RC 2

ALASKA DEPARTMENT OF FISH AND GAME

STAFF COMMENTS
COMMERCIAL, PERSONAL USE, SPORT, GUIDED SPORT, AND SUBSISTENCE
FINFISH REGULATORY PROPOSALS
COMMITTEE OF THE WHOLE–GROUPS 1–6

FOR THE UPPER COOK INLET MANAGEMENT AREA

ALASKA BOARD OF FISHERIES MEETING
ANCHORAGE, ALASKA

January 31–February 13, 2014

Regional Information Report No. 2A13-04

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 31–February 13, 2014 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 and subsistence finfish regulatory proposals for the Upper Cook Inlet Management Areas. These comments were prepared by the department for use at the Alaska Board of Fisheries meeting, January 31–February 13, 2014 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, Upper Cook Inlet (UCI), 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, Upper Cook Inlet Board of Fisheries Meeting, 2014

Proposal No.	Dept. Position	Issue	Page No.
103	**N**	Amend management plan to drop inriver goals from list of escapement goals, prioritize achieving the lower end over exceeding the upper end of an escapement goal, and require the department to utilize all prescriptive elements found in codified plans before going outside of codified plans to achieve established escapement goals.	1
104	**N**	Repeal the Upper Cook Inlet Salmon Management Plan.	3
105	**N**	Amend management plan to establish a harvest allocation between commercial set and drift gillnet fisheries in Upper Cook Inlet.	5
106	**N**	Repeal management plan and replace with a flexible management plan.	7
107	**N**	Allow commercial set gillnet fishing to occur in areas where commercial drift gillnetting is allowed in the Central District of Upper Cook Inlet.	349
108	**N**	Allow commercial salmon fishing in the Central District to remain open until closed by emergency order (EO).	352
109	**N**	Allow commercial salmon fishing in Central District to remain open until closed by emergency order (EO).	352
110	**N**	Allow commercial salmon fishing in the Central District to remain open until closed by emergency order (EO).	352
111	**N**	Modify fishing seasons and remove restrictions on commercial set gillnet fishing in the Upper Subdistrict.	249
112	**N**	Change the estimated number of sockeye salmon in the Kasilof River that allows the department to open the Kasilof Section of the Upper Subdistrict to set gillnetting on or after June 25.	256
113	**N**	Change the estimated number of sockeye salmon in the Kasilof River from 50,000 to 60,000, which allows the department to open the Kasilof Section of the Upper Subdistrict to set gillnetting on or after June 25.	256
114	**N**	Allow weekly fishing periods for the set gillnet fishery in the Central District to end at 10:00 p.m. instead of 7:00 p.m.	259
115	**N**	Change when the set gillnet fishery opens in the Kenai and East Forelands sections of the Upper Subdistrict from July 8 to July 1 and remove the reference that closes the fishery by emergency order (EO) under the "one-percent rule".	261
116	**N**	Remove provision where the set gillnet fishery in the Kenai, Kasilof, and East Forelands sections of the Upper Subdistrict will close after July if less than one percent of the total season's sockeye is harvested in two consecutive fishing periods ("one-percent rule") and end fishing season on August 15.	360
117	**N**	Remove provision where the set gillnet fishery in the Kenai, Kasilof, and East Forelands sections of the Upper Subdistrict will close after July if less than one percent of the total season's sockeye is harvested in two consecutive fishing periods ("one-percent rule"); end fishing season on August 15; and allow regular fishing periods only from August 11–15.	360
118	**N**	Open North-Kenai Beach (244-32) to commercial setnet fishing on July 1–7 for regularly scheduled 8-hour periods, fishing predominately during ebb tides, with setnet gear restricted to 29 meshes deep.	267
119	**N**	Change how the department determines if less than one percent of the season's total sockeye salmon harvest has been taken in the Upper Subdistrict.	366

N=Neutral; S= Support; O=Oppose

Summary of Department Positions, Upper Cook Inlet Board of Fisheries Meeting, 2014 (Page 3 of 8)

Proposal No.	Dept. Position	Issue	Page No.
120	**N**	Allow commercial salmon fishing in the Central District to remain open on Mondays and Thursdays until closed by emergency order (EO).	352
122	**O**	Allow weekly fishing periods for the drift gillnet fishery in the Central District to be moved up to 36 hours when the NOAA forecast for Area 140, Cook Inlet north of Kamishak Bay and English Bay, is calling for winds above 23 knots, including small craft advisory, and gale or storm force winds.	324
126	**N**	Prohibit permit stacking in the commercial set and drift gillnet fisheries in Upper Cook Inlet.	242
127	**N**	Allow one individual to hold two limited entry drift gillnet permits and fish both at the same time from the same vessel.	326
131	**O/N**	Close waters within one statute mile of the Little Susitna River to commercial fishing.	369
132	**O/N**	Close waters within one statute mile of the Little Susitna River to commercial fishing.	369
135	**N**	Modify management plan to remove provisions 5 AAC 21.353(a)(2)(A), (B), and (C)	270
136	**N**	Modify management plan to change dates of drift fishery to June 19–September 1 and run-strength trigger points for late-run Kenai River sockeye salmon; remove area restrictions in July; and modify provisions affecting additional fishing periods.	284
137	**N**	Modify management plan to remove area restrictions and change expanded corridor area.	286
138	**N**	Restrict drift gillnet fishery to the Expanded Kenai and Expanded Kasilof sections from June 19–August 10.	288
139	**N**	Restrict drift gillnet fishery to the Expanded Kenai and Expanded Kasilof sections.	293
140	**N**	Amend management plan to restrict drift gillnet fishery to the Expanded Kenai and Expanded Kasilof sections.	295
141	**N**	Modify management plan to provide reasonable opportunity for Northern District set gillnetters to harvest all salmon stocks.	297
142	**N**	Amend management plan to provide Northern Cook Inlet Management Area subsistence users and personal use dipnetters a reasonable opportunity to harvest salmon by restricting commercial gillnet fishing to the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict from June 19 through August 10.	301
143	**N**	Require drift permit holders to register to fish in one of two specific Central District drift fisheries.	307
144	**N**	Amend management plan to provide reasonable subsistence, personal use, and commercial set netting harvest opportunity and manage the drift gillnet fishery so that any commercial drift fishing opportunity outside the Expanded Kenai and Expand Kasilof sections is based on abundance of Northern District sockeye and coho salmon.	308
145	**N**	Amend management plan to add a section about mixed-stock salmon management, using the long-term commercial harvest report as a tool to reduce harvest of salmon stocks by the drift gillnet fishery in the Central District.	312
146	**N**	Develop an inseason harvest estimate.	313
147	**N**	Amend management plan to reduce sport fish bag limit to two coho salmon in all sport fisheries on the west side of Cook Inlet and restrict drift gillnet fishing to the Expanded Kenai and Expanded Kasilof sections, if sport fishing for coho salmon is restricted or closed in the Little Susitna River.	319

N=Neutral; S=Support; O=Oppose

Summary of Department Positions, Upper Cook Inlet Board of Fisheries Meeting, 2014 (Page 4 of 8)

Proposal No.	Dept. Position	Issue	Page No.
148	**N**	Amend management plan to include a biological escapement goal (BEG) of 160,000–340,000 sockeye salmon and clarify intent of provision regarding meeting lower end of optimum escapement goal (OEG) over exceeding upper end of OEG.	208
149	**N**	Direct the department to manage late-run Kasilof River sockeye salmon to achieve a sustainable escapement goal (SEG) of 160,000–340,000; remove the optimum escapement goal (OEG) of 160,000–390,000; and remove some provisions in the management plan.	212
150	**N**	Modify management, including changing effective dates and reference for Kasilof River sockeye salmon from optimal escapement goal (OEG) to biological escapement goal (BEG).	217
151	**N**	Modify management plan after July 15 such that the trigger point for Kenai River late-run sockeye salmon run strength is changed from 2,300,000 to 2,000,000 and the 24-hour restriction on additional fishing time is removed.	220
152	**N**	Amend management plan to allow department to manage Kasilof River sockeye salmon primarily for commercial uses based on abundance and meet a spawning escapement goal of 150,000–250,000 sockeye salmon.	223
153	**N**	Amend management plan to allow set gillnets to be operated and restrict drift gillnets within 1,200 feet of the mean high tide mark in Kasilof River Special Harvest Area.	226
154	**N**	Amend management plan to open the set gillnet fishery in the South K-Beach statistical area (244-10) when the Kasilof River Special Harvest Area is opened.	229
155	**N**	Modify management plan to change effective dates and require 36-hour closure periods ("windows") take place after July 1.	235
156	**N**	Establish an additional 24-hour window in the Kasilof area prior to July 7, limit extra fishing periods in the Kasilof area after July 7 when the Kenai area is closed, and limit use of the Kasilof River Special Harvest Area, as follows:	238
157	**N**	Amend management plan to remove references to Northern District coho, late-run Kenai River king, Kenai River coho salmon stocks; add language that states the department shall manage common property fisheries for a reasonable opportunity to harvest salmon resources; and change plan to manage late-run Kenai River sockeye salmon for a sustainable escapement goal (SEG) of 750,000–900,000.	153
158	**N**	Amend management plan to remove references to Northern District coho, late-run Kenai River king, Kenai River coho salmon stocks and add language that states the department shall manage common property fisheries for a reasonable opportunity to harvest salmon resources.	162
159	**N**	Modify management plan to change optimum escapement goal (OEG), inriver goals, and run-strength trigger points for late-run Kenai River sockeye salmon; and modify restrictions on the sport fishery when run strength is below 2,000,000 sockeye salmon.	164
160	**N**	Amend management plan to establish a single optimum escapement goal (OEG) for late-run sockeye salmon and direct the department to manage for this OEG.	169
161	**N**	Amend management plan to change the upper end of the three inriver goals (tiers) for Kenai River late-run sockeye salmon to 1,500,000.	173
162	**N**	Amend management plan to manage late-run Kenai River sockeye salmon for an escapement goal of 550,000–750,000 sockeye salmon.	177

N=Neutral; S=Support; O=Oppose

Summary of Department Positions, Upper Cook Inlet Board of Fisheries Meeting, 2014 (Page 5 of 8)

Proposal No.	Dept. Position	Issue	Page No.
163	**N**	Modify management plan to achieve late-run Kenai River sockeye salmon sustainable escapement goal (SEG) of 700,000–1,200,000 instead of the optimum escapement goal (OEG) of 700,000–1,400,000; modify the inriver goal; and remove some provisions in the plan.	180
164	**N**	Amend management plan to re-establish commercial priority for sockeye salmon in Upper Cook Inlet.	184
165	**N**	Amend management plan to allow the 24-hour closure period (or "window") to be scheduled at any time during the week, and change the 36-hour closure period to 24 hours and allow it to be scheduled between 7:00 p.m. Thursday and 11:59 p.m. Sunday.	185
166	**N**	Amend management plan to allow the 24-hour window, when the commercial set gillnet fishery is closed in the Upper Subdistrict, to be scheduled between the regular Monday and Thursday fishing periods.	188
167	**N**	Remove 24- and 36-hour closure periods ("windows") in the Upper Subdistrict set gillnet fishery after July 31.	190
168	**N**	Liberalize the Kenai River sockeye salmon bag and possession limit when the run is forecasted to exceed 2.3 million fish.	192
169	**N**	Increase Kenai River sockeye salmon bag and possession limit to six fish when commercial fishing is opened by emergency order (EO) after July 1.	197
170	**N**	Increase possession limit for Kenai River sockeye salmon from three to six fish.	202
171	**N/O**	Amend management plan to require fishing closures ("windows") to Kenai River inriver sport fish and personal use fisheries when there are closure periods for the Upper Subdistrict set gillnet fishery.	206
173	**S**	Modify confusing provisions of the management plan to reference the Upper Subdistrict to ensure they meet board intent as originally adopted.	327
174	**N**	Modify pink salmon management and/or develop a new management plan to allow for harvests of earlier-arriving Northern pink salmon and later-arriving Kenai and Kasilof pink salmon.	330
175	**N**	Amend management plan to read that the department shall manage Cook Inlet pink salmon stocks primarily for commercial uses to provide an economic yield from the harvest of these salmon resources based on abundance.	335
176	**N**	Amend fishing seasons and management plan to remove restrictions on set gillnet fishing in the Kenai, Kasilof, and East Forelands sections of the Upper Subdistrict in August, and change mesh size from four and three-quarters inches to four and seven-eighths inches when fishing for pink salmon.	338
177	**N**	Remove provisions restricting harvest of pink salmon in Upper Cook Inlet and add language to allow harvest of pink salmon from August 1–15 during even-numbered years, with mesh-size restrictions of five inches or less; no restrictions on area of operation relative to shore; and manage pink salmon based on harvest or escapement goals.	343
178	**N**	Modify management plan to remove the 600-foot restriction and allow set gillnets to be operated from shore for pink salmon in the Upper Subdistrict.	346
179	**N**	Amend management plan to remove restriction that only allows operation of set gillnets 600 feet or greater from the shoreline.	346

