, similar to permit requirements. Proposal 150 requests establishment of an accurate and timely inseason reporting method.

WHAT ARE THE CURRENT REGULATIONS? 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 the communities of Circle and Eagle, and in the Tanana River (Figure 149/150-1). 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 drainage, 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 PROPOSALS WERE ADOPTED? Both proposals would require all subsistence fishermen in the Yukon Area to record their harvests, similar to existing requirements under subsistence fishing permit regulations (i.e., on a daily basis before leaving the fishing site). A drainagewide permit system would substantially change current methods of estimating harvests of subsistence-caught salmon in the Yukon Area, which are currently estimated through postseason household surveys. Inseason reporting would be extremely difficult in this huge and remote drainage. However, these proposals could provide timing of harvest by fishing location and river drainage, which the current subsistence harvest survey does not currently obtain.

BACKGROUND: The department currently implements a postseason harvest survey, along with a permit system in select areas as well as harvest calendars to estimate subsistence harvests, by community, in the Yukon Area. This program provides information necessary to estimate harvests for use in sustainable salmon management and also to contribute to department efforts at run reconstructions. Subsistence fishing permits are required in selected areas of the Yukon River, primarily near road systems. In the remainder of the drainage, subsistence harvest information is collected by surveying households postseason. The survey program employs a stratified sampling protocol to survey households, expanding for unsurveyed households; 95% confidence limits are bounded around those estimates and added to permit totals to estimate total Yukon Area subsistence salmon harvests by species.

DEPARTMENT COMMENTS: The department is **OPPOSED** to these proposals at this time. Although these proposals have the potential for obtaining harvest timing information, the costs and effort required to implement a mandatory harvest reporting or permit system across such a huge drainage would be enormous. Issuing permits to widespread, remote villages, obtaining accurate inseason reporting, and collecting completed permits would be extremely challenging.

Furthermore, the public has not been supportive of subsistence fishing permits in the past. For such a program to succeed, it would be advantageous to begin with an outreach program to gain broad public support for such a substantial change, so as to ensure compliance and accurate reporting. The department is planning a pilot inseason reporting system that will examine the feasibility and cost of requiring regular, inseason reporting by fishing households in several communities. This information would be useful for evaluating inseason management actions during poor runs.

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 these salmon stocks migrate through the Fairbanks Nonsubsistence Area (5 AAC 99.015(a)(4)).

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

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

4. What amount is reasonably necessary for subsistence uses? The board has found the following amounts reasonably necessary for subsistence in the Yukon-Northern Area: 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 (5 AAC 01.236(b)).

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.

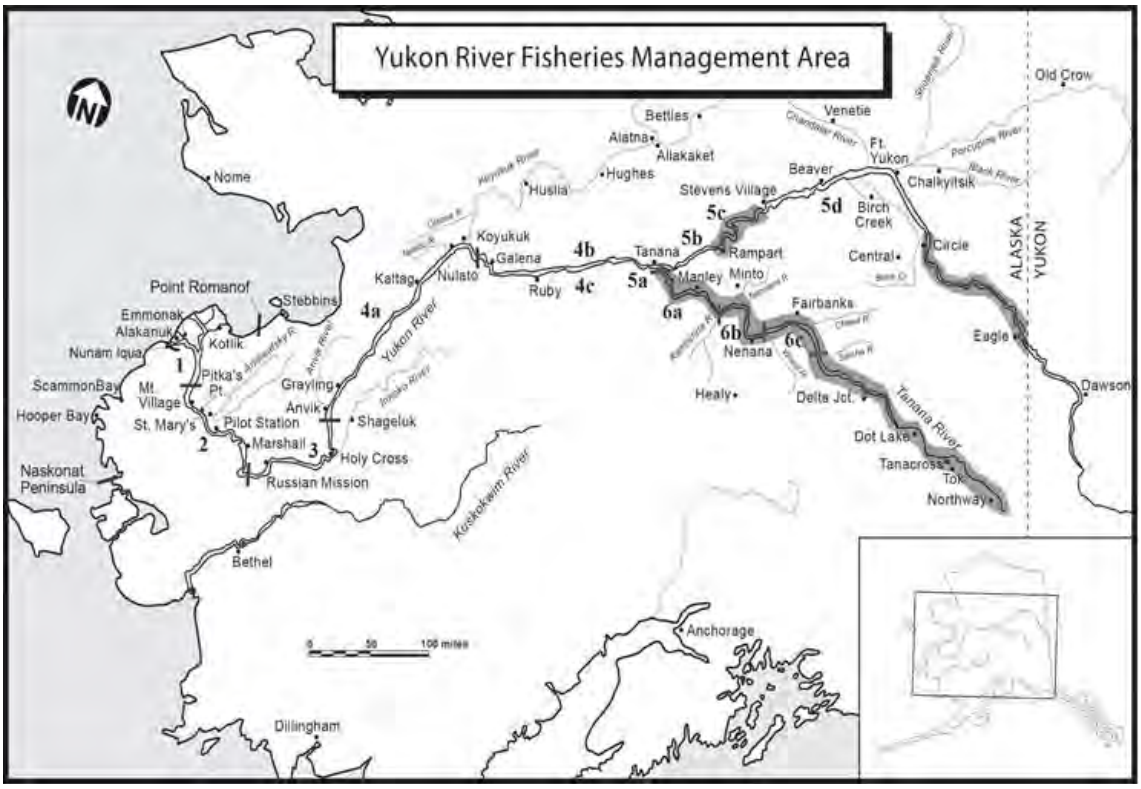

Figure 149/150-1.–Portions of the Yukon Area requiring subsistence permits are shaded in gray.

PROPOSAL 103 – 5 AAC 04; 5 AAC 05; and 5 AAC 07. Arctic-Yukon-Kuskokwim Region fishery regulatory changes and/or management plans pertaining to chum and sockeye salmon in Kuskokwim Area, Yukon Area, Norton Sound-Port Clarence Area, and Kotzebue Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal is a placeholder for potential regulatory actions pending release of results of the Western Alaska Salmon Stock Identification Project (WASSIP).

WHAT ARE THE CURRENT REGULATIONS? Management of Arctic-Yukon-Kuskokwim (AYK) Region fisheries are currently governed by management plans developed for individual management areas.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The availability of new data may provide new insight(s) regarding chum and sockeye salmon harvests in AYK Region. However, at this time there appear to be no changes to fisheries management.

BACKGROUND: Analysis of salmon stocks through use of genetic techniques has replaced scale pattern analysis as the tool of choice for examining stock compositions of fisheries in Alaska. WASSIP was designed to investigate stock compositions of chum and sockeye salmon fisheries from Chignik to Kotzebue Sound. The project collected data to examine stock compositions of chum salmon fisheries from 2007–2009 and for sockeye salmon fisheries from 2006–2008 (three years for each species). The data for sockeye salmon were just published and provide insight into the stock compositions of some commercial fisheries in the Kuskokwim Area. The data for chum salmon have not published as of this writing; these data are expected to provide insight about Yukon fall chum and Kotzebue fish captured in AYK fisheries, but stocks spanning from Bristol Bay to Norton Sound were not differentiated.

DEPARTMENT COMMENTS: The department submitted this proposal to allow public input on potential new information and is **NEUTRAL** on allocative aspects between user groups. At this time, the department has no recommendations for changing current regulations and management plans within the AYK Region based upon recently available and pending results of WASSIP.

COST ANALYSIS: Approval of any proposals pertaining to this placeholder proposal may or may not result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 115 – 5AAC 01.188. Customary trade of subsistence-taken finfish.

PROPOSED BY: Tom Sparks.

WHAT WOULD THE PROPOSAL DO? Increase the annual household limit on customary trade of subsistence-caught finfish from $200 to $500.

WHAT ARE THE CURRENT REGULATIONS? The annual household limit for the noncommercial exchange of finfish for limited amounts of cash in the Norton Sound-Port Clarence Area is limited to $200.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, a household would be able engage in customary trade of subsistence-caught finfish with an annual limit of $500.

BACKGROUND: Customary trade is defined in state law as "the limited noncommercial exchange, for minimal amounts of cash, as restricted by the appropriate board, of fish or game resources" (AS 16.05.940(8)). The statutory definition of subsistence uses identifies customary trade as a legal subsistence use (AS 16.05.940(33)).

Customary trade of subsistence-caught finfish in Norton Sound-Port Clarence Area was recognized as a customary and traditional (C&T) use by the Alaska Board of Fisheries (board) in 2007, after considering a public proposal that requested an annual household limit of $1,000. The board determined that subsistence fishermen involved in customary trade must obtain a record-keeping form from the department and record information on each exchange within 24 hours of each exchange, including: date of sale, buyer's name and address, species and amount of finfish sold, location where finfish were harvested, dollar value of each sale, form of processing used, if any, and any other information the department requires for management or enforcement purposes. Those engaging in customary trade must return the form to the department and display it, upon request, by a local department representative or peace officer of the state. Sales per household are limited to $200 per calendar year. A person who receives subsistence-caught finfish in exchange for cash (purchases fish through customary trade) may not resell the fish. Finally, a sale or purchase of finfish authorized under this section, including delivery of fish to a purchaser, may occur only in the Norton Sound-Port Clarence Area (5 AAC 01.188). Chum salmon are the primary species exchanged in customary trade.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. Since 2007, the number of annual record-keeping forms issued for customary trade exchanges has ranged from 1–5 (Table 115-1). The department is concerned about the difficulty of enforcing customary trade regulations, specifically, the annual household limitation on sales. As a result, the department recommends the board evaluate, with the Department of Public Safety, if there are enforcement concerns in Norton Sound with existing customary trade regulations, the number of citations issued related to individuals not obtaining a reporting form, or exceeding the current annual household limit. It is unknown if there will be an increase in subsistence harvests of finfish if the annual household limitation is increased from $200 to $500.

COST ANALYSIS: Approval of this proposal is not expected to 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? No.

2. Is the stock customarily and traditionally taken or used for subsistence? Yes; the board made positive C&T use findings for (1) herring and herring roe along the coast between Point Romanof and Cape Prince of Wales, and along the coast of Saint Lawrence Island; (2) salmon, and all finfish other than salmon; and (3) chum salmon in Subdistrict I of the Norton Sound District (5 AAC 01.186).

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

4. What amount is reasonably necessary for subsistence uses? In 1998, the board found that 96,000–160,000 salmon are the amount reasonably necessary (ANS) for subsistence uses in the Norton Sound-Port Clarence Area, and in 1999, found that the ANS for chum salmon in the Nome Subdistrict was 3,430–5,716 chum salmon. In 1997, the board made administrative ANS findings for Norton Sound-Port Clarence Area as follows: (1) all freshwater finfish, excluding salmon, of 225,084–375,140 lb; (2) all marine finfish, excluding salmon and herring, of 95,789–159,648 lb; and (3) herring of 66.58 tons.

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 use? This is a board determination.

Table 115-1.-Number of customary trade permits issued, Norton Sound District and Port Clarence District, 2007-2011.

	Norton Sound District								
Year	Nome	Golovin	Elim	Norton Bay	Shaktoolik	Unalakleet	St. Michael & Stebbins	Port Clarence District	Value
2007	3	0	2	0	0	0	0	0	$200.00
2008	3	0	0	0	0	0	0	1	$0.00
2009	0	0	0	0	0	0	0	1	Confidential
2010	1	0	0	0	0	0	0	0	Confidential
2011	0	0	0	0	0	0	1	0	Confidential

PROPOSAL 122 – 5 AAC 01.160. Fishing seasons and periods.

PROPOSED BY: Tom Sparks.

WHAT WOULD THE PROPOSAL DO? This proposal requests opening subsistence gillnet fishing seven days a week in Subdistrict 1 of the Norton Sound District, unless restricted by emergency order (EO).

WHAT ARE THE CURRENT REGULATIONS? In Subdistrict 1, subsistence gillnet fishing for salmon is open in marine waters for three days per week from June 15 through July 25, and five days per week from July 26 through August 15. In freshwater areas, gillnet fishing is restricted to two 48-hour fishing periods per week from June 15 through August 31. Otherwise, subsistence gillnet fishing is allowed seven days per week. Subsistence rod-and-reel fishing is open seven days per week throughout the year.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Subsistence fishing time with gillnets would be substantially increased, which may increase the harvest of salmon.

BACKGROUND: Subsistence fishing time in marine waters during chum salmon season was reduced from five days to three days per week with implementation of Tier II in 1999. The most recent change in subsistence fishing time prior to 1999 was in 1995, when subsistence gillnet fishing time was increased from four days to five days per week in marine waters to allow for more flexibility to deal with harsh conditions.

The Subdistrict 1 biological escapement goal (BEG) of 23,000–35,000 chum salmon, a composite goal based on subdistrict-wide harvest and seven river escapements, has been achieved four of the last five years (Figure 122-1). However, achievement of the goal is often a result of better and more productive chum salmon runs east of Cape Nome disproportionately contributing to the BEG (Table 122-1). The chum salmon escapement goal range for the Eldorado River, which is east of Cape Nome, is double the combined escapement goal range of the Nome and Snake rivers, both of which are west of Cape Nome, highlighting the disparity in river productivity within the subdistrict. In the last five years, the Eldorado River has met or exceeded the chum salmon escapement goal range in four years, but the Nome and Snake rivers have failed to meet the low end of their escapement goal ranges in three years. In the 2000s, subsistence chum salmon harvests in marine waters often exceeded harvests in fresh waters (tables 122-2 and 122-3). The majority of subsistence permit holders fish in freshwater rivers of Subdistrict 1 (Table 122-4). Of those subsistence permit holders net fishing, nearly half fish in marine waters (Table 122-2).

DEPARTMENT COMMENTS: The department **SUPPORTS** increasing subsistence gillnet fishing to seven days a week in the marine waters east of Cape Nome where a surplus of chum salmon has been available, as compared to west of Cape Nome (Table 122-1). Chum salmon runs have improved in the last decade (Figure 122-1), but restricting fishing in marine waters to three days per week has likely limited subsistence harvests during larger runs of chum salmon in

recent years. With only 72 hours of fishing time in marine waters per week, poor weather can adversely affect subsistence fishing opportunity. Continuing with two 48-hour gillnet fishing periods in freshwater subsistence areas should be sufficient because gillnet fishing in fresh water is not affected by weather as much as fishing in marine waters. The freshwater schedule of two 48-hour fishing periods has been in effect for over 30 years.

COST ANALYSIS: Approval of this proposal is not expected to 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? No.

2. Is this stock customarily and traditionally taken for or used for subsistence? Yes; the Alaska Board of Fisheries (board) made positive customary and traditional use findings for salmon in the Norton Sound-Port Clarence Area, and chum salmon in Subdistrict 1 of the Norton Sound District (5 AAC 01.186).

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

4. What amount is reasonably necessary for subsistence uses? In 1998, the board found that 96,000–160,000 salmon is the amount reasonably necessary for subsistence (ANS) uses in the Norton Sound-Port Clarence Area, and in 1999, found that the ANS for chum salmon in the Nome Subdistrict was 3,430–5,716 chum salmon (5 AAC 01.186(b)).

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

Table 122-1.–Chum salmon escapement by river, Subdistrict 1, 1993–2012.

	Rivers West of Cape Nome			Rivers East of Cape Nome				
Year	Sinuk[a]	Snake[b]	Nome[c]	Flambeau[a]	Eldorado[d]	Bonanza[a]	Solomon[a]	Total[e]
1993	6,052	2,115	5,925	6,103	9,048	3,007	2,525	34,775
1994	4,905	3,519	2,893	12,889	13,202	5,178	1,066	43,652
1995	9,464	4,395	5,093	16,474	18,955	11,182	2,106	67,669
1996	6,658	2,772	3,339	13,613	32,970	7,049	2,141	68,542
1997	9,212	6,184	5,147	9,455	14,302	4,140	2,111	50,551
1998	6,720	11,067	1,930	9,129	13,808	4,552	925	48,131
1999	6,370	484	1,048	637	4,218	2,304	637	15,698
2000	7,198	1,911	4,056	3,947	11,617	4,876	1,294	34,899
2001	10,718	2,182	2,859	10,465	11,635	4,745	1,949	44,553
2002	6,333	2,776	1,720	6,804	10,243	3,199	2,150	33,225
2003	3,482	2,201	1,957	3,380	3,591	1,664	806	17,081
2004	3,197	2,145	3,903	7,667	3,273	2,166	1,436	23,787
2005	4,710	2,948	5,584	7,692	10,426	5,534	1,914	38,808
2006	4,834	4,128	5,677	27,828	41,985	708	2,062	87,222
2007	16,481	8,147	7,034	12,006	21,312	8,491	3,469	76,940
2008	5,367	1,244	2,607	11,618	6,746	3,636	959	32,177
2009	2,232	891	1,565	4,075	4,943	6,744	918	21,368
2010	11,107	6,973	5,906	25,009	42,612	3,513	2,678	97,798
2011	15,028	4,343	3,582	15,056	16,227	7,357	4,529	66,122
2012	10,537	1,235	2,015	17,517	13,393	6,002	1,377	52,076

[a] Sinuk, Flambeau, Bonanza, and Solomon escapements are estimated by aerial survey expansion.

[b] Snake escapements are estimated by aerial survey expansion (1993–1994), tower estimates (1995–2002), and weir counts (2003–2012). Escapement goal range was established in 2001 at 1,600–2,500 chum salmon.

[c] Nome escapements are estimated by aerial survey expansion (1993), tower estimates (1994–1996), and weir counts (1997–2012). Escapement goal range was established in 2001 at 2,900–4,300 chum salmon.

[d] Eldorado escapements are estimated by aerial survey expansion (1993–1996), tower estimates (1997–2002), and weir counts (2003–2012). Escapement goal range was established in 2001 at 6,000–9,200 chum salmon.

[e] Subdistrict 1 BEG was established in 2001 at 23,000–35,000 chum salmon.

Table 122-2.–Chum salmon harvest by nets by location in Subdistrict 1, 2006–2011.

		Rivers West of Cape Nome				Rivers East of Cape Nome			
Year	Marine Waters	Sinuk River	Cripple River	Snake River	Nome River	Flambeau River	Eldorado River	Bonanza River	Solomon River
2006	400	21(6)[a]	0	0	1	127	124(71)[a]	19	31
2007	1,956	0	0	1	206	68	164	213	0
2008	449	0	0	14	10	0	111	25	0
2009	106	4	0	18	10	0	147	27	1
2010	1,803	127(73)[a]	0	27	449	16	371(141)[a]	111(25)[a]	9
2011	716	30(30)[a]	2	81	49	165(160)[a]	75	87(9)[a]	0

[a] Net harvest is total harvest by gillnets and seines combined, with seine harvest further broken out in parentheses.

Table 122-3.–Subsistence salmon harvests by year in Subdistrict 1, 1981–2011, and harvest in Subdistrict 1 marine waters, 1998–2012.

Year	Chum	Coho	King	Sockeye	Pink	Total	Harvest in Marine Waters [a]		
							Chum	Coho	Pink
1981	8,579	1,726	35	14	5,584	15,938			
1982	4,831	1,829	21	6	19,202	25,889			
1983	7,091	1,911	74	53	8,086	17,215			
1984	4,883	1,795	83	16	17,182	23,959			
1985	5,667	1,054	56	114	2,117	9,008			
1986	8,085	688	150	107	8,720	17,750			
1987	8,394	1,100	200	107	1,251	11,052			
1988	5,952	1,076	63	133	2,159	9,383			
1989	3,399	469	24	131	924	4,947			
1990	4,246	510	58	234	2,233	7,281			
1991	3,715	1,279	83	166	194	5,437			
1992	1,684	1,481	152	163	7,351	10,831			
1993	1,766	2,070	52	80	873	4,841			
1994	1,673	983	23	69	6,556	9,304			
1995	3,794	1,365	26	148	336	5,669			
1996	2,287	828	9	185	3,510	6,819			
1997	2,696	325	10	50	175	3,256			
1998	964	1,057	15	14	4,797	6,847	747	418	1,906
1999	337	161	11	85	58	652	235	8	4
2000	535	747	7	26	2,657	3,972	215	168	1,614
2001	858	425	2	92	113	1,490	286	153	96
2002	1,114	666	4	79	3,161	5,024	792	422	1,713
2003	565	351	63	76	507	1,562	335	92	340
2004	685	1,574	100	106	15,047	17,512	441	236	2,352
2005	803	1,287	62	177	5,075	7,404	648	164	1,357
2006	890	3,865	24	159	9,329	14,267	400	292	979
2007	2,938	1,103	18	297	850	5,206	2,020	360	326
2008	739	3,423	39	127	12,592	16,920	469	630	2,823
2009	387	1,132	32	64	487	2,102	106	258	154
2010	3,124	1,983	39	77	6,281	11,504	1,835	307	2,229
2011	1,428	1,229	19	47	1,389	4,112	716	356	375
2012	2,521	1,150	11	171	8,376	12,229	1,673	436	1,462

[a] Information not available prior to 1998.

Table 122-4.–Number of subsistence permit holders fishing by location, Subdistrict 1, 2006–2012.

Year	Marine Waters	Nome River	Snake River	Eldorado River	Flambeau River	Bonanza River	Solomon River	Cripple River	Penny River	Sinuk River
2006	29	215	54	9	5	15	19	9	9	25
2007	36	58	25	13	2	15	15	4	4	14
2008	53	228	84	8	1	11	10	22	28	35
2009	26	92	46	7	1	20	14	2	1	19
2010	55	190	60	14	1	24	29	14	20	48
2011	38	86	51	9	3	10	9	10	12	20
2012	40	180	48	15	5	14	17	12	13	24

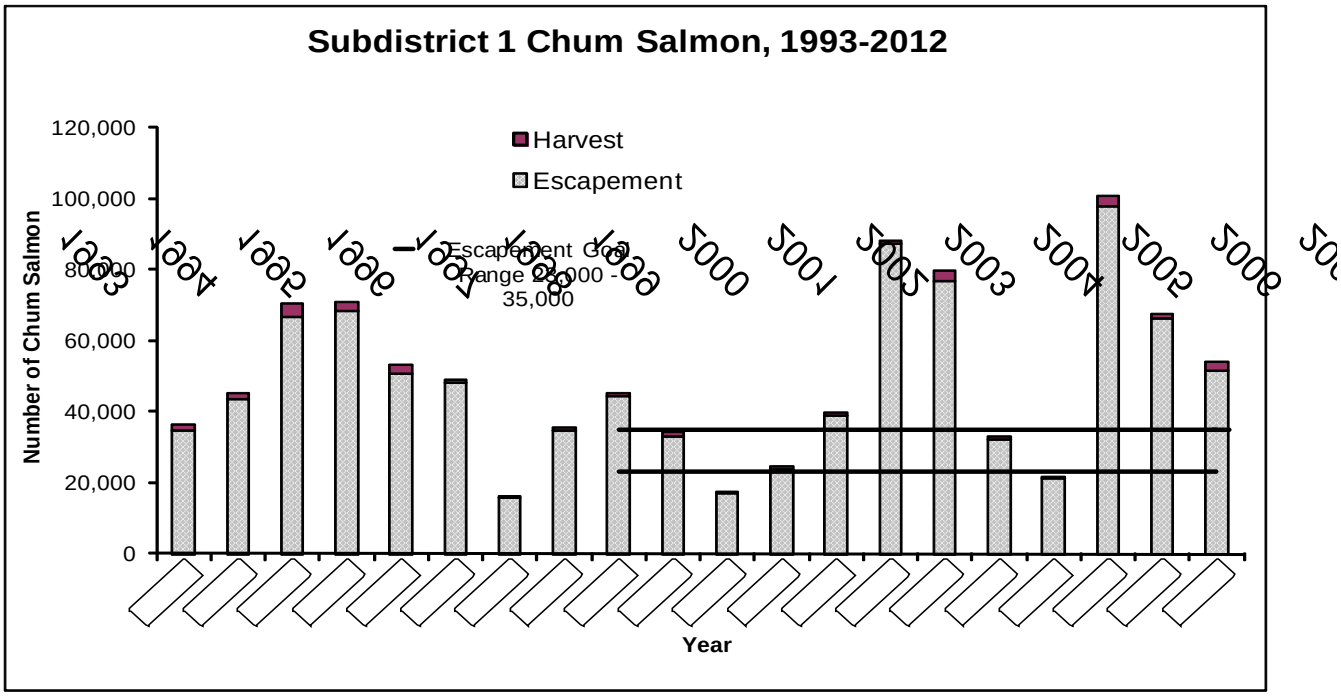

Figure 122-1.–Chum salmon escapement and harvest, Subdistrict 1, 1993–2012.

PROPOSAL 123 – 5 AAC 01.170. Lawful gear and gear specifications.

PROPOSED BY: Tom Sparks.

WHAT WOULD THE PROPOSAL DO? Allow subsistence fishing with beach seines in Subdistrict 1 of the Norton Sound District.

WHAT ARE THE CURRENT REGULATIONS? Regulations in 5 AAC 01.160, *Lawful gear and gear specifications,* do not allow the use of beach seines in Subdistrict 1, except by emergency order (EO). In freshwater areas, gillnet fishing is restricted to two 48-hour fishing periods per week from June 15 through August 31.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would allow beach seines to be used during the subsistence set gillnet fishing schedule periods, which may increase harvest efficiency.

BACKGROUND: Beach seine use was restricted beginning in 1992 because it was viewed as an overly-effective means to harvest fish. However, since 1999, when Subdistrict 1 was designated a Tier II subsistence chum salmon fishery, beach seines have been used to harvest abundant species. In 2010 and 2011, the department allowed beach seining during most gillnet fishing periods in June and July, and fishing effort was low compared to gillnet and rod-and-reel fishing (tables 123-1, 123-2, and 123-3). In 2012, the department also allowed beach seining during most gillnet periods in June and July, but fishing effort by gear is not available at this time.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal to allow fishing with beach seines during the pink and chum salmon fishing season from June 15 through July 25. In addition, the department would want the ability to allow for use of beach seines, but require fishermen to immediately live-release chum salmon by EO. This would allow fishermen to target the often-abundant pink salmon and still protect chum salmon during low chum salmon returns. The department has concerns with allowing beach seine use after July 25, during the coho salmon run, because of the smaller coho salmon run size compared to those of chum and pink salmon. Coho salmon tend to hold longer in the lower reaches of rivers, where subsistence net fishing is allowed, before moving upstream, making them very susceptible to harvest by beach seines. This would become a bigger concern during low-water years when coho salmon often hold longer in the lower reaches of rivers.

COST ANALYSIS: Approval of this proposal is not expected to 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? No.

2. Is the stock customarily and traditionally taken or used for subsistence? Yes; the Alaska Board of Fisheries (board) made positive customary and traditional use findings for salmon in the Norton Sound-Port Clarence Area, and chum salmon in Subdistrict I of the Norton Sound District (5 AAC 01.186).
3. Can a portion of the stock be harvested consistent with sustained yield? Yes.

4. What amount is reasonably necessary for subsistence uses? In 1998, the board found that 96,000–160,000 salmon are the amount reasonably necessary for subsistence (ANS) uses in the Norton Sound-Port Clarence Area, and in 1999, found that the ANS for chum salmon in the Nome Subdistrict was 3,430–5,716 chum salmon.

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 use? This is a board determination.

Table 123-1.–Subsistence beach seining harvests, Subdistrict 1, 2006–2011.

Year	Permits Fished	Chum	Coho	King	Sockeye	Pink	Total
2006	10	77	46	0	2	935	1,060
2007			No seining allowed				0
2008	2	0	0	0	0	260	260
2009			No seining allowed				0
2010	10	239	0	0	4	751	994
2011	4	199	0	0	0	267	466

Note: Permits fished does not necessarily represent unique households because multiple gear can be fished on one permit.

Table 123-2.–Subsistence gillnet harvests, Subdistrict 1, 2006–2011.

Year	Permits Fished	Chum	Coho	King	Sockeye	Pink	Total
2006	37	646	737	18	62	1,301	2,764
2007	58	2,810	721	10	189	549	4,279
2008	42	586	968	39	69	2,849	4,511
2009	48	359	686	31	40	195	1,311
2010	88	2,623	760	30	34	3,166	6,613
2011	73	1,074	871	16	40	688	2,689

Note: Permits fished does not necessarily represent unique households because multiple gear can be fished on one permit.

Table 123-3.–Subsistence rod-and-reel harvests, Subdistrict 1, 2006–2011.

Year	Permits Fished	Chum	Coho	King	Sockeye	Pink	Total
2006	225	167	3,082	6	95	7,093	10,443
2007	78	128	382	8	108	301	927
2008	302	153	2,455	0	58	9,483	12,149
2009	94	28	446	1	24	292	791
2010	225	262	1,223	9	39	2,364	3,897
2011	125	155	358	3	7	434	957

Note: Permits fished does not necessarily represent unique households because multiple gear can be fished on one permit.

PROPOSAL 124 – 5 AAC 01.175(c)(2). Waters closed to subsistence fishing.

PROPOSED BY: Tom Sparks.

WHAT WOULD THE PROPOSAL DO? This proposal would expand the subsistence fishing area on Sinuk River by moving the upstream boundary approximately 10 miles farther upstream to Boulder Creek (Figure 124-1).

WHAT ARE THE CURRENT REGULATIONS? The Sinuk River is closed to subsistence gillnet fishing upstream of the ADF&G regulatory marker placed approximately two miles above the mouth of the river.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would provide easier access for subsistence fishermen because the boundary would be closer to road access from the Sinuk River Bridge on the Nome-Teller road.

BACKGROUND: To reach the Sinuk River subsistence fishing area by boat requires either an approximately 25-mile trip in marine waters from Nome or a trip of over 10 miles downstream from the Sinuk River Bridge. Both options can be perilous. Boats coming via the ocean often use outboards with propellers, which are not very effective in navigating shallow waters of the Sinuk River. C oming from the road, the downstream journey requires navigating through shallow rocky waters.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal. S ubsistence harvests on the Sinuk River have been a fraction of the entire Subdistrict 1 harvest (tables 124-1 and 124-2), despite Sinuk River salmon runs being comparable with the other major rivers in the subdistrict. The lower harvests on the Sinuk River are attributed to difficult access. However, even with a boundary change, fishermen would still need a boat, or to walk, in order to access the subsistence fishing area and harvests are not anticipated to increase greatly.

COST ANALYSIS: Approval of this proposal is not expected to 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? No.

2. Is the stock customarily and traditionally taken or used for subsistence? Yes; the Alaska Board of Fisheries (board) made positive customary and traditional use findings for salmon in the Norton Sound-Port Clarence Area, and chum salmon in Subdistrict I of the Norton Sound District (5 AAC 01.186).

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

4. What amount is reasonably necessary for subsistence uses? In 1998, the board found that 96,000–160,000 salmon are the amount reasonably necessary for subsistence (ANS) uses in the Norton Sound-Port Clarence Area, and in 1999, found that the ANS for chum salmon in the Nome Subdistrict was 3,430–5,716 chum salmon.
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 use? This is a board determination.

Table 124-1.–Subsistence permits fished and subsistence harvests, Sinuk River, 2004–2011.

Year	Permits	Chum	Coho	King	Sockeye	Pink	Total
2004	31	5	38	1	16	270	330
2005	24	41	21	0	21	396	479
2006	25	24	107	0	79	319	529
2007	14	13	3	0	49	26	91
2008	35	19	319	0	18	456	812
2009	19	5	41	0	18	12	76
2010	48	177	329	1	15	105	627
2011	20	76	23	0	4	10	113
2012	28	15	84	0	17	296	412

Table 124-2.–Subsistence permits fished and subsistence harvests, Subdistrict 1, 2004–2011.

Year	Permits	Chum	Coho	King	Sockeye	Pink	Total Harvest
2004	373	685	1,574	100	106	15,047	17,512
2005	206	803	1,287	62	177	5,075	7,404
2006	279	890	3,865	24	159	9,329	14,267
2007	205	2,938	1,103	18	297	850	5,206
2008	363	739	3,423	39	127	12,592	16,920
2009	261	387	1,132	32	64	487	2,102
2010	372	3,124	1,983	39	77	6,281	11,504
2011	346	1,428	1,229	19	47	1,389	4,112
2012	340	2,521	1,150	11	171	8,376	12,229

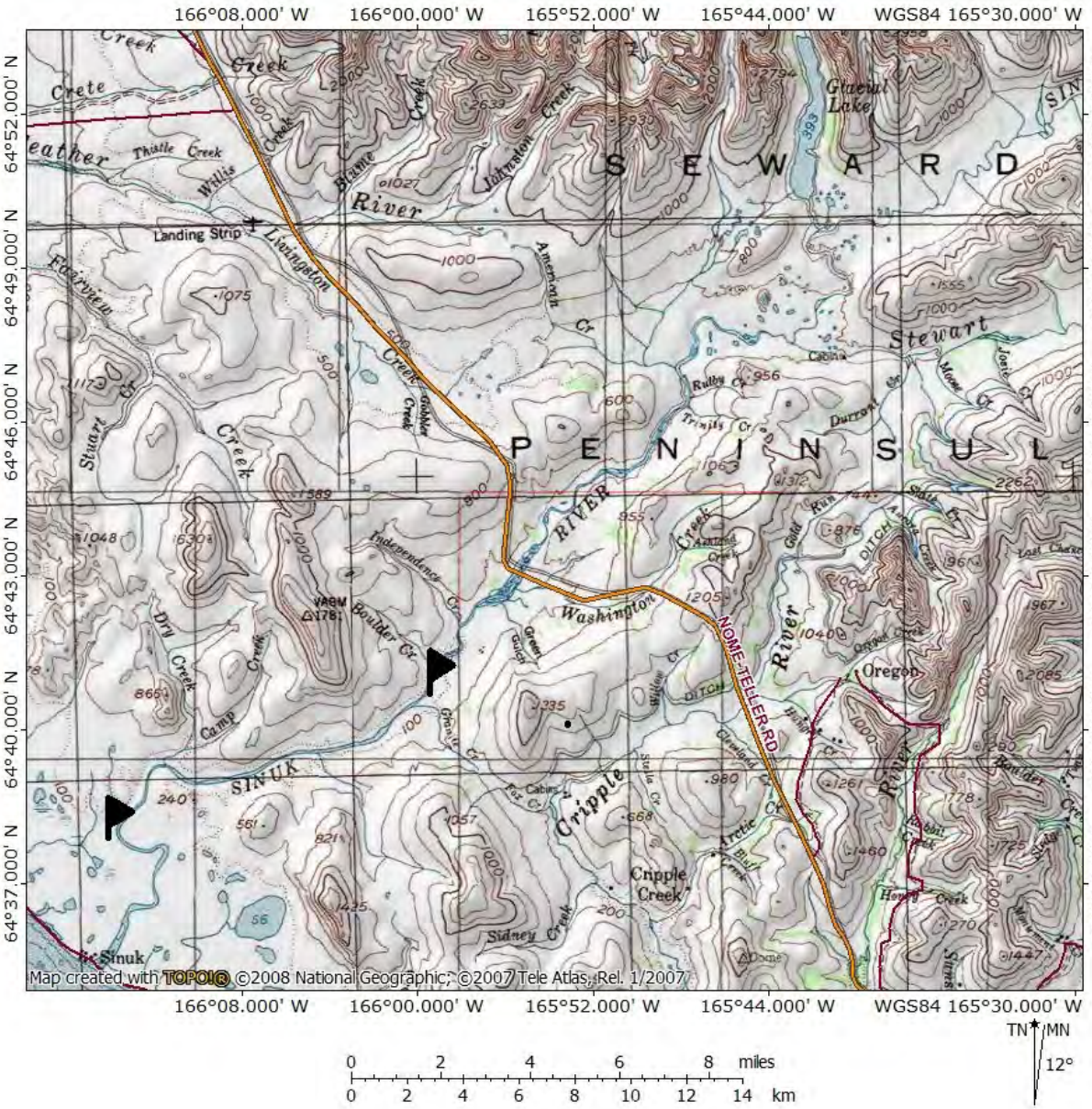

Figure 124-1.–Sinuk River present boundary (lower river flag location) and proposed boundary (upper river flag location) nearer the Nome-Teller Road.

PROPOSAL 116 – 5 AAC 01.190. Subdistrict 1 of the Norton Sound District Chum Salmon Management Plan.