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Summary of Department Positions, Upper Cook Inlet Board of Fisheries Meeting, 2014 (Page 6 of 8)

Proposal No.	Dept. Position	Issue	Page No.
180	**N**	Develop a management plan to harvest pink salmon in Upper Cook Inlet.	347
186	**S**	Add a reference to the existing optimal escapement goal (OEG) for Kenai River early-run king salmon and provide department additional management flexibility.	55
187	**S**	Modify the Kenai River early-run king salmon plan to provide the department more flexibility when liberalizing the sport fishery.	56
188	**N**	Maintain existing optimal escapement goal (OEG) of 5,300–9,000 Kenai River early-run king salmon.	57
189	**N/O**	Modify Kenai River early-run king salmon optimal escapement goal (OEG) to 9,000–14,000 fish.	58
190	**N**	Revise the management plan with measures that stabilize fisheries during low-run years, increase opportunities during large-run years, and eliminate the "slot limit" for king salmon.	43
191	**O**	Repeal slot limit for Kenai River early-run king salmon.	63
192	**N**	Increase Kenai River early-run king salmon slot-limit size requirement.	66
193	**O/N**	Increase the Kenai River early-run king salmon slot-limit size requirement and extend slot limit through July 31.	69
194	**O/N**	Prohibit retention of early-run and late-run Kenai River king salmon 42 inches or greater in length.	76
195	**O/N**	Prohibit retention of female king salmon greater than 33 inches in length in the Kenai River sport fishery.	84
196	**O/N**	Extend Kenai River early-run king salmon regulations through July 9.	78
197	**O/N**	Modify the Kenai River early- and late-run king salmon sport fisheries to begin seasons without bait and catch-and-release only.	87
198	**O/N**	Begin early- and late-run king salmon seasons with catch-and-release only and then liberalize during the season.	89
199	**N/O/N**	Allow catch-and-release fishing for king salmon on the Kenai River when runs are projected to be below the escapement goal.	91
200	**O**	Prohibit catch-and-release fishing for king salmon on the Kenai River.	95
201	**S/N**	Establish the lower Slikok Creek king salmon sanctuary area as the lower boundary for restrictive actions in July to conserve early-run king salmon and prohibit bait for an additional two weeks in July in those waters.	97
202	**S**	Increase Slikok Creek king salmon sanctuary area an additional 200 yards.	100
203	**S**	Increase Slikok Creek king salmon sanctuary area an additional 600 feet.	108
204	**O**	Increase Kiley River king salmon sanctuary area an additional 600 feet.	109
205	**O**	Close Kenai River tributaries to all fishing July 1–August 30, and the Kenai River mainstem upstream of river mile 13 from July 10–September 20.	119
206	**O**	Close the Kenai River upstream of the Soldotna Bridge to sport fishing for king salmon.	120
207	**N**	Establish an optimal escapement goal (OEG) of 20,000–40,000 Kenai River late-run king salmon.	9
208	**N**	Establish a biological escapement goal (BEG) of 17,800–35,700 Kenai River late-run king salmon.	9
209	**N**	Establish paired restrictions in sport, personal use, and commercial fisheries to meet sustainable escapement goal (SEG) and modify sport fishing liberalizations when goal is projected to be exceeded.	15

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Summary of Department Positions, Upper Cook Inlet Board of Fisheries Meeting, 2014 (Page 7 of 8)

Proposal No.	Dept. Position	Issue	Page No.
210	**N**	Modify Kenai River Late-Run King Salmon Management Plan to remove preamble language, establish a biological escapement goal (BEG) of 12,000–28,000 king salmon, increase emergency order (EO) hours for commercial fishing, and delete habitat and EO provisions.	19
211	**N**	Establish certain set gillnet gear restrictions implemented by department to meet escapement goal.	23
212	**N**	Modify management plan to allow restrictions to set gillnetters in the Upper Subdistrict when the late-run Kenai River king salmon sport fishery has gone to catch and release, including limiting how many nets a permit holder can fish; closing fishing within one-half mile offshore; and nonretention or sale of king salmon.	25
213	**N**	Close set gillnet fishery in the Upper Subdistrict, if the late-run Kenai River king salmon sport fishery is restricted to catch and release.	27
214	**S**	Amend the management plan to clarify provisions within the Kasilof River Salmon Management Plan exempt under this plan.	30
215	**N**	Allow set gillnet fishing to occur in East Forelands Section of the Upper District if projected inriver return is less than 40,000 king salmon, projected escapement is less than 15,000 king salmon, and inriver sport fishery is closed.	31
216	**N**	Amend management plan to change effective dates of provisions in the plan; delegate authority to the commissioner to manage restrictions by time, area, methods, and means during times of low king salmon abundance; and delete a provision in the plan.	35
217	**N**	Delete language in Cook Inlet management plans that restrict department's flexibility to manage salmon fisheries based on inseason abundance and add language that states the department shall manage common property fisheries for a reasonable opportunity to harvest salmon resources.	39
218	**N**	Use the southern Anchor River marker instead of the Bluff Point marker when restricting the marine king salmon fishery to protect Kenai River king salmon.	40
219	**O**	Close sections of the Kenai River to sport fishing for king salmon during July.	127
220	**O/N**	Prohibit sport fishing for king salmon every other mile on the Kenai River between Eagle Rock and the Soldotna Bridge.	135
221	**O**	In times of low escapement of Kenai River king salmon, close or create conservation zones where king salmon spawn.	142
222	**O**	Prohibit use of eggs for bait in the Kenai River king salmon sport fishery.	143
223	**O**	Prohibit use of bait in the Kenai River king salmon sport fisheries.	143
224	**O**	Require barbless hooks when use of bait is prohibited on the Kenai River.	144
225	**O/N**	Modify Kenai River king salmon annual limit to two fish, of which only one may be greater than 28 inches in length.	146
226	**N**	Prohibit proxy fishing for king salmon in the Kenai River.	148
227	**O**	Require department to demonstrate a significant savings of fish when restricting Kenai River king salmon sport fisheries.	150
228	**N**	Stock the Kenai River with 50,000 king salmon smolt.	151

N=Neutral; S=Support; O=Oppose

Summary of Department Positions, Upper Cook Inlet Board of Fisheries Meeting, 2014 (Page 8 of 8)

Proposal No.	Dept. Position	Issue	Page No.
248	**O/N**	Start the three coho salmon bag limit on the Kenai River two weeks earlier on August 15.	375
263	**N**	Allow fishing for coho salmon from a guided vessel in the Kenai River on Labor Day.	380
264	**O/N**	Allow anglers on the Kenai River to fish for coho salmon from a registered guide vessel on Mondays beginning September 1.	383
265	**O/N**	Allow Kenai River anglers upstream of the inlet of Skilak Lake inlet to fish for coho salmon from a registered guide vessel on Mondays beginning August 1.	390
319	**S**	Define area open to fishing within the Jim Creek drainage, limit sport fishing from 6 a.m. to 6 p.m. during the coho salmon season, close specific lakes to fishing, and prohibit continued fishing after taking a bag limit of salmon.	397
320	**S**	Limit hours open to sport fishing in Jim Creek from 6:00 a.m. to 6:00 p.m.	402

N=Neutral; S=Support; O=Oppose

COMMITTEE OF THE WHOLE – GROUP 1: UPPER COOK INLET SALMON STOCKS OF CONCERN AND UPPER COOK INLET SALMON MANAGEMENT PLAN (4 PROPOSALS)

Upper Cook Inlet Salmon Management Plan (4 Proposals): 103–106

PROPOSAL 103 – 5 AAC 21.363. Upper Cook Inlet Salmon Management Plan.

PROPOSED BY: Kenai River Sport Fishing Association.

WHAT WOULD THE PROPOSAL DO? This proposal would: 1) amend the *Upper Cook Inlet Salmon Management Plan* to drop inriver goals from the list of escapement goals; 2) prioritize achieving the lower end of all escapement goals over exceeding the upper end of any escapement goal; and 3) require the department to utilize, to the extent practicable, all prescriptive elements found in codified plans before going outside of codified plans to achieve established escapement goals.

WHAT ARE THE CURRENT REGULATIONS? The *Upper Cook Inlet Salmon Management Plan* (5 AAC 21.363) states in provision (e) that notwithstanding any other provisions of this chapter, it is the intent of the Alaska Board of Fisheries (board) that, while in most circumstances the department will adhere to the management plans in this chapter, no provision within a specific management plan is intended to limit the commissioner's use of emergency order (EO) authority under AS 16.05.060 to achieve established escapement goals for the management as the primary management objective. For the purposes of this subsection, "escapement goals" includes inriver goal, biological escapement goal (BEG), sustainable escapement goal (SEG) and optimal escapement goal (OEG) as defined in 5 AAC 39.222.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would not allow the department to go outside the management plans in order to achieve an inriver goal. Currently, the only inriver goals in Upper Cook Inlet (UCI) are three inriver goals for late-run Kenai River sockeye salmon in the *Kenai River Late-Run Sockeye Salmon Management Plan*. There is also an SEG and OEG for late-run sockeye salmon. The department has used the inriver goals as an inseason management objective to ensure the escapement goals are obtained for Kenai River late-run sockeye salmon. It is unclear if this proposal would affect these inriver goals. However, if an inriver goal is being exceeded and other goals are being met, this may lead to exceeding other goals, such as an OEG.

This proposal would also prioritize achieving the lower end of all escapement goals over exceeding the upper end of any escapement goal. Although, it is not stated in regulation, the department has been consistent and clear that achieving the lower end of an escapement goal has the priority over exceeding the upper end of the escapement goals. Regulatory text that would be added under the third element of this proposal is unnecessary and provides no additional clarity to the department for fishery management.

BACKGROUND: The *Upper Cook Inlet Salmon Management Plan* was first passed by the board in 1978. The plan changed little between 1981 and 1998. That plan set priorities for

management by time period in UCI. Prior to July 1, UCI was managed primarily for recreational purposes, with certain exceptions; from July 1 to August 15, primarily for commercial purposes with certain exceptions; and after August 15, for a mixture of purposes depending on area.

The plan states that the department should receive long-term direction in management of UCI salmon stocks and salmon species. Divisions within the department must receive long-term direction in order to accomplish their missions, and plan management, research, administrative, and other programs. Likewise, stakeholders should be informed of the long-term management objectives of the board. Thus, the board established provisions for the management and conservation of UCI salmon stocks. The *Upper Cook Inlet Salmon Management Plan* confirms that, consistent with the statutory priority for subsistence, the harvest of UCI salmon for customary and traditional uses will be provided. It also recognizes, in section (e), the commissioner's EO authority under AS 16.05.060 to achieve established escapement goals as the primary objective of all management plans, and therefore, no provision within a specific management plan is intended to interfere with that objective.

There is a suite of commercial and noncommercial management plans that guide the department in managing salmon fisheries in UCI. These plans have been developed through the board process with significant public input and are structured around the migratory timing and abundance of the various salmon stocks as they move through UCI. Opening dates of these fisheries allow harvests of salmon throughout the run, while providing adequate fish passage to spawning grounds to provide sustained yields.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. However, the department supports the flexibility the current *Upper Cook Inlet Salmon Management Plan* provides to achieve escapement goals and opposes complicated provisions that reduce its flexibility to manage fisheries to achieve escapement goals.

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 104 – 5 AAC 21.363. Upper Cook Inlet Salmon Management Plan.

PROPOSED BY: Mark Ducker.

WHAT WOULD THE PROPOSAL DO? This proposal would repeal the *Upper Cook Inlet Salmon Management Plan.*

WHAT ARE THE CURRENT REGULATIONS? The *Upper Cook Inlet Salmon Management Plan* (5 AAC 21.363) outlines guiding principles for the management of Upper Cook Inlet (UCI) salmon stocks and species for use by the board, department, and public. It states that the department should receive long-term direction in management of Upper Cook Inlet (UCI) salmon stocks and salmon species. Divisions within the department must receive long-term direction in order to accomplish their missions, and plan management, research, administrative, and other programs. Stakeholders should be informed of the long-term management objectives of the board. Under this, the board established provisions for the management, allocation, and conservation of UCI salmon stocks. The *Upper Cook Inlet Salmon Management Plan* confirms that, consistent with the statutory priority for subsistence, the harvest of UCI salmon for customary and traditional uses will be provided. It also recognizes, in section (e), the commissioner's emergency order (EO) authority under AS 16.05.060 to achieve established escapement goals as the primary objective of all management plans, and therefore, no provision within a specific management plan is intended to interfere with that objective. There are not any harvest allocations for salmon fisheries in UCI.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If this proposal were adopted, management of fisheries in UCI would be affected. The department uses its EO authority, in section (e) of 5 AAC 21.363 to achieve established escapement goals in UCI. Section (e) identifies achieving escapement goals as the primary management objective in UCI. Management of fisheries would be become more difficult if section (e) was repealed. It would be unclear what the primary management objective would be when the department is managing for competing objectives, such as following specific provisions in management plans or achieving escapement goals. Section (e) is referred to in each of the various management plans.

It is not anticipated that there would be additional management effects if this proposal were adopted, as most of the specific provisions for management of the various fisheries have been removed from the *Upper Cook Inlet Salmon Management Plan* and placed into individual management plans specific to each fishery. The department relies on these management plans and use of its EO authority to manage all fisheries in UCI to achieve escapement goals.

When adopting or modifying specific management plans that apply in Cook Inlet, future board action would no longer be guided by the principles contained in the plan that describe elements the board will consider. Statewide guidance, such as found in the *Policy for the management of sustainable salmon fisheries* (5 AAC 39.222), would continue to apply.

BACKGROUND: The *Upper Cook Inlet Salmon Management Plan* was first passed by the Alaska Board of Fisheries (board) in 1978. The plan changed little between 1981 and 1998. The plan initially set priorities for management by time period in UCI. Prior to July 1, UCI was

managed primarily for recreational purposes, with certain exceptions; from July 1 to August 15, primarily for commercial purposes, with certain exceptions; and after August 15, for a mixture of purposes depending on area; however, this portion of the plan was modified in 1999 in favor of a set of criteria that the board should consider prior to adopting management plans. Section (e) of the plan was adopted in 2005 and the plan has changed little since.

There is a suite of commercial and noncommercial management plans that guide the department in managing salmon fisheries in UCI. These plans have been developed through the board process with significant public input. These plans are structured around the migratory timing and abundance of the various salmon stocks as they move through UCI. Opening dates of these fisheries allow harvests of salmon throughout the run, while providing adequate fish passage to spawning grounds to provide sustained yields. The *Upper Cook Inlet Salmon Management Plan* confirms that, consistent with the statutory priority for subsistence, the harvest of UCI salmon for customary and traditional uses will be provided.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. However, the department supports the purposes of the plan. Should the board seek to approve the proposal, the department requests further direction on provision (e) of the 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 105 – 5 AAC 21.363. Upper Cook Inlet Salmon Management Plan.

PROPOSED BY: South K-Beach Independent Fishermen's Association.

WHAT WOULD THE PROPOSAL DO? This proposal would amend the *Upper Cook Inlet Salmon Management Plan* to establish a harvest allocation between commercial set and drift gillnet fisheries in Upper Cook Inlet (UCI).

WHAT ARE THE CURRENT REGULATIONS? The *Upper Cook Inlet Salmon Management Plan* (5 AAC 21.363) outlines guiding principles for the management of Upper Cook Inlet (UCI) salmon stocks and species for use by the board, department, and public. It states that the department should receive long-term direction in management of UCI salmon stocks and salmon species. Divisions within the department must receive long-term direction in order to accomplish their missions, and plan management, research, administrative, and other programs. Stakeholders should be informed of the long-term management objectives of the board. Under this, the board established provisions for the management, allocation, and conservation of UCI salmon stocks. The *Upper Cook Inlet Salmon Management Plan* confirms that, consistent with the statutory priority for subsistence, the harvest of UCI salmon for customary and traditional uses will be provided. It also recognizes in section (e) the commissioner's emergency order (EO) authority under AS 16.05.060 to achieve established escapement goals as the primary objective of all management plans, and therefore, no provision within a specific management plan is intended to interfere with that objective. There are no harvest allocations specified in regulation for salmon fisheries in UCI.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If this proposal were adopted, it is unknown what the effects of the proposal would be because no allocation percentage by gear type and/or area is noted in the proposal. However, it is likely that management of the drift and set gillnet fisheries would become more complicated. The department would try to manage to achieve the harvest allocations. However, the department would continue to follow the suite of management plans and use EO authority to manage all fisheries with the primary goal of first achieving escapement goals and secondarily, meeting the harvest allocation set by the board per this proposal.

BACKGROUND: The *Upper Cook Inlet Salmon Management Plan* was first passed as a policy by the Alaska Board of Fisheries (board) in 1978. The plan changed little between 1981 and 1998. The plan initially set priorities for management by time period in UCI. Prior to July 1, UCI was managed primarily for recreational purposes, with certain exceptions; from July 1 to August 15, primarily for commercial purposes, with certain exceptions; and after August 15, for a mixture of purposes depending on area; however, this portion of the plan was modified in 1999 in favor of a set of criteria that the board should consider prior to adopting management plans. Section (e) of the plan was adopted in 2005, and the plan has changed little since.

There is a suite of commercial and noncommercial management plans that guide the department in managing salmon fisheries in UCI. These plans have been developed through the board process with significant public input. These plans are structured around the migratory timing and abundance of the various salmon stocks as they move through UCI. Opening dates of these

fisheries allow harvests of salmon throughout the run, while allowing adequate fish passage to spawning grounds to provide sustained yields. The *Upper Cook Inlet Salmon Management Plan* confirms that, consistent with the statutory priority for subsistence, the harvest of UCI salmon for customary and traditional uses will be provided.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. Harvest allocation among the gear types may be difficult to achieve given the current structure of management plans in UCI because it would add one more layer of regulations to this already challenging regulatory structure.

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 21.363. Upper Cook Inlet Salmon Management Plan.

PROPOSED BY: Central Peninsula Fish and Game Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would repeal the *Upper Cook Inlet Salmon Management Plan* and replace it with a flexible management plan.

WHAT ARE THE CURRENT REGULATIONS? The *Upper Cook Inlet Salmon Management Plan* (5 AAC 21.363) outlines guiding principles for the management of Upper Cook Inlet (UCI) salmon stocks and species for use by the board, department, and public. It states that the department should receive long-term direction in management of Upper Cook Inlet (UCI) salmon stocks and salmon species. Divisions within the department must receive long-term direction in order to accomplish their missions and plan management, research, administrative, and other programs. Stakeholders should be informed of the long-term management objectives of the board. Under this, the board established provisions for the management and conservation of UCI salmon stocks. The *Upper Cook Inlet Salmon Management Plan* confirms that, consistent with the statutory priority for subsistence, the harvest of UCI salmon for customary and traditional uses will be provided. It also recognizes in section (e) the commissioner's emergency order (EO) authority under AS 16.05.060 to achieve established escapement goals as the primary objective of all management plans, and therefore, no provision within a specific management plan is intended to interfere with that objective.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It is unknown what the implications would be if this proposal were adopted. The proposal would replace the existing plan with a previous version of the *Upper Cook Inlet Salmon Management Plan*. However, it is unclear what version of a previous plan the proposal is referring to and it does not specify what changes would be made to the current management plan. Depending on what changes were made, it is likely that management of fisheries in UCI would be affected. For instance, the department uses its EO authority, in section (e) of 5 AAC 21.363 to achieve established escapement goals in UCI. Section (e) identifies achieving escapement goals as the primary management objective in UCI. Management of fisheries would be become more difficult if section (e) was repealed. It would be unclear what the primary management objective would be when the department is managing for competing objectives, such as following specific provisions in management plans or achieving escapement goals.

It is unclear if there would be additional management effects if this proposal were adopted, as most of the specific provisions for management of the various fisheries have been removed from the *Upper Cook Inlet Salmon Management Plan* and placed into individual management plans specific to each fishery. The department relies on these management plans and use of its EO authority to manage all fisheries in UCI to achieve escapement goals.

BACKGROUND: The *Upper Cook Inlet Salmon Management Plan* was first passed as a policy by the Alaska Board of Fisheries (board) in 1978. The plan changed little between 1981 and 1998. The plan initially set priorities for management by time period in UCI. Prior to July 1, UCI was managed primarily for recreational purposes, with certain exceptions; from July 1 to August 15, primarily for commercial purposes, with certain exceptions; and after August 15, for a

mixture of purposes depending on area; however, this portion of the plan was modified in 1999 in favor of a set of criteria that the board should consider prior to adopting management plans. Section (e) of the plan was adopted in 2005, and the plan has changed little since.

There is a suite of commercial and noncommercial management plans that guide the department in managing salmon fisheries in UCI. These plans have been developed through the board process with significant public input. These plans are structured around the migratory timing and abundance of the various salmon stocks as they move through UCI. Opening dates of these fisheries allow harvests of salmon throughout the run, while allowing adequate fish passage to spawning grounds to provide sustained yields. The *Upper Cook Inlet Salmon Management Plan* confirms that, consistent with the statutory priority for subsistence, the harvest of UCI salmon for customary and traditional uses will be provided.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of this proposal. However, the department supports the flexibility that the current *Upper Cook Inlet Salmon Management Plan* provides the department in managing to achieve escapement goals.

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.

COMMITTEE OF THE WHOLE – GROUP 2: KENAI RIVER LATE-RUN KING SALMON MANAGEMENT PLAN (12 PROPOSALS)

Kenai River Late-Run Ling Salmon Management Plan (12 proposals): 207-218

PROPOSALS 207 and 208 – 5 AAC 21.359. Kenai River Late-Run King Salmon Management Plan.

PROPOSED BY: Kenai River Sportfishing Association (Proposal 207) and Scott M. Miller (Proposal 208).

WHAT WOULD THE PROPOSALS DO? Proposal 207 would establish an optimal escapement goal (OEG) of 20,000–40,000 Kenai River late-run king salmon and Proposal 208 would establish a biological escapement goal (BEG) of 17,800–35,700 Kenai River late-run king salmon.

WHAT ARE THE CURRENT REGULATIONS? The department shall manage the late run of Kenai River king salmon to achieve a sustainable escapement goal (SEG) of 15,000–30,000 king salmon.

The *Policy for the management of sustainable salmon fisheries* (5 AAC 39.222) contains principles and criteria for the management of salmon fisheries by the state. The policy defines escapement goal terms as follows:

Biological escapement goal (BEG): "means the escapement that provides the greatest potential for maximum sustained yield; BEG will be the primary management objective for the escapement unless an optimal escapement or inriver run goal has been adopted; BEG will be developed from the best available biological information, and should be scientifically defensible on the basis of available biological information; BEG will be determined by the department and will be expressed as a range based on factors such as salmon stock productivity and data uncertainty; the department will seek to maintain evenly distributed salmon escapements within the bounds of a BEG."