PROPOSED BY: Tom Sparks.

WHAT WOULD THE PROPOSAL DO? Create a commercial fishery for pink or chum salmon in Subdistrict 1 of the Norton Sound District.

WHAT ARE THE CURRENT REGULATIONS? Waters west of Cape Nome are closed to commercial fishing in 5 AAC 04.350(4). For waters east of Cape Nome, regulations in 5 AAC 01.190, *Subdistrict 1 of the Norton Sound District Chum Salmon Management Plan,* do not allow for a commercial chum salmon fishery unless the harvestable surplus has met Tier I subsistence needs for four consecutive years, and the department has proposed to the Alaska Board of Fisheries (board), and the board has adopted, an abundance-based management plan supported by inseason enumerator counts of abundance. Regulations in 5 AAC 04.358, *Chum salmon optimal escapement goal ranges for river systems in Subdistrict 1 of the Norton Sound District,* require the department to manage, to the extent practicable, to achieve the following optimal escapement goal (OEG) ranges: Snake River - 1,600–2,500 chum salmon; Nome River - 2,900–4,300 chum salmon; and Eldorado River - 6,000–9,200 chum salmon. Provisions to allow a commercial pink salmon fishery conflict with 5 AAC 39.010, which allows for retention of commercial catch for one's own use, because under 5 AAC 01.190, chum salmon commercially harvested would not be a lawful catch and incidentally-caught chum salmon could not be retained.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would allow for a commercial chum salmon fishery in years of surplus abundance and allow for chum salmon incidentally caught in pink salmon-directed commercial fisheries to be retained.

BACKGROUND: Since 2006, Tier II restrictions have not been implemented in Subdistrict 1 and chum salmon escapements have been met or exceeded in six of the seven years since the established subdistrict-wide biological escapement goal (BEG). However, in rivers west of Cape Nome, escapements have only been met or exceeded in four of seven years, as indicated by OEGs for Nome and Snake rivers. The largest and most consistent surplus of chum salmon has been east of Cape Nome, as indicated by the Eldorado River, where the OEG has been met or exceeded in six of seven years. Likewise, the majority (70%) of chum salmon escapement in Subdistrict 1 has been east of Cape Nome (Table 116-1). Since 2006, the amount reasonably necessary for subsistence (ANS) for chum salmon in Subdistrict 1 has been available in six of seven years. Because of a lower than expected chum salmon run in 2009, a subsistence salmon fishing closure occurred, resulting in less than four consecutive years of a harvestable surplus of chum salmon. There has not been a pink salmon-directed commercial fishery in 20 years, despite a harvestable surplus, particularly in even-numbered years. The Nome River has the only pink salmon escapement goal in Subdistrict 1. The lower-bound sustainable escapement goal (SEG) is 3,200 pink salmon in odd-numbered years and 13,000 pink salmon in even-numbered years. Since the pink salmon goal was established in 2004, pink salmon escapements in odd-

numbered years have ranged from 14,000 to 285,000 fish, and in even-numbered years, from 150,000 to 1.2 million fish in the Nome River. In 2004 and 2008, the pink salmon escapement in Subdistrict 1 was estimated to be at least 3 million fish. Unlike chum salmon, the majority (80%) of pink salmon escapement has been west of Cape Nome (Table 116-2).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of this proposal. In years with a harvestable surplus of chum salmon and subsistence uses are projected to be met, a small commercial fishery could be allowed, with the area opened to fishing based upon inseason escapement monitoring projects. During several recent years, a larger surplus of chum salmon has been consistently observed east of Cape Nome. Pink salmon runs have been particularly strong in even-numbered years and a commercial fishery could be allowed while minimizing incidental catch of chum salmon, using four and one-half inch or smaller mesh gillnets. Most fishing in marine waters occurs near rivers. Therefore, it is likely harvests are primarily of local area salmon.

COST ANALYSIS: Approval of this proposal is not expected to 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? No.

2. Is the stock customarily and traditionally taken or used for subsistence? Yes; the Alaska Board of Fisheries (board) made positive customary and traditional use findings for salmon in the Norton Sound-Port Clarence Area, and chum salmon in Subdistrict I of the Norton Sound District (5 AAC 01.186).

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

4. What amount is reasonably necessary for subsistence uses? In 1998, the board found that 96,000–160,000 salmon are reasonably necessary for subsistence (ANS) uses in the Norton Sound-Port Clarence Area, and subsequently in 1999, found that the ANS for chum salmon in the Nome Subdistrict was 3,430–5,716 chum salmon.

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 use? This is a board determination.

Table 116-1.–Chum salmon escapement by river, Subdistrict 1, 1993–2012.

Year	Rivers West of Cape Nome			Rivers East of Cape Nome				Total[e]
	Sinuk[a]	Snake[b]	Nome[c]	Flambeau[a]	Eldorado[d]	Bonanza[a]	Solomon[a]	
1993	6,052	2,115	5,925	6,103	9,048	3,007	2,525	34,775
1994	4,905	3,519	2,893	12,889	13,202	5,178	1,066	43,652
1995	9,464	4,395	5,093	16,474	18,955	11,182	2,106	67,669
1996	6,658	2,772	3,339	13,613	32,970	7,049	2,141	68,542
1997	9,212	6,184	5,147	9,455	14,302	4,140	2,111	50,551
1998	6,720	11,067	1,930	9,129	13,808	4,552	925	48,131
1999	6,370	484	1,048	637	4,218	2,304	637	15,698
2000	7,198	1,911	4,056	3,947	11,617	4,876	1,294	34,899
2001	10,718	2,182	2,859	10,465	11,635	4,745	1,949	44,553
2002	6,333	2,776	1,720	6,804	10,243	3,199	2,150	33,225
2003	3,482	2,201	1,957	3,380	3,591	1,664	806	17,081
2004	3,197	2,145	3,903	7,667	3,273	2,166	1,436	23,787
2005	4,710	2,948	5,584	7,692	10,426	5,534	1,914	38,808
2006	4,834	4,128	5,677	27,828	41,985	708	2,062	87,222
2007	16,481	8,147	7,034	12,006	21,312	8,491	3,469	76,940
2008	5,367	1,244	2,607	11,618	6,746	3,636	959	32,177
2009	2,232	891	1,565	4,075	4,943	6,744	918	21,368
2010	11,107	6,973	5,906	25,009	42,612	3,513	2,678	97,798
2011	15,028	4,343	3,582	15,056	16,227	7,357	4,529	66,122
2012	10,537	1,235	2,015	17,517	13,393	6,002	1,377	52,076

[a] Sinuk, Flambeau, Bonanza, and Solomon escapements are estimated by aerial survey expansion.

[b] Snake escapements are estimated by aerial survey expansion (1993–1994), tower counts (1995–2002), and weir counts (2003–2012). Escapement goal range was established in 2001 at 1,600–2,500 chum salmon.

[c] Nome escapements are estimated by aerial survey expansion (1993), tower counts (1994–1996), and weir counts (1997–2012). Escapement goal range was established in 2001 at 2,900–4,300 chum salmon.

[d] Eldorado escapements are estimated by aerial survey expansion (1993–1996), tower counts (1997–2002), and weir counts (2003–2012). Escapement goal range established in 2001at 6,000–9,200 chum salmon.

[e] Subdistrict 1 BEG was established in 2001 at 23,000–35,000 chum salmon.

Table 116-2.–Pink salmon escapement by river, Subdistrict 1, 1993–2012.

	Rivers West of Cape Nome					Rivers East of Cape Nome				
Year	Sinuk	Cripple	Penny	Snake	Nome	Flambeau	Eldorado	Bonanza	Solomon	Total
1993	5,120				13,036	5,584	120			23,860
1994	492,100			63,860	142,604	19,202	53,890	20		771,676
1995	1,250	150		917	13,893	8,086	4,243	619	350	29,508
1996	74,400			44,558	95,681	17,182	46,100	40,510	15,230	333,661
1997	1,200	60	25	6,742	8,035	2,117	1,022		80	19,281
1998	342,100	46,030	11,300	219,679	359,469	8,720	137,283	167,130	45,175	1,336,886
1999	180	275	10	116	2,033	1,251	977	245	90	5,177
2000	12,175	3,663	715	4,723	41,673	2,159	55,992	12,410	2,899	136,409
2001	115			1,295	3,138	924	488	221		6,181
2002	28,487	2,900	280	4,103	35,057	2,233	119,098	17,095	9,170	218,423
2003	9,907	1,175	80	2,856	11,402	194	173	1,540	157	27,484
2004	1,267,100	197,000	48,000	126,917	1,051,146	7,351	60,866	185,000	109,000	3,052,380
2005	211,285	90,100	22,870	13,813	285,759	873	12,356	55,000	11,100	703,156
2006	515,000	165,850	59,515	74,028	578,555	6,556	222,348	268,500	165,215	2,055,567
2007	6,810	5,440	50	4,634	24,395	336	833	1,360	2,400	46,258
2008	1,496,000	402,000		145,761	1,186,554	3,510	244,641	212,000	81,000	3,771,466
2009	6,740	250	22	769	16,490	175	1,119	3,276	1,565	30,406
2010	168,600	26,410	13,030	51,099	171,760	4,797	48,136	106,000	21,804	611,636
2011	21,100	10,400	1,000	7,011	14,403	58	489	11,050	5,580	71,091
2012	506,500			5,954	149,119	2,657	59,318	54,700	15,000	793,248

Note: Blank cells indicate no data available.

[a] Sinuk, Flambeau, Bonanza, and Solomon escapements are estimated by aerial survey.

[b] Snake escapements are estimated by aerial survey (1993–1994), tower counts (1995–2002), and weir counts (2003–2012).

[c] Nome escapements are estimated by tower counts (1993–1996), and weir counts (1997–2012). Escapement goal of 13,000 pink salmon was established in 2001. In 2005, the escapement goal for odd-numbered years was lowered to 3,200 pink salmon.

[d] Eldorado escapements are estimated by aerial survey (1993–1996), tower counts (1997–2002), and weir counts (2003–2012).

PROPOSAL 117 – 5 AAC 04.350(4). Closed waters.

PROPOSED BY: Howard Farley.

WHAT WOULD THE PROPOSAL DO? Allow for commercial salmon fishing in Subdistrict 1 (Nome) west of Cape Nome.

WHAT ARE THE CURRENT REGULATIONS? In 5 AAC 04.350(4), *Closed waters*, the waters west of the longitude of Cape Nome are closed to commercial salmon fishing.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would allow commercial salmon fishing to be opened in Subdistrict 1 west of Cape Nome (Figure 117-1).

BACKGROUND: Waters west of Cape Nome were closed to commercial fishing in 1984 based upon concerns for chum salmon. There have been record runs of pink salmon in the last decade in Subdistrict 1. In 2004 and 2008, two rivers west of Cape Nome, the Sinuk and Nome rivers, had escapements in excess of one million pink salmon. The lower-bound sustainable escapement goal in an even-numbered year in Nome River is 13,000 pink salmon. In several years in the last decade, the high end of the chum salmon escapement goal ranges at Nome River (2,900–4,300) and Snake River (1,600–2,500) have been exceeded. However, commercial salmon fishing is not allowed west of Cape Nome even in years when escapement goal ranges are exceeded.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. In years with a harvestable surplus of chum salmon and when subsistence uses are projected to be met, a small commercial fishery could be allowed, with the area opened to fishing based upon inseason escapement monitoring projects. Pink salmon runs have been strong in even-numbered years, particularly west of Cape Nome. A commercial fishery could be allowed, while minimizing incidental harvest of chum salmon, using four and one-half inch or smaller mesh size gillnets.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

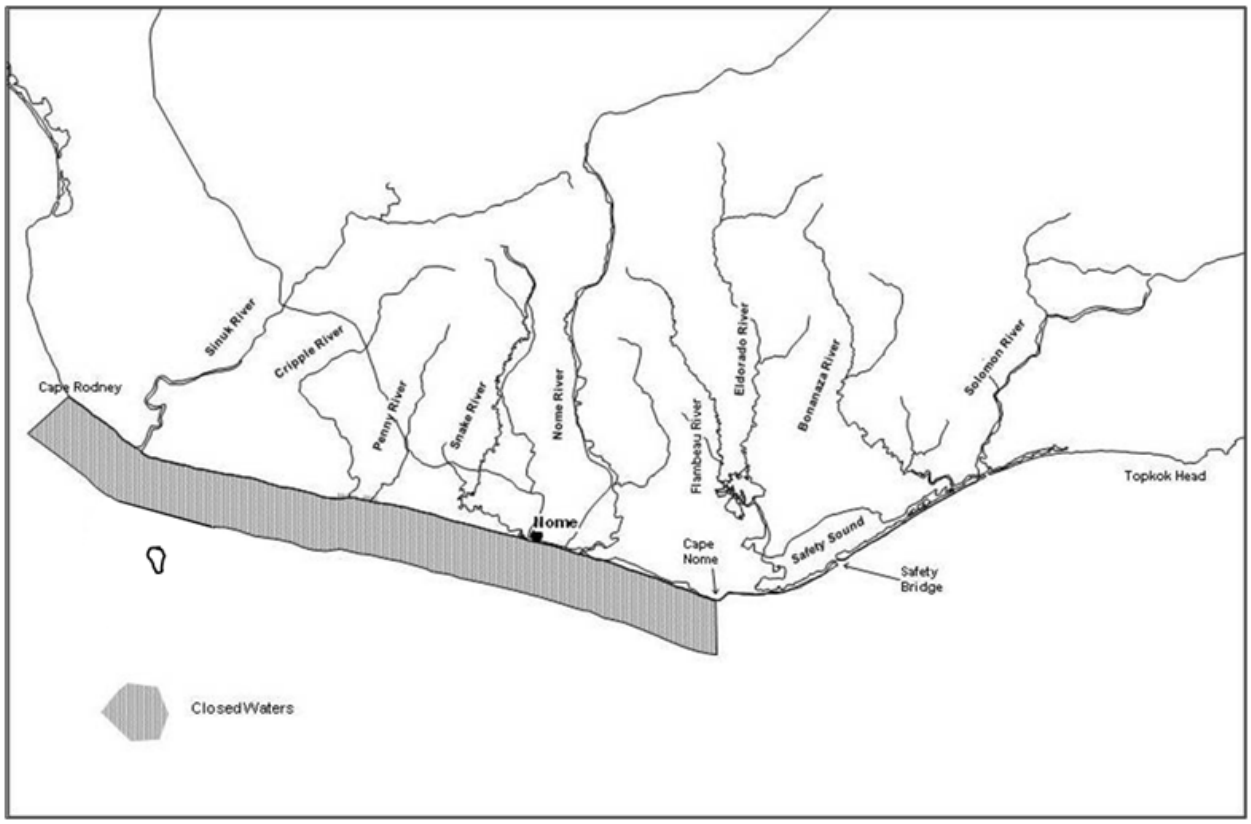

Figure 117-1.–Subdistrict 1 of Norton Sound District commercial fishing boundaries from Cape Rodney to Topkok Head and closed waters.

PROPOSAL 129 – 5 AAC 70.011. Seasons and bag, possession, and size limits for the Northwestern Area.

PROPOSED BY: Fred DeCicco.

WHAT WOULD THE PROPOSAL DO? This proposal would open the freshwater 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 sport harvest of chum salmon.

WHAT ARE THE CURRENT REGULATIONS? 5 AAC 70.011(c)(3)(D)…in all freshwater 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 adopted, this proposal would provide sport anglers with the opportunity to fish for and harvest chum salmon in these waters. It is anticipated that the impact on chum salmon escapement into individual streams and rivers would be minimal, since harvests prior to the sport fishery closure (1983–1990) averaged less than 500 fish annually for the entire Nome Subdistrict.

BACKGROUND: Due to a chronic inability of the chum salmon populations in the Nome Subdistrict to meet escapement goals, subsistence, commercial, and sport fisheries for chum salmon were closed by emergency order (EO) in 1991. These closures were adopted into regulation in 1992. In 1999, the Alaska Board of Fisheries designated the Nome Subdistrict a Tier II subsistence chum salmon permit fishery, and in 2000, three Nome Subdistrict chum salmon stocks (from the Nome, Snake, and Eldorado rivers) were determined to be stocks of concern based on the *Policy for the Management of Sustainable Salmon Fisheries* (5 AAC 39.222). In 2001, escapements of chum salmon in the Nome Subdistrict began to improve and since 2006, there has been 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. The sport fishery for chum salmon in these waters has remained closed by regulation since 1992.

Prior to the 1991 closure, sport harvest of chum salmon from 1983–1990 averaged 472 fish/year. These harvests include resident and nonresident harvests, and would not be expected to be substantially higher if the sport fishery for chum salmon was opened in the Nome Subdistrict because the majority of resident hook-and-line harvest would likely occur in the subsistence fishery. The recent five-year average (2007–2011) subsistence harvest of chum salmon by rod and reel in the Nome Subdistrict is 145 fish, or 8.5%, of the total annual subsistence chum salmon harvest.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of this proposal. The department **SUPPORTS** allowing a sport fishery in years when a harvestable surplus of chum salmon is available and subsistence uses are projected to be met, preferably by

opening of the sport fishery in regulation and taking restrictive actions by drainage by EO if inseason assessment projects indicate a poor run.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

Table 129-1.–Chum salmon escapements, sport harvests[a], and sport catches in major drainages of the Nome Subdistrict, 1987–2011.

	Nome River (EG = 2,900–4,300)			Snake River (EG = 1,600–2,500)			Sinuk River[b]	
Year	Escapement	Harvest	Catch	Escapement	Harvest	Catch	Harvest	Catch
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	5,925	0	175	2,115	0	37	0	28
1994	2,893	0	36	3,519	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	2,145	0	14	0	149
2005	5,584	0	0	2,969	0	54	0	477
2006	5,677	0	122	4,128	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	0	0	891	0	0	0	8
2010	5,906	0	53	6,973	0	0	0	52
2011	3,582	0	13	4,343	0	17	0	0
Average 1987–91		226	389		167	109	58	186
Average 2002–11	3,954	0	70	3,582	0	31	0	164

ND = no data

[a] The sport fishery for chum salmon has been closed by regulation since 1992.

[b] There is currently no escapement goal or enumeration project for chum salmon in the Sinuk River.

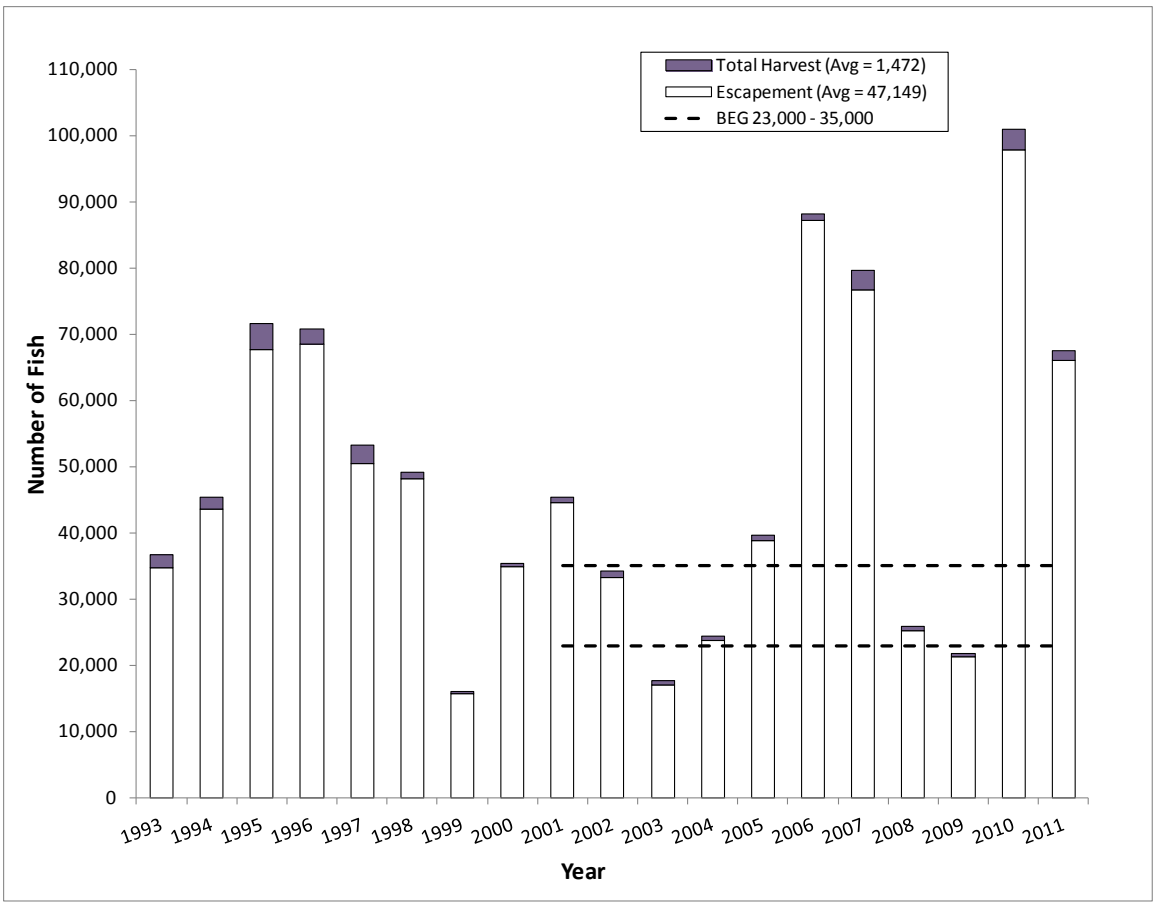

Figure 129-1.–Harvest and escapement of chum salmon in the Nome Subdistrict, 1993–2011. Except for small numbers incidentally harvested in a directed coho salmon commercial fishery in 1993–1996, all chum salmon harvest in this figure is from the subsistence fishery.

COMMITTEE A: SPORT AND SUBSISTENCE RESIDENT SPECIES AND SPORT SALMON (21 PROPOSALS)

Northern pike (6)

Stocked waters and methods and means (9 proposals)

Stocked waters and methods and means (9 proposals) (Continued)

Sport Salmon (6 proposals)

PROPOSAL 96 - 5 AAC 74.010. Seasons, bag, possession, and size limits, and methods and means for the Tanana River Area.

PROPOSED BY: Upper Tanana Fortymile Advisory Committee.

WHAT WOULD THE PROPOSAL DO? Increase the sport fishing season for northern pike to year-round in the lakes of the Tanana River drainage upstream of the Robertson River.

WHAT ARE THE CURRENT REGULATIONS? In all lakes of the Tanana River drainage northern pike may be taken only from June 1–April 20.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would allow an additional 41 days of fishing in the spring for northern pike in the lakes of the Tanana River drainage upstream of the Robertson River.

BACKGROUND: In 1993, a northern pike spawning closure (April 1–May 31) was implemented for all Tanana Area lakes to protect mature northern pike in the pre and postspawning periods. In 1998, the spawning closure was relaxed in most lakes to April 21–May 31.

The department does not have biological concerns for northern pike in the majority of Tanana River Area lakes. While there has been little stock assessment work done for most remote lakes, assessment on northern pike populations with much higher angling pressure (such as Volkmar and George lakes) indicates these populations can sustain a relatively high harvest and maintain a sustainable population (figures 96-1 and 96-2).

It is unlikely the additional 41 days of fishing opportunity would substantially increase the harvest of northern pike in the area because many of these remote lakes have little fishing effort (based on reporting trends in the Statewide Harvest Survey). In addition, many of these lakes would not be accessible during this period to snowmachines and ski/float planes due to spring break-up conditions. The bag and possession limit allows only one fish over 30 inches, which limits the harvest of large, female pike.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal with modification. The department recommends the year-round open season be applied to all lakes in the Tanana River drainage, with the exception of Harding, Minto, George, and Volkmar lakes, which should retain their current regulations.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

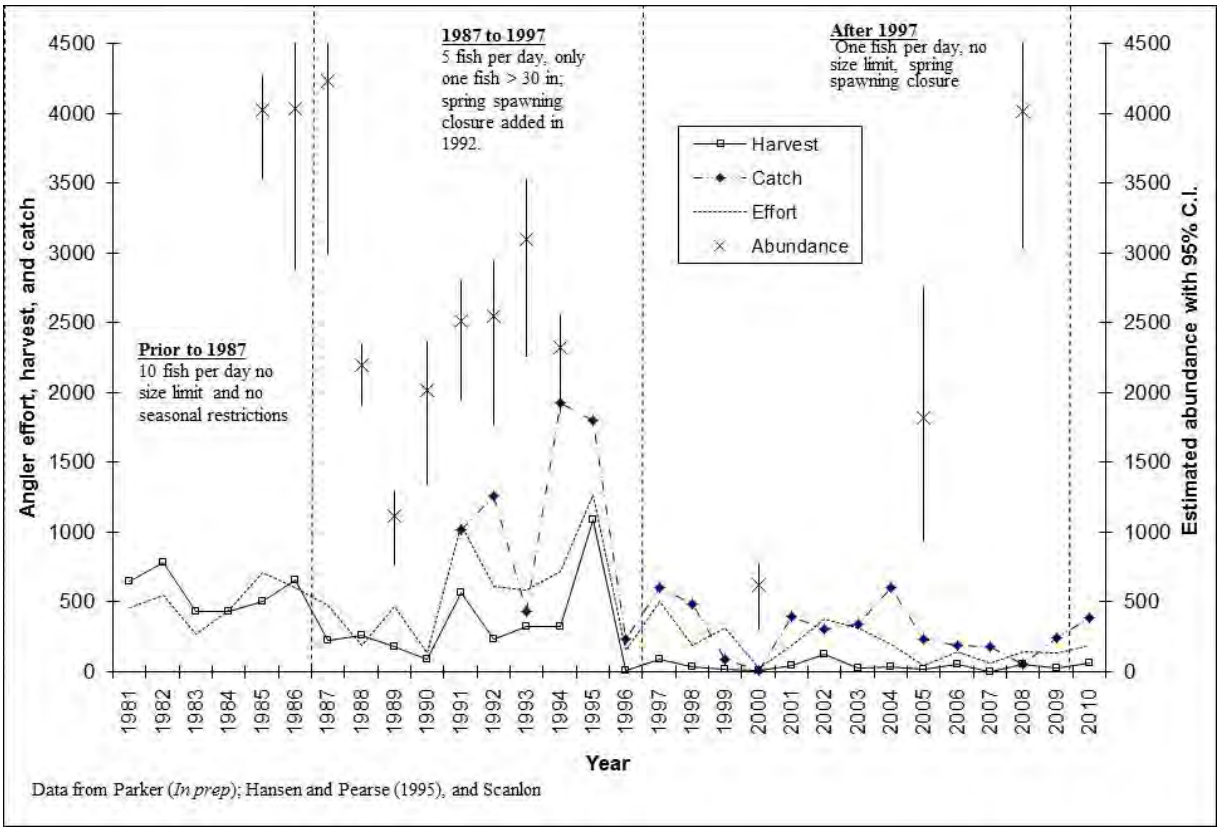

Figure 96-1.–Estimates of the sport catch and harvest of northern pike in Volkmar Lake, 1981–2010. Estimates of northern pike abundance (fish >18 inches) and angler effort (in number of days fished) are included, as well.

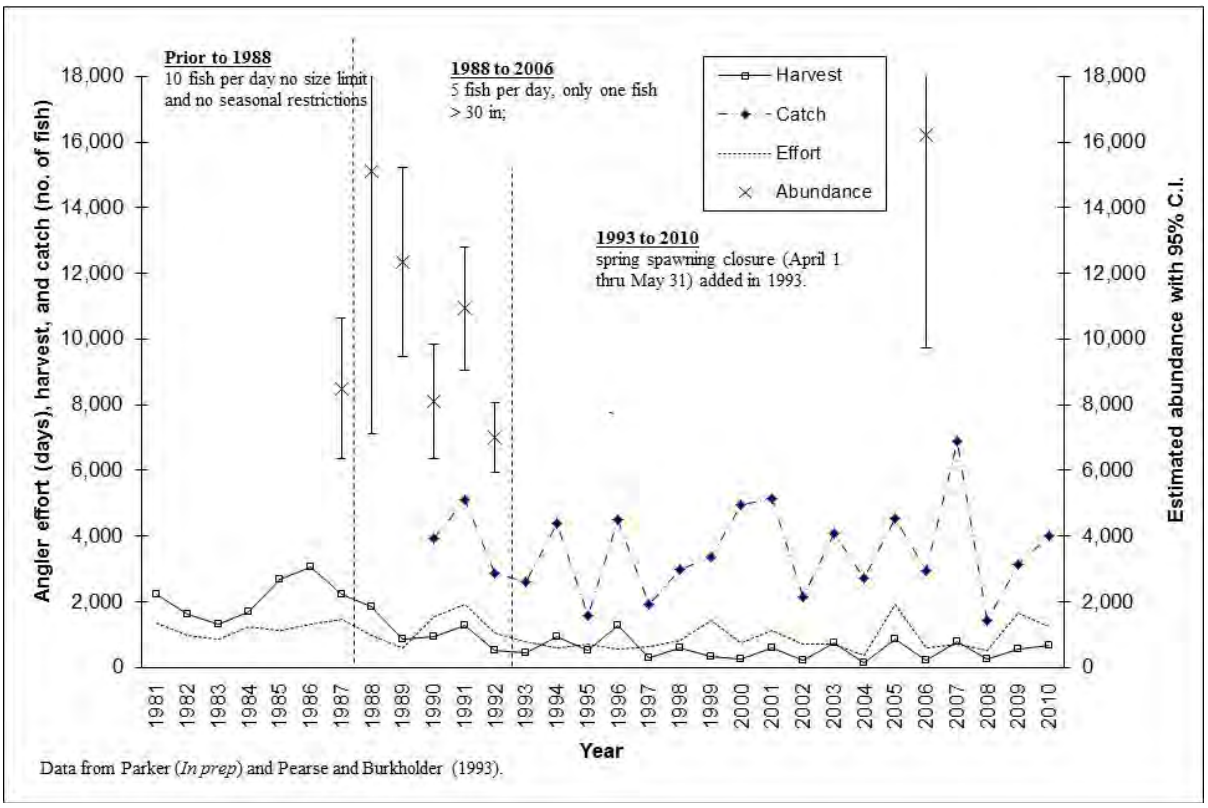

Figure 96-2.–Estimates of the sport catch and harvest of northern pike in George Lake, 1981–2010. Estimates of northern pike abundance (fish >18 inches) and angler effort (in number of days fished) are included, as well.

PROPOSAL 97 – 5AAC 73.010. Seasons, bag, possession and size limits, and methods and means for the Yukon River Area.

PROPOSED BY: Grayling, Anvik, Shageluk, and Holy Cross Advisory Committee (GASH AC).

WHAT WOULD THE PROPOSAL DO? The proposal would reduce the bag and possession limit of northern pike from 10 fish, no size limit, to three fish, only one of which may be 30 inches or longer, for the Yukon River from Holy Cross downstream to Paimiut Slough.

WHAT ARE THE CURRENT REGULATIONS? The bag and possession limit is 10 northern pike, no size limit.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would align sport fishing regulations for northern pike for the portion of the Yukon River from the village of Holy Cross downstream to Paimiut Slough with the more restrictive bag and size limit of the Innoko River drainage. This would reduce harvest opportunity for anglers who wish to harvest more than three northern pike, with no size limit, but based on harvest information from the Innoko River drainage, most anglers practice catch-and-release (Table 97-1).

BACKGROUND: Movements of radio-tagged northern pike show that these fish travel extensively throughout a large area of connected rivers, lakes, and sloughs. The population size of northern pike in the area affected by the proposal and adjacent areas, though unknown, is likely to be very large. A substantial portion of fish in this stock are in old and large size categories as shown in samples collected during the radio-telemetry study (Scanlon 2009) and from the subsistence fishery harvest (Brown et al. 2005). These studies, conducted between 2002 and 2004, found that the northern pike stock inhabiting a large part of the lower Innoko River area and the adjacent portion of the Yukon River are part of one migratory population.

Sport and subsistence fisheries target northern pike from this population. Local subsistence fishermen use this population in winter and summer throughout the lower Innoko River and in the Yukon River. Residents from Kuskokwim River villages, and from villages downriver on the Yukon, also harvest fish from this population in a hook-and-line winter fishery. Through this proposal, together with Proposal 98, the GASH AC seeks to apply a single bag limit to all hook-and-line fisheries for northern pike in the Innoko River drainage and in the adjacent portion of the Yukon River.

The local Fish and Game advisory committee (GASH AC) is concerned that too many large, prespawning female northern pike are being harvested during the winter subsistence fishery. Large groups of residents from Kuskokwim River villages and from villages downstream in the Yukon reportedly travel to the area during winter to harvest northern pike (Figure 97-1). Currently, there are no harvest limits for the subsistence fishery.

Current sport fishing regulations for northern pike for the Innoko River were adopted in 2001 in response to local perceptions of reduced catch rates, fewer large fish, and that a growing number of sport anglers was impacting the subsistence harvest of large northern pike. At that time, a newly-established sport fish guiding business began operating from a boat-based lodge in the lower Innoko

River. Estimates of sport fishing effort (for all species) in the Innoko River, along with total catch of northern pike generally increased through 2004, concurrent with establishment of the new fishing guides in the area.

No harvest data are available from sport fishing activities for this specific section of the Yukon River. It is likely that all the sport fishing effort on northern pike occurs in the clear water of the Innoko River and not in the glacial Yukon River. Information for the adjacent Innoko River from the Statewide Harvest Survey indicates modest levels of sport use of northern pike. During the last ten-year period, total sport catch for the entire Innoko River drainage averaged about 5,000 northern pike annually, of which about 70 were harvested (Table 97-1). Freshwater sport fishing guides have been required to report effort, harvest, and fish released in logbooks since 2005. From 2006–2011, the total catch by guided anglers in the Innoko River averaged about 3,500 northern pike, of which approximately 30 were harvested.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. The stock of northern pike inhabiting the lower Innoko River is not believed to be in danger of overharvest. The large amount of undisturbed habitat, large population size, and presence of fish in many size and age groups, combine to indicate current harvest levels are sustainable, and make this stock resilient to moderate increases in fishing effort and harvest. Abundance of northern pike in the area is not likely to change if restrictions are placed on the sport fishery bag limit.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

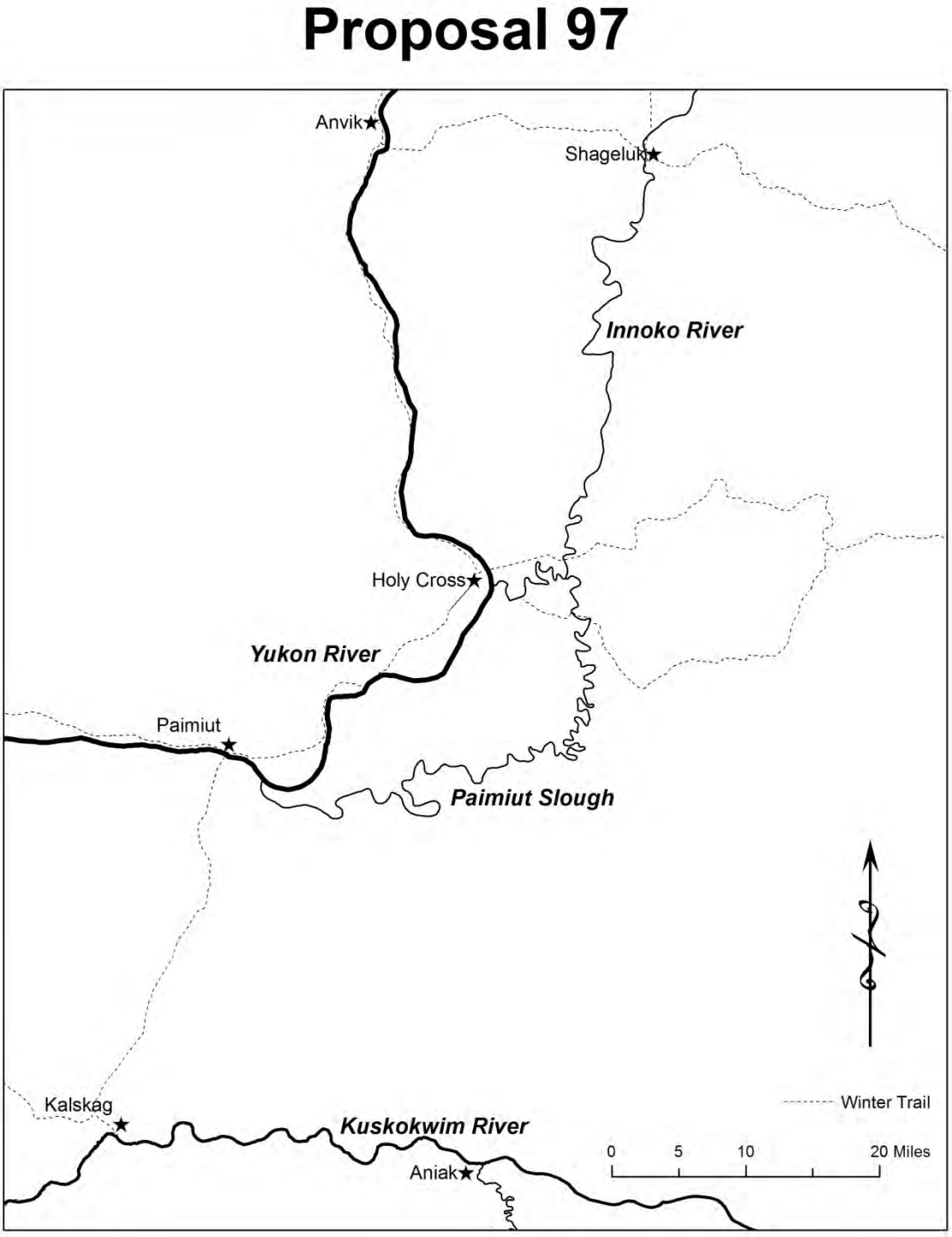

Figure 97-1.–Map of area referenced in proposal, and surrounding communities.