Sustainable escapement goal (SEG): "means a level of escapement, indicated by an index or an escapement estimate, that is known to provide for sustained yield over a 5 to 10 year period, used in situations where a BEG cannot be estimated or managed for; the SEG is the primary management objective for the escapement, unless an optimal escapement or inriver run goal has been adopted by the board; the SEG will be developed from the best available biological information; and should be scientifically defensible on the basis of that information; the SEG will be determined by the department and will take into account data uncertainty and be stated as either a "SEG range" or "lower bound SEG; the department will seek to maintain escapements within the bounds of the SEG range or above the level of a lower bound SEG."

Optimal escapement goal (OEG): "means a specific management objective for salmon escapement that considers biological and allocative factors and may differ from the SEG or BEG; an OEG will be sustainable and may be expressed as a range with the lower bound above

the level of SET, and will be adopted as a regulation by the board; the department will seek to maintain evenly distributed escapements within the bounds of the OEG."

The *Policy for statewide salmon escapement goals* (5 AAC 39.223) recognizes the establishment of salmon escapement goals as a joint responsibility of the Alaska Department of Fish and Game (department) and the Alaska Board of Fisheries (board) and describes the concepts, criteria, and procedures for establishing and modifying salmon escapement goals. Under the policy, the board recognizes and describes the department's responsibility for establishing and modifying biological escapement goals (BEG), sustainable escapement goals (SEG), and sustained escapement thresholds (SET).

The policy also states that the board will: "…in recognition of its joint responsibilities, and in consultation with the department, during the regulatory process, review a biological escapement goal (BEG), sustainable escapement goal (SEG), or sustainable escapement threshold (SET) determined by the department and, with the assistance of the department, determine the appropriateness of establishing an OEG; the board will provide an explanation of the reasons for establishing an OEG and provide, to the extent practicable, and with the assistance of the department, an estimate of expected differences in yield of any salmon stock, relative to maximum sustained yield, resulting from implementation of an OEG."

WHAT WOULD BE THE EFFECT IF THE PROPOSALS WERE ADOPTED? This proposal would increase the number of king salmon required to achieve escapement. It may reduce fishing opportunity and king salmon harvest, and increase the frequency of inseason restrictive actions to sport, commercial, and personal use fisheries to achieve the escapement goal. This proposal may also reduce future yields at higher levels of escapement (figures 207-1 and 207-2).

BACKGROUND: In 2002, experimental imaging sonar called DIDSON (dual-frequency identification sonar) was tested in the Kenai River, at the river mile (RM) 8.6 project site. After several years of development, the DIDSON was deployed on both banks of the river for the entire 2010 season, along with the then-standard split-beam sonar. Results indicated the DIDSON technology can provide improved measurements of fish length and improved estimates of king salmon abundance. In 2013, the department transitioned fully from split-beam to DIDSON technology at RM 8.6, and used the latter for inseason management of the fishery.

In 2012, new interim SEGs were developed for the early and late runs to reflect this new gear type and reassessment of past data. The goals are considered interim because the king salmon assessment project is still in transition while development of a new sonar location continues. In 2013, the estimated inriver late run was 17,015 fish and after accounting for inriver sport fishing mortality above the sonar, the estimated escapement was 15,395 king salmon (Table 207-1).

The transition of the king salmon assessment program from escapement goals based on spilt-beam sonar technology at river mile (RM) 8.6 to escapement goals based on DIDSON sonar technology has been completed. DIDSON located at the RM 8.6 sonar site continues to be used to evaluate the escapement goals and provide references to trigger the existing management plan action points that allow the department to meet criteria presently outlined in the management

plans for both early- and late-run stocks, while the transition to a DIDSON based assessment at RM 13.7 is occurring simultaneously. DIDSON was deployed at RM 13.7 in 2013 to determine if the location is suitable for accurately assessing total king salmon passage. Research projects initiated in 2010, which include a tagging project augmented by weirs, provides an estimate of king salmon abundance each year that is independent of sonar. Results from the recent RM 13.7 sonar research as well as the tagging project are forthcoming.

While the sonar program is in transition, the department is using the RM 8.6 DIDSON sonar to manage the fishery. This will continue until the time when the RM 13.7 sonar site estimates, tagging project abundance estimates, and escapement goals can be fully reviewed to complete the transition.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. The department recommends maintaining the existing interim SEG until the transition to the new DIDSON sonar site and escapement goal revisions are completed.

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

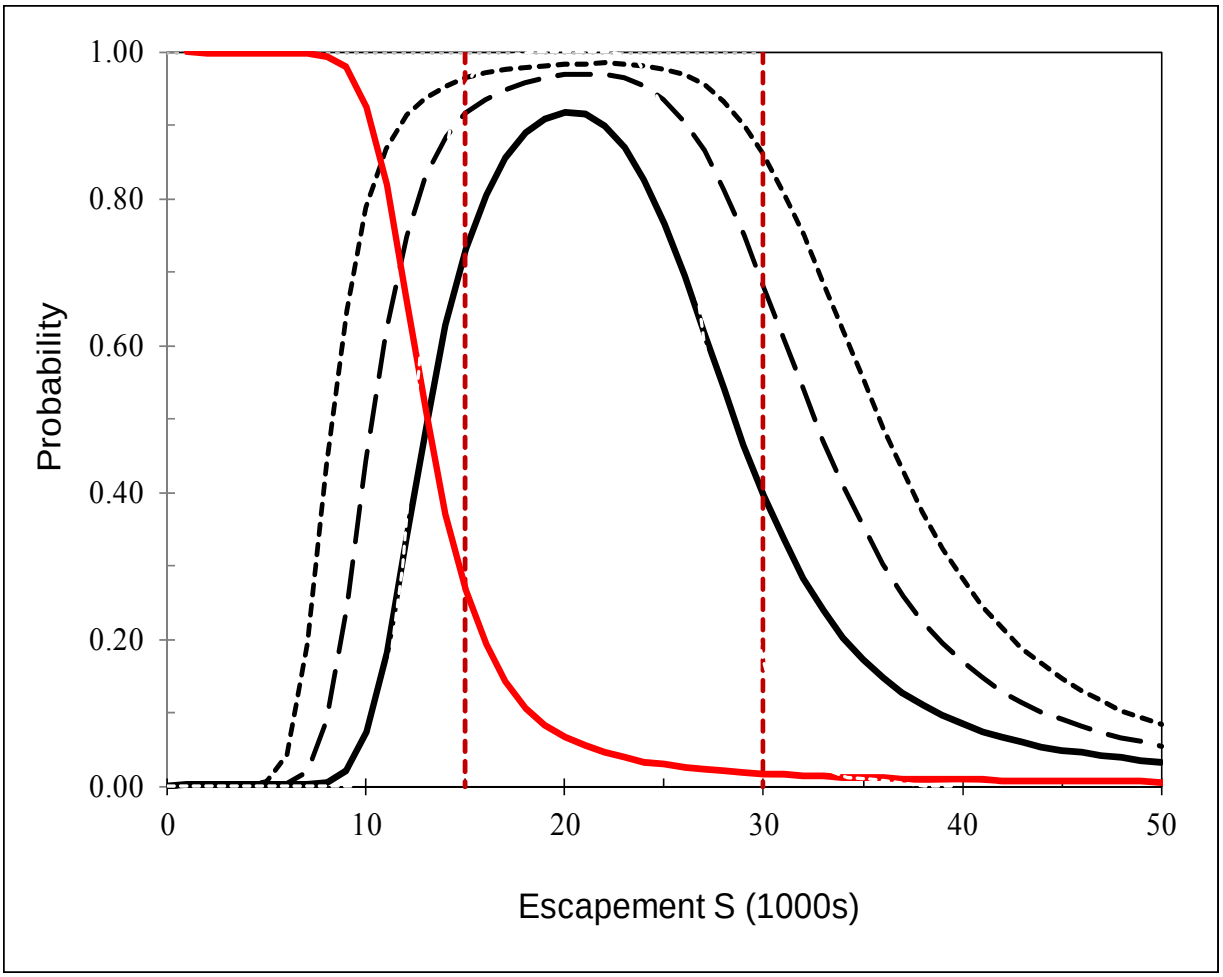

Figure 207-1.–Optimal yield profiles (OYPs) and overfishing profile (OFP) for Kenai River late-run king salmon. OYPs (dome-shaped profiles) show probability that a specified spawning abundance will achieve 70% (short dashes), 80% (long dashes), and 90% (solid line) of maximum sustained yield (MSY). OFP (solid declining line) is the probability that reducing the escapement to a specified spawning abundance will result in less than 90% of MSY. Vertical dashed lines show the recommended escapement goal range.

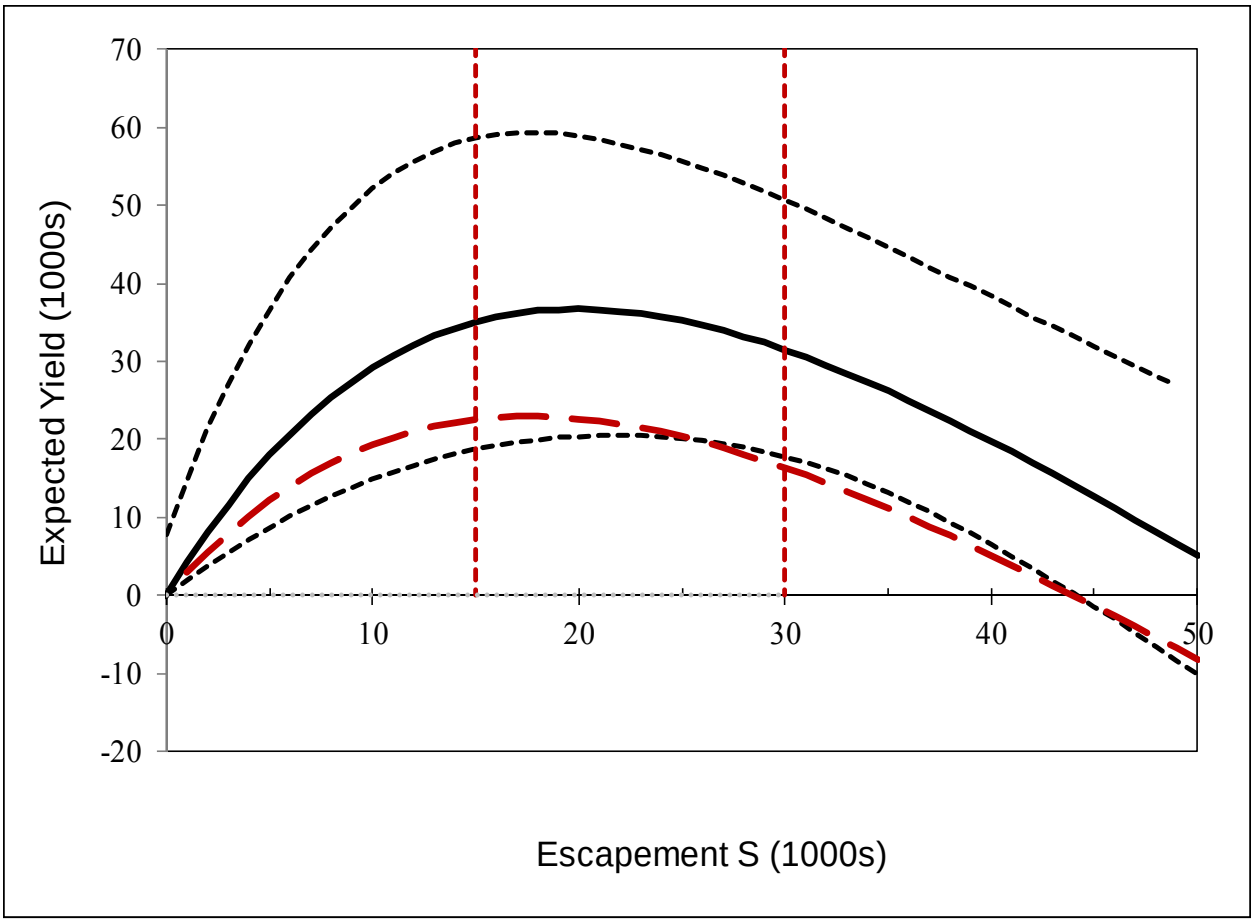

Figure 207-2.–Expected sustained yield (solid line), and 80% interval (short dashed lines) versus spawning escapement for Kenai River late-run king salmon, assuming average productivity for brood years 1979–2008. Vertical lines bracket recommended escapement goal range. Expected sustained yield under recent, reduced productivity (brood years 2004–2008) is also shown (long dashed lines).

Table 207-1.–Late-run Kenai River king salmon population data, 1986–2013.

Year	Marine Sport Harvest[a]	Eastside Setnet Harvest[b]	Drift Gillnet Harvest[b]	Commercial Personal Use[c]	Kenaitze Educational	Subsistence[d]	Personal Use Dipnet[e]	Sport Harvest Below Sonar[fg]	Inriver Run Estimate[h]	Sport Harvest Above Sonar[fg]	Catch-and-Release Mortality[f]	Spawning Escapement	Total Run	Harvest Rate
1986	378	13,619	1,100	ND	ND	ND	ND	ND	62,740	9,872	316	52,552	77,837	0.32
1987	731	14,536	2,731	ND	ND	ND	235	ND	63,550	13,100	123	50,327	81,783	0.38
1988	892	8,834	1,330	ND	ND	ND	0	ND	61,760	19,695	176	41,889	72,816	0.42
1989	821	7,498	0	ND	ND	22	0	ND	36,370	9,691	88	26,591	44,711	0.41
1990	963	2,843	373	91	ND	13	ND	ND	34,200	6,897	69	27,234	38,483	0.29
1991	1,023	3,361	145	130	ND	288	ND	ND	38,940	7,903	16	31,021	43,887	0.29
1992	1,269	7,363	326	50	ND	402	0	ND	42,290	7,556	234	34,500	51,700	0.33
1993	1,700	9,672	451	81	ND	27	0	ND	50,210	17,775	478	31,957	62,142	0.49
1994	1,121	10,700	276	9	1	392	ND	ND	47,440	17,837	572	29,031	59,939	0.52
1995	1,241	8,291	314	25	3	ND	712	ND	44,770	12,609	472	31,689	55,355	0.43
1996	1,223	7,944	219	31	1	ND	295	ND	42,790	8,112	337	34,341	52,503	0.35
1997	1,759	7,780	293	30	20	ND	364	ND	41,120	12,755	570	27,795	51,367	0.46
1998	1,070	3,495	199	35	2	ND	254	ND	47,110	7,515	595	39,000	52,165	0.25
1999	602	6,501	345	59	4	ND	488	1,170	43,670	12,425	682	30,563	52,839	0.42
2000	631	2,531	162	27	6	ND	410	831	47,440	14,391	499	32,550	52,038	0.37
2001	552	4,128	371	80	8	ND	638	1,336	53,610	15,144	825	37,641	60,724	0.38
2002	256	6,511	249	15	6	ND	606	1,929	56,800	10,678	665	45,457	66,372	0.32
2003	120	10,174	744	53	11	ND	1,016	823	85,110	16,120	1,803	67,187	98,052	0.31
2004	996	14,897	916	218	10	ND	792	2,386	79,690	14,988	1,019	63,683	99,905	0.36
2005	624	15,183 [i]	1,103	639	11	ND	997	2,287	77,440	15,927	1,267	60,246	98,284	0.39
2006	563	6,840 [i]	631	61	11	ND	1,034	3,322	62,270	12,490	830	48,950	74,732	0.34
2007	478	8,445 [i]	547	38	6	0	1,509	1,750	47,370	9,690	670	37,010	60,143	0.38
2008	310	5,203 [i]	392	23	15	0	1,362	1,011	42,840	10,128	370	32,342	51,156	0.37
2009	154	3,839	515	64	4	0	1,189	1,132	29,940	7,904	626	21,410	36,837	0.42
2010	335	4,567	323	32	21	0	865	445	23,250	6,762	264	16,224	29,839	0.46
2011	528	5,596	356	88	5	0	1,243	458	27,090	6,894	479	19,717	35,363	0.44
2012	30	484	115	41	0	0	40	2	27,910	101	95	27,714	28,622	0.03
2013[j]	ND	2,289	267	117	8	0	11	37	17,015	1,541	79	15,395	19,744	0.22
Average														
1986–2002	955	7,389	523	51	6	191	308	1,317	47,930	11,997	395	35,538	57,451	0.38
2003–2013	414	7,047	537	125	9	0	914	1,241	47,266	9,322	682	37,262	57,516	0.34
1986–2013	754	7,255	528	85	8	88	586	1,261	47,669	10,946	508	36,215	57,476	0.36

Source: Statewide Harvest Surveys (SWHS) from Mills 1987–1994, Howe et al. 1995, 1996, 2001a-d, Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b, 2011, *In Prep* a-b; Hammarstrom and Timmons 2001b; Brannian and Fox 1996; Ruesch and Fox 1996; Reimer and Sigurdsson 2004; Dunker and Lafferty 2007, Dunker, K.J. 2010, K. J. Dunker, Sport Fish Biologist, ADF&G, Anchorage, personal communication; Shields and Dupois 2013, P. Shields, Comm Fish Biologist, ADF&G, Soldotna, personal communication; Fleischman and McKinley 2013, FMS 13-02; Tim McKinley personal communication; Robert Begich personal communication.

Note: ND = No data available

[a] From Fleischman and McKinley 2013, FMS 13-02.

[b] Eastside setnet and drift gillnet commercial harvest data using genetic stock allocation from Fleischman and McKinley 2013, FMS 13-02; Tony Eskelin personal communication.

[c] Eastside setnet and drift gillnet personal use data using genetic stock allocation from Fleischman and McKinley 2013, FMS 13-02; Tony Eskelin personal communication..

[d] Total includes fish harvested from Cohoe, Salamatof, and Kalifornsky Beaches, and the Kenai River.

[e] 1986–1994 from SWHS; 1995 (Ruesch and Fox 1996); 1996–2012 are estimates from returned permits.

[f] Some harvest is below sonar and not counted against escapement.

[g] Sport harvest includes Creel survey estimates for the area from Cook Inlet to the Soldotna Bridge and estimates from the SWHS for Soldotna Bridge to outlet of Skilak Lake.

[h] Inriver run estimates thru 2012 are median values inTable 6 of Fleischman and McKinley 2013, FMS 13-02.

[i] Harvest estimate does not include Kasilof River terminal fishery which occurred 2005–2008.

[j] 2013 estimates are preliminary until biometrically reviewed and published.

PROPOSAL 209 – 5 AAC 21.359. Kenai River Late-Run King Salmon Management Plan.

PROPOSED BY: Kenai River Sportfishing Association.

WHAT WOULD THE PROPOSAL DO? This proposal would establish paired restrictions in sport, personal use, and commercial fisheries to meet the Kenai River late-run king salmon sustainable escapement goal (SEG) and modify sport fishing liberalizations when the SEG is projected to be exceeded.

WHAT ARE THE CURRENT REGULATIONS? The purposes of the *Kenai River Late-Run King Salmon Management Plan* are to ensure an adequate escapement of late-run king salmon into the Kenai River system and to provide management guidelines to the department. The department shall manage the late-run Kenai River king salmon stocks primarily for sport and guided sport uses in order to provide the sport and guided sport fishermen with a reasonable opportunity to harvest these salmon resources over the entire run, as measured by the frequency or inriver restrictions.

The department manages the late run of Kenai River king salmon to achieve a sustainable escapement goal of 15,000–30,000 king salmon. If the sustainable escapement goal is projected to be exceeded, the department may extend the sport fishing season up to seven days during the first week of August.

If the projected inriver return is less than 15,000 king salmon, the department shall close the sport fisheries in the Kenai River and in the salt waters of Cook Inlet north of the latitude of Bluff Point to the taking of king salmon; close the commercial drift gillnet fishery in the Central District within one mile of the Kenai Peninsula shoreline north of the Kenai River and within one and one-half miles of the Kenai Peninsula shoreline south of the Kenai River; and close the commercial set gillnet fishery in the Upper Subdistrict of the Central District.

If the projected inriver return of late-run king salmon is less than 40,000 fish and the inriver sport fishery harvest is projected to result in an escapement below 15,000 king salmon, the department may restrict the inriver sport fishery. If the inriver sport fishery is closed under this section, the commercial set gillnet fishery in the Upper Subdistrict shall be closed. In addition, if the projected inriver return of king salmon is less than 40,000 fish, the department may not reduce the closed waters at the mouth of the Kenai River.

The Upper Subdistrict set gillnet fishing area is prosecuted primarily under the guidance of two management plans, the *Kasilof River Salmon Management Plan* and the *Kenai River Late-Run Sockeye Salmon Management Plan*. The Kasilof Section fishery opens on or after June 25, with provisions for an opening as early as June 20 based on a 50,000 sockeye salmon escapement trigger. From the beginning of the season through July 7, the fishery must be closed for 36 hours each week ("Friday window") and extra time beyond the two regular Monday/Thursday 12-hour periods is limited to no more than 48 hours per week. The Kenai and East Foreland sections do not open until on or after July 8, with mandatory closed periods ("windows") and limits on extra time each week dependent upon which one of 3 sockeye salmon run sizes to the Kenai River the run falls within.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would reduce fishing effort and king salmon harvests in the sport, personal use and commercial fisheries harvesting late-run Kenai River king salmon.

BACKGROUND: In 2002, experimental imaging sonar called DIDSON (dual-frequency identification sonar) was tested in the Kenai River, at the river mile (RM) 8.6 project site. After several years of development, the DIDSON was deployed on both banks of the river for the entire 2010 season, along with the then-standard split-beam sonar. Results indicated the DIDSON technology can provide improved measurements of fish length and improved estimates of king salmon abundance. In 2013, the department transitioned fully from split-beam to DIDSON technology at RM 8.6, and used the latter for inseason management of the fishery.

In 2012, new interim SEGs were developed for the early and late runs to reflect this new gear type and reassessment of past data. The goals are considered interim because the king salmon assessment project is still in transition while development of a new sonar location continues. In 2013, the estimated inriver run was 17,015 fish and after accounting for inriver sport fishing mortality above the sonar, the estimated escapement was 15,395 king salmon (Table 209-1).

The transition of the king salmon assessment program from escapement goals based on spilt-beam sonar technology at river mile (RM) 8.6 to escapement goals based on DIDSON technology has been completed. DIDSON, located at the RM 8.6 sonar site continues to be used to evaluate the escapement goals and provide references to trigger the existing management plan action points that allow the department to meet criteria presently outlined in the management plans for both early- and late-run stocks, while the transition to a DIDSON based assessment at RM 13.7 is occurring simultaneously. DIDSON was deployed at RM 13.7 in 2013 to determine if the location is suitable for accurately assessing total king salmon passage. Research projects initiated in 2010, which include a tagging project augmented by weirs, provides an estimate of king salmon abundance each year that is independent of sonar. Results from the recent RM 13.7 sonar research as well as the tagging project are forthcoming.

While the sonar program is in transition, the department is using the RM 8.6 DIDSON sonar manage the fishery. This will continue until the time when the RM 13.7 sonar site estimates, tagging project abundance estimates, and escapement goals can be fully reviewed to complete the transition.

Inseason assessment information from the 2011–2013 seasons resulted in restrictive actions to all fisheries harvesting Kenai River king salmon. In 2012, the sport and commercial set gillnet fisheries closed in mid-July when it was projected that the escapement goal would not be met. Restrictive actions for both commercial and inriver sport fisheries were also implemented during early August to reduce mortality of king salmon needed for escapement.

Following the 2012 season, the Alaska Board of Fisheries (board) assembled a Cook Inlet king salmon task force during the winter of 2012–2013. The purpose of the task force was to generate recommendations for changes to the regulations within the *Kenai River Late-run King Salmon Management Plan* for consideration during the Statewide Finfish meeting in March 2013. The

only change to the plan that occurred was replacing the existing SEG with an interim DIDSON-based SEG of 15,000–30,000 late-run king salmon.