Table 97-1.–Total fishing effort, and harvest and catch of northern pike from Innoko River drainage.

		Harvest		Total catch	
Year	Effort	Number	Percent[a]	Number	Percent[a]
1990	415	118	5%	964	5%
1991	520	118	3%	1,544	11%
1992	53	43	1%	171	1%
1993	637	151	6%	1,661	12%
1994	93	9	0%	18	0%
1995	430	90	5%	1,039	7%
1996	654	110	4%	4,090	16%
1997	445	56	3%	3,024	23%
1998	847	93	6%	4,433	36%
1999	551	145	6%	3,770	19%
2000	327	10	1%	1,912	14%
2001	1,458	28	2%	12,866	68%
2002	2,533	40	1%	17,551	49%
2003	310	120	8%	1,763	10%
2004	1,522	249	7%	10,572	27%
2005	355	59	3%	9,271	51%
2006	581	0	0%	5,833	24%
2007	600	0	0%	2,464	16%
2008	515	60	4%	1,104	13%
2009	606	173	14%	3,375	31%
2010	237	29	3%	659	6%
2011	263	0	0%	216	4%
Average					
2002–2011	752	73	4%	5,281	23%
2007–2011	444	52	4%	1,564	14%

a Percent of total catch or harvest of northern pike in the Yukon River Area.

PROPOSAL 98 – 5 AAC 01.234. Limitations on subsistence fishing with hook and line gear.

PROPOSED BY: Grayling, Anvik, Shageluk, Holy Cross Advisory Committee.

WHAT WOULD THE PROPOSAL DO? Establish northern pike subsistence harvest bag and possession limits in all waters of the Innoko River drainage, including all waters draining into, and waters of, the Yukon River, from Holy Cross downstream to and including Paimiut Slough (Figure 98-1).

WHAT ARE THE CURRENT REGULATIONS? Currently, there are no limits to the number of northern pike that may be taken for subsistence uses in waters of the Yukon River from Holy Cross downstream to Paimiut Slough. Fish, other than salmon, may be taken only by set gillnet, drift gillnet, beach seine, fish wheel, longline, fyke net, dip net, jigging gear, spear, hook and line attached to rod and pole, handline, and lead.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would likely reduce subsistence opportunity and harvest of northern pike. Methods and means and bag and possession limits for northern pike would be aligned with current sport fish regulations found in 5 AAC 73.030, 5 AAC 75.021, 5 AAC 75.022, and 5 AAC 73.010(c)(1), which are more restrictive than current subsistence regulations. Current sport fish bag and possession limits are three northern pike, only one over 30" in all waters of the Innoko River drainage, including all waters draining into the Yukon River from Holy Cross downstream to, and including, Paimiut Slough (5 AAC 73.010(c)(1)). There are no methods and means in 5 AAC 73.010, only bag and possession limits; in 5 AAC 73.030, 5 AAC 75.021, and 5 AAC 75.022, sport fishing methods and means allow one line with up to two hooks during the open-water period and two lines with one hook each when fishing through the ice. Additional lines and hooks (up to 15) can be used to target burbot through the ice, but not northern pike.

BACKGROUND: The area is a popular winter northern pike subsistence fishing area. Local residents report that numerous groups of fishermen (both local and from the Kuskokwim area) camp in the area and harvest northern pike. Subsistence harvests of northern pike occur in this area year-round. Northern pike make up an important component of the overall subsistence diet of area residents and are harvested by various methods, depending on location and time of year.

The department annually collects northern pike subsistence harvest information by district and community through the Yukon River postseason salmon harvest survey (Table 98-1). However, this information does not include harvests by residents outside of the Yukon Area. In addition, the survey does not collect information regarding the harvest location of nonsalmon species. Finally, the focus of the survey is to collect salmon harvest information; as a result, it may underestimate the total annual harvest of nonsalmon species. For these reasons, department nonsalmon household survey data may provide more accurate estimates of harvests in this area. Comprehensive and traditional knowledge household survey data are available for the communities in the region, as well as for communities in the central Kuskokwim area, that reported harvesting northern pike in the Paimiut area (Table 98-1). However, these surveys do not document harvests by location, so it remains unknown what proportion of each community's harvest was taken from Paimiut Slough or

the Innoko drainage. In 2003 and 2004, the department collected sex and length information from winter subsistence-harvested northern pike and documented traditional knowledge and contemporary harvest practices by local residents. Based upon recent biological studies, there are currently no conservation concerns for this stock.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal since it is allocative among subsistence users, but **OPPOSED** to this proposal because the department does not believe the stock of northern pike inhabiting the lower Innoko River and this portion of the Yukon River to be in danger of overharvest.

COST ANALYSIS: Approval of this proposal may result in an additional direct cost for a private person to participate in this fishery because subsistence fishermen traveling to fish in winter would have to go home once they obtained a daily limit, process and store their catch, before they could return for additional fishing.

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 Alaska Board of Fisheries (board) made a positive customary and traditional use finding for freshwater finfish, including sheefish, whitefishes, lamprey, burbot, sucker, Arctic grayling, northern pike, and chars
in 1993 (5 AAC 01.236(a)(2)).

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

4. What amount is reasonably necessary for subsistence uses? The board adopted an administrative amount reasonably necessary for subsistence (ANS) finding in December 1997 for Yukon Area freshwater fishes and established an ANS of 133,000 to 2,850,000 pounds of freshwater fishes.

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 use? This is a board determination.

Table 98-1.–Estimated subsistence harvest of northern pike in Division of Subsistence household surveys,1990, 2002, 2009, and 2011, in numbers of individual fish (blank cells indicate no data).

Communities	**1990**	**2002**	**2009**	**2011**
Grayling	508	780	ND	254
Anvik	406	631	ND	251
Shageluk	1,044	1,288	ND	ND
Holy Cross	1,288	346	ND	ND
Russian Mission	ND	ND	ND	2,193
Lower Kalskag	ND	ND	335	ND
Upper Kalskag	ND	ND	100	ND

Sources: Brown, C. et al. 2012; Brown, C. and J. Burr; Ikuta et al. *In prep*.
ND = no data.

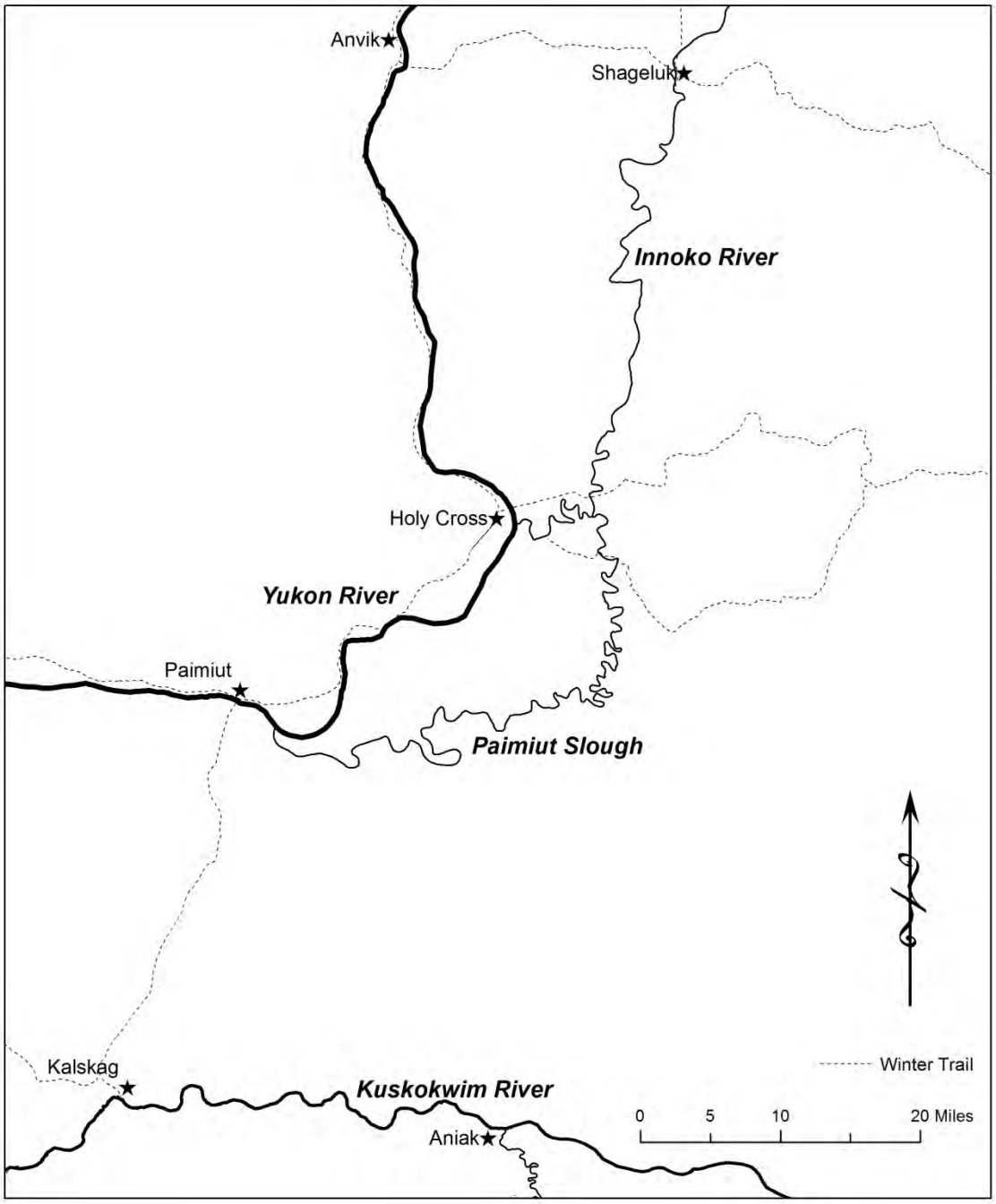

Figure 98-1.–Map of Yukon River from Paimiut to Anvik.

PROPOSALS 99 and 100 – 5 AAC 01.225. Waters closed to subsistence fishing.

PROPOSED BY: Alaska Department of Fish and Game (99) and Fairbanks Advisory Committee (100).

WHAT WOULD THE PROPOSALS DO? Both proposals would allow subsistence fishermen to harvest northern pike in portions of the Tanana River drainage currently closed to subsistence northern pike fishing, from Cathedral Rapids downstream to the mouth of the Kantishna River (Figure 99-1).

WHAT ARE THE CURRENT REGULATIONS? Currently, northern pike may not be harvested for subsistence uses in portions of the Tanana River drainage from Cathedral Rapids downstream to the mouth of the Kantishna River (Figure 99-1).

WHAT WOULD BE THE EFFECT IF THE PROPOSALS WERE ADOPTED? If adopted, this proposal would allow subsistence fishermen to harvest northern pike in those portions of the Tanana River drainage currently closed to subsistence northern pike fishing (Figure 99-1).

BACKGROUND: The intent of the current regulation is unknown, but it was likely established in the early 1970s to maintain or protect northern pike sport fishing interests in the area. Subsistence salmon fishing permits are required in this portion of the Tanana River drainage and although the permits include provisions stating that northern pike cannot be retained in the waters identified in this regulation, fishermen may not be aware of these provisions. Since 2001, an average of 66 northern pike (Table 99-1) have been reported annually as harvested incidentally in the Subdistrict 6-B subsistence salmon fishery; an average of 46 northern pike (Table 99-2) have been reported annually as harvested in the Upper Tanana River drainage subsistence fishery. Both fisheries occur within a portion of the area closed to retention of northern pike for subsistence purposes.

DEPARTMENT COMMENTS: The department **SUPPORTS** these proposals. The current regulation is inconsistent with surrounding areas and there is no apparent justification for prohibiting retention of northern pike by subsistence users. The stock of northern pike inhabiting this area is not believed to be in danger of overharvest, and that would likely not change if the current restriction is removed.

COST ANALYSIS: Approval of this proposal is not expected to 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 these stocks migrate through the Fairbanks Nonsubsistence Area (5 AAC 99.015(a)(4)).

2. Is the stock customarily and traditionally taken or used for subsistence? Yes; the Alaska Board of Fisheries (board) made a positive customary and traditional use finding for

freshwater finfish, including sheefish, whitefishes, lamprey, burbot, sucker, Arctic grayling, northern pike, and chars in 1993 (5 AAC 01.236(a)(2)).

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

4. What amount is reasonably necessary for subsistence uses? The board adopted an administrative amount reasonably necessary for subsistence (ANS) finding in December 1997 for Yukon Area freshwater fishes and established an ANS of 133,000 to 2,850,000 pounds of freshwater fishes.

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.

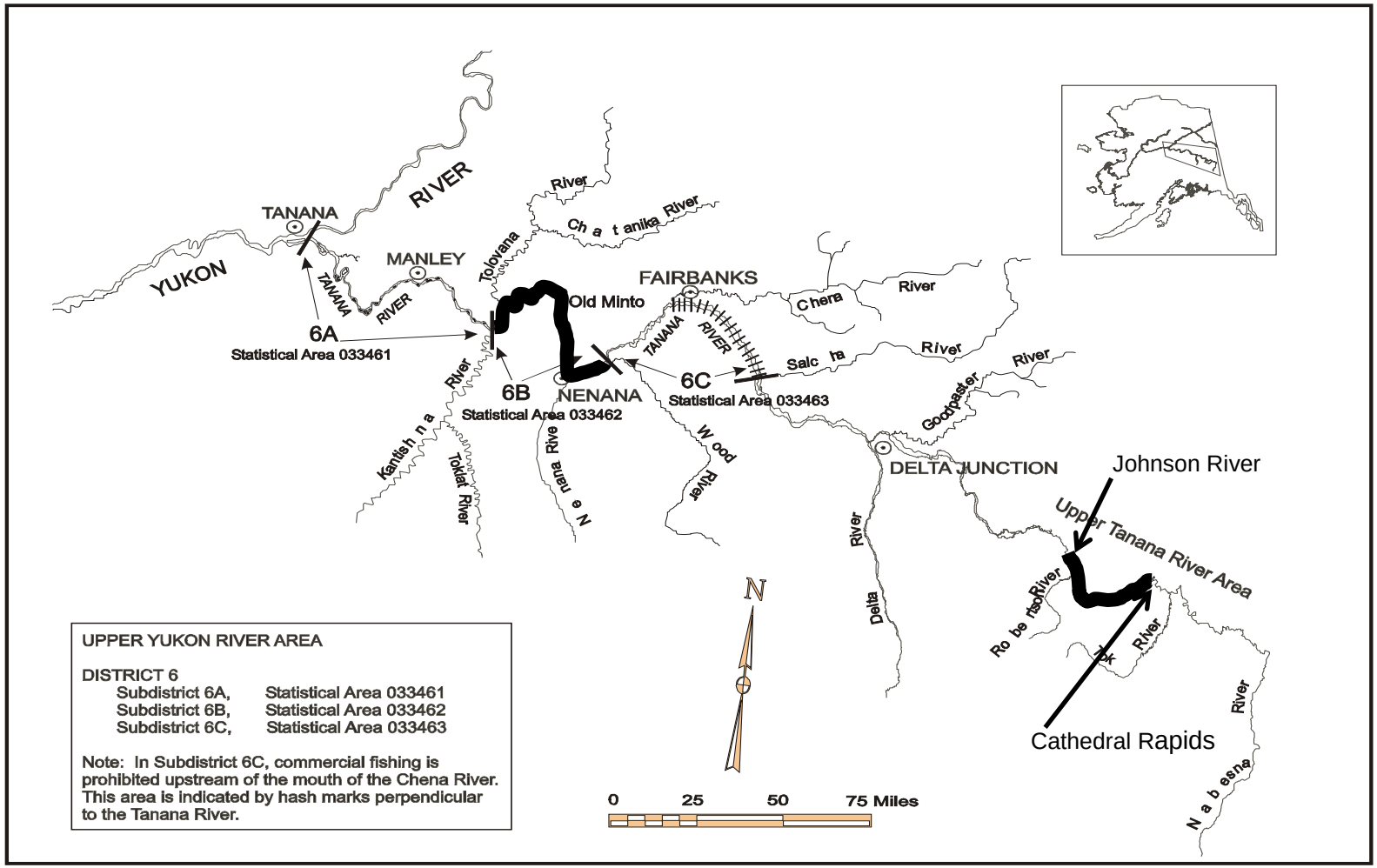

Figure 99-1–Map of the Tanana River drainage. Thick lines indicate the portions of Tanana River drainage affected by this proposal. The portion of the drainage between Wood River and Johnson River is within the Fairbanks Nonsubsistence Area and is not affected by this proposal.

Table 99-1.–Subsistence harvest of northern pike as reported on subsistence salmon fishing permits for Subdistrict 6-B, Tanana River from upstream mouth of Kantishna River to upstream mouth of Wood River, including the Wood River drainage, 2001–2011.

Year	Number permits issued	Percentage returned permits	Percentage permits fished [a]	Number of northern pike reported on permits
2001	87	93%	54%	24
2002	62	97%	42%	38
2003	77	94%	56%	162
2004	60	93%	54%	58
2005	70	96%	43%	82
2006	78	97%	55%	88
2007	79	95%	52%	108
2008	73	97%	49%	121
2009	70	99%	54%	25
2010	93	91%	38%	18
2011	85	95%	52%	4
Avg. 2001–2011	76	95%	50%	66

[a] Percentage of permits fished was calculated by dividing total number of permits fished by total number of permits returned.

Table 99-2.–Subsistence harvest of northern pike as reported on subsistence fishing permits for Upper Tanana River, Tanana River upstream from the Johnson River on the west bank and the Volkmar River on the east bank, 2001–2011.

Year	Number permits issued	Percentage returned permits	Percentage permits fished [a]	Number of northern pike reported on permits
2001	57	88%	44%	110
2002	32	97%	52%	90
2003	38	84%	53%	10
2004	35	86%	47%	26
2005	29	83%	54%	47
2006	23	96%	77%	28
2007	34	97%	52%	19
2008	58	86%	38%	62
2009	42	95%	43%	44
2010	41	83%	56%	13
2011	41	95%	59%	58
Avg. 2001–2011	39	90%	52%	46

[a] Percentage of permits fished was calculated by dividing total number of permits fished by total number of permits returned.

PROPOSAL 101 – 5 AAC 01.220. Lawful gear and gear specifications.

PROPOSED BY: Upper Tanana Fortymile Advisory Committee.

WHAT WOULD THE PROPOSAL DO? Prohibit use of gillnets for subsistence fishing in Ten Mile Lake and Mark Lake.

WHAT ARE THE CURRENT REGULATIONS? Fish, other than salmon and halibut, in the Yukon Area may be taken only by set gillnet, drift gillnet, beach seine, fish wheel, longline, fyke net, dip net, jigging gear, spear, a hook-and-line attached to a rod or pole, handline, or lead, subject to the restrictions detailed in 5 AAC 01.220(f)(1)–(9). Use of a hook-and-line attached to a rod or pole is allowed in the Upper Tanana only when fishing through the ice (5 AAC 01.220(k)).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would prohibit the use of gillnets to harvest all fish, including northern pike, for subsistence uses in Ten Mile Lake and Mark Lake (Figure 101-1).

BACKGROUND: Nonsalmon species are harvested for subsistence uses in the upper Tanana River drainage. Gillnets are the primary gear used (tables 101-1 and 101-2). While a permit requires that harvests of all species be reported, it does not require information about the location of those harvests or the size of the fish caught. As such, the number and size of northern pike harvested in either lake, whether targeted or incidental, is unknown from subsistence fishing permit data. Based upon department household surveys, whitefish species comprise the majority of the fish harvested for subsistence uses in this area (i.e., 70% of total nonsalmon fish harvests by usable weight). Northern pike subsistence harvests, however, only account for approximately 8% of the annual nonsalmon fish harvest of Upper Tanana residents, based upon household surveys conducted in Tok, Tetlin, Northway, Tanacross, and Dot Lake in 2005, where an estimated total of 1,028 northern pike were harvested. This harvest represents approximately 4,626 usable pounds of northern pike based upon application of a standard conversion factor used by the department for northern pike in this area. This research also documented that northern pike subsistence harvests in 2004–2005 ranged from 1% of total nonsalmon harvests in Northway to 11% in Tok.

Household-level survey results differed dramatically from northern pike harvests enumerated from the subsistence permit system. The subsistence permit system in the Upper Tanana has been found to under represent some subsistence fish harvests by residents of the Upper Tanana. However, estimated total harvests of northern pike from household surveys may also differ from subsistence permit reported harvests due to the fact that some may have been harvested under sport fishing regulations rather than under a subsistence fishing permit. Sport fish harvests in Ten Mile and Mark lakes have not been captured by the Statewide Harvest Survey, likely due to the low level of effort in these fisheries.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal because of the allocative aspects between user groups, but **OPPOSED** to this proposal since there are no biological concerns, and restricting use of gillnets to protect larger northern pike would restrict use of gillnets for all fish species, including whitefish. The board should evaluate whether reasonable

opportunities for subsistence uses of freshwater finfish, such as whitefishes, would still be provided if gillnets were prohibited from these lakes. Based on biological studies on other northern pike populations and the low harvest in both the subsistence and sport fisheries, there are no biological concerns for the northern pike stocks in these lakes.

COST ANALYSIS: Approval of this proposal may result in an additional direct cost for private persons to participate in this fishery if they have previously used gillnets and would have to replace that gear with another legal gear type or different mesh size, or if they would have to travel farther to participate in a subsistence net fishery.

SUBSISTENCE REGULATION REVIEW:

1. Is this stock in a nonsubsistence area? A portion of these stocks may migrate through the Fairbanks Nonsubsistence Area (5 AAC 99.015(a)(4)).

2. Is the stock customarily and traditionally taken or used for subsistence? Yes; the Alaska Board of Fisheries (board) made a positive customary and traditional use finding for freshwater fish species in 1993 (5 AAC 01.236).

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

4. What amount is reasonably necessary for subsistence uses? The board adopted an administrative amount reasonably necessary for subsistence (ANS) finding, in December 1997, for Yukon Area freshwater fishes, and established an ANS of 133,000 to 2,850,000 pounds of freshwater fishes.

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 101-1.–Total nonsalmon harvests reported on Upper Tanana River subsistence permits, by community and gear type combined, from 2001 through 2011.

Community/Gear	Whitefish	Northern pike	Sheefish	Burbot	Sucker	Arctic Grayling
Fairbanks	120	3	0	0	0	0
Set Gillnet	120	3	0	0	0	0
Delta Junction	1,694	30	0	11	50	51
Set Gillnet	1,285	30	0	11	50	51
Other	409	0	0	0	0	0
Healy Lake	75	0	0	0	0	0
Set Gillnet	75	0	0	0	0	0
Dot Lake	837	14	0	33	32	35
Set Gillnet	787	14	0	33	32	35
Other	50	0	0	0	0	0
Tanacross	1,647	201	0	28	248	102
Set Gillnet	1,327	191	0	12	248	87
Other	320	10	0	16	0	15
Tok	3,921	80	0	11	141	56
Set Gillnet	3,896	48	0	11	121	46
Other	25	32	0	0	20	10
Northway	11,293	68	10	34	95	255
Set Gillnet	11,146	68	10	33	95	222
Other	147	0	0	1	0	33
Gakona	0	69	0	5	0	0
Set Gillnet	0	45	0	0	0	0
Other	0	24	0	5	0	0
Grand Total	19,587	465	10	122	566	499

Note: "Other gear" includes dip net, fish wheel, jigging, long line, rod and reel, and spear.

Table 101-2.–Whitefish and northern pike annual harvests reported on Upper Tanana River subsistence permits from the community of Northway, 2001–2011.

Whitefish

Month	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**Total**
No Date	170	120	408	520	130	100	8	1,174	725	705	1,607	5,667
June	190						64					254
July	8		60				134					202
August	40			432	212	386			133		357	1,560
September	73		474	218	42	555	473	160	374		21	2,390
October	87	249		380	219		19	20	133	20	93	1,220
Total	568	369	942	1,550	603	1,041	698	1,354	1,365	725	2,078	11,293

Northern Pike

Month	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**Total**
No Date	12	0	5	10	10	0	0	4	0	0	10	51
June	0						0					0
July	0		0				1					1
August	0			0	0	0			0		0	0
September	0		4	0	0	0	0	0	1		0	5
October	2	0		0	2		0	0	0	0	7	11
Total	14	0	9	10	12	0	1	4	1	0	17	68

Note: Blank cells indicate no data. Includes 147 whitefish caught in other gear types besides set gillnets. The number of individual households participating in the fishery is from 3 to 8 annually.

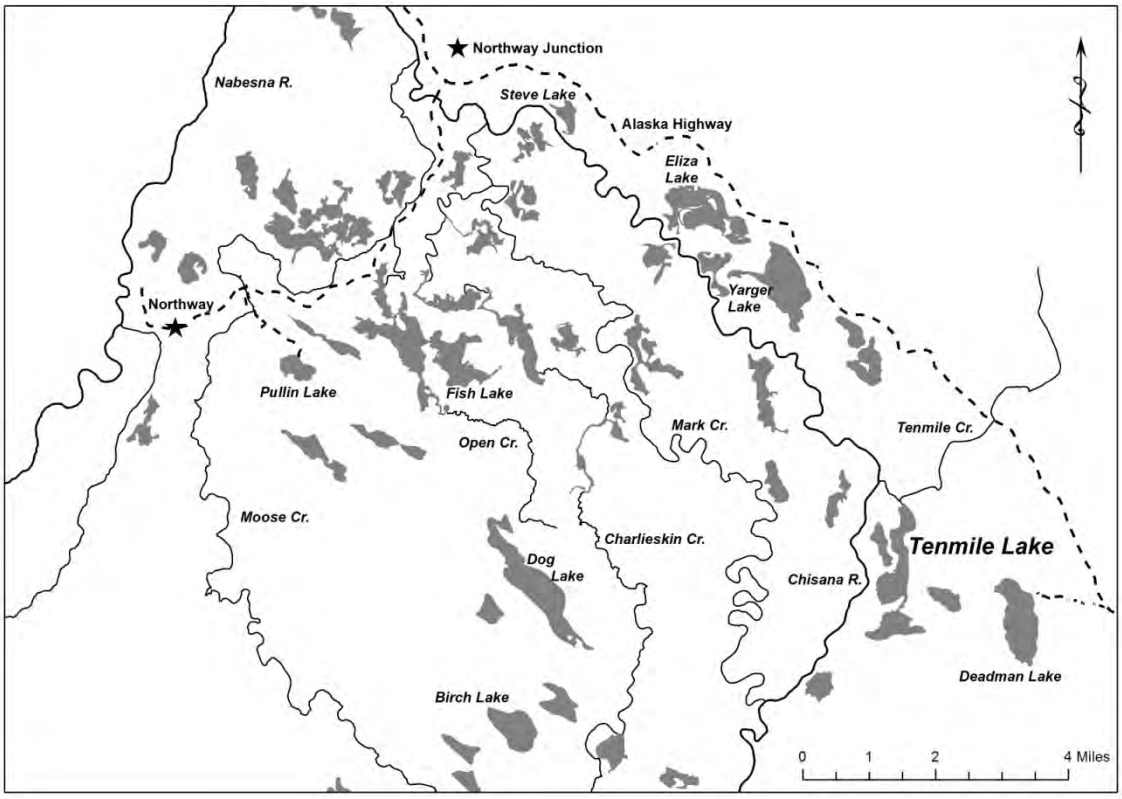

Figure 101-1.–Map of area referenced in proposal and surrounding communities, Upper Tanana River drainage.

PROPOSAL 88 – 5 AAC 74.010. Seasons, bag, possession, and size limits, and methods and means for the Tanana River Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? Close Rainbow Lake to fishing for rainbow trout from October 1–May 14.

WHAT ARE THE CURRENT REGULATIONS? Rainbow Lake is open year-round and falls under the *Tanana River Area Stocked Waters Management Plan* (5 AAC 74.065) special management approach, which allows for a bag and possession limit of one fish, which must be 18 inches or greater in length.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would change the season for sport fishing in Rainbow Lake from a year-round fishery to an open-water fishery that would be open May 15 through September 30. This would reduce overall harvest and allow more fish to grow above 18 inches in length. This would allow the department to manage Rainbow Lake to meet the special management category objectives.

BACKGROUND: Rainbow Lake is designated as a special management water under the *Tanana River Area Stocked Waters Management Plan*. Under this category, a stocked water body is managed so that "there is a high probability of an angler catching more than one fish a day that is 18 inches or greater in length". In recent years, access to Rainbow Lake has improved and fishing effort has increased to a level such that all large fish 18 inches or greater in length are being harvested, and fewer anglers are getting the opportunity to catch a fish 18 inches or larger (figures 88-1, 88-2, and 88-3).

This reduction in season length is a strategy that has been used on another lake in this management category (Little Harding Lake). The resulting decrease in effort and harvest should provide larger fish, which will meet the objectives of a high probability of catching more than one fish a day that is 18 inches or greater in length.

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

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

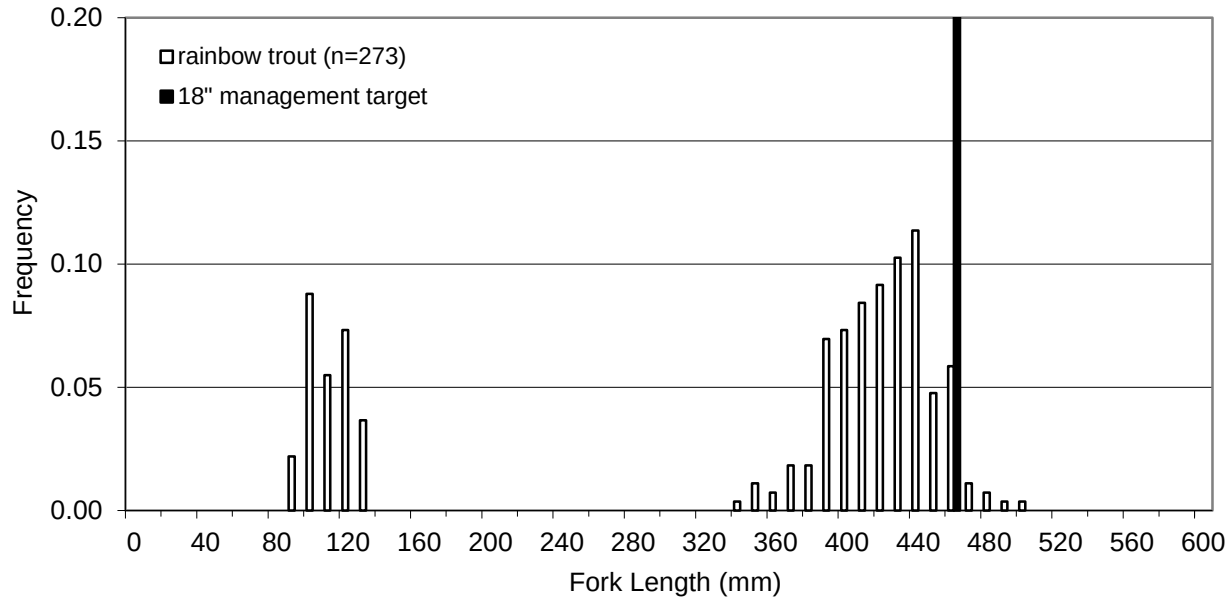

Figure 88-1.–Rainbow Lake rainbow trout length frequency distribution for fish captured during August and September 2004 (n=273) sampling. The black vertical bar represents the current management target of 18".

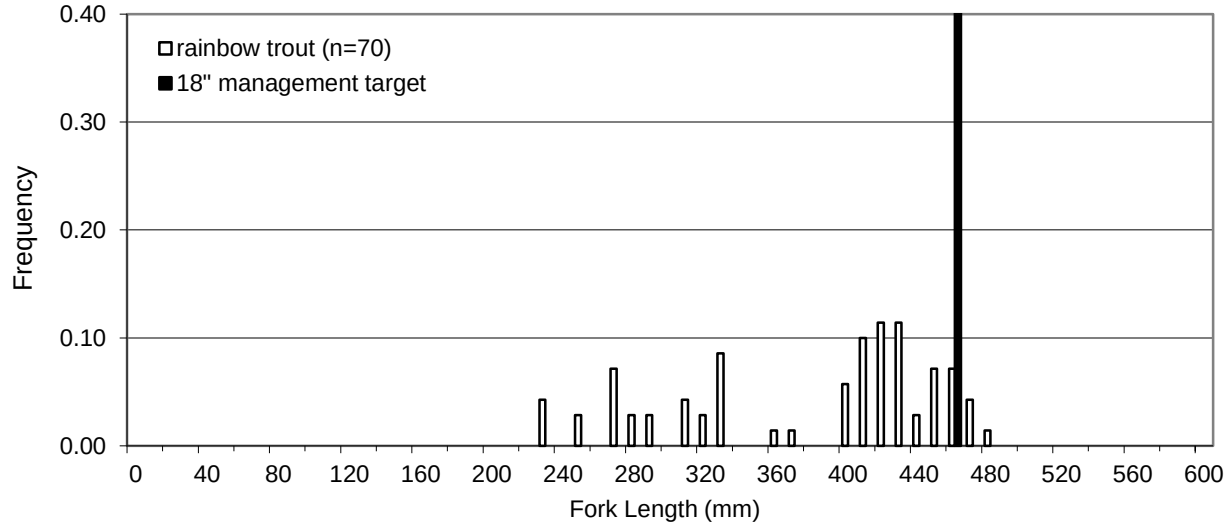

Figure 88-2.–Rainbow Lake rainbow trout length frequency distribution for fish captured during September 2005 (n=70) sampling. The black vertical bar represents the current management target of 18".

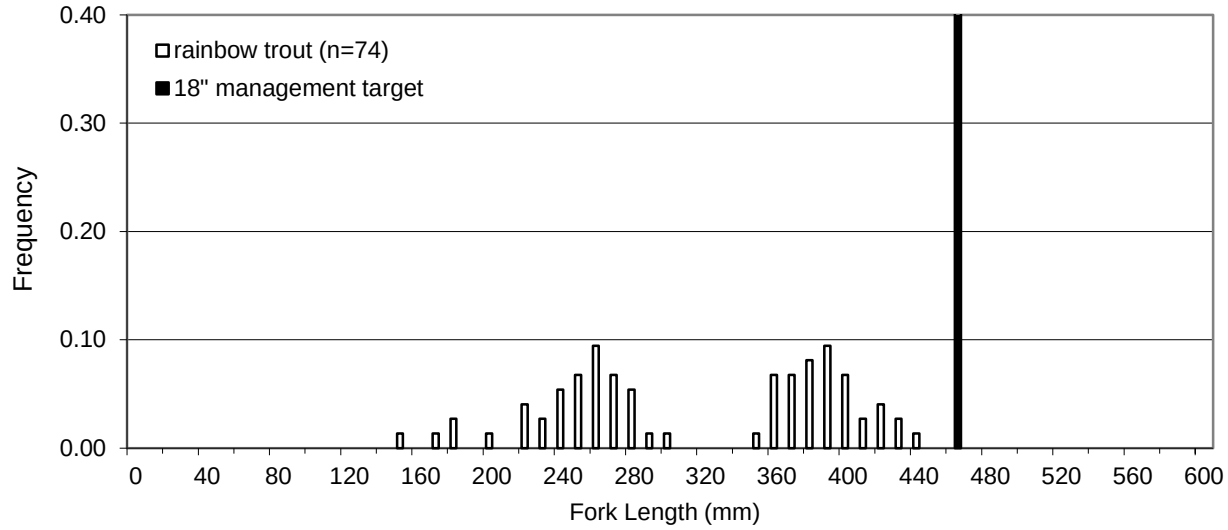

Figure 88-3.–Rainbow Lake rainbow trout length frequency distribution for fish captured during June 2012 (n=74) sampling. The black vertical bar represents the current management target of 18".

PROPOSAL 89 – 5 AAC 74.010. Seasons, bag, possession, and size limits, and methods and means for the Tanana River Area and 5 AAC 74.065. Tanana River Area Stocked Waters Management Plan.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? Close Little Harding Lake to sport fishing for northern pike and remove Little Harding Lake from the *Tanana River Area Stocked Waters Management Plan*.

WHAT ARE THE CURRENT REGULATIONS? Little Harding Lake is under the special management approach of the *Tanana River Area Stocked Water Management Plan.* Current regulations allow sport fishing for rainbow trout from May 15 through September 30, with a bag and possession limit of one fish, which must be 18 inches or greater in length. Little Harding Lake is currently open to the retention of northern pike with a bag and possession limit of five fish, only one over 30 inches, from June 1 through April 20.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would remove the bag, possession, and size limits for rainbow trout from the Little Harding Lake regulations (rainbow trout would no longer be stocked into the lake) and would simultaneously close Little Harding Lake to retention of northern pike to allow the depressed Harding Lake pike population to utilize Little Harding Lake as a spawning and rearing area.

BACKGROUND: Little Harding Lake is currently managed under the *Tanana River Area Stocked Waters Management Plan* special management approach as a trophy rainbow trout fishery. However, the lake has not been able to produce a trophy fishery in many years despite restrictive regulations that were put in place in 1995 (one fish limit 18" or greater; open season May 15–September 30)(figures 89-1 and 89-2). In addition, sampling in Little Harding Lake in 2011 captured several large northern pike in the lake, which supported recent angler reports of northern pike in the lake and is likely responsible for the lack of small rainbow trout in the 2011 assessment due to predation. As a result, the department plans to stop stocking Little Harding Lake, and remove the gabion and barrier grate from the channel that connects Little Harding and Harding lakes to allow the northern pike in Harding Lake access to the spawning and rearing habitat of Little Harding Lake. Harding Lake has been closed to fishing for northern pike since 2000 due to low abundance. This proposal would close Little Harding Lake to northern pike retention until the time when the northern pike population can sustain a fishery.

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

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

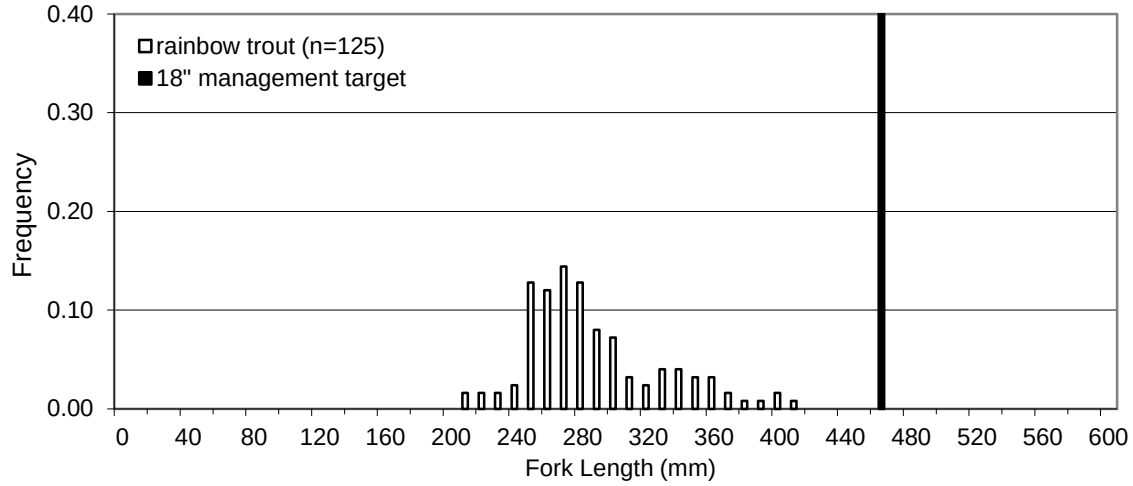

Figure 89-1.–Little Harding Lake rainbow trout length frequency distribution for fish captured during September 2005 (n=152) sampling. The black vertical bar represents the current management target of 18".

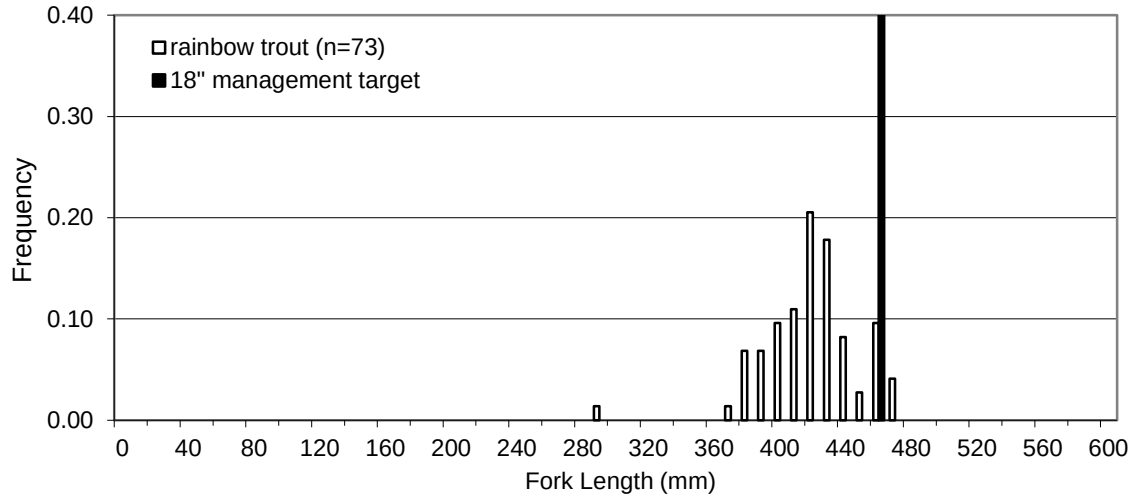

Figure 89-2.–Little Harding Lake rainbow trout length frequency distribution for fish captured during May 2011 (n=73) sampling. The black vertical bar represents the current management target of 18".

PROPOSAL 90 - 5 AAC 74.065. Tanana River Area Stocked Waters Management Plan.

PROPOSED BY: Midnight Sun Trout Unlimited.

WHAT WOULD THE PROPOSAL DO? Remove Little Harding Lake, Harding Lake, Summit Lake, Monte Lake, and Donnelly Lake from the special management approach of the *Tanana River Area Stocked Waters Management Plan* and leave Rainbow Lake under the special management approach.

WHAT ARE THE CURRENT REGULATIONS? In Donnely, Monte, Rainbow, and Summit lakes, the bag and possession limit for rainbow trout, landlocked salmon, Arctic char/Dolly Varden, Arctic grayling, and lake trout combined is one fish, which must be 18 inches or greater in length. All fish caught that are less than 18 inches in length must be released immediately. In Harding Lake, the bag and possession limit for lake trout is one fish, 30 inches or greater in length. All lake trout caught that are less than 30 inches in length must be released immediately. In Little Harding Lake, rainbow trout may be taken only from May 15 through September 30, with a bag and possession limit of one fish, which must be 18 inches or greater in length.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would move Donnelly, Harding, Little Harding, Monte, and Summit lakes from the *Tanana River Area Stocked Waters Management Plan* special management approach to the regional management approach. This would change the lakes' regulations to being open year-round with a bag and possession limit of 10 fish, only one of which may be 18 inches or greater in length. Removal of these lakes from the special management approach would simplify regulations since the special regulations for five lakes would be eliminated, but diversity of fishing opportunity would be reduced (no trophy lakes).

BACKGROUND: Donnelly Lake was classified under the special management approach in 2004. Following this classification, the number of fingerling rainbow trout and Arctic char stocked into Donnelly Lake was reduced in anticipation of lower annual harvest and to promote faster growth. Sampling was conducted in 2005; the captured rainbow trout and Arctic char were smaller than expected (Figure 90-1).

Harding Lake is currently managed under the special management approach for its trophy lake trout fishery, which cannot sustain a high level of harvest.

Little Harding Lake is currently managed under the special management approach for its rainbow trout fishery. However, the lake has not been able to produce a trophy fishery in many years despite restrictive regulations that were put in place in 1995 (figures 90-2, 90-3, and 90-4). In addition, sampling in Little Harding Lake in 2011 captured several large northern pike in the lake, which supported recent angler reports.

Monte Lake was sampled in 2008. Thirteen rainbow trout were captured. No fish were greater than 18 inches; these fish were compared to the expected population structures; however, too few fish were captured to perform an effective statistical analysis (Figure 90-5).

Summit Lake (near Cantwell) was last sampled in 2010; no stocked fish were captured during this sampling event.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal with modification. The department is **NEUTRAL** on the removal of Monte and Donnelly lakes from the stocked waters special management category. The department is **OPPOSED** to removal of Harding Lake from the stocked waters special management category since it is primarily managed as a trophy fishery for the introduced lake trout population and cannot sustain a high level of harvest. In addition, special methods and means restrictions may be removed.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

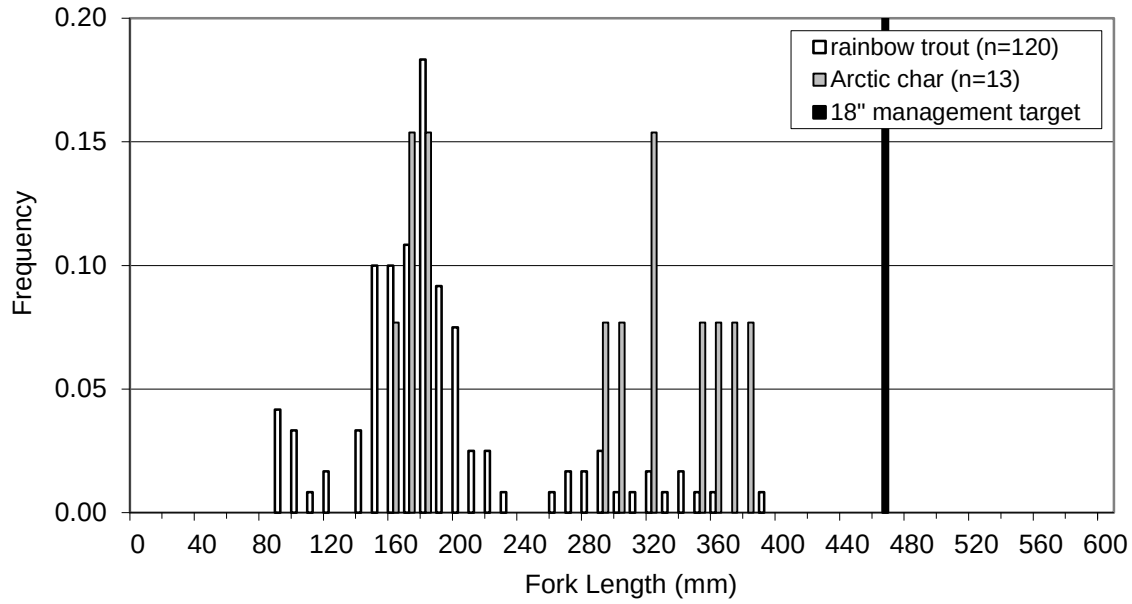

Figure 90-2.–Donnelly Lake rainbow trout and Arctic char length frequency distribution for fish captured during September 2008 sampling. The black vertical bar represents the current management target of 18".

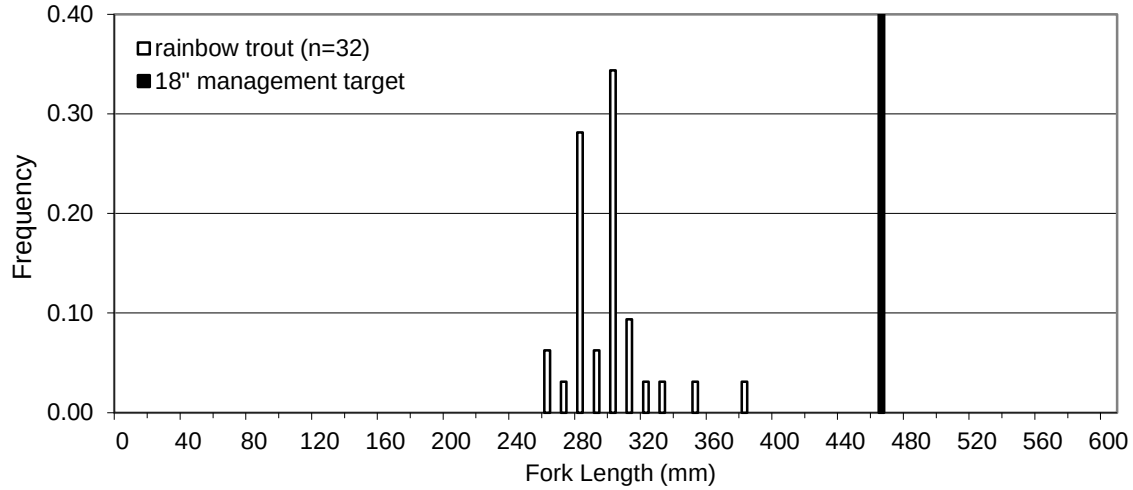

Figure 90-2.–Little Harding Lake rainbow trout length frequency distribution for fish captured during August 2003 (n=32) sampling. The black vertical bar represents the current management target of 18".

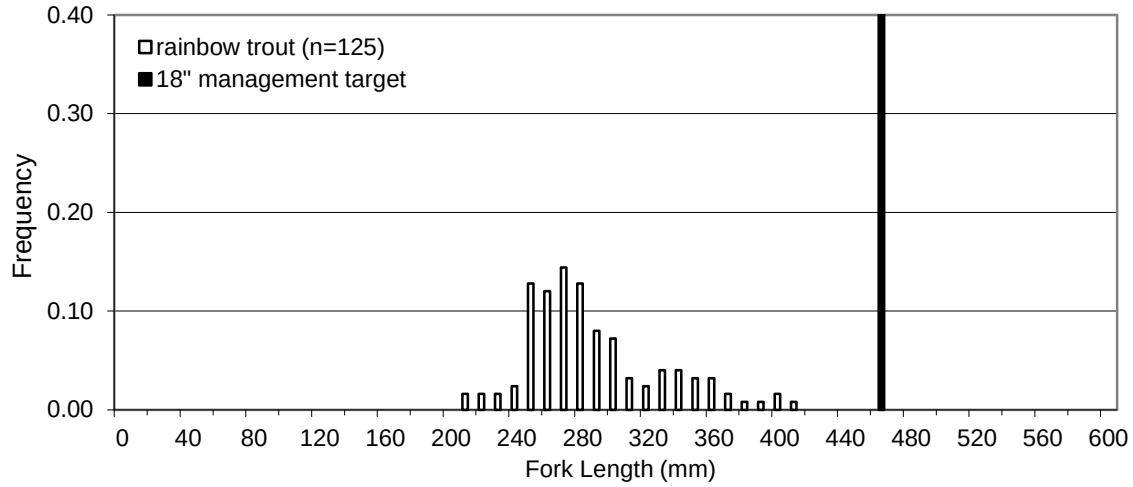

Figure 90-3.–Little Harding Lake rainbow trout length frequency distribution for fish captured during September 2005 (n=152) sampling. The black vertical bar represents the current management target of 18".

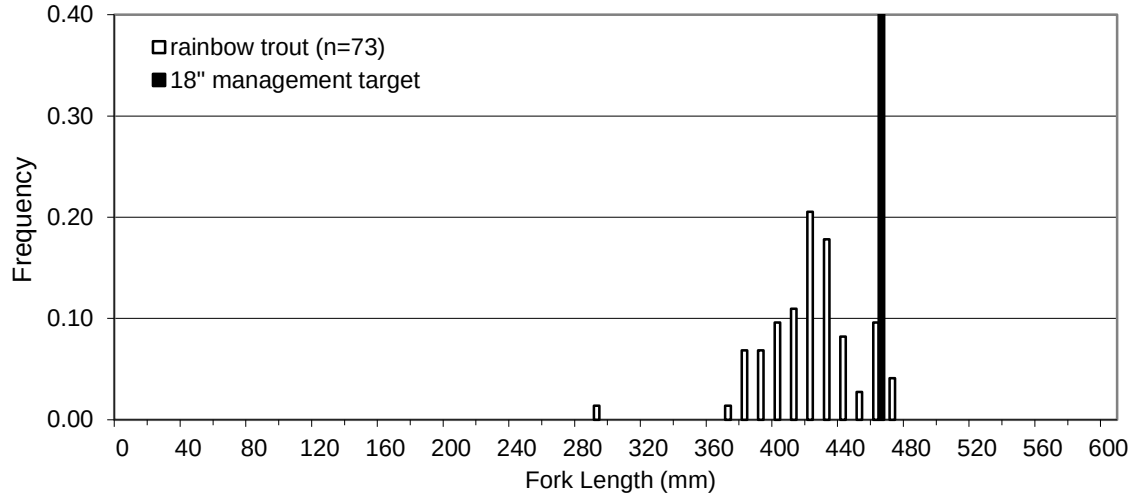

Figure 90-4.–Little Harding Lake rainbow trout length frequency distribution for fish captured during May 2011 (n=73) sampling. The black vertical bar represents the current management target of 18".

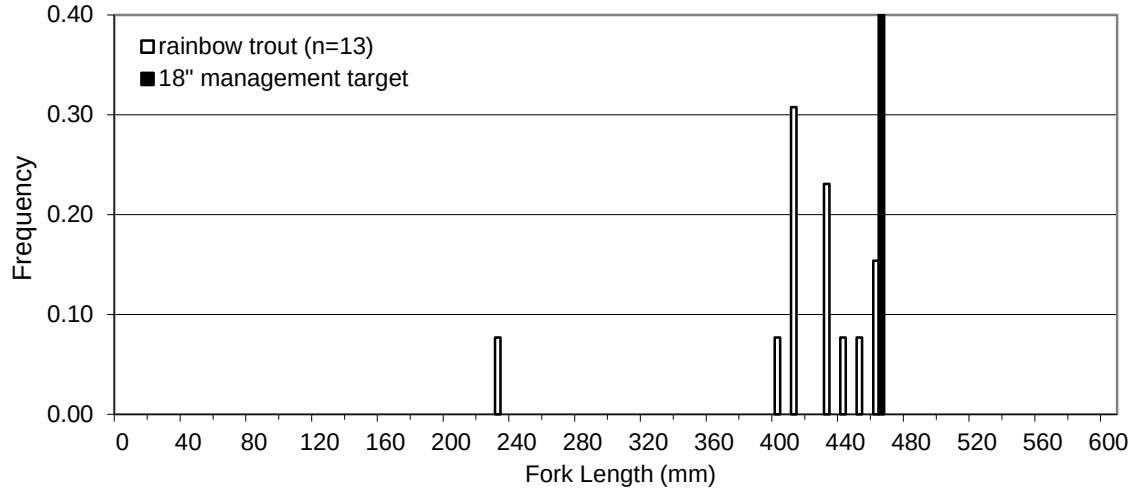

Figure 90-5.–Monte Lake rainbow trout length frequency distribution for fish captured during June 2008 (n=13) sampling. The black vertical bar represents the current management target of 18".

PROPOSAL 237 – 5 AAC 74.010(c)(18). Seasons, bag, possession, and size limits, and methods and means for the Tanana River Area and 5 AAC 74.065. Tanana River Area Stocked Waters Management Plan.

PROPOSED BY: E.R. Ferguson.

WHAT WOULD THE PROPOSAL DO? Remove Rainbow Lake from the special management category.

WHAT ARE THE CURRENT REGULATIONS? Rainbow Lake is open year-round and falls under the *Tanana River Area Stocked Waters Management Plan* (5 AAC 4.065) special management approach, which allows for a bag and possession limit of one fish, which must be 18 inches or greater in length.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would move Rainbow Lake into the *Tanana River Area Stocked Waters Management Plan* regional management approach, which would allow anglers a bag and possession limit of 10 fish, only one of which could be 18 inches or greater in length.

BACKGROUND: There are three management approaches within the *Tanana River Area Stocked Waters Management Plan*: regional, conservative, and special. Having a diversity of fishing opportunities is appealing to the angling public whose fishing desires range from a high level of catch and harvest to a trophy experience.

Rainbow Lake is managed under the special management approach. Under this category, a stocked water body is managed so "there is a high probability of an angler catching more than one fish a day that is 18 inches or greater in length". In recent years, access to Rainbow Lake has improved and fishing effort has increased to a level such that all large fish, 18 inches or greater in length, are being harvested and fewer anglers are getting the opportunity to catch a fish, 18 inches or larger (figures 237-1 to 237-3).

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. There are a large number of stocked lakes in the Tanana River Management Area (TRMA) designated under the regional management approach and keeping Rainbow Lake in the special management category allows for a greater diversity of fishing experiences for TRMA anglers.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

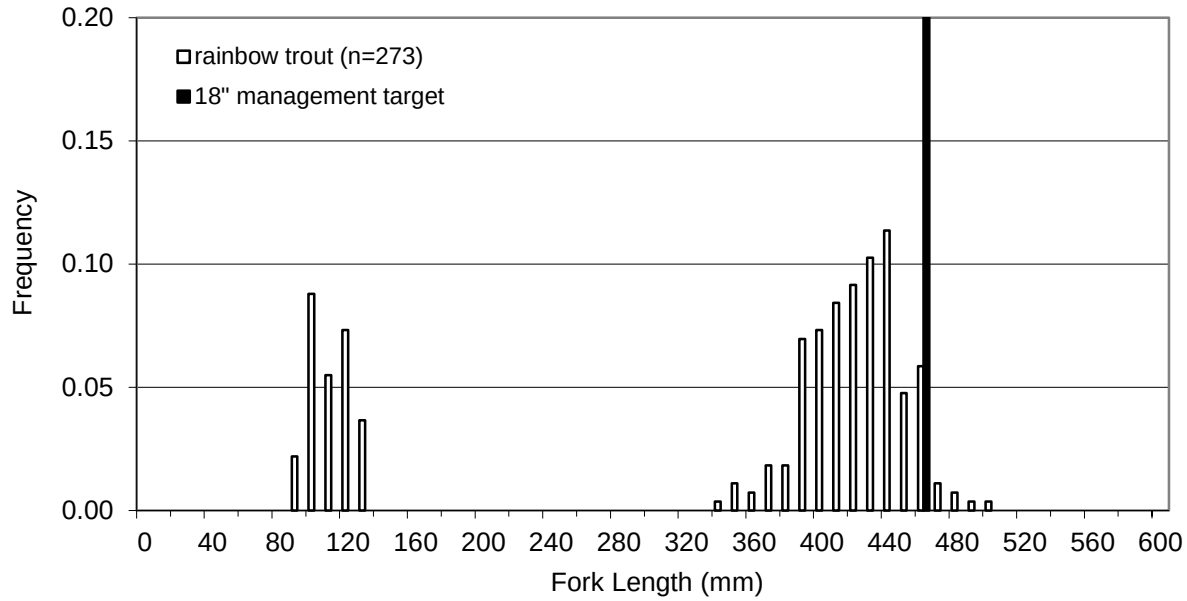

Figure 237-1.–Rainbow Lake rainbow trout length frequency distribution for fish captured during August and September 2004 (n=273) sampling. T he black vertical bar represents the current management target of 18".

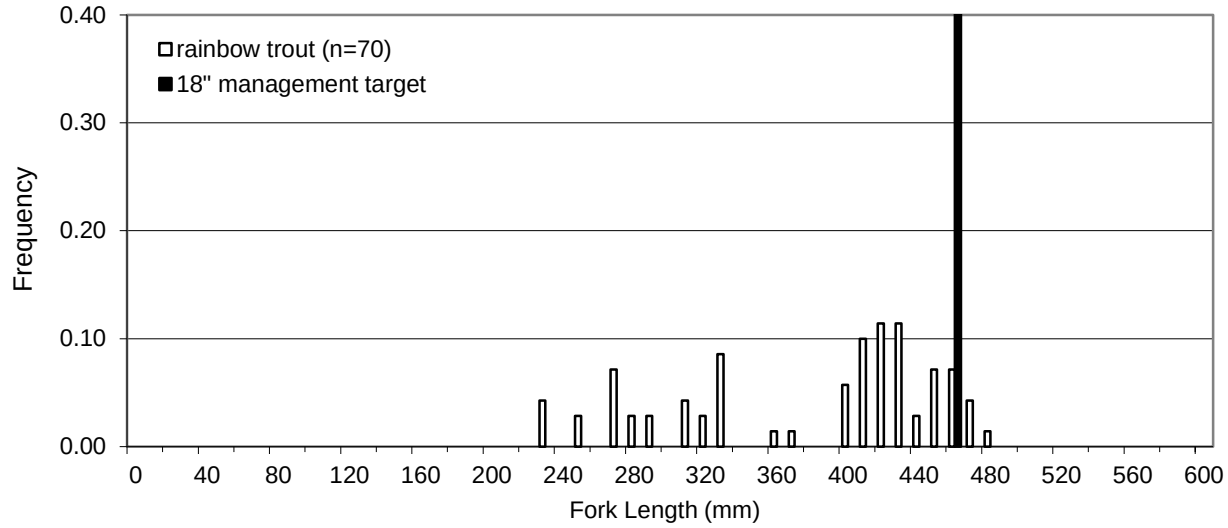

Figure 237-2.–Rainbow Lake rainbow trout length frequency distribution for fish captured during September 2005 (n=70) sampling. The black vertical bar represents the current management target of 18".

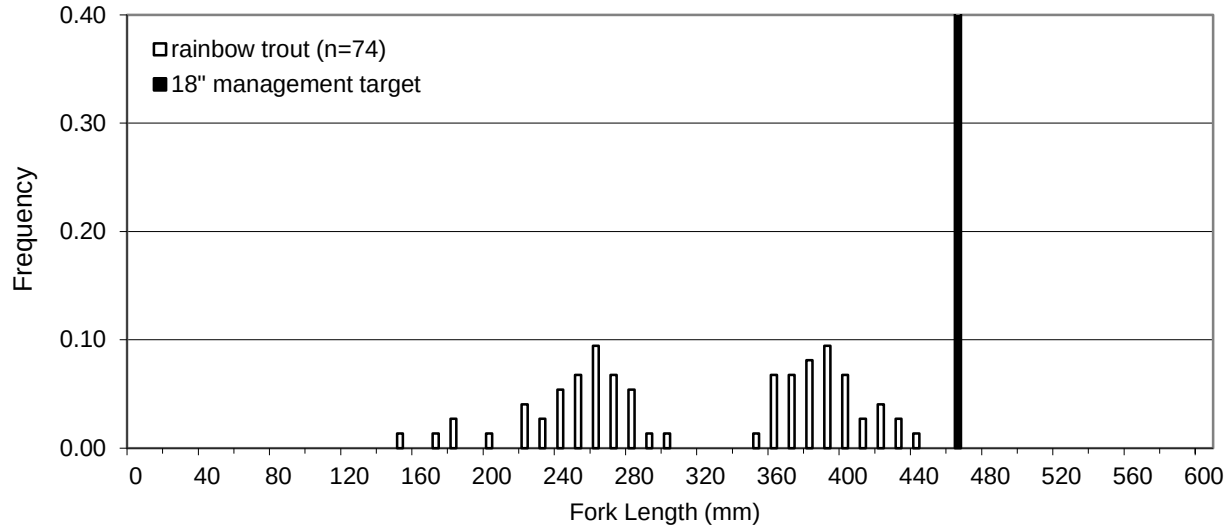

Figure 237-3.–Rainbow Lake rainbow trout length frequency distribution for fish captured during June 2012 (n=74) sampling. The black vertical bar represents the current management target of 18".

PROPOSAL 91 – 5 AAC 74.010. Seasons, bag, possession, and size limits, and methods and means for the Tanana River Area and 5 AAC 74.065. Tanana River Area Stocked Waters Management Plan.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? Update the list of stocked waters in regulation and remove Little Harding and Summit lakes from the stocked waters regulations and *Tanana River Area Stocked Waters Management Plan* special management approach.

WHAT ARE THE CURRENT REGULATIONS? In Little Harding Lake, rainbow trout may be taken only from May 15 through September 30, with a bag and possession limit of one fish, which must be 18 inches or greater in length.

In Summit Lake (Cantwell), the bag and possession limit for rainbow trout, landlocked salmon, Arctic char/Dolly Varden, Arctic grayling, and lake trout, combined, is one fish, which must be 18 inches or greater in length; all fish caught less than 18 inches in length must be released immediately.

Approximately 125 stocked waters in the Tanana River Area are managed under the regional management approach with an aggregate bag, possession, and size limit for rainbow trout, Arctic char/Dolly Varden, landlocked salmon, and Arctic grayling of 10 fish (all stocked species combined), of which no more than one fish may be 18 inches or greater in length.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would remove the following water bodies from the *Tanana River Area Stocked Waters Management Plan*: Big Lake, Crystal Lake, Little Harding Lake, Meadows Rd #3, Meadows Rd #4, Meadows Rd #6, Piledriver Slough, Robertson #2, Summit Lake, Tschute Lake, and West Pond.

BACKGROUND: In conjunction with each Alaska Board of Fisheries cycle, the department reviews stocked waters to ensure consistency between the *Statewide Stocking Plan for Recreational Fisheries* and the Tanana River Management Area stocked waters regulations and management plan. Stocked waters are removed from the stocking plan due to 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 regulations.

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.

The department will provide an updated list of stocked waters during the Alaska Board of Fisheries Arctic-Yukon-Kuskokwim meeting, which will include any additional changes (additions, deletions, administrative name changes) to the stocked waters under regional management. This includes changing the names of Forest Lake to Forrest Lake, Meadows Road #1 to Artillery Lake, Meadows Road #2 to Stryker Lake, Meadows Road #5 to Cavalry Lake; removing Long Pond, Parks 285 (White Alice Pit), Parks 286.3, and Round Pond, since these have been removed from the stocking plan; and adding Steese Hwy. 28.8, since this was added to the stocking plan.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 92 – 5AAC 69.130. Methods, means, and general provisions – Finfish; 5 AAC 70.030. Methods, means, and general provisions – Finfish; 5 AAC 71.030. Methods, means, and general provisions – Finfish; 5 AAC 73.030. Methods, means, and general provisions – Finfish; and 5 AAC 74.030. Methods, means, and general provisions – Finfish.

PROPOSED BY: Alaska Department Fish and Game.

WHAT WOULD THE PROPOSAL DO? The proposal would remove the restriction on use of large multiple hooks (large treble hooks) while fishing for fish other than salmon in flowing waters of the five Arctic-Yukon-Kuskokwim (AYK) sport fish management areas.

WHAT ARE THE CURRENT REGULATIONS? Current regulations permit use of multiple hooks with a gap between the point and shank greater than one-half inch (large treble hooks) for taking fish other than salmon in lakes, but not in flowing waters of the five AYK sport fish management areas.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The regulatory change will provide additional sport fishing opportunities by permitting use of "off the shelf" commercially manufactured lures. Use of large multiple hooks (large treble hooks) for taking fish, other than salmon, is not anticipated to change current harvest or catch levels of these species, or result in other biological impacts. Since this regulatory change will impact primarily northern pike and sheefish fisheries, which occur in locations not generally utilized by salmon, the potential for increased snagging of salmon is unlikely.

BACKGROUND: Current regulations, which prohibit the use of multiple hooks with a gap between the point and shank greater than one-half inch (large treble hooks), were established with the objective of discouraging the illegal practice of snagging salmon. Commercially manufactured lures designed to capture large fish, such as northern pike, are frequently equipped with large treble hooks. A large portion of AYK northern pike and sheefish sport fisheries occur in flowing waters (Table 92-1). Many anglers unwittingly violate current regulations in flowing waters by using lures as manufactured.

DEPARTMENT COMMENTS: The department submitted this proposal and continues to **SUPPORT** it. There is no biological justification for continuing to prohibit use of large treble hooks in flowing waters when fishing for fish other than salmon.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

Table 92-1.–Sport harvest from flowing waters in AYK of sheefish (Inconnu) and northern pike, 2002–2011.

Year	Area U Tanana	Area V Kuskokwim	Area W Seward P.	Area X NW AK	Area Y Yukon	Area Z N Slope	AYK Total
	Sheefish (Inconnu)						
2002	92	81	0	476	538	0	1,187
2003	59	45	0	735	238	0	1,077
2004	177	182	0	652	1,352	0	2,363
2005	129	1,079	0	393	1,348	0	2,949
2006	53	173	0	607	540	0	1,373
2007	37	435	0	1,001	177	0	1,650
2008	83	191	0	0	462	0	736
2009	23	161	0	776	210	0	1,170
2010	103	67	0	307	299	0	776
2011	16	114	0	257	118	0	505
Average	**77**	**253**	**0**	**520**	**528**	**0**	**1,379**
	Northern pike						
2002	1,204	443	326	158	3,291	51	5,473
2003	500	783	424	423	1,507	22	3,659
2004	2,207	1,543	840	729	3,656	14	8,989
2005	1,389	3,749	514	18	1,899	32	7,601
2006	1,382	406	0	107	1,134	0	3,029
2007	963	346	210	375	1,281	0	3,175
2008	494	165	513	53	1,577	0	2,802
2009	1,193	981	539	43	1,265	0	4,021
2010	1,099	909	464	131	1,104	0	3,707
2011	435	247	0	134	430	14	1,260
Average	**1,087**	**957**	**383**	**217**	**1,714**	**13**	**4,372**

PROPOSAL 93 – 5 AAC 71.010. Seasons and bag, possession and size limits for the Kuskokwim-Goodnews Area and 5 AAC 74.010. Seasons and bag, possession and size limits for the Tanana River Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would clarify the current regulatory language where only unbaited, single-hook artificial lures are allowed, by stating that only one lure can be used.

WHAT ARE THE CURRENT REGULATIONS? Current regulations allow only unbaited, single-hook artificial lures to be used in certain locations. Several drainages (Chena, Delta Clearwater, and Goodpaster rivers) and streams (Five-mile Clearwater and Shaw creeks, Piledriver Slough) in the Tanana River Management Area are under one unbaited, single-hook artificial lure regulations for all or a portion of the year.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would align regulatory language for unbaited, single-hook artificial lures and provide consistency in regulations within the Arctic-Yukon-Kuskokwim (AYK) region. This would prevent anglers from fishing with two artificial flies or artificial lures with two single hooks, and reduce hooking mortality by removing the potential for a fish to be hooked by two hooks while fishing two artificial flies.