A low run of late-run king salmon during the 2013 season resulted in inseason restrictions to all fisheries to conserve king salmon in an effort to achieve the escapement goal. On July 25, the department projected the SEG would not be achieved; therefore, the July 25 regularly scheduled fishing period for set gillnets in the Upper Subdistrict was closed and the Kenai River sport fishery was closed to king salmon fishing on July 28. Neither fishery reopened during the remainder of the 2013 season.

Similar to the 2012 season, the department implemented restrictions not prescribed in the management plan to the sport and commercial fisheries during August of 2013 to reduce mortality of king salmon needed for escapement.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. The department supports a review of the management plan, particularly in regard to low levels of king salmon abundance.

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 209-1.–Late-run Kenai River king salmon population data, 1986–2013.

Year	Marine Sport Harvest[a]	Eastside Setnet Harvest[b]	Drift Gillnet Harvest[b]	Commercial Personal Use[c]	Kenaitze Educational	Subsistence[d]	Personal Use Dipnet[e]	Sport Harvest Below Sonar[fg]	Inriver Run Estimate[h]	Sport Harvest Above Sonar[fg]	Catch-and-Release Mortality[f]	Spawning Escapement	Total Run	Harvest Rate
1986	378	13,619	1,100	ND	ND	ND	ND	ND	62,740	9,872	316	52,552	77,837	0.32
1987	731	14,536	2,731	ND	ND	ND	235	ND	63,550	13,100	123	50,327	81,783	0.38
1988	892	8,834	1,330	ND	ND	ND	0	ND	61,760	19,695	176	41,889	72,816	0.42
1989	821	7,498	0	ND	ND	22	0	ND	36,370	9,691	88	26,591	44,711	0.41
1990	963	2,843	373	91	ND	13	ND	ND	34,200	6,897	69	27,234	38,483	0.29
1991	1,023	3,361	145	130	ND	288	ND	ND	38,940	7,903	16	31,021	43,887	0.29
1992	1,269	7,363	326	50	ND	402	0	ND	42,290	7,556	234	34,500	51,700	0.33
1993	1,700	9,672	451	81	ND	27	0	ND	50,210	17,775	478	31,957	62,142	0.49
1994	1,121	10,700	276	9	1	392	ND	ND	47,440	17,837	572	29,031	59,939	0.52
1995	1,241	8,291	314	25	3	ND	712	ND	44,770	12,609	472	31,689	55,355	0.43
1996	1,223	7,944	219	31	1	ND	295	ND	42,790	8,112	337	34,341	52,503	0.35
1997	1,759	7,780	293	30	20	ND	364	ND	41,120	12,755	570	27,795	51,367	0.46
1998	1,070	3,495	199	35	2	ND	254	ND	47,110	7,515	595	39,000	52,165	0.25
1999	602	6,501	345	59	4	ND	488	1,170	43,670	12,425	682	30,563	52,839	0.42
2000	631	2,531	162	27	6	ND	410	831	47,440	14,391	499	32,550	52,038	0.37
2001	552	4,128	371	80	8	ND	638	1,336	53,610	15,144	825	37,641	60,724	0.38
2002	256	6,511	249	15	6	ND	606	1,929	56,800	10,678	665	45,457	66,372	0.32
2003	120	10,174	744	53	11	ND	1,016	823	85,110	16,120	1,803	67,187	98,052	0.31
2004	996	14,897	916	218	10	ND	792	2,386	79,690	14,988	1,019	63,683	99,905	0.36
2005	624	15,183 [i]	1,103	639	11	ND	997	2,287	77,440	15,927	1,267	60,246	98,284	0.39
2006	563	6,840 [i]	631	61	11	ND	1,034	3,322	62,270	12,490	830	48,950	74,732	0.34
2007	478	8,445 [i]	547	38	6	0	1,509	1,750	47,370	9,690	670	37,010	60,143	0.38
2008	310	5,203 [i]	392	23	15	0	1,362	1,011	42,840	10,128	370	32,342	51,156	0.37
2009	154	3,839	515	64	4	0	1,189	1,132	29,940	7,904	626	21,410	36,837	0.42
2010	335	4,567	323	32	21	0	865	445	23,250	6,762	264	16,224	29,839	0.46
2011	528	5,596	356	88	5	0	1,243	458	27,090	6,894	479	19,717	35,363	0.44
2012	30	484	115	41	0	0	40	2	27,910	101	95	27,714	28,622	0.03
2013[j]	ND	2,289	267	117	8	0	11	37	17,015	1,541	79	15,395	19,744	0.22
Average														
1986–2002	955	7,389	523	51	6	191	308	1,317	47,930	11,997	395	35,538	57,451	0.38
2003–2013	414	7,047	537	125	9	0	914	1,241	47,266	9,322	682	37,262	57,516	0.34
1986–2013	754	7,255	528	85	8	88	586	1,261	47,669	10,946	508	36,215	57,476	0.36

Source: Statewide Harvest Surveys (SWHS) from Mills 1987–1994, Howe et al. 1995, 1996, 2001a-d, Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b, 2011, *In Prep* a-b; Hammarstrom and Timmons 2001b; Brannian and Fox 1996; Ruesch and Fox 1996; Reimer and Sigurdsson 2004; Dunker and Lafferty 2007, Dunker, K.J. 2010, K. J. Dunker, Sport Fish Biologist, ADF&G, Anchorage, personal communication; Shields and Dupois 2013, P. Shields, Comm Fish Biologist, ADF&G, Soldotna, personal communication; Fleischman and McKinley 2013, FMS 13-02; Tim McKinley personal communication; Robert Begich personal communication.

Note: ND = No data available

[a] From Fleischman and McKinley 2013, FMS 13-02.

[b] Eastside setnet and drift gillnet commercial harvest data using genetic stock allocation from Fleischman and McKinley 2013, FMS 13-02; Tony Eskelin personal communication.

[c] Eastside setnet and drift gillnet personal use data using genetic stock allocation from Fleischman and McKinley 2013, FMS 13-02; Tony Eskelin personal communication..

[d] Total includes fish harvested from Cohoe, Salamatof, and Kalifornsky Beaches, and the Kenai River.

[e] 1986–1994 from SWHS; 1995 (Ruesch and Fox 1996); 1996–2012 are estimates from returned permits.

[f] Some harvest is below sonar and not counted against escapement.

[g] Sport harvest includes Creel survey estimates for the area from Cook Inlet to the Soldotna Bridge and estimates from the SWHS for Soldotna Bridge to outlet of Skilak Lake.

[h] Inriver run estimates thru 2012 are median values inTable 6 of Fleischman and McKinley 2013, FMS 13-02.

[i] Harvest estimate does not include Kasilof River terminal fishery which occurred 2005–2008.

[j] 2013 estimates are preliminary until biometrically reviewed and published.

PROPOSAL 210 – 5 AAC 21.359. Kenai River Late-Run King Salmon Management Plan.

PROPOSED BY: Mark Ducker.

WHAT WOULD THE PROPOSAL DO? This proposal would modify the *Kenai River Late-Run King Salmon Management Plan* to remove preamble language, establish a sustainable escapement goal (SEG)/biological escapement goal (BEG) of 12,000–28,000 king salmon, increase emergency order (EO) hours for commercial fishing by an unspecified amount, close personal use and educational fisheries when the projected inriver return is less than the BEG, and delete habitat and EO provisions.

WHAT ARE THE CURRENT REGULATIONS? The purposes of the *Kenai River Late-Run King Salmon Management Plan* are to ensure an adequate escapement of late-run king salmon into the Kenai River system and to provide management guidelines to the department. The department shall manage the late-run Kenai River king salmon stocks primarily for sport and guided sport uses in order to provide the sport and guided sport fishermen with a reasonable opportunity to harvest these salmon resources over the entire run, as measured by the frequency or inriver restrictions.

The department manages the late run of Kenai River king salmon to achieve an SEG of 15,000–30,000 king salmon. If the SEG is projected to be exceeded, the department may extend the sport fishing season up to seven days during the first week of August.

If the projected inriver return is less than 15,000 king salmon, the department shall close the sport fisheries in the Kenai River and in the salt waters of Cook Inlet north of the latitude of Bluff Point to the taking of king salmon; close the commercial drift gillnet fishery in the Central District within one mile of the Kenai Peninsula shoreline north of the Kenai River and within one and one-half miles of the Kenai Peninsula shoreline south of the Kenai River; and close the commercial set gillnet fishery in the Upper Subdistrict of the Central District.

If the projected inriver return of late-run king salmon is less than 40,000 fish and the inriver sport fishery harvest is projected to result in an escapement below 15,000 king salmon, the department may restrict the inriver sport fishery. If the inriver sport fishery is closed under this section, the commercial set gillnet fishery in the Upper Subdistrict shall be closed. In addition, if the projected inriver return of king salmon is less than 40,000 fish, the department may not reduce the closed waters at the mouth of the Kenai River.

The *Policy for the management of sustainable salmon fisheries* (5 AAC 39.222) contains principles and criteria for the management of salmon fisheries by the state, and defines escapement goal terms. The *Policy for statewide salmon escapement goals* (5 AAC 39.223) recognizes the establishment of salmon escapement goals as a joint responsibility of the Alaska Department of Fish and Game (department) and the Alaska Board of Fisheries (board) and describes the concepts, criteria, and procedures for establishing and modifying salmon escapement goals. This policy describes the roles of the department and the board in developing, reviewing, and modifying escapement goals (see staff comments for proposals 207 and 208).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? By effectively lowering the escapement goal, this proposal would generally decrease spawning escapements and increase king salmon harvests in the various sport, personal use, and commercial fisheries harvesting late-run Kenai River king salmon. It would result in a decrease in personal use salmon harvests (primarily sockeye salmon) if the late-run king salmon inriver run is projected to be less the escapement goal. This proposal may also reduce future yields at higher levels of escapement. Other specific aspects of this proposal, such as proposed changes to educational fisheries, would have little to no effect.

BACKGROUND: In 2002, experimental imaging sonar called DIDSON (dual-frequency identification sonar) was tested in the Kenai River, at the river mile (RM) 8.6 project site. After several years of development, the DIDSON was deployed on both banks of the river for the entire 2010 season, along with the then-standard split-beam sonar. Results indicated the DIDSON technology can provide improved measurements of fish length and improved estimates of king salmon abundance. In 2013, the department transitioned fully from split-beam to DIDSON technology at RM 8.6, and used the latter for inseason management of the fishery.

In 2012, new interim SEGs were developed for the early and late runs to reflect this new gear type and reassessment of past data. The goals are considered interim because the king salmon assessment project is still in transition while development of a new sonar location continues. In 2013, the estimated inriver run was 17,015 fish and after accounting for inriver sport fishing mortality above the sonar, the estimated escapement was 15,395 king salmon (Table 210-1).

The transition of the king salmon assessment program from escapement goals based on split-beam sonar technology at river mile (RM) 8.6 to escapement goals based on DIDSON technology has been completed. DIDSON, located at the RM 8.6 sonar site continues to be used to evaluate the escapement goals and provide references to trigger the existing management plan action points that allow the department to meet criteria presently outlined in the management plans for both early- and late-run stocks, while the transition to a DIDSON based assessment at RM 13.7 is occurring simultaneously. DIDSON was deployed at RM 13.7 in 2013 to determine if the location is suitable for accurately assessing total king salmon passage. Research projects initiated in 2010, which include a tagging project augmented by weirs, provides an estimate of king salmon abundance each year that is independent of sonar. Results from the recent RM 13.7 sonar research as well as the tagging project are forthcoming.

While the sonar program is in transition, the department is using the RM 8.6 DIDSON sonar manage the fishery. This will continue until the time when the RM 13.7 sonar site estimates, tagging project abundance estimates, and escapement goals can be fully reviewed to complete the transition.

Inseason assessment information from the 2011–2013 seasons resulted in restrictive actions to all fisheries harvesting Kenai River king salmon. In 2012, the sport and commercial set gillnet fisheries closed in mid-July when it was projected that the escapement goal would not be met. Restrictive actions for both commercial and inriver sport fisheries were also implemented during early August to reduce mortality of king salmon needed for escapement.