BACKGROUND: During the past several AYK Alaska Board of Fisheries cycles, regulations have been adopted restricting terminal sport fishing gear to unbaited, single-hook artificial lures only. The intent of these regulations was to limit hooking mortality in fisheries where there were conservation concerns for a specific species or a catch-and-release fishery occurred. Initially, the language "unbaited, single-hook artificial lures" was thought to mean that only one artificial lure or fly with a single hook could be fished. Upon consultation with Alaska Wildlife Troopers and Department of Law staff, it was determined that current regulatory language would allow two artificial flies or a lure with two single hooks to be fished. Adding "one" in front of "unbaited, single-hook artificial lure" clarifies that only one artificial fly or an artificial lure with only one single-hook may be fished and the regulation will comply with the original intent.

Current AYK sport fishing regulations include six water bodies with "one unbaited, single-hook artificial lure" regulations; there are 10 water bodies with "unbaited, single-hook artificial lure" regulations. Of the six water bodies with "one unbaited, single-hook artificial lure" regulations, four have catch-and-release (Arctic grayling and king salmon) regulations and two have reduced bag limits (Arctic grayling). The 10 water bodies with "unbaited, single-hook artificial lure" regulations include three catch-and-release (rainbow trout) fisheries, two with annual limits (rainbow trout), two under special management regulations (lake trout and stocked rainbow trout), two with regulations linked to a management plan (northern pike), and one with background area regulations (rainbow trout). Management provisions for these 10 water bodies are consistent with other fisheries where "one unbaited, single-hook artificial lure" regulations

apply in the state, primarily rainbow trout/steelhead fisheries that are catch-and-release or have annual bag limits.

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

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 94 – 5 AAC 74.010. Seasons, bag, possession, and size limits, and methods and means for the Tanana River Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? Modify methods and means regulation for the Chena River to be consistent with the area regulations.

WHAT ARE THE CURRENT REGULATIONS? In the Chena River, 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 when taking fish other than salmon.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would simplify sport fishing regulations by making the large treble-hook size consistent throughout the Tanana River Management Area.

BACKGROUND: In 2007, the Alaska Board of Fisheries amended Chena River methods and means to allow anglers use of a large treble hook to catch northern pike in conjunction with regulations protecting Arctic grayling. However, the hook size description adopted into regulation was not the same as what is currently defined in area regulations for large multiple hooks (5 AAC 74.030(b)). Current regulations state that in the Chena River, 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. This hook size is inconsistent with the area description of a large treble hook, which is multiple hooks with a gap between point and shank greater than one-half inch.

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

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 95 - 5 AAC 71.030. Methods, mean, and general provisions – Finfish.

PROPOSED BY: Pat Vermillion.

WHAT WOULD THE PROPOSAL DO? This proposal would change the definition of bait in the waters of the Kuskokwim-Goodnews Area to include any substance placed in fresh water by a person for the purpose of attracting fish by scent.

WHAT ARE THE CURRENT REGULATIONS? Bait is currently defined in statewide provisions as "any substance applied to fishing gear for the purpose of attracting fish by scent, including fish eggs in any form, natural or preserved animal, fish, fish oil, shellfish, or insect parts, natural or processed vegetable matter, and natural or synthetic chemicals". Currently, it is legal to place attractants in fresh waters designated as no bait for the purpose of attracting fish by scent, as long as the attractants are not applied to fishing gear.

The following drainages in the Kuskokwim-Goodnews Management Area are currently designated as no bait: Goodnews River, Kanektok River, Kasigluk River, Kwethluk River, Kisaralik River upstream of the Akiak Village Lodge site, and the Aniak River upstream of Doestock Creek.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Adoption of this proposal would make it illegal for persons to place fish parts or other attractants in fresh water for the purpose of attracting fish by scent of the Kuskokwim-Goodnews Management Area currently designated as no bait. Catch rates for anglers and/or guides who currently place attractants in the water to attract fish will likely be reduced.

BACKGROUND: In 1990, the Alaska Board of Fisheries (board) adopted regulations to implement the *Southwest Alaska Rainbow Trout Management Plan*. Subsequently, the board adopted statewide management standards (5 AAC 75.220) and policy (5 AAC 75.222) for sustainable management of rainbow trout. Together, these plans and policy emphasize conservative wild stock management rather than harvest and maximum yield. Based on the criteria in the original plan, six drainages in the Kuskokwim-Goodnews Area were designated as no-bait waters (Figure 95-1).

Placing attractants in fresh waters designated as no bait to attract fish by scent, commonly known as chumming, occurs in several fisheries in the Kuskokwim-Goodnews Area.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. Adoption of this proposal would be consistent with the intent of no-bait regulations based on criteria in the *Southwest Alaska Rainbow Trout Management Plan*.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in the fishery.

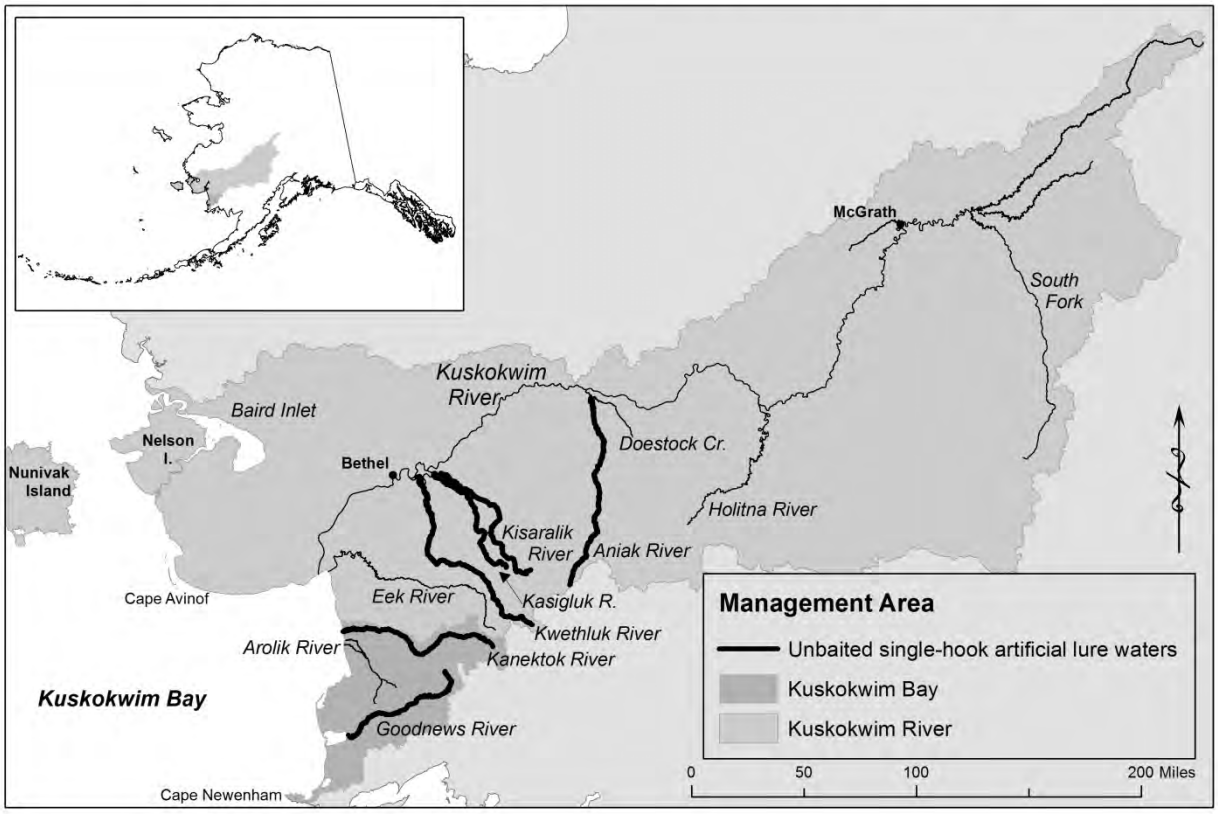

Figure 95-1.–Unbaited single-hook artificial lure waters in the Kuskokwim-Goodnews Management Area.

PROPOSAL 111 –5 AAC 71.010. Seasons and bag, possession, and size limits for the Kuskokwim – Goodnews Area.

PROPOSED BY: Native Village of Eek.

WHAT WOULD THE PROPOSAL DO? This proposal would close the Eek River to sport fishing.

WHAT ARE THE CURRENT REGULATIONS? Current regulations allow sport fishing for all species in the Eek River drainage.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would prohibit any sport fishing on the Eek River and eliminate sport fishing opportunity in this drainage.

BACKGROUND: The sport fishery in the Eek River was managed under the current Kuskokwim-Goodnews Area general bag and possession limits until 1988, when more restrictive limits were enacted. There are no special regulations pertaining to methods and means in the Eek River drainage. The sport fishery remains very small, with few participants, and is rarely captured by the Statewide Harvest Survey (Table 111-1).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of this proposal, but is **OPPOSED** to elimination of sport fishing opportunity for all species in a given area or water body without biological justification. Adoption of this proposal would preclude the few participants in the sport fishery on the Eek River. Due to the very small amount of estimated participation and harvest, there is no biological concern specific to the harvest by the sport fishery.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

Table 111-1.–Sport fish harvest and catch in the Eek River drainage, 2001–2011.

Harvest

Year	Days fished	King	Coho	Sockeye	Pink	Chum	DV/AC	Rainbow trout	Arctic grayling
2001	ND	ND	ND	ND	ND	ND	ND	ND	ND
2002	ND	ND	ND	ND	ND	ND	ND	ND	ND
2003	228	73	0	0	0	0	78	0	98
2004	86	0	0	0	0	0	0	0	11
2005	193	0	24	0	0	0	35	0	48
2006	114	31	0	12	0	0	0	0	20
2007	ND	ND	ND	ND	ND	ND	ND	ND	ND
2008	ND	ND	ND	ND	ND	ND	ND	ND	ND
2009	ND	ND	ND	ND	ND	ND	ND	ND	ND
2010	ND	ND	ND	ND	ND	ND	ND	ND	ND
2011	332	0	64	0	0	0	0	0	98
Average									
2001–2010	155	26	6	3	0	0	28	0	44
2006–2010	114	31	0	12	0	0	0	0	20

Catch

Year	Days fished	King	Coho	Sockeye	Pink	Chum	DV/AC	Rainbow trout	Arctic grayling
2001	ND	ND	ND	ND	ND	ND	ND	ND	ND
2002	ND	ND	ND	ND	ND	ND	ND	ND	ND
2003	228	479	50	21	0	157	164	0	674
2004	86	0	146	0	0	0	0	0	147
2005	193	0	24	0	0	0	588	0	803
2006	114	471	0	61	90	49	83	0	492
2007	ND	ND	ND	ND	ND	ND	ND	ND	ND
2008	ND	ND	ND	ND	ND	ND	ND	ND	ND
2009	ND	ND	ND	ND	ND	ND	ND	ND	ND
2010	ND	ND	ND	ND	ND	ND	ND	ND	ND
2011	332	0	200	0	0	0	0	0	569
Average									
2001–2010	155	238	55	21	23	52	209	0	529
2006–2010	114	471	0	61	90	49	83	0	492

[a] Effort (days fished) estimated based on Statewide Harvest Survey (SWHS) responses. Years in which there were no responses in the SWHS do not necessarily reflect zero participation in the sport fishery.

ND = no data; DV/AC = Dolly Varden/Arctic char; SWHS = Statewide Harvest Survey

PROPOSAL 112 - 5 AAC 01.270. Lawful gear and gear specifications and operations; 5 AAC 07.331 Gillnet specifications and operations; and 5 AAC 71.010. Seasons and bag, possession, and size limits for the Kuskokwim - Goodnews Area.

PROPOSED BY: Organized Village of Kwethluk and Kwethluk IRA Council.

WHAT WOULD THE PROPOSAL DO? This proposal would close all sport fishing and sport fish guiding operations in the Kwethluk River from June 1 through July 25. It would also restrict gillnets in the subsistence fishery in the Kuskokwim River to four inch mesh or less, and a maximum length of 60 feet during the same time period.

WHAT ARE THE CURRENT REGULATIONS? Current regulations in the Kwethluk River allow for a sport fishery (unless amended by emergency order (EO)), and a subsistence fishery without a mesh restriction (unless amended by EO). There is no commercial fishery on the Kwethluk River.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would eliminate the sport fishery for all species from June 1–July 25. It would also close the subsistence salmon fishery during this period by limiting the gear type allowed, and therefore reduce the harvest of salmon. In addition to reduced opportunity in all fisheries, there would be added complexity to subsistence and sport regulations since these changes would deviate from regulations in the other tributaries and portions of the mainstem Kuskokwim River.

BACKGROUND: The current general regulations for the Kuskokwim-Goodnews Area sport fisheries apply in the Kwethluk River. In addition, the Kwethluk River sport fishery is restricted to unbaited, single-hook, artificial lures and a two fish annual limit for rainbow trout. Current regulations for the king salmon sport fishery include an open season from May 1 through July 25, and a bag and possession limit of three fish, only two of which can be 28 inches or greater. Harvests of king salmon and other species remain low (Table 112-1). Current regulations regarding the subsistence fishery also apply areawide, do not restrict mesh size, and state a maximum gillnet length of 50 fathoms (300 feet).

In 2010, 2011, and 2012, similar restrictions, as requested by the proposers, were enacted upon the subsistence fishery under EO authority, and closure of the king salmon sport fishery was enacted concurrently. Though the proposal is not specific, it largely addresses the king salmon sport fishery since it references a June 1–July 25 closure date. It is anticipated that restrictions to subsistence, commercial, and sport fisheries will occur in 2013, but with the recovery of king salmon in subsequent years, the existing management strategy and regulations would continue to provide opportunity to subsistence, commercial, and sport users, and in time of conservation, actions would continue to be taken through EO authority.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. This proposal reduces management flexibility, and parts of the proposal mirror actions already taken by EO on the Kuskokwim River during the past three years.

COST ANALYSIS: Approval of this proposal may result in an additional direct cost for a private person to participate in this fishery. Additional costs to subsistence users may be incurred by needing to travel outside the Kwethluk River area to meet their needs. There may be lost business opportunity to sport fish guiding businesses operating in the Kwethluk River.

Table 112-1.–Kwethluk River sport harvest and catch, 2001–2011.

Harvest

Year	Days fished	King	Coho	Sockeye	Pink	Chum	Lake trout	Dolly Varden	Rainbow trout	Grayling	Whitefish	Northern pike
2001	1,069	43	237	0	0	71	0	33	17	77	0	14
2002	920	30	153	0	0	34	36	53	0	226	0	78
2003	2,646	103	824	42	0	0	0	77	21	23	15	12
2004	2,021	150	649	65	0	70	60	230	117	23	15	289
2005	714	65	387	112	35	80	0	106	53	83	0	143
2006	1,922	183	669	0	67	0	0	76	0	97	0	0
2007	1,067	93	96	0	0	0	0	0	31	0	0	10
2008	1,092	149	117	0	0	0	0	36	26	42	0	0
2009	1,387	42	445	12	0	0	0	129	28	114	13	0
2010	1,453	136	315	0	0	61	0	133	55	114	0	101
2011	369	0	171	0	0	0	0	19	0	20	22	68
Average												
2001–2010	1,429	99	389	23	10	32	10	87	35	80	4	65
2006–2010	1,384	121	328	2	13	12	0	75	28	73	3	22

Catch

Year	Days fished	King	Coho	Sockeye	Pink	Chum	Lake trout	Dolly Varden	Rainbow trout	Grayling	Whitefish	Northern pike
2001	1,069	77	1,608	37	0	425	0	142	896	3,058	129	41
2002	920	195	310	67	0	455	181	2,223	3,398	3,000	0	350
2003	2,646	861	6,276	42	0	50	0	1,196	618	515	15	419
2004	2,021	778	3,608	218	0	308	60	2,376	1,027	697	15	1,603
2005	714	385	588	112	35	414	0	237	280	337	0	216
2006	1,922	493	2,626	0	95	918	0	365	5,990	2,701	0	152
2007	1,067	733	1,225	25	23	21	0	1,586	3,277	3,440	76	143
2008	1,092	845	1,027	188	0	961	0	1,874	6,688	2,828	0	33
2009	1,387	499	2,153	130	62	1,218	10	5,418	6,615	4,144	45	115
2010	1,453	584	348	0	0	524	0	2,174	4,037	3,355	59	261
2011	369	153	540	0	21	804	0	193	362	214	22	129
Average												
2001–2010	1,429	545	1,977	82	22	529	25	1,759	3,283	2,408	34	333
2006–2010	1,384	631	1,476	69	36	728	2	2,283	5,321	3,294	36	141

PROPOSAL 113 - 5 AAC 71.010. Seasons and bag, possession, and size limits for the Kuskokwim - Goodnews Area(c)(7) and (8).

PROPOSED BY: Native Village of Kwinhagak IRA Council.

WHAT WOULD THE PROPOSAL DO? This proposal would amend current regulations in the Kanektok and Arolik rivers to prohibit catch-and-release fishing and require sport-caught salmon to be harvested, unless the salmon is unfit for human consumption.

WHAT ARE THE CURRENT REGULATIONS? Current regulations allow for catch-and-release when sport fishing in the Kanektok and Arolik rivers. King salmon may be taken May 1–July 25 only, with a bag and possession limit of three fish (only two 28" or longer), and 10 fish less than 20". The bag and possession limit for other salmon is five fish, no size limit.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would substantially decrease effort in the salmon sport fishery, since current catch-and-harvest estimates indicate that approximately 90% of salmon (all species) that are caught are released. The proposal would effectively reduce sport related mortality by more than 50%, but total mortality (commercial, subsistence, and sport) would reduce only 2% overall.

BACKGROUND: Current regulations have largely been in place since 1988, with addition of an unbaited, single-hook artificial lure regulation. Current data suggest that 10% mortality may be expected in catch-and-release king salmon fisheries, with similarly low rates for other salmon. In the Kanektok River, using the most recent five-year average of salmon species caught (as estimated by the Statewide Harvest Survey), the additional mortality approximately doubles harvest mortality (Table 113-1). Overall, sport harvests in the Kanektok River remain relatively low, compared to commercial and subsistence harvests (tables 113-2, 113-3, and 113-4). In the Arolik River, the catch and harvest remain very small (Table 113-4).

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. This proposal addresses a social bias against catch-and-release fishing. Recent run strengths for all species have been strong enough to maintain robust commercial, subsistence, and sport fisheries on these species. If indicators were otherwise, appropriate actions would be taken by emergency order (EO). This proposal, if adopted, would limit the department's flexibility to take action using EO authority during times when runs are poor or higher than normal.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

Table 113-1.–Kanektok River harvest, catch, and catch + hooking mortality.

	King salmon	Coho salmon	Sockeye salmon	Pink salmon	Chum salmon
5-yr average (2006-2010)					
Harvest	512	1,305	408	35	80
Catch	4,252	11,445	5,469	6,201	10,512
Harvest + 10% Catch	937	2,449	955	655	1,131

Table 113-2.–Kanektok River salmon harvests by guided clients.[a]

Year	Total clients	King salmon	Coho salmon	Sockeye salmon
		Harvest		
2006	2,896	424	1,373	247
2007	2,722	301	796	210
2008	2,812	243	813	194
2009	2,105	250	926	137
2010	1,829	163	598	210
2011	1,919	192	709	38
2006–2010 average	2,473	276	901	200
		Catch		
2006	2,896	2,333	6,576	1,709
2007	2,722	1,627	4,375	1,300
2008	2,812	842	6,041	588
2009	2,105	837	3,068	862
2010	1,829	612	1,600	767
2011	1,919	662	4,027	239
2006–2010 average	2,473	1,250	4,332	1,045

[a] Data from Sport Fish Guide Logbook reports.

Table 113-3.–Kanektok River sport harvest and catch, 2001–2011.

Year	Days fished	King salmon	Coho salmon	Sockeye salmon	Pink salmon	Chum salmon	Dolly Varden	Rainbow trout	Arctic grayling
Harvest									
2001	9,063	947	2,448	83	0	43	543	0	47
2002	5,885	799	1,784	73	63	446	497	0	47
2003	7,665	323	1,076	107	10	14	457	0	0
2004	6,364	228	1,362	112	98	33	482	68	33
2005	5,789	520	1,006	156	31	108	256	0	11
2006	7,861	754	1,742	523	13	145	339	0	28
2007	5,071	633	1,087	385	0	15	232	11	30
2008	8,024	220	1,541	654	0	48	223	0	0
2009	3,267	400	876	75	112	44	411	0	22
2010	5,307	552	1,280	404	51	150	334	17	14
2011	7,235	891	981	429	0	271	498	13	0
Average 2001–2010	6,430	538	1,420	257	38	105	377	10	23
Average 2006–2010	5,906	512	1,305	408	35	80	308	6	19
Catch									
2001	9,063	10,482	21,941	1,415	376	6,457	15,673	7,984	3,955
2002	5,885	3,815	10,922	1,423	5,944	10,779	15,555	8,846	3,622
2003	7,665	3,480	19,257	5,082	479	7,138	16,988	8,455	3,888
2004	6,364	2,758	23,845	1,330	11,760	4,715	29,990	8,525	3,417
2005	5,789	10,116	13,279	5,692	1,831	9,241	17,443	7,070	1,895
2006	7,861	7,292	12,282	11,450	6,743	21,258	30,420	11,793	2,180
2007	5,071	6,331	12,768	3,481	842	7,971	22,617	11,538	4,339
2008	8,024	2,495	18,086	6,776	17,057	9,231	36,492	16,375	7,220
2009	3,267	2,522	6,896	768	492	3,802	23,007	12,670	5,882
2010	5,307	2,619	7,192	4,872	5,870	10,298	19,784	10,263	4,598
2011	7,235	6,911	11,506	5,260	355	9,541	33,766	17,475	7,108
Average 2001–2010	6,430	5,191	14,647	4,229	5,139	9,089	22,797	10,352	4,100
Average 2006–2010	5,906	4,252	11,445	5,469	6,201	10,512	26,464	12,528	4,844

Table 113-4.–Harvest of king salmon in the commercial, subsistence, and sport fisheries in the Kanektok River, 1991–2011.

	Harvest			
Year	Commercial[a]	Subsistence[b]	Sport	Total
1991	9,480	3,693	316	13,489
1992	17,197	3,447	656	21,300
1993	15,784	3,368	1,006	20,158
1994	8,564	3,995	751	13,310
1995	38,584	2,746	739	42,069
1996	14,165	3,075	689	17,929
1997	35,510	3,433	1,632	40,575
1998	23,158	4,041	1,475	28,674
1999	18,426	3,167	854	22,447
2000	21,229	3,106	833	25,168
2001	12,775	2,923	947	16,645
2002	11,480	2,475	779	14,734
2003	14,444	3,898	323	18,665
2004	25,465	3,726	228	29,419
2005	24,195	3,083	520	27,798
2006	19,184	3,521	754	23,459
2007	19,573	3,412	633	23,618
2008	13,812	4,090	220	18,122
2009	13,920	2,982	400	17,360
2010	14,230	2,692	552	17,474
2011	15,387	N/A	891	N/A
Average				
2001–2010	16,908	3,280	536	20,729
2006–2010	16,144	3,339	512	22,007

[a] Kanektok District commercial harvest (T. Elison, Commercial Fisheries Biologist, ADF&G, Anchorage, personal communication)

[b] Subsistence harvest by the community of Quinhagak (T. Elison, Commercial Fisheries Biologist, ADF&G, Anchorage, personal communication)

Table 113-5.–Arolik River sport fish salmon harvest and catch, 2001–2011.

Year	Days fished	King salmon	Coho salmon	Sockeye salmon	Pink salmon	Chum salmon
Harvest						
2001	116	0	0	0	11	0
2002	765	75	22	0	0	0
2003	266	0	58	0	0	0
2004	1,556	12	65	0	0	0
2005	421	0	0	0	0	0
2006	660	0	0	12	0	0
2007	922	50	0	0	0	0
2008	474	0	110	78	0	0
2009	866	51	38	46	14	0
2010	786	0	93	0	0	0
2011	1,431	34	306	0	0	0
Average						
2001–2010	683	19	39	14	3	0
2006–2010	742	20	48	27	3	0
Catch						
2001	116	0	783	68	23	0
2002	765	450	1,179	161	49	590
2003	266	36	231	60	0	69
2004	1,556	780	3,134	226	667	2,211
2005	421	0	2,397	0	0	0
2006	660	399	219	276	167	162
2007	922	1,997	625	0	15	1,362
2008	474	69	212	485	283	714
2009	866	210	2,252	623	350	542
2010	786	82	920	438	298	430
2011	1,431	1,288	1,299	250	44	859
Average						
2001–2010	657	402	1,195	234	185	608
2006–2010	732	551	846	364	223	642

PROPOSAL 114 - 5 AAC 71.010. Seasons and bag, possession, and size limits for the Kuskokwim - Goodnews Area.

PROPOSED BY: Native Village of Kwinhagak IRA Council.

WHAT WOULD THE PROPOSAL DO? Prohibit sport fishing on all salmon spawning beds in the Kanektok and Arolik river drainages.

WHAT ARE THE CURRENT REGULATIONS? Fishing for salmon and other fish species is allowed on these rivers without geographic restrictions. King salmon may be taken May 1–July 25 only, with a bag and possession limit of three fish (only two 28" or longer), and 10 fish less than 20". The bag and possession limit for other salmon is five fish, no size limit.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would significantly reduce sport fishing opportunity on these rivers, since it is difficult to determine at any given time whether a particular species of salmon has or will spawn at a given location. This would also increase complexity of regulations since spawning areas would have to be delineated in the regulations and may not necessarily be easily identified in the field.

BACKGROUND: Current regulations have largely been in place since 1988, when an unbaited, single-hook artificial lure regulation was adopted. Sport harvests in recent years have remained stable and are believed to be sustainable (tables 114-1, 114-2, and 114-3). Identification of spawning beds is difficult. Sport fishing effort on spawning beds is, therefore, difficult to enforce. The king salmon season protects king salmon spawners (closed after July 25 to king salmon fishing).

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. There has been no biological concern for species, other than king salmon, and most salmon sport anglers target nonspawning fish. King salmon spawners are protected under existing regulations. Recent run strengths for all species have been strong enough to maintain a robust commercial, subsistence, and sport fishery on these species; however, if indicators were otherwise, appropriate actions would be taken by emergency order.

COST ANALYSIS: Approval of this proposal may result in an additional direct cost for a private person to participate in this fishery. There may be lost business opportunity to sport fish guiding businesses operating in the Kanetok and Arolik rivers as this would prohibit sport fishing in the majority of waters in these drainages.

Table 114-1.–Kanektok River sport harvest and catch, 2001–2011.

Year	Days fished	King salmon	Coho salmon	Sockeye salmon	Pink salmon	Chum salmon	Dolly Varden	Rainbow trout	Arctic grayling
					Harvest				
2001	9,063	947	2,448	83	0	43	543	0	47
2002	5,885	799	1,784	73	63	446	497	0	47
2003	7,665	323	1,076	107	10	14	457	0	0
2004	6,364	228	1,362	112	98	33	482	68	33
2005	5,789	520	1,006	156	31	108	256	0	11
2006	7,861	754	1,742	523	13	145	339	0	28
2007	5,071	633	1,087	385	0	15	232	11	30
2008	8,024	220	1,541	654	0	48	223	0	0
2009	3,267	400	876	75	112	44	411	0	22
2010	5,307	552	1,280	404	51	150	334	17	14
2011	7,235	891	981	429	0	271	498	13	0
Average									
2001–2010	6,430	538	1,420	257	38	105	377	10	23
2006–2010	5,906	512	1,305	408	35	80	308	6	19
					Catch				
2001	9,063	10,482	21,941	1,415	376	6,457	15,673	7,984	3,955
2002	5,885	3,815	10,922	1,423	5,944	10,779	15,555	8,846	3,622
2003	7,665	3,480	19,257	5,082	479	7,138	16,988	8,455	3,888
2004	6,364	2,758	23,845	1,330	11,760	4,715	29,990	8,525	3,417
2005	5,789	10,116	13,279	5,692	1,831	9,241	17,443	7,070	1,895
2006	7,861	7,292	12,282	11,450	6,743	21,258	30,420	11,793	2,180
2007	5,071	6,331	12,768	3,481	842	7,971	22,617	11,538	4,339
2008	8,024	2,495	18,086	6,776	17,057	9,231	36,492	16,375	7,220
2009	3,267	2,522	6,896	768	492	3,802	23,007	12,670	5,882
2010	5,307	2,619	7,192	4,872	5,870	10,298	19,784	10,263	4,598
2011	7,235	6,911	11,506	5,260	355	9,541	33,766	17,475	7,108
Average									
2001–2010	6,430	5,191	14,647	4,229	5,139	9,089	22,797	10,352	4,100
2006–2010	5,906	4,252	11,445	5,469	6,201	10,512	26,464	12,528	4,844

Table 114-2.–Kanektok River salmon harvests by guided clients.[a]

Year	Total clients	King salmon	Coho salmon	Sockeye salmon
		Harvest		
2006	2,896	424	1,373	247
2007	2,722	301	796	210
2008	2,812	243	813	194
2009	2,105	250	926	137
2010	1,829	163	598	210
2011	1,919	192	709	38
Average 2006–2010	2,473	276	901	200
		Catch		
2006	2,896	2,333	6,576	1,709
2007	2,722	1,627	4,375	1,300
2008	2,812	842	6,041	588
2009	2,105	837	3,068	862
2010	1,829	612	1,600	767
2011	1,919	662	4,027	239
Average 2006–2010	2,473	1,250	4,332	1,045

[a] Data from Sport Fish Guide Logbook reports.

Table 114-3.–Arolik River sport fish salmon harvest and catch, 2001–2011.

Year	Days fished	King salmon	Coho salmon	Sockeye salmon	Pink salmon	Chum salmon
Harvest						
2001	116	0	0	0	11	0
2002	765	75	22	0	0	0
2003	266	0	58	0	0	0
2004	1,556	12	65	0	0	0
2005	421	0	0	0	0	0
2006	660	0	0	12	0	0
2007	922	50	0	0	0	0
2008	474	0	110	78	0	0
2009	866	51	38	46	14	0
2010	786	0	93	0	0	0
2011	1,431	34	306	0	0	0
Average						
2001–2010	683	19	39	14	3	0
2006–2010	742	20	48	27	3	0
Catch						
2001	116	0	783	68	23	0
2002	765	450	1,179	161	49	590
2003	266	36	231	60	0	69
2004	1,556	780	3,134	226	667	2,211
2005	421	0	2,397	0	0	0
2006	660	399	219	276	167	162
2007	922	1,997	625	0	15	1,362
2008	474	69	212	485	283	714
2009	866	210	2,252	623	350	542
2010	786	82	920	438	298	430
2011	1,431	1,288	1,299	250	44	859
Average						
2001–2010	657	402	1,195	234	185	608
2006–2010	732	551	846	364	223	642

PROPOSAL 153 – 5 AAC 74.010. Seasons, bag, possession, and size limits, and methods and means for the Tanana River Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? Repeal the regulation that closes Fielding Lake to salmon fishing.

WHAT ARE THE CURRENT REGULATIONS? Fielding Lake is closed to salmon fishing.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would remove an unnecessary and misleading reference from the regulations.

BACKGROUND: Salmon are not present in Fielding Lake. Fielding Lake is linked, via an outlet to Phelan Creek, to the Delta River. The first two miles of the Delta River are cataloged as important for the spawning of chum salmon and the spawning and rearing of coho salmon in the *Atlas to the Catalog of Waters Important for Spawning, Rearing, or Migration of Anadromous Fishes*. However, salmon have not been cataloged in the Delta River upstream of the lower two river miles (approximately 70 river miles) or in Fielding Lake. Only twice since 1996 (2003, 2005) have salmon (chum) been reported caught in the Delta River, according to the Statewide Harvest Survey, but exact location of catch and species verification are not available. The current regulation imposes unnecessary language for a species that is not present in Fielding Lake.

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

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 154 – 5AAC 73.010. Seasons, bag, possession, and size limits, and methods and means for the Yukon River Area.

PROPOSED BY: Black River Working Group and Yukon Flats Advisory Committee.

WHAT WOULD THE PROPOSAL DO? Close the Black River and its tributaries to sport fishing for king salmon.

WHAT ARE THE CURRENT REGULATIONS? Sport fishing for king salmon on the Black River is open year-round. The bag and possession limit for king salmon 20 inches or greater in length is three fish, only two of which may be 28 inches or longer. The bag and possession limit for king salmon less than 20 inches is 10 fish (statewide regulation: 5 AAC 75.018). These regulations apply to the entire Yukon River drainage, except for the Tanana River drainage, where the bag and possession limit for king salmon less than 20 inches is one fish.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would remove all opportunity to sport fish for king salmon within the Black River drainage. This regulatory change would likely have no measurable effect on king salmon stocks since there is currently no sport fishery targeting king salmon in the Black River drainage.

BACKGROUND: Use of king salmon by the sport fishery in the Yukon River Area is very limited (Table 154-1). In the last five-year period, annual harvest for the entire Yukon River Area has averaged approximately 170 fish. Nearly all effort and harvest by the sport fishery on king salmon in the Yukon River drainage, excluding the Tanana River drainage, is on Alaskan stocks in the lower river tributaries, the Andreafsky and Anvik rivers.

In four of the past five years (2008, 2009, 2011, and 2012), the sport fishing bag and possession limit for king salmon was restricted by emergency order. In 2008, the bag and possession limit was reduced to one fish in the mainstem and tributaries of the Yukon River. In 2009, 2011, and 2012, sport fishing for king salmon in the mainstem Yukon River was closed, and bag and possession limits for the Yukon River tributaries were reduced to one king salmon. All inseason actions were taken in conjunction with restrictions in the Yukon River commercial and subsistence fisheries to conserve king salmon.

The Black River drainage is extremely remote, with negligible sport fishing activity. Freshwater sport fishing guides have been required to report effort, harvest, and fish released in logbooks since 2005 (Figure 154-1). From 2006–2011, there has been no reported guiding activity on the Salmon Fork, the Black River, or elsewhere in the Porcupine River drainage. The Statewide Harvest Survey has reported sport fishing activity within the Black River drainage in only six years since 1996 (1996–1998, 2000, 2004, and 2010). Sport fishing activity on the Salmon Fork of the Black River was reported only in 2004. No king salmon were reported caught or harvested in any of those years.

Department staff, traveling by boat on the Black River (July 19–21, 2012), recorded only one local boat traveling between the Porcupine River and Chalkyitsik. Residents of Chalkyitsik

reported that no boats had traveled upstream of the village as of July 20, 2012. An aerial survey of the Black River upstream of Chalkyitsik on July 26, 2012 observed no fishing of any kind.

Staff discussions with Chalkyitsik area residents indicate that king salmon runs to the Salmon Fork of the Black River were abundant until approximately 1927. The decline was attributed to overfishing with gillnets and to changes to the river morphology reducing spawning habitat.

A radio-telemetry study to identify king salmon spawning distribution in the Yukon River drainage was conducted from 2002–2004. Radio-tagged king salmon were observed in the Salmon Fork (but not elsewhere in the Black River) each year of the study, which found an average of nearly two tags annually. There are many similar, relatively small spawning aggregates within the Yukon River drainage. During the radio-telemetry study, an average of four radio-tagged king salmon were located annually in the Tolovana and Chatanika rivers. The Chatanika River is road-accessible from Fairbanks and is currently open to sport fishing for king salmon, with a bag and possession limit of one fish greater than 20 inches.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. This proposal would unnecessarily eliminate sport fishing opportunity with no supporting biological or harvest information.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

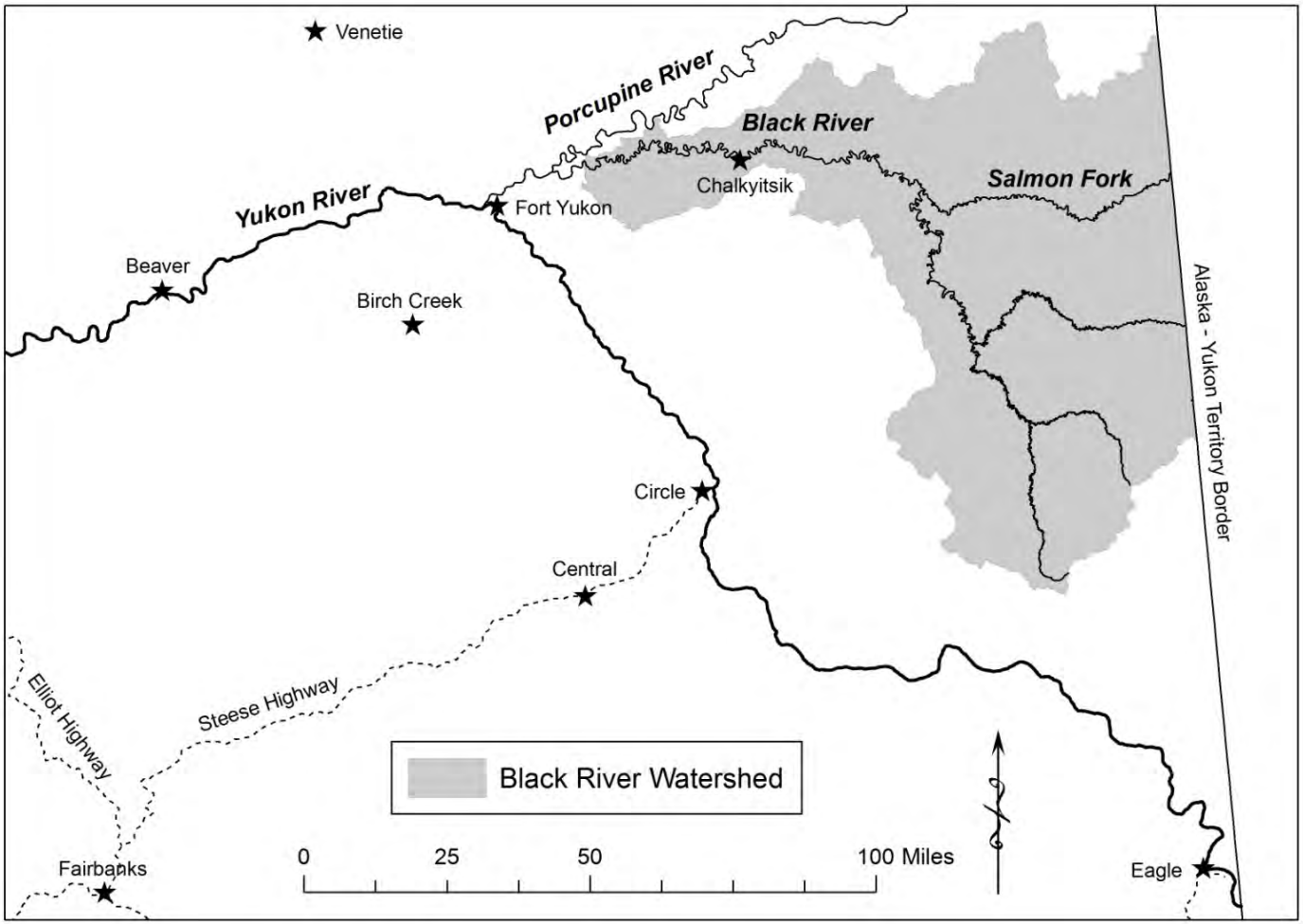

Figure 154-1.–Porcupine River and Black River drainages.

Table 154-1.–Sport harvest of king salmon in the Yukon River drainage, 2001–2011.

	Year											Averages	
Harvest	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2000–2010	2005–2011
Yukon R. drainages (Ft. Yukon to Canadian Border)													
Subtotal[a]	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Fortymile River	0	0	0	0	0	0	0	0	0	0	0	0	0
Charley River	0	0	0	0	0	0	0	0	0	0	0	0	0
Yukon R. drainages (Koyukuk R. to Ft. Yukon)													
Subtotal[a]	**12**	**0**	**0**	**35**	**0**	**0**	**0**	**15**	**0**	**0**	**0**	**6**	**3**
Porcupine River	0	0	0	0	0	0	0	0	0	0	0	0	0
Chandalar River	0	0	0	0	0	0	0	0	0	0	0	0	0
Beaver and Nome Creeks	0	0	0	0	0	0	0	0	0	0	0	0	0
Dall River	0	0	0	0	0	0	0	0	0	0	0	0	0
Haul Road Streams	0	0	0	0	0	0	0	0	0	0	0	0	0
Nowitna River	0	0	0	35	0	0	0	0	0	0	0	4	0
Melozitna River	0	0	0	0	0	0	0	0	0	0	0	0	0
Koyukuk River	0	0	0	0	0	0	0	0	0	0	0	0	0
Yukon R. drainages (downstream from Koyukuk R.)													
Subtotal[a]	**0**	**0**	**99**	**159**	**0**	**101**	**411**	**140**	**27**	**161**	**102**	**110**	**168**
Nulato River	0	0	0	0	0	0	0	0	0	0	0	0	0
Anvik River	0	0	60	147	0	48	250	140	10	161	102	82	123
Innoko River	0	0	0	0	0	0	0	0	0	0	0	0	0
Andreafsky River	0	0	39	11	0	53	161	0	17	0	0	28	46
Total[b]	**12**	**8**	**99**	**194**	**0**	**101**	**411**	**155**	**27**	**161**	**102**	**117**	**171**

[a] Water bodies listed below are the key systems included in the subtotal, these may represent only a portion of the subtotal harvest.

[b] Total may exceed the sum of subtotals because fishing site(s) not specified.

COMMITTEE B: SUBSISTENCE AND COMMERCIAL SALMON (25 PROPOSALS)

Norton Sound (9 proposals)

Norton Sound (9 proposals) (Continued)

Kuskokwim (3 proposals)

Yukon (13 proposals)

COMMITTEE B: SUBSISTENCE AND COMMERCIAL SALMON (25 PROPOSALS) *(Continued)*

PROPOSAL 118 – 5 AAC 04.390. Subdistricts 2 and 3 of the Norton Sound District Salmon Management Plan.

PROPOSED BY: Council Native Corporation.

WHAT WOULD THE PROPOSAL DO? Allow for a commercial set gillnet fishery in Norton Sound Subdistrict 2 (Golovin Subdistrict), only after 4,800 coho salmon have been enumerated at the Niukluk River tower project.

WHAT ARE THE CURRENT REGULATIONS? Regulations outlined in 5 AAC 04.390, *Subdistricts 2 and 3 of the Norton Sound District Salmon Management Plan,* direct the department to manage coho salmon commercial, subsistence and sport fisheries to achieve escapement goals.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If this proposal were adopted, commercial fishing periods directed at coho salmon would not be allowed in Subdistrict 2 until coho salmon passage at the Niukluk River exceeded the midpoint (4,800 fish) of the escapement goal range. This would preclude commercial fishing for coho salmon in most years and reduce commercial harvests of coho salmon in Subdistrict 2.

BACKGROUND: There has been a resurgence of the Subdistrict 2 commercial salmon fishery since 2008. Coho salmon escapement to the Fish River, the major salmon-producing drainage, is assessed based on tower counts obtained on the Niukluk River tributary. The Niukluk River tower has a sustainable escapement goal (SEG) range of 2,400–7,200 coho salmon. Since the SEG was established in 2007, escapement of coho salmon at Niukluk River tower has been within or has exceeded the SEG range (Figure 118-1). Based upon timing projections, the escapement goal was likely to have been achieved in 2012. Coho salmon fisheries in Subdistrict 2 are managed inseason using escapement projections based on historical proportions of cumulative passage at the Niukluk River tower. Commercial, subsistence, and sport harvests of coho salmon from 1994–2012, and estimates of total run size from 1995–2012, are summarized in Table 118-1. Since the 2008 resurgence of the commercial fishery, subsistence and sport fishery harvests have remained stable.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal because it is allocative between user groups. Under current management strategies, the escapement goal has been achieved in all years since commercial fishing resumed in 2008. The commercial fishery has been managed conservatively inseason until more definite projections of inriver abundance can be made, which is typically by mid-August. If the department were to use 4,800 coho salmon as the threshold, the commercial coho salmon fishery would be effectively shut down. Counts of coho salmon in 1996, 2000, 2006, and 2008 were the four largest recorded estimates at Niukluk River tower (Figure 118-1). However, even in these years, 4,800 coho salmon had not been enumerated until between August 15 and August 22. Delaying the onset of the fishery until the third week of August would prevent commercial fishing for coho salmon during the peak of the nearshore migration. Furthermore, the proportion of watermarked coho salmon in the catch

by this time increases substantially, which negatively impacts the quality of the commercial harvest.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

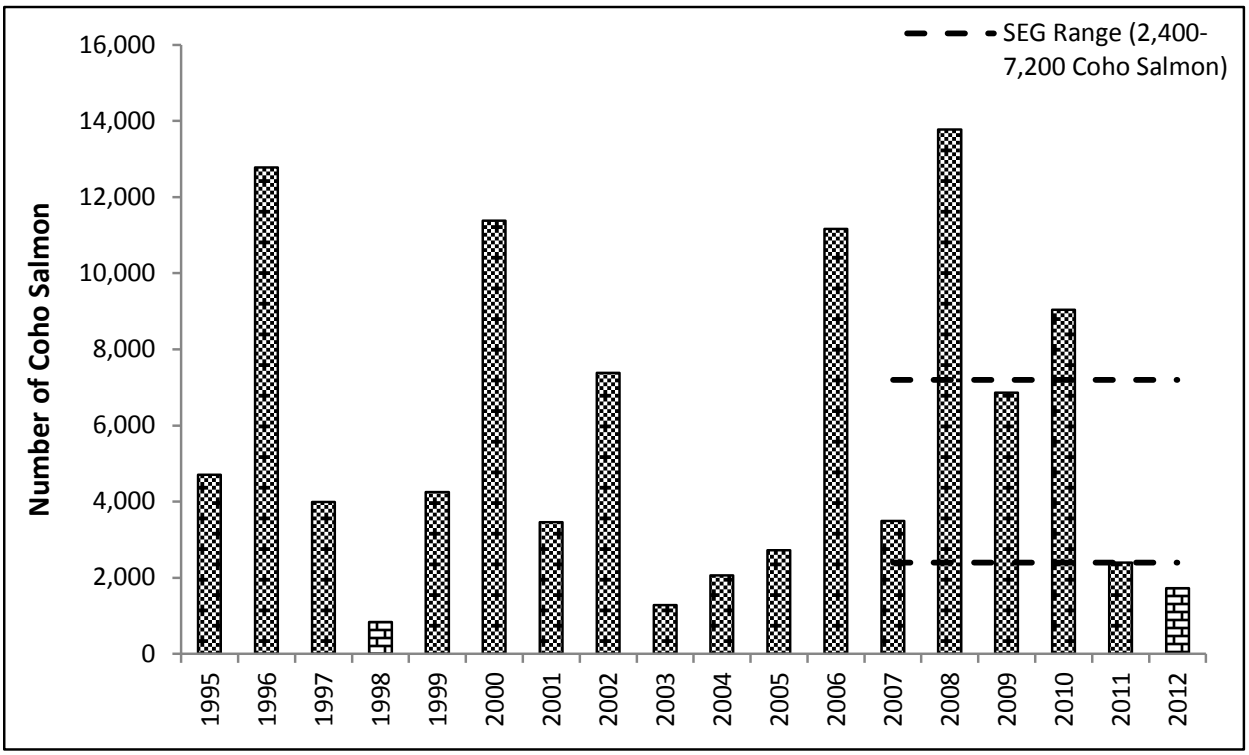

Figure 118-1.–Annual coho salmon passage compared to the sustainable escapement goal range (2,400–7,200 coho salmon), Niukluk River tower, Fish River drainage, Norton Sound District, 1995–2012. *Note*: 1998 and 2012 estimates are minimums because project counting operations terminated early on August 13 and August 16, respectively (shown in checked bars).

Table 118-1.–Annual commercial, subsistence, and sport fish harvests, drainagewide escapement, and estimated total run of coho salmon, Fish River drainage, Norton Sound District, 1994–2012.

Year	Commercial Harvest	Subsistence Harvest		Sport Harvest[c]		Drainagewide Escapement[d]	Estimated Total Run
1994	3,424	733	[a]	1,122			
1995	1,616	1,649	[a]	818		11,357	15,440
1996	638	3,014	[a]	1,652		30,798	36,102
1997	102	555	[a]	462		9,624	10,743
1998	3	1,292	[a]	316		[e]	[e]
1999	0	1,234	[a]	1,365		10,265	12,864
2000	1,645	2,335	[a]	1,165		27,427	32,572
2001	0	880	[a]	969		8,357	10,206
2002	0	1,640	[a]	298		17,810	19,748
2003	0	309	[a]	216		3,089	3,614
2004	0	654	[a]	291		4,973	5,918
2005	0	686	[a]	400		6,904	7,990
2006	0	1,760	[a]	948		25,442	28,150
2007	0	1,179	[a]	786		8,429	10,394
2008	256	2,337	[a]	1,986		33,202	37,781
2009	2,452	1,377	[a]	928		16,533	21,290
2010	5,586	2,020	[a]	1,069		21,788	30,463
2011	859	1,345	[a]	700		5,795	8,699
2012	573	1,130	[a,b]	1,094	[b]	[e]	[e]
Long-term Average	1,658	1,389		861		15,112	19,466

Note: Blank cells indicate no escapement data available.

[a] Subsistence harvests were estimated from Division of Subsistence surveys. From 2004–2012, a permit was required for Subdistrict 2; permit estimates are used for these years.

[b] The 2012 sport fish salmon harvest is unavailable at the time of this writing. The 2007–2011 average sport fish harvest has been substituted. The 2012 subsistence harvest is preliminary, with 4 outstanding permits at this time.

[c] Sport fish harvests of coho salmon for Subdistrict 2 are reported from the Fish River drainage.

[d] Drainagewide escapement in 2005 and 2006 estimated by dividing Niukluk River tower estimates by proportional abundance estimates obtained via radiotelemetry, which were 0.395 and 0.439, respectively (Bell et al. 2012). For all other years, escapement estimated using the 2005–2006 average abundance estimate (0.415) (Bell et al. 2012).

[e] Niukluk River tower operations terminated early in 1998 due to funding limitations, and, in 2012, due to poor weather conditions.

PROPOSAL 119 – 5 AAC 04.390. Subdistricts 2 and 3 of the Norton Sound District Salmon Management Plan.

PROPOSED BY: Wes Jones.

WHAT WOULD THE PROPOSAL DO? Repeal the regulatory requirement that chum salmon escapement goals specified in 5 AAC 04.358 are achieved before allowing a commercial coho salmon fishery in subdistricts 2 and 3.

WHAT ARE THE CURRENT REGULATIONS? Regulations outlined in 5 AAC 04.390, *Subdistricts 2 and 3 of the Norton Sound District Salmon Management Plan,* specify that the commercial coho salmon fishery may occur only when chum salmon escapement goals for Norton Sound index rivers in Subdistrict 1, specified in 5 AAC 04.358, are achieved, or when the department determines that further restrictions would have no impact on achieving escapement goals.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Adopting this proposal would ensure that management of commercial coho salmon fisheries in subdistricts 2 and 3 is not contingent upon reaching chum salmon escapement goals for Subdistrict 1 index rivers.

BACKGROUND: Several escapement goals for Norton Sound chum salmon stocks were established in 2001, including goals for the index rivers specified in 5 AAC 04.358 (Eldorado, Nome, and Snake rivers). There were also optimum escapement goals (OEGs) established for the Kwiniuk and Tubutulik rivers in Subdistrict 3 in 2001. Later in 2005, a tower-based lower-bound sustainable escapement goal (SEG) of ≥30,000 chum salmon was established for the Niukluk River, which was revised to ≥23,000 chum salmon in 2010. Therefore, subdistricts 2 and 3 have well-established, ground-based escapement projects and chum salmon escapement goals that can be used to manage salmon fisheries in these subdistricts.

The intent of the existing regulatory language is unclear. It is possible that, in development of the Subdistrict 1 Tier II chum salmon fishery, the goal was to minimize interception of Subdistrict 1 chum salmon in other regional set gillnet fisheries (i.e., subdistricts 2 and 3).

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal because it provides clearer regulations. Impacts to Subdistrict 1 chum salmon stocks in subdistricts 2 and 3 salmon fisheries will probably be low, particularly during the commercial coho salmon fishery. Regardless of the intent of the existing regulatory language, historical nearshore marine tagging study data suggest that subdistricts 2 and 3 commercial coho salmon fisheries are unlikely to intercept Subdistrict 1 chum salmon.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 120 – 5 AAC 04.395. Subdistricts 5 and 6 of the Norton Sound District and the Unalakleet River King Salmon Management Plan.

PROPOSED BY: Southern Norton Sound Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would clarify regulatory language, and allow for pink and chum salmon commercial harvest opportunities prior to July 1 unless the marine subsistence king salmon fishery is restricted or the king salmon subsistence fishery is closed. Adoption of this proposal would also prohibit commercial sale of king salmon incidentally harvested in chum and pink salmon commercial fisheries unless the midpoint of the king salmon escapement goal is reached.

WHAT ARE THE CURRENT REGULATIONS? Current regulations, outlined in 5 AAC 04.395, *Subdistricts 5 and 6 and Unalakleet River King Salmon Management Plan,* specify that if projected escapement is below the lower-bound of the escapement goal range, all fishing will be closed. Additionally, commercial fisheries directed at chum and pink salmon may not occur prior to July 1 if gillnet mesh size or fishing periods are further restricted in the subsistence king salmon fishery. The management plan also directs the department to ensure that commercial chum and pink salmon fisheries will not have a significant impact on king salmon escapement goals and subsistence fisheries.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Adopting this proposal would clarify the language of some key directives in the king salmon management plan. Additionally, this proposal would provide the department flexibility to allow commercial harvest opportunities for chum and pink salmon before July 1, provided that: 1) the marine king salmon subsistence fishery is not restricted; 2) the king salmon subsistence fishery is not closed prior to July 1; and 3) fishermen would not be allowed to sell incidental harvests of king salmon unless the midpoint of the North River escapement goal for king salmon has been reached.

BACKGROUND: In 2004, the Alaska Board of Fisheries (board) designated subdistricts 5 and 6 king salmon as a stock of yield concern and reaffirmed this designation in 2007 and 2010. Escapement of king salmon has fallen short of the lower-bound of the North River tower SEG range of 1,200–2,600 king salmon 50% of the time since the goal was established in 1999 (Figure 120-1). During the past five years, subsistence fishing for king salmon has been restricted in late June or early July to six-inch or smaller mesh gillnets in the Unalakleet River. Additionally, early closures to the king salmon subsistence fishery were implemented from 2006–2012.

Recent trends in abundance of chum salmon to subdistricts 5 and 6 have been the reverse of king salmon run performance. Since 2008, subdistricts 5 and 6 chum salmon abundance has been at near-record to record levels compared to the long-term (1984–1986 and 1996–2007, excluding 1999 and 2001) average (Figure 120-2). Chum salmon runs to subdistricts 5 and 6 could sustain considerably higher commercial harvest rates, but the fishery has been prosecuted conservatively for the first two weeks of July in order to minimize incidental harvest of king salmon needed to contribute to escapements or subsistence needs. Generally, this has involved restricting gillnets to six-inch or smaller mesh size, reducing fishing periods to 24–36 hours in duration, and

limiting the open area to the southern half of Subdistrict 6 to protect king salmon as they move through the northern half of the subdistrict. Moreover, the department has not been able to project early in the season that king salmon escapement needs will be met. Consequently, there has not been any directed chum salmon fishing permitted prior to July 1.

Both odd- and even-year abundance of pink salmon peaked in the Unalakleet River drainage in the mid-2000s, with record runs from 2004–2006 (Figure 120-3). Pink salmon run abundance has since returned to pre-2004 levels; even these lower run sizes have been sufficient to support much higher harvests than have been realized in recent years. Pink salmon are targeted in the commercial fishery by restricting gillnets to four and one-half inches or smaller mesh size.

Harvest rates of king salmon in the subdistricts 5 and 6 commercial chum salmon fishery have been very low since 2008. In 2012, for example, there were 15,941 chum salmon and 138 king salmon harvested during four directed chum salmon periods from July 5 to July 18 in the Unalakleet Subdistrict. King salmon incidental harvests composed only 0.8% of the entire catch during these periods. Incidental harvest rates of king salmon in directed pink salmon openings have been even lower than in the chum salmon fishery. In 2012, there were four directed pink salmon openings that encompassed the entire Unalakleet Subdistrict. During these openings, only nine king salmon were caught, compared to 46,843 pink salmon.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal, with modification. The department supports the idea of prohibiting sales of king salmon in times of low abundance. However, as an alternative, the management plan could have language added that the department may prohibit commercial sale of incidentally-harvested king salmon by emergency order in years when additional measures (mesh-size restrictions and early closures) are implemented in the subsistence fishery to reach king salmon escapement goals. This type of strategy works well in the Yukon Area. Using the midpoint of the king salmon escapement goal range as a benchmark for allowing commercial sale of king salmon is more difficult to assess inseason and may be unnecessarily restrictive in some years.

Adoption of this proposal would improve existing language in 5 AAC 04.395 by clarifying that all fishing for king salmon will be closed once the department projects that the king salmon escapement goal will not be reached. Additionally, the proposed language pertaining to prosecuting chum and pink salmon commercial fisheries prior to July 1 provides managers with flexibility for situations in which limited commercial harvest opportunity for chum or pink salmon could be allowed earlier in the run. When severe measures are needed to conserve king salmon, such as marine subsistence fishery mesh-size restrictions and early closures, chum and pink salmon fisheries will occur no earlier than July 1. Fisheries management would continue to be conservative when determining if chum or pink salmon commercial fishing activity would have a significant impact on king salmon escapement needs or subsistence uses of king salmon. Incidental harvests of king salmon in recent chum and pink salmon commercial harvests have been small and are expected to be small if these fisheries were prosecuted earlier.

While addressing this proposal, the board should evaluate whether proposed changes still provide a reasonable opportunity for subsistence uses.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

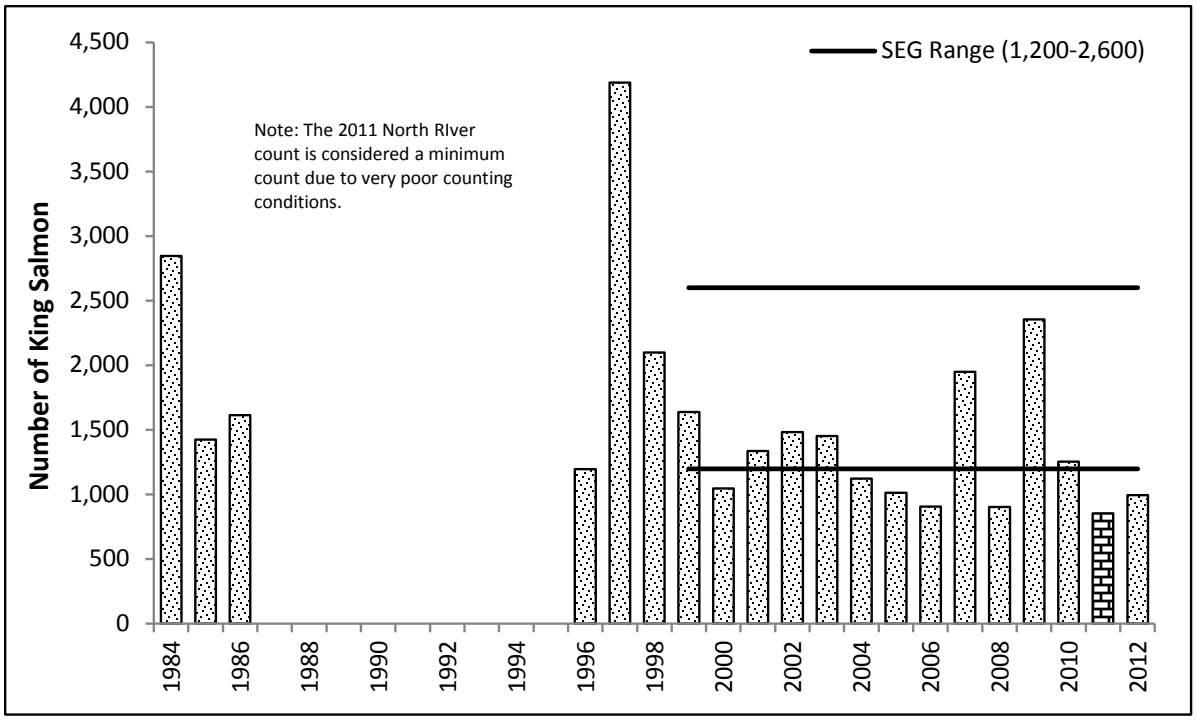

Figure 120-1.–Annual king salmon escapement compared to the sustainable escapement goal range of 1,200–2,600 king salmon, North River tower, Unalakleet River drainage, Norton Sound District, 1984–1986 and 1996–2012. *Note*: Tower project did not operate in 1987–1995.

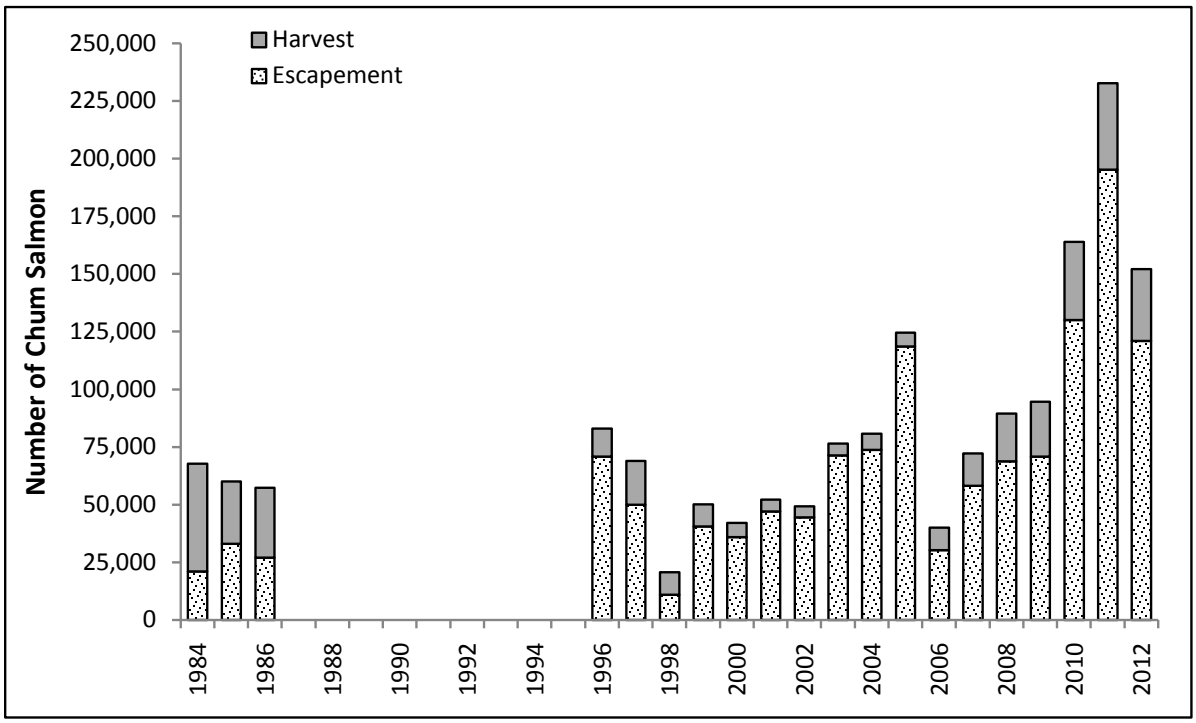

Figure 120-2.–Estimated chum salmon drainagewide escapement and harvest, Unalakleet River drainage, Norton Sound District, 1984–1986, and 1996–2012. *Note*: Escapement data not available in 1987–1995.

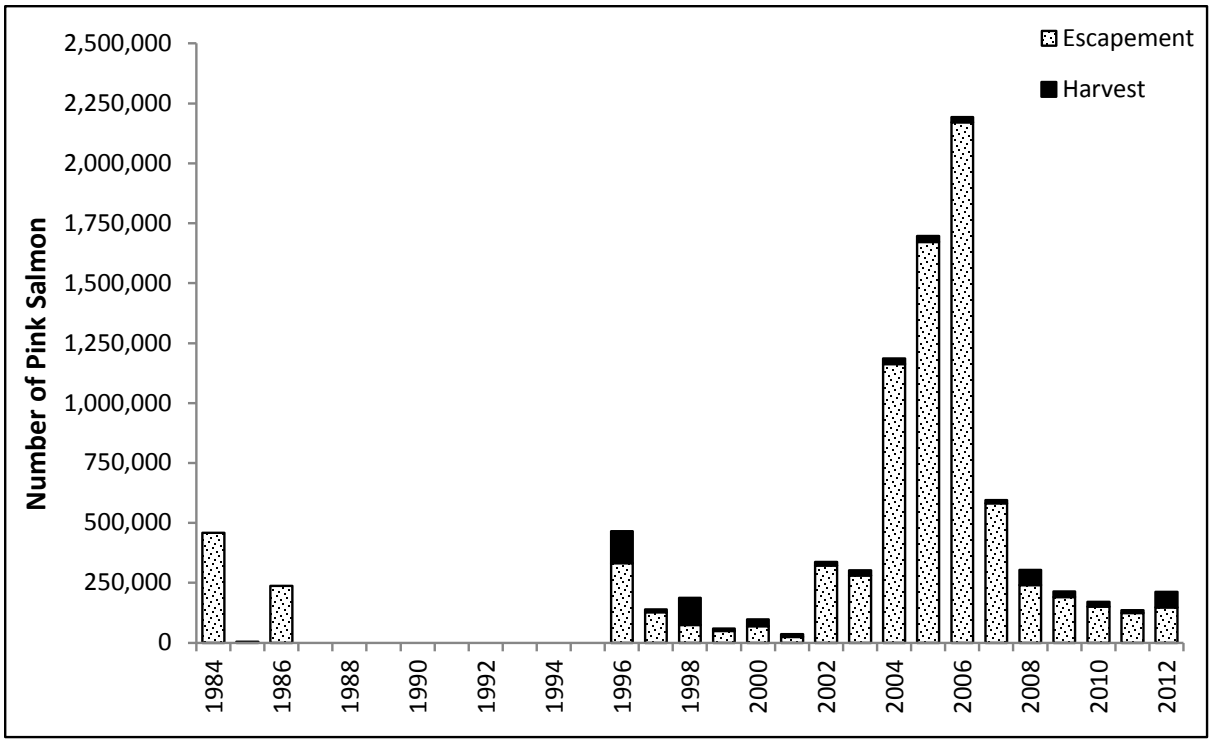

Figure 120-3.–Estimated pink salmon escapement (North River tower) and harvest, Unalakleet River drainage, Norton Sound District, 1984–1986, and 1996–2012. *Note*: Tower project did not operate in 1987–1995.

PROPOSAL 121 – 5 AAC 01.160. Fishing seasons and periods.

PROPOSED BY: Southern Norton Sound Advisory Committee.

WHAT WOULD THE PROPOSAL DO? Modify existing regulations so that the subsistence fishery will be open to beach seining for salmon, other than king salmon, in all fresh and marine waters of subdistricts 5 and 6 throughout the season, or from July 1 to August 10, unless restricted or closed by emergency order (EO).

WHAT ARE THE CURRENT REGULATIONS? Current regulations in 5 AAC 01.160 (b)(6) allow for salmon, other than king salmon, to be taken with beach seines in Norton Sound subdistricts 5 and 6, but only during periods established by EO. Additionally, language in 5 AAC 01.170(g) currently prohibits use of unanchored nets to harvest salmon in the Unalakleet River drainage from June 1 to July 15.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Adopting this proposal would allow more fishing time for subsistence users to harvest salmon, other than king salmon, with beach seines in subdistricts 5 and 6.

BACKGROUND: Both odd-year and even-year abundance of pink salmon peaked in the Unalakleet River drainage in the mid-2000s, with record runs from 2004–2006 (Figure 121-1). Pink salmon run abundance has since returned to pre-2004 levels, although runs have been sufficient to support much higher harvests. This proposal would also provide more opportunity to harvest chum salmon, which have migration timing that is similar to pink salmon (Figure 121-2). Pink and chum salmon runs to subdistricts 5 and 6 could have sustained higher harvest rates than those realized in recent years. At the request of the users, the department has issued EOs allowing beach seining beginning in early July based upon increasing abundance of pink salmon and so subsistence users can dry fish when the weather is favorable.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal. This proposal would provide more subsistence fishing opportunity for pink and chum salmon, and lead to a more orderly fishery, which would benefit subsistence users. Adopting this proposal from July 1 to August 10 would be consistent with what fishery managers have implemented in recent years and align fishing time with the run timing of pink and chum salmon to the Unalakleet River. Since king salmon cannot be taken by beach seine, this will allow harvest of pink and chum salmon, while protecting king salmon.

COST ANALYSIS: Approval of this proposal is not expected to 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? No.

2. Is the stock customarily and traditionally taken or used for subsistence? Yes; the Alaska Board of Fisheries (board) made positive customary and traditional use findings for salmon in the Norton Sound-Port Clarence Area, and chum salmon in Subdistrict I of the Norton Sound District (5 AAC 01.186).
3. Can a portion of the stock be harvested consistent with sustained yield? Yes.

4. What amount is reasonably necessary for subsistence uses? In 1998, the board found that 96,000–160,000 salmon are reasonably necessary for subsistence (ANS) uses in the Norton Sound-Port Clarence Area, and in 1999, found that the ANS for chum salmon in the Nome Subdistrict was 3,430–5,716 chum salmon.

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 use? This is a board determination.

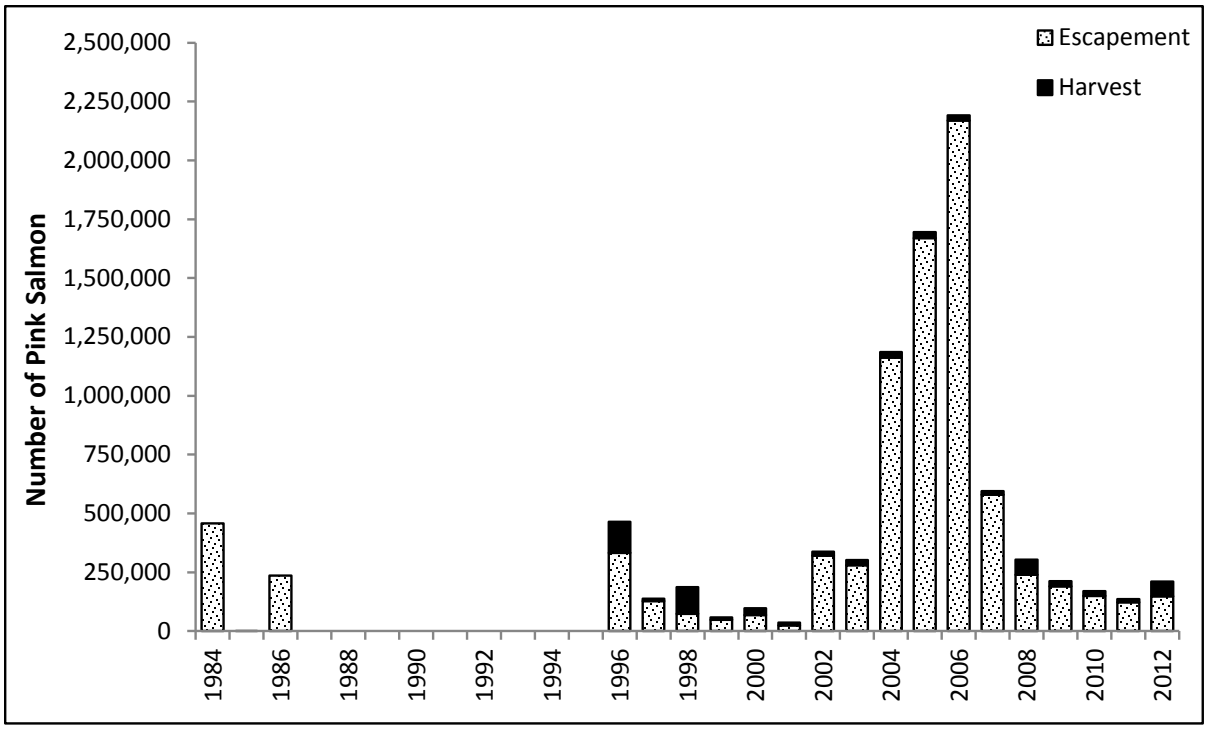

Figure 121-1.–Estimated pink salmon escapement (North River tower) and harvest, Unalakleet River drainage, Norton Sound District, 1984–1986 and 1996–2012. *Note*: Tower project did not operate in 1987–1995.