Following the 2012 season, the Alaska Board of Fisheries (board) assembled a Cook Inlet king salmon task force during the winter of 2012–2013. The purpose of the task force was to generate recommendations for changes to the regulations within the *Kenai River Late-run King Salmon Management Plan* for consideration during the statewide finfish meeting in March 2013. The only change to the plan that occurred was replacing the existing SEG with an interim DIDSON-based SEG of 15,000–30,000 late-run king salmon.

A low run of late-run king salmon during the 2013 season resulted in inseason restrictions to all fisheries to conserve king salmon in an effort to achieve the escapement goal. On July 25, the department projected the SEG would not be achieved; therefore, the July 25 regularly scheduled fishing period for set gillnets in the Upper Subdistrict was closed and the Kenai River sport fishery was closed to king salmon fishing on July 28.

Similar to the 2012 season, the department implemented restrictions not prescribed in the management plan to the sport and commercial fisheries during August of 2013 to reduce mortality of king salmon needed for escapement.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. The department recommends maintaining the existing interim SEG until the transition to the new DIDSON sonar site and escapement goal revisions are completed.

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 210-1.–Late-run Kenai River king salmon population data, 1986–2013.

Year	Marine Sport Harvest[a]	Eastside Setnet Harvest[b]	Drift Gillnet Harvest[b]	Commercial Personal Use[c]	Kenaitze Educational	Subsistence[d]	Personal Use Dipnet[e]	Sport Harvest Below Sonar[fg]	Inriver Run Estimate[h]	Sport Harvest Above Sonar[fg]	Catch-and-Release Mortality[f]	Spawning Escapement	Total Run	Harvest Rate
1986	378	13,619	1,100	ND	ND	ND	ND	ND	62,740	9,872	316	52,552	77,837	0.32
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1988	892	8,834	1,330	ND	ND	ND	0	ND	61,760	19,695	176	41,889	72,816	0.42
1989	821	7,498	0	ND	ND	22	0	ND	36,370	9,691	88	26,591	44,711	0.41
1990	963	2,843	373	91	ND	13	ND	ND	34,200	6,897	69	27,234	38,483	0.29
1991	1,023	3,361	145	130	ND	288	ND	ND	38,940	7,903	16	31,021	43,887	0.29
1992	1,269	7,363	326	50	ND	402	0	ND	42,290	7,556	234	34,500	51,700	0.33
1993	1,700	9,672	451	81	ND	27	0	ND	50,210	17,775	478	31,957	62,142	0.49
1994	1,121	10,700	276	9	1	392	ND	ND	47,440	17,837	572	29,031	59,939	0.52
1995	1,241	8,291	314	25	3	ND	712	ND	44,770	12,609	472	31,689	55,355	0.43
1996	1,223	7,944	219	31	1	ND	295	ND	42,790	8,112	337	34,341	52,503	0.35
1997	1,759	7,780	293	30	20	ND	364	ND	41,120	12,755	570	27,795	51,367	0.46
1998	1,070	3,495	199	35	2	ND	254	ND	47,110	7,515	595	39,000	52,165	0.25
1999	602	6,501	345	59	4	ND	488	1,170	43,670	12,425	682	30,563	52,839	0.42
2000	631	2,531	162	27	6	ND	410	831	47,440	14,391	499	32,550	52,038	0.37
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2002	256	6,511	249	15	6	ND	606	1,929	56,800	10,678	665	45,457	66,372	0.32
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2005	624	15,183 [i]	1,103	639	11	ND	997	2,287	77,440	15,927	1,267	60,246	98,284	0.39
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2007	478	8,445 [i]	547	38	6	0	1,509	1,750	47,370	9,690	670	37,010	60,143	0.38
2008	310	5,203 [i]	392	23	15	0	1,362	1,011	42,840	10,128	370	32,342	51,156	0.37
2009	154	3,839	515	64	4	0	1,189	1,132	29,940	7,904	626	21,410	36,837	0.42
2010	335	4,567	323	32	21	0	865	445	23,250	6,762	264	16,224	29,839	0.46
2011	528	5,596	356	88	5	0	1,243	458	27,090	6,894	479	19,717	35,363	0.44
2012	30	484	115	41	0	0	40	2	27,910	101	95	27,714	28,622	0.03
2013[j]	ND	2,289	267	117	8	0	11	37	17,015	1,541	79	15,395	19,744	0.22
Average														
1986–2002	955	7,389	523	51	6	191	308	1,317	47,930	11,997	395	35,538	57,451	0.38
2003–2013	414	7,047	537	125	9	0	914	1,241	47,266	9,322	682	37,262	57,516	0.34
1986–2013	754	7,255	528	85	8	88	586	1,261	47,669	10,946	508	36,215	57,476	0.36

Source: Statewide Harvest Surveys (SWHS) from Mills 1987–1994, Howe et al. 1995, 1996, 2001a-d, Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b, 2011, *In Prep* a-b; Hammarstrom and Timmons 2001b; Brannian and Fox 1996; Ruesch and Fox 1996; Reimer and Sigurdsson 2004; Dunker and Lafferty 2007, Dunker, K.J. 2010, K. J. Dunker, Sport Fish Biologist, ADF&G, Anchorage, personal communication; Shields and Dupois 2013, P. Shields, Comm Fish Biologist, ADF&G, Soldotna, personal communication; Fleischman and McKinley 2013, FMS 13-02; Tim McKinley personal communication; Robert Begich personal communication.

Note: ND = No data available

[a] From Fleischman and McKinley 2013, FMS 13-02.

[b] Eastside setnet and drift gillnet commercial harvest data using genetic stock allocation from Fleischman and McKinley 2013, FMS 13-02; Tony Eskelin personal communication.

[c] Eastside setnet and drift gillnet personal use data using genetic stock allocation from Fleischman and McKinley 2013, FMS 13-02; Tony Eskelin personal communication..

[d] Total includes fish harvested from Cohoe, Salamatof, and Kalifornsky Beaches, and the Kenai River.

[e] 1986–1994 from SWHS; 1995 (Ruesch and Fox 1996); 1996–2012 are estimates from returned permits.

[f] Some harvest is below sonar and not counted against escapement.

[g] Sport harvest includes Creel survey estimates for the area from Cook Inlet to the Soldotna Bridge and estimates from the SWHS for Soldotna Bridge to outlet of Skilak Lake.

[h] Inriver run estimates thru 2012 are median values inTable 6 of Fleischman and McKinley 2013, FMS 13-02.

[i] Harvest estimate does not include Kasilof River terminal fishery which occurred 2005–2008.

[j] 2013 estimates are preliminary until biometrically reviewed and published.

PROPOSAL 211 – 5 AAC 21.359. Kenai River Late-Run King Salmon Management Plan.

PROPOSED BY: Kenai River Sportfishing Association.

WHAT WOULD THE PROPOSAL DO? This proposal would establish certain set gillnet gear restrictions implemented by the Alaska Department of Fish and Game (department) to meet escapement goals. This proposal would provide the department limited authority to reduce the amount (number of nets or depth of nets) of legal set gillnet gear that may be operated in Cook Inlet. Specifically, the proposal states, "The department may also restrict the limit of set gillnet gear to: 1) two set gillnets that are not more than 70 fathoms in aggregate length; 2) one gillnet that is not more than 35 fathoms in length; or 3) limit set gillnets to no more than 29 meshes in depth, when restrictions are deemed necessary based on projected escapement of king salmon in order to meet escapement goals identified in 5 AAC 21.359(b)." Although this proposal does not identify the specific area where the department would have this authority, it is assumed that it would apply to the Upper Subdistrict of the Central District.

WHAT ARE THE CURRENT REGULATIONS? 5 AAC 21.331 states that a set gillnet in Cook Inlet may not be longer than 35 fathoms in length and 45 meshes in depth. A person may not operate more than four set gillnets with more than 105 fathoms of set gillnet in the aggregate, except on Fire Island, a person may operate more than four set gillnets, but the aggregate length may not exceed 105 fathoms. The maximum mesh size for set gillnets is six inches.

The department manages the late run of Kenai River king salmon to achieve a sustainable escapement goal of 15,000–30,000 king salmon. If the projected inriver return is less than 15,000 king salmon, the department shall close the sport fisheries in the Kenai River and in the salt waters of Cook Inlet north of the latitude of Bluff Point to the taking of king salmon; close the commercial drift gillnet fishery in the Central District within one mile of the Kenai Peninsula shoreline north of the Kenai River and within one and one-half miles of the Kenai Peninsula shoreline south of the Kenai River; and close the commercial set gillnet fishery in the Upper Subdistrict of the Central District.

If the projected inriver return of late-run king salmon is less than 40,000 fish and the inriver sport fishery harvest is projected to result in an escapement below 15,000 king salmon, the department may restrict the inriver sport fishery. If the inriver sport fishery is closed under this section, the commercial set gillnet fishery in the Upper Subdistrict shall be closed. In addition, if the projected inriver return of king salmon is less than 40,000 fish, the department may not reduce the closed waters at the mouth of the Kenai River.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The effects of this proposal are uncertain. Reducing the number of nets and depth of each net would likely reduce net efficiency and decrease commercial harvest of all species of salmon. The amount of reduction and the precise effect on the harvest of various species is unknown and would probably vary greatly depending on the location of the net. Fish that escape harvest in offshore nets may end up being harvested in nearshore nets where a 29-mesh net would reach the bottom, thus the proposal would simply reallocate fish to different set gillnets. Reducing the harvest of sockeye salmon in the set gillnet fishery may allow fishing opportunity by this gear group during times of

king salmon conservation, and would likely increase the amount of fishing time and harvest of sockeye salmon for the drift gillnet fishery.

BACKGROUND: The regulation for the length and depth of a set gillnet gear has been the same since statehood. The regulation restricting mesh size to six inches was adopted in 1964 to decrease the harvest of king salmon and direct the harvest on sockeye salmon. A preliminary study to look into vertical distribution of the catch of king and sockeye salmon in set gillnets near the mouth of the Kenai River was conducted in 1996. The report generated from this study concludes "Results from this study were to provide the basis for recommending and designing future studies. It was not designed to directly suggest potential management or regulatory actions." The main drawback of this study is the way the catch was recorded into either the upper two-thirds or the lower one-third of the net. Had the study recorded which one-third or smaller increment of the net each fish was caught in, it would likely have resulted in a conclusion that both the lower and upper one-third of the net catch less fish and that most fish are caught near the middle, both vertically and horizontally. The difference in harvest rates between sockeye and king salmon caught in the lower one-third is 25% for sockeye salmon and 36% for king salmon. The range, however, is from 11% to 52% for sockeye and from 7% to 65% for king salmon. Another problem is that roughly 80% of the "sets" did not have a king salmon; applying the average could have the opposite effect from what is desired. Finally, all study sets were restricted to approximately 4–5 miles on either side of the Kenai River. The Kasilof Section may have vastly different results from a restriction of this nature. Due to the high level of measurement error, limited sampling, low number of king salmon observed, limited area of study and use of voluntary sites, there is a high level of uncertainty in the outcome of setting the maximum depth at 29 meshes, especially outside of the study area.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. The department supports a review of the management plan, particularly in regard to low levels of king salmon abundance. There are inadequate data to predict the effects of a depth restriction to 29 meshes.

COST ANALYSIS: Approval of this proposal would result in additional direct costs for Upper Subdistrict set gillnet permit holders to participate in this fishery because they would have to reconfigure their nets to meet the new maximum depth restrictions.

PROPOSAL 212 – 5 AAC 21.359. Kenai River Late-Run King Salmon Management Plan.

PROPOSED BY: Warren Brown.

WHAT WOULD THE PROPOSAL DO? This would provide the department with three restrictive options to implement in the Upper Subdistrict set gillnet fishery when the Kenai River sport fishery is restricted to catch-and-release fishing because of concerns about achieving the minimum sustainable escapement goal (SEG) of 15,000 fish:

1) restrict how many nets a permit can fish;
2) close the beach to fishing within the first one-half mile of shore; and
3) restrict the retention/selling of king salmon.

The Alaska Department of Fish and Game (department) has emergency order (EO) authority to implement option two. The department does not currently have the authority to reduce the amount of gear that can be used in the Upper Subdistrict set gillnet fishery or restrict the retention/selling of king salmon legally harvested. This authority would have to be provided by the Alaska Board of Fisheries (board).