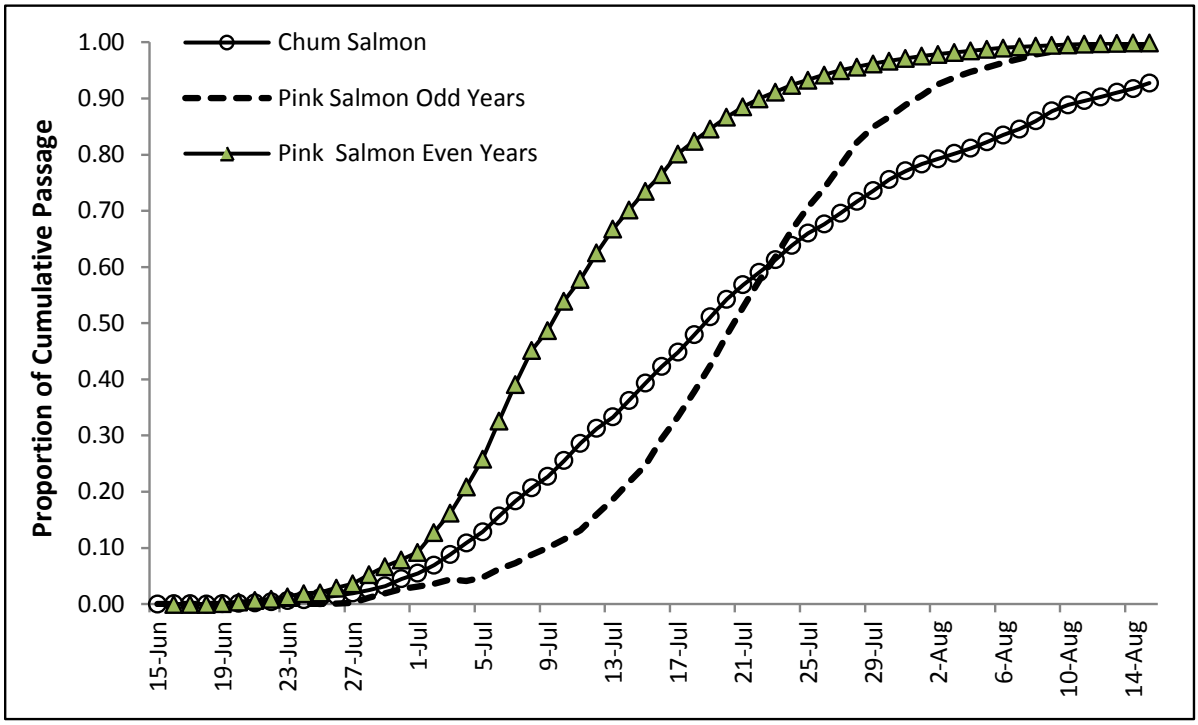

Figure 121-2.–Average proportions of cumulative passage by date for chum salmon compared to odd- and even-year pink salmon, North River counting tower, Unalakleet River drainage, Norton Sound District, 1996–2012.

PROPOSAL 125 – 5 AAC 01.170. Lawful gear and gear specifications.

PROPOSED BY: Dan Reed.

WHAT WOULD THE PROPOSAL DO? Allow the use of a dip net as a legal subsistence gear in the Pilgrim River subsistence fishery.

WHAT ARE THE CURRENT REGULATIONS? Currently, gillnet, beach seine, fish wheel, and hook and line attached to a rod or pole are legal subsistence gear for the taking of salmon in Pilgrim River.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would give subsistence fishermen another, potentially selective, gear type to harvest salmon.

BACKGROUND: The major salmon runs in the Pilgrim River are sockeye, chum, and, in even-numbered years, pink salmon (Table 125-1). A subsistence salmon permit has been required for Pilgrim River since 1964. The number of Pilgrim River subsistence salmon permits issued has increased three- to eight-fold since 2002 (Table 125-2). The increased fishing effort coincided with record runs of sockeye salmon beginning in 2003. However, in 2009, sockeye salmon runs crashed and Pilgrim River has been closed to gillnet and beach seine net fishing for several weeks each year to protect sockeye salmon. The sockeye salmon escapement goal is 4,000–8,000 sockeye salmon, observed by aerial survey, in Salmon Lake and Grand Central River, a major tributary of Salmon Lake. The sockeye salmon escapement goal has been achieved or exceeded in 16 of the last 20 years, but was not achieved in 1993, 2002, 2009, and 2010.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal. A dip net is an effective and economical way to harvest salmon during times of abundance. Additionally, a dip net could be used as a selective gear type to allow harvest of chum and pink salmon, while requiring immediate live-release of sockeye salmon during a poor sockeye salmon run.

COST ANALYSIS: Approval of this proposal may result in an additional direct cost for private persons to participate in this fishery because they would need to purchase or construct a dip net should they choose to participate in using a dip net.

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 Alaska Board of Fisheries (board) made positive customary and traditional use findings for salmon in the Norton Sound-Port Clarence Area, and chum salmon in Subdistrict I of the Norton Sound District (5 AAC 01.186).

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

4. What amount is reasonably necessary for subsistence uses? In 1998, the board found that 96,000–160,000 salmon are the amount reasonably necessary for subsistence (ANS) uses in the Norton Sound-Port Clarence Area, and in 1999, found that the ANS for chum salmon in the Nome Subdistrict was 3,430–5,716 chum salmon.

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 use? This is a board determination.

Table 125-1.–Salmon escapement at Pilgrim River tower, 1999, 2000, and 2002, and weir 2003–2012.

Year	Operating Period	Chum	Pink	King	Coho	Sockeye
1999	July 13–Aug 06	2,617	35,577	6	104	4,650
2000	July 05–Aug 18	861	374	72	21	12,141
2002	July 04–Aug 31	5,590	3,882	150	246	3,888
2003	June 21–Sept 14	15,200	14,100	1,016	677	42,729
2004	June 21–Sept 14	10,239	50,760	925	1,573 [a]	85,417
2005	June 24–Sept 05	9,685	13,218	216	304	55,951
2006	June 30–Sept 09	45,361	17,701	275	973	52,323
2007	June 29–Sept 10	35,334	3,616	501	605	43,432
2008	June 25–Sept 01	24,550	92,471	137	260	20,452
2009	June 26–Aug 31	5,427	483	52	18	953
2010	June 24–Sept 01	25,379	20,239	44	272	1,654
2011	June 28–Sept 01	41,740	3,364	44	269	8,449
2012	June 26–Aug 19	25,529	46,135	64	95	7,117

[a] Coho salmon were misidentified. Nearly 30% of scale samples in 2004 were actually sockeye salmon.

Table 125-2.–Subsistence salmon harvest in Pilgrim River, 1991–2012.

Year	Permits Issued	Number of Salmon Harvested					
		Chum	Pink	King	Coho	Sockeye	Total
1991	26	98	25	8	34	110	275
1992	9	7	1	0	0	12	20
1993	8	0	0	0	0	0	0
1994	4	0	0	0	0	6	6
1995	14	6	0	4	6	99	115
1996	3	0	0	0	0	0	0
1997	13	16	2	7	0	29	54
1998	9	1	3	1	0	30	35
1999	33	91	0	28	20	180	319
2000	11	2	12	2	36	31	83
2001	19	0	0	3	0	165	168
2002	26	13	4	18	20	165	220
2003	101	89	141	57	67	1,421	1,775
2004	223	53	222	57	50	3,546	3,928
2005	210	132	176	13	42	4,835	5,198
2006	198	313	100	26	22	5,556	6,017
2007	201	218	36	27	20	5,266	5,567
2008	255	88	556	17	27	3,495	4,183
2009	190	49	35	7	1	694	786
2010	146	55	219	6	3	234	517
2011	133	65	10	1	28	356	460
2012	188	219	27	6	5	651	908

PROPOSAL 102 – 5 AAC 01.175. Waters closed to subsistence fishing.

PROPOSED BY: Tom Sparks.

WHAT WOULD THE PROPOSAL DO? Allow subsistence fishing for Arctic grayling through the ice by hook-and-line gear in the Nome River.

WHAT ARE THE CURRENT REGULATIONS? The Nome River has been closed to subsistence fishing for Arctic grayling since 2001. The sport fishery for Arctic grayling in the Nome River has been closed since 1992.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would provide subsistence opportunity to take Arctic grayling by hook-and-line gear through the ice in the Nome River. Due to the low abundance of Arctic grayling in the Nome River drainage, any subsistence harvest may be unsustainable and would slow or prevent recovery of the Arctic grayling population to historical levels.

BACKGROUND: Historically, the Nome River had sustained more angling pressure than any other stream on the Nome area road system. The Arctic grayling population in the Nome River has been overexploited and the river is closed to all Arctic grayling fishing. From 1983 to 1991, sport harvest of Arctic grayling averaged 594 fish/year. Stock assessments were conducted five times between 1991 and 2005, with estimates of abundance of Arctic grayling in the Nome River ranging from 388 to 612 spawning fish in a 26-mile index area. In 2010, a stock assessment was attempted, but was unsuccessful due to high water and subsequent low catches, but it is not believed that abundance has changed significantly. Between 2002 and 2004, 1,600 juvenile Arctic grayling were marked and released into the Nome River in effort to restore the population, but with limited stock assessment the department is unable to determine whether these fish survived to spawning size.

Detailed subsistence harvests have not been documented for the Nome River drainage for nonsalmon species. Subsistence harvest surveys do not provide estimates of harvest by water body.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. This stock has not recovered from high exploitation rates before the fishery was closed and cannot support sustainable harvests.

COST ANALYSIS: Approval of this proposal is not expected to 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? No.

2. Is this stock customarily and traditionally taken for or used for subsistence? Yes; the Alaska Board of Fisheries (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? No; consistent with sustained yield principles and based upon the best biological information available, the Nome River Arctic grayling population cannot support harvest.

4. What amount is reasonably necessary for subsistence use? In December 1997, the board found that, in the Norton Sound-Port Clarence Area, the amount reasonably necessary for subsistence uses of all freshwater finfish, excluding salmon, is 225,084 to 375,140 usable pounds (BOF records, December 1997, Record Copy 42).

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

PROPOSAL 126 – 5 AAC 04.310. Fishing seasons.

PROPOSED BY: Wes Jones.

WHAT WOULD THE PROPOSAL DO? This proposal would allow the commercial salmon fishing season to be extended by emergency order (EO).

WHAT ARE THE CURRENT REGULATIONS? Current fishing seasons specified in 5 AAC 04.310 allow the department to establish commercial fishing periods by EO between June 8 and August 31 in Norton Sound subdistricts 2 and 3, and between June 8 and September 7 in subdistricts 4–6.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would clarify that the commercial salmon fishing season may be extended by EO beyond the fishing season dates in regulation.

BACKGROUND: Historically, approximately 50% of the Norton Sound commercial coho salmon harvest occurs between August 3 and August 18, with peak harvests occurring during the second week of August. Harvests typically drop off sharply following the third week of August (Figure 126-1). In 2006, 2008, and 2009, the commercial fishing season was extended by EO based upon large coho salmon runs. The department has typically not extended the season when the coho salmon run was below-average to average, such as from 2010–2012. Generally, harvests have been very low during the extensions to seasons due to low catch rates, high surf conditions in September, and low participation in the fishery.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal because it clarifies that the department may extend the commercial fishing season by EO. However, adopting this proposal would not affect how the commercial salmon fishery is managed as the season concludes. The department already has the authority to extend seasons if there are extraordinary circumstances (i.e., above-average late-season abundance) or other factors (i.e., weather) justifying additional fishing time.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

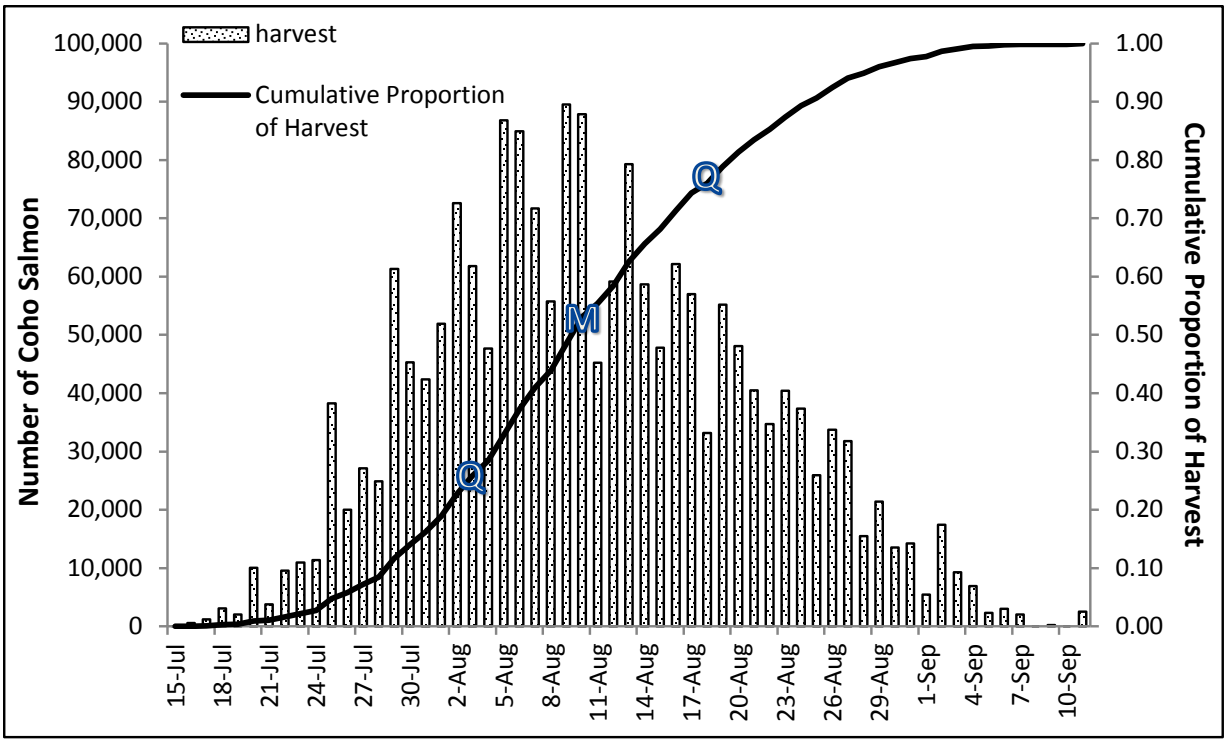

Figure 126-1.–Daily commercial coho salmon harvest and cumulative proportion of overall harvest by date, Norton Sound District, 1963–2012. *Note*: The letter "Q" denotes the first and third quartile dates (August 3 and 18), and the letter "M" denotes the midpoint date (August 10) of the commercial harvest.

PROPOSAL 127 – 5 AAC 04.331. Gillnet specifications and operations.

PROPOSED BY: Southern Norton Sound Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would provide the department emergency order (EO) authority to allow each commercial permit holder to use up to 150 or 200 fathoms of set gillnet gear made of four and one-half inch, or less, mesh in the commercial pink salmon fishery.

WHAT ARE THE CURRENT REGULATIONS? Current regulations, specified in 5 AAC 04.331, only allow up to 100 fathoms of set gillnet gear to be deployed by each permit holder in any Norton Sound District commercial salmon fishery.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would provide a means to more aggressively and efficiently utilize pink salmon harvestable surpluses for commercial purposes. Commercial pink salmon harvests would increase if more gear could be deployed in the fishery.

BACKGROUND: Regardless of the often prodigious numbers of pink salmon, pink salmon runs are highly compressed, with limited opportunities to efficiently harvest fish of marketable quality. Each season, there is a narrow window of approximately two weeks in which pink salmon commercial fisheries can be executed. During even-numbered years since 1980, pink salmon commercial harvests rapidly increased in late June, with the bulk of the harvest occurring, on average, from July 4–13. Odd-numbered year commercial pink salmon fisheries in Norton Sound, on average, occur approximately one week later and typically exhibit a greater degree of run-timing compression than even-numbered years. More recently, in 2012, high proportions of watermarked pink salmon by the third week of July led to a lack of buyer interest at the conclusion of the July 19 opening.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal. Increasing the length of gillnet, in aggregate, for permit holders in the commercial pink salmon fishery would allow for more efficient pink salmon harvests. Market interest in pink salmon has improved in recent years and surpluses throughout the Norton Sound District are more than sufficient to provide for increased commercial harvests. There is a narrow window for harvesting pink salmon of marketable quality and directed pink salmon periods may often be delayed to allow for conservation of other less numerous species. Therefore, increased gear efficiency would help to mitigate commercial pink salmon harvest losses due to these constraints.

COST ANALYSIS: Approval of this proposal is expected to result in an additional direct cost for a private person to participate in this fishery because there may be costs associated with obtaining additional set gillnet gear.

PROPOSAL 128 – 5 AAC 04.3XX. Use of pink salmon for bait in the Norton Sound-Port Clarence Area.

PROPOSED BY: Howard Farley.

WHAT WOULD THE PROPOSAL DO? This proposal would allow commercial fishermen possessing any valid Commercial Fisheries Entry Commission (CFEC) interim use or limited entry permit to use set gillnets to harvest, at any time, up to two tons of pink salmon for use as bait in the Norton Sound-Port Clarence Area. Permit holders would be required to obtain permission from the department to exceed a two-ton harvest limit. Permit holders of valid CFEC interim use permits (e.g., Norton Sound red king crab) or other limited entry permits (e.g., herring sac roe) could harvest pink salmon for personal use as bait, that could then be used in the fishery for which the permit is held (e.g., Norton Sound red king crab and halibut). However, pink salmon harvested for bait in this manner could not be sold to other persons or commercial buyers. Additionally, permit holders could not harvest pink salmon for personal-use commercial bait 48 hours before, during, and 48 hours after participating in any open salmon fishing period in the Norton Sound-Port Clarence Area.

WHAT ARE THE CURRENT REGULATIONS? Language in AS 16.43.150(a) stipulates that an entry permit authorizes the permit holder to operate a unit of gear within the specified fishery. Additionally, under the authority of AS 16.05.831(b), the department may authorize "other uses of salmon that are consistent with maximum and wise use of the resource." The commissioner has generally authorized, under 5 AAC 93.350(a), and unless otherwise prohibited by law, the use of salmon taken in a commercial fishery for bait. However, 20 AAC 05.120(a) stipulates that a person may only retain salmon incidentally harvested in other fisheries if the person holds a valid salmon limited entry permit.

5 AAC 93.350(a) authorizes the Alaska Board of Fisheries (board) to establish directed salmon fisheries for use as bait. For the Bering Sea-Kotzebue Area, 5 AAC 27.971(a) allows the holder of a valid CFEC interim use or limited entry permit to take, but not sell, herring for use as bait in the commercial fishery for which the permit is held. Similarly, in the Bering Sea-Aleutian Islands Area, 5 AAC 28.670 allows valid CFEC interim use or limited entry permit holders to take, but not sell, an unspecified amount of groundfish for use as bait in the commercial fishery for which the permit is held. However, there are no similar area-specific provisions allowing for the harvest of salmon as commercial bait by nonsalmon limited entry permit holders.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would allow fishermen without Norton Sound CFEC salmon permits to harvest up to two tons of bait pink salmon, or more, if authorized by the department. Commercial pink salmon harvests may increase in the Norton Sound-Port Clarence Area by several thousand fish if multiple permit holders participate in this fishery. Additionally, adoption of this proposal may have far-reaching effects by establishing a new precedent that allowed persons lacking limited entry salmon permits to harvest salmon for use as bait in other commercial fisheries.

BACKGROUND: Both odd-year and even-year abundance of pink salmon peaked in the mid-2000s, with record runs from 2004–2006. Pink salmon run abundance has since returned to pre-2004 levels, although runs have been sufficient to support much higher harvests.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of this proposal. Currently, crab and halibut fishermen must purchase pink salmon for use as bait that originates from limited entry commercial salmon fisheries. There may be limited entry implications for harvest of salmon as commercial bait by nonsalmon limited entry permit holders. The department has concerns with allowing pink salmon bait harvests for personal use to occur at any time, by regulation. Permit holders should not be able to target salmon for commercial purposes, including harvests of salmon for bait by nonsalmon CFEC permit holders, except when allowed by emergency order (EO). While rare, there have been years (e.g., 2003 and 2009) when pink salmon abundance is not sufficient, or barely sufficient, to provide for escapement and subsistence uses in certain areas of Norton Sound. Therefore, the department should have the authority to open and close pink salmon bait fisheries in the Norton Sound-Port Clarence Area by EO. Additionally, all harvests should be recorded and reported to the department in a timely manner.

COST ANALYSIS: Approval of this proposal may result in an additional direct cost for a private person to participate in this fishery because the purchase of gear to harvest salmon may be necessary to participate.

PROPOSAL 107 – 5 AAC 01.2XX. Kuskokwim River king salmon possession limits.

PROPOSED BY: Orutsararmiut Native Council.

WHAT WOULD THE PROPOSAL DO? This proposal would require that subsistence harvests of 10 or more king salmon by an Alaskan household in June be dried or cold-smoked in the Kuskokwim River Area. Harvests of king salmon for other uses would be limited to nine or fewer fish per household. The department believes that the intent of this proposal was to provide a means by which subsistence king salmon fishing households could still harvest king salmon during times of conservation concern during June, which is the only feasible time with which to process and store king salmon by cold smoking or drying on fish racks.

WHAT ARE THE CURRENT REGULATIONS? There are currently no regulations addressing the subsistence uses of any fish in the Kuskokwim Area, and no regulatory definition under the authority of the Alaska Board of Fisheries (board) of cold smoking.

There are no bag and possession limits in Kuskokwim Area subsistence fisheries, except during times of conservation in the rod-and-reel subsistence salmon fishery (5 AAC 01.284), and except at all times in the rod-and-reel subsistence fishery on the Aniak River (5 AAC 01.295).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would prioritize particular methods of processing and preserving subsistence-caught king salmon over others, and thereby impose harvest limits of nine or fewer king salmon per household for king salmon intended for lower priority methods of processing and preserving, such as using fresh, canning, salting, or smoking.

BACKGROUND:
The department customary and traditional use worksheet presented to the board in January 2001 (RC 412) identified the customary and traditional (C&T) means of preparing and preserving salmon in the Kuskokwim River drainage:

Most of the Chinook [king], sockeye, and chum salmon are processed by drying and smoking. Many households own or share a smokehouse and other necessary processing equipment and facilities. Coho salmon are also dried, however, because of unfavorable drying weather during August and September when coho are available, drying and smoking is difficult. Freezing is another common way of preserving salmon. Household freezing capacity is usually limited, therefore, this method is used primarily for coho salmon. Chinook, sockeye, and coho are also preserved by salting and canning. During the fishing season, fresh salmon are a common and frequent food at many meals. Dried salmon is eaten daily throughout most of the year and is a preferred source of lightweight high-energy food which is taken along on most hunting, trapping, and fishing trips.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of the proposal. Methods for processing or preserving subsistence-harvested fish are not currently prioritized in law or regulation. The department recommends that the board determine whether

priorities of particular C&T methods of preserving subsistence-caught king salmon should exist; if so, how these priorities might affect reasonable opportunity for subsistence given a current C&T use pattern that includes freezing, canning, salting, and eating fresh king salmon. The board may also want to consider the difficulty in enforcing a prioritization of processing method, the possession or bag limit, and a definition of cold smoking.

COST ANALYSIS: Approval of this proposal may result in an additional direct cost for a private person to participate in this fishery. If a person does not own or have access to drying or cold-smoking equipment, she or he may need to purchase some in order to harvest the king salmon needed for subsistence.

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 C&T use finding for salmon in the Kuskokwim Area in 1987, which it reaffirmed in 1993. In 2001, the board again reaffirmed positive C&T use findings for king, chum, coho, and pink salmon in the Kuskokwim River drainage and for salmon in the remainder of the Kuskokwim Area (5 AAC 01.286).

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 has found the following amounts reasonably necessary for subsistence (ANS) uses in the Kuskokwim River drainage: 64,500–83,000 king salmon; 39,500–75,500 chum salmon; 27,500–39,500 sockeye salmon; and 24,500–35,000 coho salmon. The board has also found that 7,500–13,500 salmon in the remainder of the Kuskokwim Area is an ANS for subsistence (5 AAC 01.286(b)(1–5).

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.

PROPOSAL 108 – 5 AAC 01.280. Subsistence fishing permits.

PROPOSED BY: Orutsararmiut Native Council.

WHAT WOULD THE PROPOSAL DO? This proposal would require a permit and reporting requirement for all subsistence-caught salmon transported out of the Kuskokwim Management Area.

WHAT ARE THE CURRENT REGULATIONS? Fish may be taken for subsistence purposes and transported out of the drainage without a subsistence fishing permit.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would provide estimates of the number of salmon taken for subsistence purposes that are transported out of the Kuskokwim Management Area.

BACKGROUND: Historically, subsistence fishing permits have not been required in the Kuskokwim Area. The department has used postseason subsistence harvest surveys to estimate the subsistence salmon harvest in the Kuskokwim Area since 1989. Postseason subsistence surveys are conducted in the communities of the Kuskokwim Area, document harvest by household, and result in an estimate of total subsistence harvest by community. There is a pattern of sharing salmon with relatives and others living outside of the Kuskokwim River drainage. Therefore, not all salmon transported outside of the drainage are caught by residents from outside the drainage. The surveys document harvest and sharing of salmon, including fish sent to others outside of the drainage. The surveys do not specifically document the number of salmon caught for subsistence purposes that are transported out of the area by Kuskokwim Area residents, nor do they document subsistence harvests by Alaska residents from outside the Kuskokwim Area. Because of the remote location of the Kuskokwim River drainage, the proportion of the harvest missed by surveys is likely small.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal because it would entail differential legal requirements to conduct legal fishing activity for subsistence users. It would be difficult to enforce and administer this type of permit requirement. The department would incur costs associated with implementing permits and tracking this requirement. There could be some confusion about transporting sport-caught salmon. It is unclear if this proposal is addressing only whole fish or includes processed salmon, such as smoked fish, that are transported out of the drainage. If this proposal is attempting to address subsistence harvest by residents from outside the drainage that are not documented in surveys, it would be better addressed by requiring a subsistence fishing permit for all participants.

COST ANALYSIS: Approval of this proposal is not expected to 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? No.

2. Is the stock customarily and traditionally taken or used for subsistence? Yes; the Alaska Board of Fisheries (board) has made positive customary and traditional use findings for king, chum, sockeye, coho, and pink salmon in the Kuskokwim River drainage, and for salmon in the remainder of the Kuskokwim Area (5 AAC 01.286).
3. Can a portion of the stock be harvested consistent with sustained yield? Yes.

4. What amount is reasonably necessary for subsistence uses? The board found the amounts reasonably necessary for subsistence uses to be 64,500–83,000 king salmon; 39,500–75,500 chum salmon; 27,500–39,500 sockeye salmon; and 24,500–35,000 coho salmon in the Kuskokwim River drainage (5 AAC 01.286(b)(1–4)); and 7,500–13,500 salmon in the remainder of the Kuskokwim Area (5 AAC 01.286(b)(5).

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.

PROPOSAL 110 – 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 six-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 six-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 eight inches.

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

BACKGROUND: Gillnet mesh size in Kuskokwim River commercial fishing districts was restricted to six 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 and below-average levels. Improved runs resulted in discontinuation of the stock of yield concern designation in January 2007, and the Alaska Board of Fisheries (board) adopted new regulations at that time allowing for up to eight-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 processing capacity 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 use of up to eight-inch mesh gillnets. Larger mesh size would increase exploitation of older and larger king salmon. Presently, it is uncertain whether older and larger king salmon can sustain additional directed exploitation. A commercial fishery restricted to six-inch or smaller mesh gillnets optimizes harvest of more abundant chum and sockeye salmon stock, 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 use of eight-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: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 139 – 5 AAC 01.210. Fishing seasons and periods.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would align Yukon Area subsistence regulations in districts 1–3 with current management practices, allowing for concurrent commercial and subsistence fishing, and adjustment of subsistence closures around commercial fishing periods through use of emergency order (EO) authority.

WHAT ARE THE CURRENT REGULATIONS? The current subsistence schedule in districts 1–3 is two 36-hour periods per week. Once the commercial salmon fishing season is open, subsistence salmon fishing is allowed continuously, except salmon may not be taken for subsistence purposes 18 hours before, during, and 12 hours after each commercial period through July 15. During the fall season in districts 1, 2, and 3, subsistence salmon fishing is closed 12 hours immediately before, during, and 12 hours after each commercial fishing period.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would allow commercial fishing periods to be established concurrently with subsistence periods in districts 1–3 by EO to conserve king salmon. Furthermore, additional subsistence fishing opportunity may be allowed by EO by decreasing the closure times around commercial periods if several commercial periods are established within a close timeframe.

BACKGROUND: In 1993, the Alaska Board of Fisheries (board) adopted regulations which separated subsistence and commercial fishing periods in districts 1, 2, and 3. Having separate fishing times was intended to allow for better enforcement of commercial fishing regulations and management of the fisheries. Particularly, this regulation was designed to reduce the chance of subsistence-caught king salmon illegally entering the commercial market.

In recent years, the department has been faced with the challenge of trying to develop management strategies that address the need to conserve king salmon during poor runs, while providing harvest opportunities on the available surplus of average to above-average summer chum salmon runs. In an effort to protect king salmon, the department established a few concurrent subsistence and commercial fishing periods during the summer season in 2009, 2011, and 2012. The strategy of placing concurrent subsistence and commercial periods has been most effective during the end of June and in early July, and when used in coordination with the regulation that prohibits sale of king salmon. Prohibiting sale of king salmon eliminates the monetary incentive for fishermen to target king salmon during summer chum salmon-directed commercial periods. Incidentally-caught king salmon can be released alive, if possible, or taken for subsistence purposes. Thus, this strategy provides the advantage of compressing subsistence and commercial harvest pressure into a single event, therefore reducing the duration of time a weak king salmon run is exposed to harvest pressure. Additionally, the department has reduced the closure time before and after commercial periods to increase subsistence fishing opportunity when establishing frequent, short notice commercial fishing periods.

DEPARTMENT COMMENTS: The department submitted and continues to **SUPPORT** this proposal. Adopting it would provide the department management flexibility, and would align regulations with current management practices. Concurrent subsistence and commercial fishing periods could be established to conserve king salmon and would allow flexibility to establish commercial fishing periods during scheduled subsistence fishing periods. Adjusting subsistence fishing closures around commercial fishing periods could be used to increase subsistence fishing opportunity when commercial fishing periods are close together. Although there have been instances when the department has established commercial fishing periods in districts 1–3 concurrently with overlapping subsistence fishing periods, it is difficult to enforce commercial fishing opening and closing times during such openings. However, allowing for concurrent subsistence and commercial periods by EO provides management flexibility to maximize subsistence and commercial opportunity as appropriate.

COST ANALYSIS: Approval of this proposal is not expected to 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 these salmon stocks migrate through the Fairbanks Nonsubsistence Area (5 AAC 99.015(a)(4)).

2. Is the stock customarily and traditionally taken or used for subsistence? Yes; the board most recently made a positive customary and traditional use finding for king, summer chum, fall chum, coho, and pink salmon in the Yukon-Northern Area in 2001 (5 AAC 01.236(a)(1)).

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

4. What amount is reasonably necessary for subsistence uses? The board has found the following amounts reasonably necessary for subsistence in the Yukon-Northern Area: 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 (5 AAC 01.236(b)).

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.

PROPOSAL 140 – 5 AAC 05.360(e). Yukon River King Salmon Management Plan.

PROPOSED BY: Fairbanks Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal seeks to maintain a windows-only fishing schedule for both commercial and subsistence fishing periods throughout the Yukon River drainage.

WHAT ARE THE CURRENT REGULATIONS? The regulatory subsistence salmon fishing schedule is implemented chronologically, consistent with migratory timing as the king salmon run progresses upstream. Since 2001, the schedule has been initiated by emergency order in District 1 during 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.
- Coastal District, Innoko River, Koyukuk River, Kantishna River, and Subdistrict 5-D are open seven days 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 five days per week.

Subsistence fishing is closed 24 hours before the opening of the commercial fishing season. As specified under 5 AAC 05.360(e), *Yukon River King Salmon Management Plan*, if inseason run strength indicates sufficient abundance of king salmon to allow a commercial fishery in that district or subdistrict, subsistence fishing shall revert to the fishing periods specified in 5 AAC 01.210(c)–(h), which is the pre-2001 subsistence fishing periods. 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 through July 15. During the fall season in districts 1, 2, and 3, subsistence salmon fishing is closed 12 hours immediately before, during, and 12 hours after each commercial fishing period. When commercial periods are opened in districts 4, 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 require subsistence and commercial fishing to occur only during set windowed openings. This proposal would repeal 5 AAC 05.360(e), *Yukon River King Salmon Management Plan*, eliminating the ability to relax the subsistence fishing schedule when there is a surplus of salmon greater than needed for escapement needs and provide for subsistence harvests within the amount reasonably necessary (ANS) range, and reducing flexibility necessary in managing the commercial fishery in districts 1–3.

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 salmon fishing season or, in the upper Yukon River drainage, dates set in regulation. In January 2001, the Alaska Board of Fisheries (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 is 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, and to spread 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 to revert to pre-2001 subsistence fishing period regulations when there is a surplus of salmon greater than needed for escapement needs and providing for subsistence harvests within the amount reasonably necessary for subsistence (ANS) range.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. The proposal would reduce management flexibility. 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 the ANS range. This proposal would unnecessarily continue the regulatory subsistence schedule throughout the fishing season even when a surplus of salmon has been identified. Additionally, this proposal would not allow for reductions in the subsistence fishing schedule in the event of a poor run. Allowing for commercial periods by EO at any time provides management flexibility to maximize commercial opportunity as appropriate through the summer and fall fishing seasons.

While addressing this proposal, the board should evaluate whether proposed changes to the management plan still provide a reasonable opportunity for subsistence uses.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

PROPOSAL 141 – 5 AAC 01.210. Fishing seasons and periods.

PROPOSED BY: Eastern Interior Alaska Subsistence Regional Advisory Council.

WHAT WOULD THE PROPOSAL DO? This proposal would mandate that commercial fishing periods would occur concurrently with subsistence fishing periods in districts 1–3 of the Yukon River by deleting 5 AAC 01.210(e)(1)(A) and eliminating the closure times required between subsistence and commercial fishing periods.

WHAT ARE THE CURRENT REGULATIONS? The current subsistence schedule in districts 1–3 is two 36-hour periods per week. Once the commercial salmon fishing season is open, subsistence salmon fishing is allowed continuously, except salmon may not be taken for subsistence purposes 18 hours immediately before, during, and 12 hours after each district 1, 2, or 3 summer season commercial salmon fishing period. During the fall season in districts 1, 2, and 3, salmon may not be taken for subsistence purposes 12 hours immediately before, during, and 12 hours after each commercial fishing period.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would greatly reduce flexibility in managing the commercial fishery, and enforceability of commercial fishing regulations in districts 1–3.

BACKGROUND: In 1993, the Alaska Board of Fisheries (board) adopted regulations which separated subsistence and commercial fishing periods in districts 1, 2, and 3. Having separate fishing times provides the ability to better enforce commercial fishing regulations and to provide for more orderly management of the fisheries. Particularly, this regulation was intended to reduce the chance of subsistence-caught king salmon illegally entering the commercial market.

In recent years, the department has been faced with the challenge of trying to develop management strategies that address the need to conserve king salmon during below-average to poor runs while providing harvest opportunities on the available surplus of average to above-average summer chum salmon runs. In an effort to protect king salmon, the department established a few concurrent subsistence and commercial fishing periods during the summer seasons in 2009, 2011, and 2012. The strategy of placing concurrent subsistence and commercial periods has been most effective during the end of June and in early July, and when used in coordination with the regulation that prohibits sale of king salmon. Prohibiting sale of king salmon eliminates the monetary incentive for fishermen to target king salmon during summer chum salmon-directed commercial periods. Incidentally-caught king salmon can be released alive, if possible, or can be taken for subsistence purposes.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. The proposal would reduce management flexibility. Current management practices have been to strategically place commercial fishing periods where and when the incidental harvest rate of king salmon would be anticipated to be low. Although there are instances when the department establishes commercial fishing periods in districts 1–3, concurrently with overlapping subsistence fishing periods to help conserve king salmon, it is difficult to enforce commercial fishing opening and

closing times during such openings. Thus, for management and enforcement purposes, the department opposes mandating concurrent commercial and subsistence fishing periods in districts 1–3.

COST ANALYSIS: Approval of this proposal is not expected to 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 these salmon stocks migrate through the Fairbanks Nonsubsistence Area (5 AAC 99.015 (a) (4)).

2. Is the stock customarily and traditionally taken or used for subsistence? Yes; the board most recently made a positive customary and traditional use finding for king, summer chum, fall chum, coho, and pink salmon in the Yukon-Northern Area in 2001 (5 AAC 01.236(a)(1)).

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

4. What amount is reasonably necessary for subsistence uses? The board has found the following amounts reasonably necessary for subsistence in the Yukon-Northern Area: 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 (5 AAC 01.236(b)).

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 use? This is a board determination.

PROPOSAL 142 – 5 AAC 01.210. Fishing seasons and periods.

PROPOSED BY: Yukon Flats Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal seeks to allow subsistence salmon fishing on the first pulse of king salmon in Subdistrict 5-D, from below Stevens Village to Circle, from July 4–18, with no closures.

WHAT ARE THE CURRENT REGULATIONS? In Subdistrict 5-D, subsistence salmon fishing is open seven days per week, 24 hours per day. Emergency order authority can be used to reduce this schedule in times of conservation.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The vast majority of king salmon transiting Subdistrict 5-D are Canadian-origin fish. Mandating harvest opportunity on the first pulse will affect the ability to manage the run to meet the interim management escapement goal and treaty objectives established with Canada.

BACKGROUND: In recent years, when the preseason projection has indicated that the king salmon run size may be insufficient to fully support subsistence uses, the department has closed subsistence fishing to protect the first pulse of king salmon. One or more subsistence fishing periods have been closed, beginning in the lower river, and this action is similarly implemented in upriver fishing districts and subdistricts based on migratory run timing. This conservative management action is necessary to meet treaty objectives with Canada, to meet escapement goals in Alaska, and to share the responsibility for conservation among fishermen along the entire river. The first pulse of king salmon entering the Yukon River is typically composed of a large component of Canadian-origin fish.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal. In times of conservation, the department requires the ability to reduce harvest to meet escapement and harvest-sharing agreements with Canada. Additionally, by the time king salmon have migrated into Subdistrict 5-D, run timing and relative strength of the run is typically well understood. Highly informed and effective management actions can be implemented based on inseason assessment information.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

SUBSISTENCE REGULATION REVIEW:

2. Is this stock in a nonsubsistence area? A portion of these salmon stocks migrate through the Fairbanks Nonsubsistence Area (5 AAC 99.015(a)(4)).

3. Is the stock customarily and traditionally taken or used for subsistence? Yes; the Alaska Board of Fisheries (board) most recently made a positive customary and traditional use finding for

king, summer chum, fall chum, coho, and pink salmon in the Yukon-Northern Area in 2001 (5 AAC 01.236(a)(1)).

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

4. What amount is reasonably necessary for subsistence uses? The board has found the following amounts reasonably necessary for subsistence in the Yukon-Northern Area: 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 (5 AAC 01.236(b)).

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.

PROPOSAL 143 – 5 AAC 01.210. Fishing seasons and periods.

PROPOSED BY: Gene J. Sandone.

WHAT WOULD THE PROPOSAL DO? Remove the subsistence salmon fishing schedule during the fall season in districts 1, 2, and 3 of the Yukon Area.

WHAT ARE THE CURRENT REGULATIONS? Under current regulation, when there are no commercial salmon fishing periods in Yukon Area districts 1, 2, and 3, the subsistence salmon fishing schedule is two 36-hour fishing periods per week.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? When there are no commercial fishing periods in Yukon Area districts 1, 2, and 3, subsistence fishing would be open seven days per week, while several other districts or subdistricts within the Yukon River drainage would remain on the schedule.

BACKGROUND: In 2001, the Alaska Board of Fisheries (board) adopted a subsistence salmon fishing schedule for all Yukon Area districts. The schedule is designed to provide windows of time when salmon can migrate upriver unexploited during low runs, and to spread out harvest pressure on any particular stock. The board determined that the schedule provides a reasonable opportunity for subsistence. If the run is forecasted or projected to be fewer than 500,000 fall chum salmon, the subsistence schedule is implemented. If the forecast or inseason projection indicates a surplus for other uses, the schedule is lifted and pre-2001 fishing schedules are utilized. The schedule was used in 2001–2004, 2009, and 2010 during poor fall chum salmon runs to help meet escapement goals.

Subsistence harvests of fall chum and coho salmon in districts 1, 2, and 3 are estimated annually through postseason salmon harvest surveys (tables 143-1 and 143-2). The combined districts 1–3 subsistence fall chum and coho salmon harvests are relatively small when compared to those of the Upper Yukon Area districts, combined. There is heavier dependence on fall chum and coho salmon for subsistence uses in the Upper Yukon Area, in part to feed sled dogs.

DEPARTMENT COMMENTS: The department is **NEUTRAL** because of the allocative aspects of this proposal. If adopted, this proposal would provide additional opportunity for lower river residents, but not for upper river residents. It is unclear why lower river residents require additional opportunity to obtain the low levels of harvest observed. It is unlikely lower river harvests would increase if the proposal were adopted. All fall chum salmon stocks pass through this area and harvest levels do not increase much, even during large returns.

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 these salmon stocks migrate through the Fairbanks Nonsubsistence Area (5 AAC 99.015(a)(4)).

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

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

4. What amount is reasonably necessary for subsistence uses? The board has found the following amounts reasonably necessary for subsistence in the Yukon-Northern Area: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 (5 AAC 01.236(b)).

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 143-1.–Fall chum salmon subsistence harvest totals, by fishing district and community of residence, as estimated from postseason survey, returned permits, and test fishery projects, Yukon Area, 2001–2011.

Community	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2001-2011 Average
Nunam Iqua	176	284	127	49	310	735	152	59	41	143	51	193
Alakanuk	1,032	222	348	953	627	624	1,348	423	116	860	881	676
Emmonak	1,272	1,261	1,257	785	1,436	2,056	2,360	1,670	1,589	1,718	1,540	1,540
Kotlik	957	114	407	280	516	487	530	671	171	481	962	507
District 1 Subtotal	*3,437*	*1,881*	*2,139*	*2,067*	*2,889*	*3,902*	*4,390*	*2,823*	*1,917*	*3,202*	*3,434*	2,916
Mountain Village	470	478	873	918	1,290	2,398	1,073	926	926	133	800	935
Pitkas Point	34	16	49	0	6	5	44	101	76	10	30	34
St. Mary's	227	103	762	104	490	417	825	830	106	387	611	442
Pilot Station	1,522	680	823	1,108	838	785	741	917	265	833	575	826
Marshall	1,003	341	394	291	633	410	789	748	190	56	562	492
District 2 Subtotal	*3,256*	*1,618*	*2,901*	*2,421*	*3,257*	*4,015*	*3,472*	*3,522*	*1,563*	*1,419*	*2,578*	2,729
Russian Mission	76	164	615	172	667	251	530	578	205	104	11	307
Holy Cross	624	0	9	76	582	224	248	920	627	21	94	311
Shageluk	0	0	114	50	55	5	147	323	105	1,200	249	204
District 3 Subtotal	*700*	*164*	*738*	*298*	*1,304*	*480*	*925*	*1,821*	*937*	*1,325*	*354*	822
Lower Yukon River Total [a]	7,393	3,663	5,778	4,786	7,450	8,397	8,787	8,166	4,417	5,946	6,366	6,468
Coastal District Total	559	284	146	320	70	187	234	386	158	186	315	259
Upper Yukon River Total [b]	27,751	15,727	51,006	57,420	84,014	75,418	92,200	80,805	61,544	62,513	73,521	61,993
Alaska, Yukon River Total [c]	35,144	19,390	56,784	62,206	91,464	83,815	100,987	88,971	65,961	68,459	79,887	68,461
Alaska, Yukon Area Total	35,703	19,674	56,930	62,526	91,534	84,002	101,221	89,357	66,119	68,645	80,202	68,719

Note: Does not include harvests from personal use permits.

[a] Does not include harvests from Coastal District communities of Hooper Bay and Scammon Bay.

[b] Harvest from communities in districts 4, 5, and 6 combined.

[c] Does not include the Coastal District for use in U.S./Canada negotiations.

Table 143-2.–Coho salmon subsistence harvest totals, by fishing district and community of residence, as estimated from postseason survey, returned permits and test fishery projects, Yukon Area, 2001–2011.

Community	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2001-2011 Average
Nunam Iqua	32	56	117	79	241	392	92	24	71	73	23	109
Alakanuk	414	183	193	207	322	101	857	157	194	449	431	319
Emmonak	342	514	547	296	191	450	1,032	717	401	362	472	484
Kotlik	486	542	403	593	222	234	284	313	181	238	201	336
District 1 Subtotal	*1,274*	*1,295*	*1,260*	*1,175*	*976*	*1,177*	*2,265*	*1,211*	*847*	*1,122*	*1,127*	1,248
Mountain Village	423	361	745	521	246	1,856	1,027	518	413	127	261	591
Pitkas Point	112	47	130	0	30	16	38	130	45	116	37	64
St. Mary's	610	209	276	258	252	171	97	591	151	92	230	267
Pilot Station	222	230	371	296	241	225	263	268	203	189	145	241
Marshall	73	386	64	425	341	191	922	490	245	33	150	302
District 2 Subtotal	*1,440*	*1,233*	*1,586*	*1,500*	*1,110*	*2,459*	*2,347*	*1,997*	*1,057*	*557*	*823*	1,464
Russian Mission	0	115	178	151	133	19	259	372	96	300	0	148
Holy Cross	0	0	498	27	84	16	213	38	120	0	0	91
Shageluk	0	0	35	106	0	48	267	0	105	53	36	59
District 3 Subtotal	*0*	*115*	*711*	*284*	*217*	*83*	*739*	*410*	*321*	*353*	*36*	297
Lower Yukon River Total [a]	2,714	2,643	3,557	2,959	2,303	3,719	5,351	3,618	2,225	2,032	1,986	3,010
Coastal District Total	502	248	292	63	279	335	110	116	246	124	55	186
Upper Yukon River Total [b]	18,906	12,598	20,023	17,773	24,668	15,652	14,163	13,121	13,535	10,889	10,303	13,472
Alaska, Yukon River Total [c]	21,620	15,241	23,580	20,732	26,971	19,371	19,514	16,739	15,760	12,921	12,289	16,861
Alaska, Yukon Area Total	22,122	15,489	23,872	20,795	27,250	19,706	19,624	16,855	16,006	13,045	12,344	17,047

Note: Does not include harvests from personal use permits.

[a] Does not include harvests from Coastal District communities of Hooper Bay and Scammon Bay.

[b] Harvest from communities in districts 4, 5, and 6 combined.

[c] Does not include the Coastal District for use in U.S./Canada negotiations.

PROPOSALS 144 and 145 – 5 AAC 01.220. Lawful gear and gear specifications and 5 AAC 05.331. Gillnet specifications and operations.

PROPOSED BY: Fairbanks Advisory Committee (Proposal 144) and Eagle Advisory Committee (Proposal 145).

WHAT WOULD THE PROPOSALS DO? Proposal 144 would restrict the depth of all gillnets in all Yukon Area districts to no more than 15 feet, or 35 meshes, and Proposal 145 would restrict the allowable depth of all subsistence and commercial king salmon (>6-inch stretch mesh) gillnets to no more than 35 meshes in districts 1–5 of the Yukon Area.

WHAT ARE THE CURRENT REGULATIONS? Currently, commercial gillnets greater than six-inch mesh may not be more than 45 meshes in depth in districts 1–3, and not more than 60 meshes in depth in districts 4–6. Commercial gillnets six-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 PROPOSALS WERE ADOPTED? If adopted, these proposals would likely decrease the efficiency of fishermen operating gillnet gear, which may require an increase in fishing effort by commercial and subsistence fishermen to harvest summer chum, king, fall chum, and coho salmon. This may decrease reasonable opportunity for subsistence fishing for king salmon. Reducing the efficiency of only one gear type used to target king salmon may reallocate harvest opportunity to other gear types and user groups.

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 (eight-inch and larger), which target larger fish. The department has documented a trend in fewer seven-year old king salmon and a decline in the average size of fish since the 1980s. It is unknown whether this is due to selective harvest, environmental conditions, or other factors.

In 2010, the Alaska Board of Fisheries (board) addressed concerns regarding selective harvest of king salmon by reducing the maximum mesh size of all gillnets to seven and one-half inch after a department study showed that larger mesh sizes catch a higher proportion of larger and older king salmon, and a greater proportion of females. In 1995, the department submitted a proposal to restrict all commercial and subsistence gillnets larger than six-inch stretched mesh to no more than 45 meshes in depth, and to no more than 50 meshes in depth for gillnets of six-inch or smaller mesh size. The board adopted these regulations 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 **NEUTRAL** on these proposals because they are allocative between user groups and our inability to fully evaluate the effects, if adopted.

It is common local knowledge 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 radiotelemetry study conducted in 2002–2004 by National Marine Fisheries Service showed that king salmon were randomly distributed throughout the water column; there have been no studies documenting fish size caught by mesh depth. The department does not have adequate data to evaluate the effect that reducing mesh depth would have on king salmon catch efficiency. 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: Approval of these proposals may result in an additional direct cost for a private person to participate in this fishery because fishermen may incur costs of procuring new or modifying existing gear.

SUBSISTENCE REGULATION REVIEW:

1. Is this stock in a nonsubsistence area? A portion of these salmon stocks migrate through the Fairbanks Nonsubsistence Area (5 AAC 99.015(a)(4)).

2. Is the stock customarily and traditionally taken or used for subsistence? Yes; the board most recently made a positive customary and traditional use finding for king, summer chum, fall chum, coho, and pink salmon in the Yukon-Northern Area in 2001 (5 AAC 01.236(a)(1)).

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

4. What amount is reasonably necessary for subsistence uses? The board has found the following amounts reasonably necessary for subsistence in the Yukon-Northern Area: 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 (5 AAC 01.236(b)).

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.

PROPOSALS 147 and 148 – 5 AAC 01.220. Lawful gear and gear specifications.

PROPOSED BY: Ruby Advisory Committee (Proposal 147) and Middle Yukon Advisory Committee (Proposal 148).

WHAT WOULD THE PROPOSALS DO? Proposal 147 would allow use of drift gillnets for the entire fishing season as a legal subsistence fishing gear in a larger area: from the Subdistrict 4-A boundary upstream to Ruby (Figure 147-1). Proposal 148 would allow use of drift gillnets as a legal subsistence fishing gear for king salmon from June 10 through July 14 in a smaller area for king salmon: from the Subdistrict 4-A boundary upstream to the Yuki River.

WHAT ARE THE CURRENT REGULATIONS? In subdistricts 4-A, 4-B, and 4-C, legal gear for subsistence salmon fishing is set gillnet, beach seine, and fish wheel. In Subdistrict 4-A, king salmon may also be taken by drift gillnets from June 10 through July 14 and chum salmon may be taken by drift gillnets after August 2 upstream of Stink Creek.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Both proposals would allow use of drift gillnets as legal subsistence fishing gear for king salmon in subdistricts 4-B and 4-C, which would most likely increase harvest of upper drainage-bound king salmon and larger, female king salmon more than the existing set gillnet and fish wheel gear.

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

In December 1976, prior to passage of the state's first subsistence law, the board prohibited use of drift gillnets, of which there was also 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 are efficient in capturing salmon, could seriously impact both conservation and 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, 2007, and 2010. The 1993 and 2001 customary and traditional use worksheets for Yukon salmon (all species) presented to 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.

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 who travel is increasing and that there is more competition for available drift sites.

In January 2005, the Federal Subsistence Board adopted a rule that allows drift gillnet subsistence fishing for king salmon, by permit, during 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 147-1). Under federal rules, nets may not be more than 150-feet long and no more than 35-meshes deep. Since 2005, the number of permits actually fished has ranged from one to 10. To date, annual harvests of king salmon have ranged from seven to 54 fish.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on allocative aspects of these proposals, but is **OPPOSED** to both proposals because of 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. Based upon genetic sampling, subdistricts 4-B and 4-C harvest a higher proportion of local middle river king salmon stocks with shore-based set gillnet and fish wheel gear. Drift gillnets, which can be operated farther offshore, may increase the proportion of Canadian-origin 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 in the federal permit fishery 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 set gillnet and fish wheel gear types, and fishing efficiency may increase. 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 in this area. The board has stated that the department could allow increased time for subsistence fishing with current gear types by emergency order.

If this proposal were 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 possibly treaty, implications.

COST ANALYSIS: Adoption of this proposal may result in an additional direct cost for a private person to participate in this fishery because some fishermen may incur costs of purchasing new gillnets.

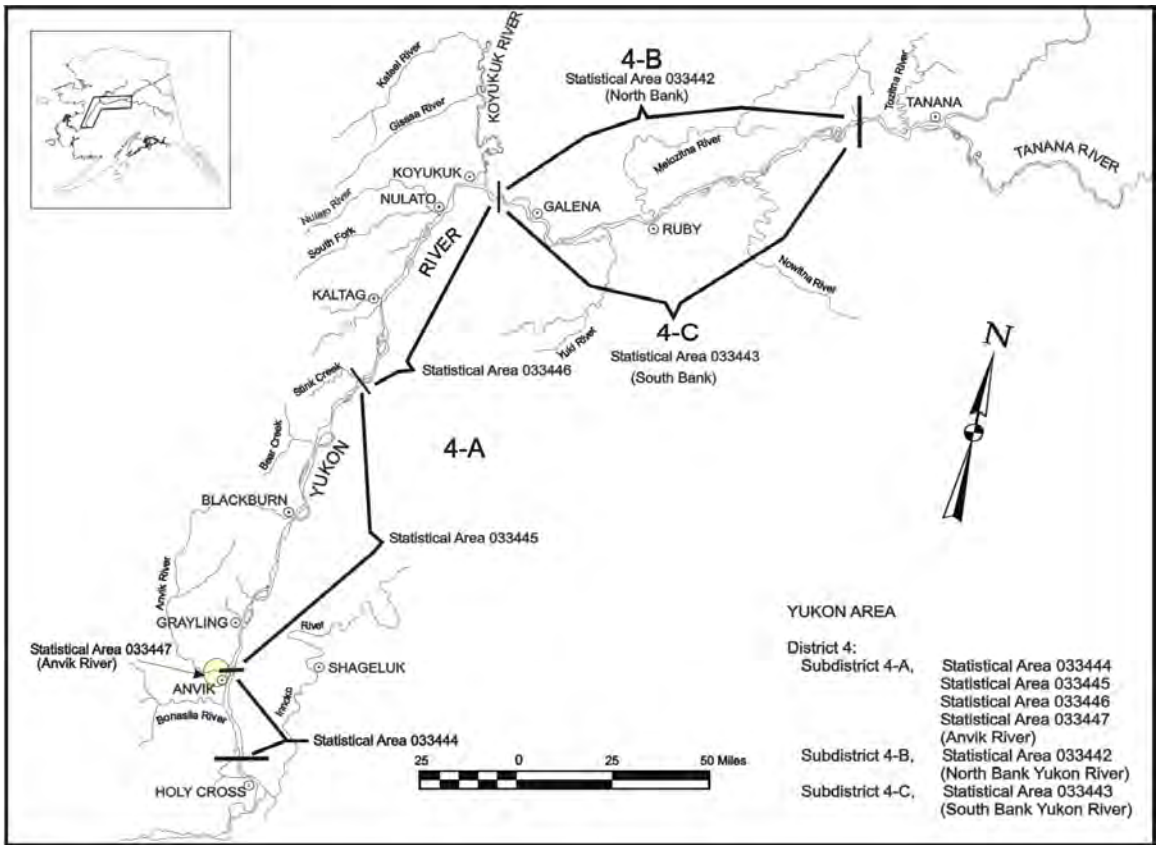

Figure 147/148-1.–District 4 showing subdistricts and statistical areas, Yukon Area.

SUBSISTENCE REGULATION REVIEW:

1. Is this stock in a nonsubsistence area? A portion of these salmon stocks migrate through the Fairbanks Nonsubsistence Area (5 AAC 99.015(a)(4)).

2. Is the stock customarily and traditionally taken or used for subsistence? Yes; the board most recently made a positive customary and traditional use finding for king, summer chum, fall chum, coho, and pink salmon in the Yukon-Northern Area in 2001 (5 AAC 01.236(a)(1)).

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

4. What amount is reasonably necessary for subsistence uses? The board has found the following amounts reasonably necessary for subsistence in the Yukon-Northern Area: 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 (5 AAC 01.236(b)).

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.

PROPOSAL 151 – 5 AAC 01.240. Marking and use of subsistence-taken salmon.

PROPOSED BY: Gene J. Sandone.

WHAT WOULD THE PROPOSAL DO? Make direct personal or family consumption as food the primary use of Yukon Area subsistence-caught king salmon, over all other subsistence uses.

WHAT ARE THE CURRENT REGULATIONS? In the Yukon drainage, the Alaska Board of Fisheries (board) has established that king salmon must be used primarily for human food and not for dog food (5 AAC 01.240(d)). There are currently no bag limits on salmon harvested in the Yukon Area.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The proposal appears to support board instruction that Yukon Area king salmon must be used as food only by the person or family directly harvesting the fish. However, this proposal would prohibit distribution of king salmon through sharing, a use currently authorized under state law, as well as board regulation, the latter of which is based on the area's customary and traditional (C&T) use pattern.

Harvesters would be unable to share king salmon with individuals not related by blood, marriage, or adoption at (for example) a potluck, dinner party, or other event; with the elderly or infirm; or with others who were unable either to go fishing or to harvest fish. This would restrict a strong C&T use of Yukon Area king salmon.

BACKGROUND: Department household subsistence survey data demonstrate that 30–60% of Yukon River households share subsistence-harvested king salmon with other households, while 32–65% of Yukon River households receive subsistence harvested-king salmon from other households. Sharing data serve to explain why, when only 40–80% of Yukon River households subsistence fish for king salmon, 68–100% of households use subsistence-harvested king salmon for direct personal or family consumption. The department has no data on Yukon Area customary trade since the board has not authorized customary trade in the Yukon Area (5 AAC 01.010(d) and (j)) and customary trade authorized by the federal subsistence program is not monitored. In recent years, citations have been issued for illegal sale of salmon harvested in the Yukon River subsistence fishery, but the level at which this occurs has not been documented.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of the proposal and **OPPOSED** to aspects that reduce reasonable opportunity for subsistence, including currently recognized C&T subsistence uses.

COST ANALYSIS: Approval of this proposal is not expected to 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 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 C&T use determination for king, summer chum, fall chum, coho, and pink salmon in the Yukon Area (5 AAC 01.236(1)). Alaska state law defines subsistence uses as the noncommercial, C&T uses of wild, renewable resources by residents for direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation, for the making and selling of handicraft articles out of nonedible by-products of fish and wildlife, and for the customary trade, barter, or sharing for personal or family consumption (16.05.940(33)).

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 ANS to be 45,500-66,704 king salmon in the Yukon-Northern Area (5 AAC 01.236(4)(b)).

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 152 – 5 AAC 05.200. Fishing districts and Subdistricts and 5 AAC 05.350. Closed waters.

PROPOSED BY: Gene J. Sandone.

WHAT WOULD THE PROPOSAL DO? This proposal seeks to open coastal waters between Black River and the south mouth of the Yukon River at Chris Point (Acharon Channel) to commercial salmon fishing.

WHAT ARE THE CURRENT REGULATIONS? Coastal waters between Black River and the south mouth of the Yukon River (Chris Point) are closed to commercial fishing (Figure 152-1).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WAS ADOPTED? If adopted, this proposal might increase the commercial harvest of salmon along the coast of District 1 between Black River and the south mouth of the Yukon River, depending on fishing effort.

BACKGROUND: This coastal area was not originally opened to commercial fishing at statehood in an effort to ensure the fishery would harvest Yukon River salmon stocks. However, new research suggests a fishery in this area is unlikely to intercept significant numbers of non-Yukon area stocks. WASSIP data on the harvests in the marine portion of District 1 in both summer and fall commercial fisheries, suggest that the bulk of commercial harvests include coastal Western Alaska (CWAK) and Upper Yukon River stocks. Some Norton Sound stocks may be included in the CWAK estimate, and small proportions of Asian and Kotzebue Sound fish are also likely present.

In recent years, the department has developed management strategies that address the need to conserve king salmon during poor runs while providing harvest opportunities on the available surplus of summer chum salmon. One approach has been to limit the area open to commercial fishing to a portion of a district in which the incidental harvest rate of king salmon is anticipated to be low based on inseason assessment information. In 2011 and 2012, several commercial fishing periods in District 1 were limited to the South Mouth only, where king salmon abundance was assessed to be low. While this action has been effective in minimizing incidental harvest of king salmon, fishermen have reported congested fishing conditions.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal. Although opening this area is not expected to greatly increase harvest of chum salmon, it may provide more fishing opportunity along the coast, alleviate congestion in existing fishing sites, and improve fish quality. The opportunity to operate fisheries that target higher-quality pink salmon could become available. Pink salmon are currently underutilized due to low flesh quality observed in the river. If adopted, the department would likely designate this fishing area as a new statistical area to assess harvest.

While addressing this proposal, the board should evaluate whether proposed changes still provide a reasonable opportunity for subsistence uses.

COST ANALYSIS: Approval of this proposal is not expected to result in an additional direct cost for a private person to participate in this fishery.

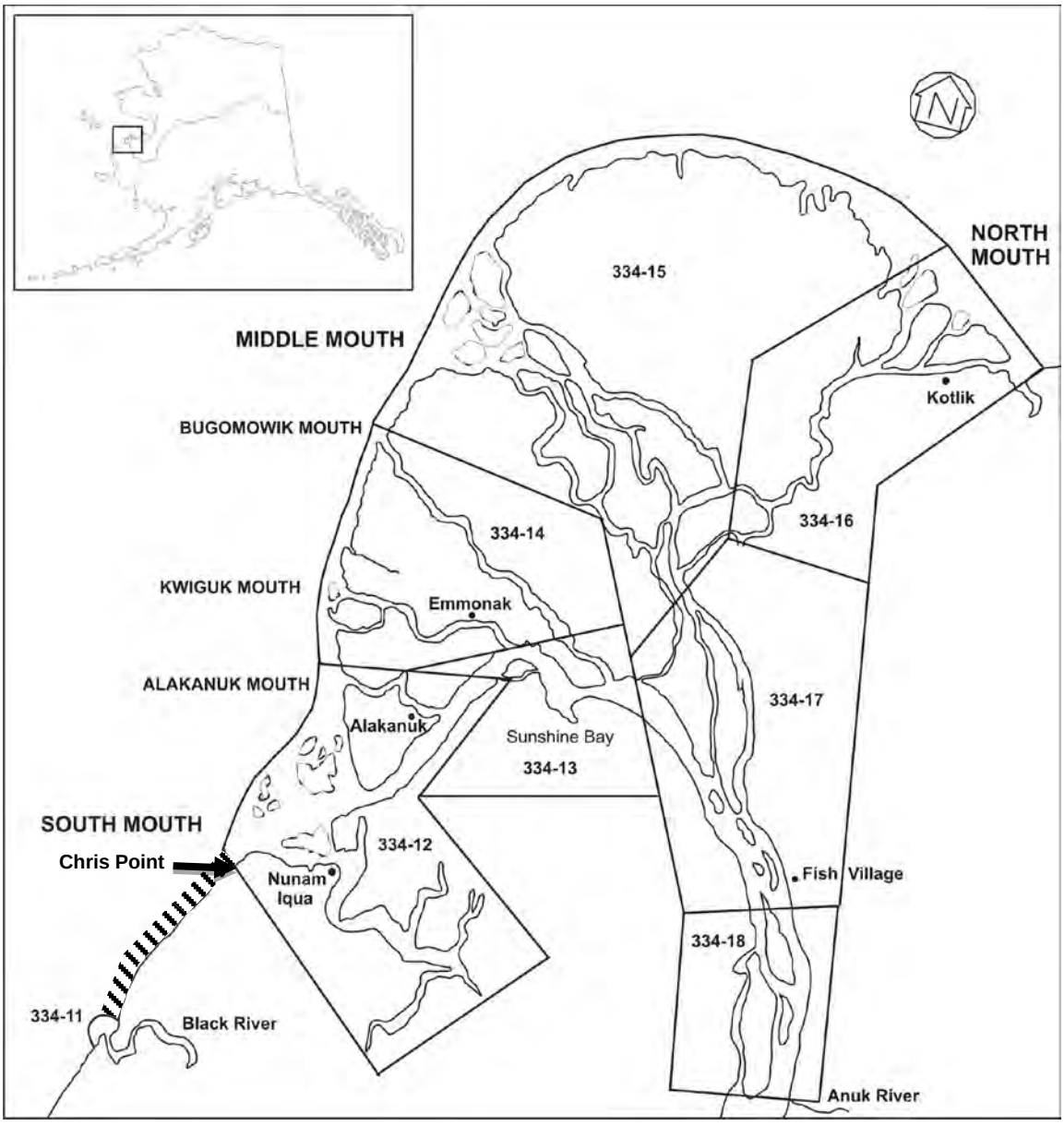

Figure 152-1.–District 1 showing statistical areas and South Mouth boundary (Chris Point), and closed waters indicated by hatch marks, District 1, Yukon Area.

PROPOSAL 240 – 5 AAC 05.330. Gear and 5 AAC 05.362. Yukon River Summer Chum Salmon Management Plan.

PROPOSED BY: Alaska Board of Fisheries.

WHAT WOULD THE PROPOSAL DO? In districts 1–3, during times when the commissioner determines that it is necessary for the conservation of king salmon, the department may, by emergency order authority, close the commercial gillnet fishing season and immediately reopen a fishing season during which:

(1) dip net and beach seine gear may be used; and

(2) all king salmon caught in dip net and beach seine gear must be returned immediately to the water alive.

WHAT ARE THE CURRENT REGULATIONS? In districts 1–3, only gillnets may be operated: either set gillnets or drift gillnets.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal could allow commercial fishermen additional opportunity to harvest surplus summer chum salmon by authorizing use of gear types that could allow for release of king salmon alive during times of king salmon conservation.

BACKGROUND: King salmon run sizes are currently at a level where Alaskan subsistence and Canadian aboriginal needs have not been fully satisfied in the past few years. Despite low king salmon runs, there have been annual surpluses of summer chum salmon, in excess of escapement requirements and the high end of the amount reasonably necessary for subsistence (ANS), available for commercial harvest. Additionally, there has been renewed market interest in summer chum salmon. However, because of concern for king salmon escapement and the agreed-upon passage objectives to Canada, much of the summer chum salmon harvestable surplus goes unharvested due to overlapping run timing with king salmon. This foregone harvest has been substantial in recent years: more than 1,000,000 fish in both 2011 and 2012.

To address the need to find alternate gear types that may allow for live release of incidentally-caught king salmon, a test fishery project was operated by Yukon Delta Fisheries Development Association (YDFDA). Catchability and efficacy of dip nets, beach seines, and fish wheels was examined in districts 1 and 2 during the summer of 2012. Project objectives were to (1) assess the utility of dip nets, seine nets, and fish wheels to harvest commercial quantities of summer chum, while not harming king salmon, and (2) determine appropriate locations within the Lower Yukon conducive to fish wheel, dip net, and beach seine operations.

These gear types differ greatly in harvest capacity and how they are operated. The amount of salmon that can be contained in a single dip net at any one time is limited. However, releasing king salmon from dip nets can occur immediately following capture. The dip net test fishery project observed a maximum CPUE ranging from 4 to 27 at fished sites in District 1, and 0.8 to 38.8 at District 2 sites. Comparatively, beach seines, being much larger in size, have the potential to harvest many more salmon in each set. If a large set was made, additional time and

effort would be necessary to sort the catch to live-release king salmon. Small, four-inch mesh seine gear was most successful at catching fish during the test fishery, and was easiest to operate from a boat. A total of 74 fall chum and 39 coho salmon were caught in one day in District 1. This gear was only fished during the fall season, so it is unclear how successful it would be in higher water and faster flow conditions during the summer season. Although fish wheels were reported to be inefficient in the river delta below Mountain Village, this gear type might be more suitable to the channelized portions of the Yukon River farther upstream in District 2. For any of these gear types, there may be limited locations where they can be operated efficiently.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal as a means of providing more commercial fishing opportunity for surplus summer chum salmon, while conserving king salmon in the Yukon River. Despite limited available information regarding the efficiency of these gear types, these gear types provide alternate methods to harvest summer chum salmon, while allowing for live release of incidentally-caught king salmon.

COST ANALYSIS: Approval of this proposal may result in an additional direct cost for a private person to participate in this fishery to purchase dip net or beach seine gear.

PROPOSAL 241 – 5 AAC 05.362. Yukon River Sumer Chum Salmon Management Plan.

PROPOSED BY: Alaska Board of Fisheries.

WHAT WOULD THE PROPOSAL DO? This proposal would provide the department emergency order (EO) authority to restrict commercial gear to fish wheels only, require fish wheels to be closely attended, and require live-release of king salmon in District 6 during times of king salmon conservation.

WHAT ARE THE CURRENT REGULATIONS? Fish wheels and set gillnets are legal commercial gear in District 6.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would align regulations in District 6 with recent regulatory changes taken in Subdistrict 4-A. Additional commercial fishing time would be allowed in District 6 to target surplus summer chum salmon with fish wheels only; the wheels would be closely attended at all times and all king salmon would be immediately released back to the water alive during times of king salmon conservation.

BACKGROUND: Commercial harvest of surplus Yukon River summer chum salmon has been greatly reduced during poor king salmon runs in order to minimize incidental harvest of king salmon. Due to the high degree of overlap in run timing, the primary management strategy has been to delay commercial summer chum salmon fishing to allow passage of king salmon and to prohibit sale of king salmon. While this strategy has been successful in minimizing incidental harvest of king salmon, it has resulted in allowing a large surplus and better quality summer chum salmon to pass without exploitation.

In July, a petition was submitted to the Alaska Board of Fisheries (board) requesting a similar regulation to be adopted for the Yukon River District 6 as was adopted for the Subdistrict 4-A commercial fishery in March 2012. The board adopted an emergency regulation (ER) for the 2012 season specifying that, in District 6, in order to conserve king salmon, by EO only fish wheels could be used. Furthermore, fish wheels had to be attended at all times during operations, and all king salmon caught in the fish wheels had to be returned to the water alive immediately.

Utilizing the ER, the department was able to provide commercial fishing opportunity in District 6 earlier in the summer chum salmon run, while still conserving king salmon. During the three commercial fishing periods in which the regulation was utilized, 863 summer chum salmon were harvested and 172 king salmon were reported as released alive back to the water. Fishing earlier in the summer chum salmon run allowed for the harvest of better quality chum salmon and the opportunity to harvest more fish. No citations were issued in this fishery. Department staff was in regular communication with the buyer and fishermen to ensure compliance with the regulation.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal as a means of providing more commercial fishing opportunity for surplus summer chum salmon, while conserving king salmon in District 6. The ER was useful and provided the department the management flexibility necessary in times of king salmon conservation. The department is **NEUTRAL** on allocative aspects of this proposal related to gear types allowed.

COST ANALYSIS: Approval of this proposal may result in an additional direct cost for a private person to participate in this fishery.