WHAT ARE THE CURRENT REGULATIONS? The department manages the late run of Kenai River king salmon to achieve a sustainable escapement goal of 15,000–30,000 king salmon. If the projected inriver return is less than 15,000 king salmon, the department shall close the sport fisheries in the Kenai River and in the salt waters of Cook Inlet north of the latitude of Bluff Point to the taking of king salmon; close the commercial drift gillnet fishery in the Central District within one mile of the Kenai Peninsula shoreline north of the Kenai River and within one and one-half miles of the Kenai Peninsula shoreline south of the Kenai River; and close the commercial set gillnet fishery in the Upper Subdistrict of the Central District.

If the projected inriver return of late-run king salmon is less than 40,000 fish and the inriver sport fishery harvest is projected to result in an escapement below 15,000 king salmon, the department may restrict the inriver sport fishery. If the inriver sport fishery is closed under this section, the commercial set gillnet fishery in the Upper Subdistrict shall be closed. In addition, if the projected inriver return of king salmon is less than 40,000 fish, the department may not reduce the closed waters at the mouth of the Kenai River.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Reducing the number of nets and area where nets may be fished would likely decrease the commercial harvest of all species of salmon. The amount of reduction and the precise effect on the harvest of various species is unknown and would probably vary greatly depending on the location of the net. Closing the first half-mile of beach would essentially eliminate set gillnet fishing north of the Kenai River, where the tides are so strong that very few fishermen fish beyond the first one-half mile and would reduce the harvest of both king and sockeye salmon. Reducing the harvest of sockeye salmon in the set gillnet fishery may allow fishing opportunity by this gear group during times of king salmon conservation, and would likely increase the amount of fishing time and harvest of sockeye salmon for the drift gillnet fishery. Prohibiting retention of king salmon from set gillnets would result in an unknown number of dead fish being released back in the water.

BACKGROUND: The regulation for the length and depth of set gillnet gear has been the same since statehood. The regulation restricting mesh size to six inches was adopted in 1964 to decrease the harvest of king salmon and direct the harvest on sockeye salmon.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of this proposal. However, the department has concerns prohibiting retention of king salmon from set gillnets because it will likely result in the release of an unknown amount of injured and dead 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.

PROPOSAL 213 – 5 AAC 21.360. Kenai River Late-Run King Salmon Management Plan

PROPOSED BY: Bruce Morgan.

WHAT WOULD THE PROPOSAL DO? This proposal would close the set gillnet fishery in the Upper Subdistrict if the late-run Kenai River king salmon sport fishery is restricted to catch-and-release fishing.

WHAT ARE THE CURRENT REGULATIONS? The department manages the late run of Kenai River king salmon to achieve a sustainable escapement goal of 15,000–30,000 king salmon. If the projected inriver return is less than 15,000 king salmon, the department shall close the sport fisheries in the Kenai River and in the salt waters of Cook Inlet north of the latitude of Bluff Point to the taking of king salmon; close the commercial drift gillnet fishery in the Central District within one mile of the Kenai Peninsula shoreline north of the Kenai River and within one and one-half miles of the Kenai Peninsula shoreline south of the Kenai River; and close the commercial set gillnet fishery in the Upper Subdistrict of the Central District.

If the projected inriver return of late-run king salmon is less than 40,000 fish and the inriver sport fishery harvest is projected to result in an escapement below 15,000 king salmon, the department may restrict the inriver sport fishery. If the inriver sport fishery is closed under this section, the commercial set gillnet fishery in the Upper Subdistrict shall be closed. In addition, if the projected inriver return of king salmon is less than 40,000 fish, the department may not reduce the closed waters at the mouth of the Kenai River.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would limit the department's ability to manage the Upper Subdistrict set gillnet fishery to harvest sockeye salmon during times of low king salmon abundance and increase the likelihood of closure to the fishery. Reducing the harvest of sockeye salmon in the set gillnet fishery would likely increase the amount of fishing time and harvest of sockeye salmon for the drift gillnet fishery. This proposal may also increase the inriver abundance of sockeye and king salmon and may increase the catch or harvest by sport and personal use fisheries.

BACKGROUND: In 2012, new interim SEGs were developed for the early and late run Kenai River king salmon to reflect this new sonar technology and reassessment of past data. The goals are considered interim because the king salmon assessment project is still in transition while development of a new sonar location continues. In 2013, the estimated inriver run was 17,015 fish, and after accounting for inriver sport fishing mortality above the sonar, the estimated escapement was 15,395 king salmon (Table 213-1).

Inseason assessment information from the 2011–2013 seasons resulted in restrictive actions to all fisheries harvesting Kenai River king salmon. In 2012, the sport and commercial set gillnet fisheries closed in mid-July when it was projected that the escapement goal would not be met. Restrictive actions for both commercial and inriver sport fisheries were also implemented during early August to reduce mortality of king salmon needed for escapement.

A low run of late-run king salmon during the 2013 season resulted in inseason restrictions to all fisheries to conserve king salmon in an effort to achieve the escapement goal. On July 25, the department projected the SEG would not be achieved, therefore the July 25 regularly scheduled fishing period for set gillnets in the Upper Subdistrict was closed and the Kenai River sport fishery was closed to king salmon fishing on July 28. Neither fishery was reopened during the 2013 season.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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.

Table 213-1.–Late-run Kenai River king salmon population data, 1986–2013.

Year	Marine Sport Harvest[a]	Eastside Setnet Harvest[b]	Drift Gillnet Harvest[b]	Commercial Personal Use[c]	Kenaitze Educational	Subsistence[d]	Personal Use Dipnet[e]	Sport Harvest Below Sonar[fg]	Inriver Run Estimate[h]	Sport Harvest Above Sonar[fg]	Catch-and-Release Mortality[f]	Spawning Escapement	Total Run	Harvest Rate
1986	378	13,619	1,100	ND	ND	ND	ND	ND	62,740	9,872	316	52,552	77,837	0.32
1987	731	14,536	2,731	ND	ND	ND	235	ND	63,550	13,100	123	50,327	81,783	0.38
1988	892	8,834	1,330	ND	ND	ND	0	ND	61,760	19,695	176	41,889	72,816	0.42
1989	821	7,498	0	ND	ND	22	0	ND	36,370	9,691	88	26,591	44,711	0.41
1990	963	2,843	373	91	ND	13	ND	ND	34,200	6,897	69	27,234	38,483	0.29
1991	1,023	3,361	145	130	ND	288	ND	ND	38,940	7,903	16	31,021	43,887	0.29
1992	1,269	7,363	326	50	ND	402	0	ND	42,290	7,556	234	34,500	51,700	0.33
1993	1,700	9,672	451	81	ND	27	0	ND	50,210	17,775	478	31,957	62,142	0.49
1994	1,121	10,700	276	9	1	392	ND	ND	47,440	17,837	572	29,031	59,939	0.52
1995	1,241	8,291	314	25	3	ND	712	ND	44,770	12,609	472	31,689	55,355	0.43
1996	1,223	7,944	219	31	1	ND	295	ND	42,790	8,112	337	34,341	52,503	0.35
1997	1,759	7,780	293	30	20	ND	364	ND	41,120	12,755	570	27,795	51,367	0.46
1998	1,070	3,495	199	35	2	ND	254	ND	47,110	7,515	595	39,000	52,165	0.25
1999	602	6,501	345	59	4	ND	488	1,170	43,670	12,425	682	30,563	52,839	0.42
2000	631	2,531	162	27	6	ND	410	831	47,440	14,391	499	32,550	52,038	0.37
2001	552	4,128	371	80	8	ND	638	1,336	53,610	15,144	825	37,641	60,724	0.38
2002	256	6,511	249	15	6	ND	606	1,929	56,800	10,678	665	45,457	66,372	0.32
2003	120	10,174	744	53	11	ND	1,016	823	85,110	16,120	1,803	67,187	98,052	0.31
2004	996	14,897	916	218	10	ND	792	2,386	79,690	14,988	1,019	63,683	99,905	0.36
2005	624	15,183 [i]	1,103	639	11	ND	997	2,287	77,440	15,927	1,267	60,246	98,284	0.39
2006	563	6,840 [i]	631	61	11	ND	1,034	3,322	62,270	12,490	830	48,950	74,732	0.34
2007	478	8,445 [i]	547	38	6	0	1,509	1,750	47,370	9,690	670	37,010	60,143	0.38
2008	310	5,203 [i]	392	23	15	0	1,362	1,011	42,840	10,128	370	32,342	51,156	0.37
2009	154	3,839	515	64	4	0	1,189	1,132	29,940	7,904	626	21,410	36,837	0.42
2010	335	4,567	323	32	21	0	865	445	23,250	6,762	264	16,224	29,839	0.46
2011	528	5,596	356	88	5	0	1,243	458	27,090	6,894	479	19,717	35,363	0.44
2012	30	484	115	41	0	0	40	2	27,910	101	95	27,714	28,622	0.03
2013[j]	ND	2,289	267	117	8	0	11	37	17,015	1,541	79	15,395	19,744	0.22
Average														
1986–2002	955	7,389	523	51	6	191	308	1,317	47,930	11,997	395	35,538	57,451	0.38
2003–2013	414	7,047	537	125	9	0	914	1,241	47,266	9,322	682	37,262	57,516	0.34
1986–2013	754	7,255	528	85	8	88	586	1,261	47,669	10,946	508	36,215	57,476	0.36

Source: Statewide Harvest Surveys (SWHS) from Mills 1987–1994, Howe et al. 1995, 1996, 2001a-d, Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b, 2011, *In Prep* a-b; Hammarstrom and Timmons 2001b; Brannian and Fox 1996; Ruesch and Fox 1996; Reimer and Sigurdsson 2004; Dunker and Lafferty 2007, Dunker, K.J. 2010, K. J. Dunker, Sport Fish Biologist, ADF&G, Anchorage, personal communication; Shields and Dupois 2013, P. Shields, Comm Fish Biologist, ADF&G, Soldotna, personal communication; Fleischman and McKinley 2013, FMS 13-02; Tim McKinley personal communication; Robert Begich personal communication.

Note: ND = No data available

[a] From Fleischman and McKinley 2013, FMS 13-02.

[b] Eastside setnet and drift gillnet commercial harvest data using genetic stock allocation from Fleischman and McKinley 2013, FMS 13-02; Tony Eskelin personal communication.

[c] Eastside setnet and drift gillnet personal use data using genetic stock allocation from Fleischman and McKinley 2013, FMS 13-02; Tony Eskelin personal communication..

[d] Total includes fish harvested from Cohoe, Salamatof, and Kalifornsky Beaches, and the Kenai River.

[e] 1986–1994 from SWHS; 1995 (Ruesch and Fox 1996); 1996–2012 are estimates from returned permits.

[f] Some harvest is below sonar and not counted against escapement.

[g] Sport harvest includes Creel survey estimates for the area from Cook Inlet to the Soldotna Bridge and estimates from the SWHS for Soldotna Bridge to outlet of Skilak Lake.

[h] Inriver run estimates thru 2012 are median values inTable 6 of Fleischman and McKinley 2013, FMS 13-02.

[i] Harvest estimate does not include Kasilof River terminal fishery which occurred 2005–2008.

[j] 2013 estimates are preliminary until biometrically reviewed and published.

PROPOSAL 214 – 5 AAC 21.359. Kenai River Late-Run King Salmon Management Plan.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would amend the *Kenai River Late-Run King Salmon Management Plan* to clarify that only the provisions within the *Kasilof River Salmon Management Plan* that allow for use of the Kasilof River Special Harvest Area are exempt under this plan.

WHAT ARE THE CURRENT REGULATIONS? The Alaska Department of Fish and Game (department) has received direction from the Alaska Board of Fisheries (board) on use of the Kasilof River Special Harvest Area (KRSHA). These provisions are contained within 5 AAC 21.365, *Kasilof River Salmon Management Plan.* In the *Kenai River Late-Run King Salmon Management Plan*, the board has also provided the department with additional management directives to be implemented in the Upper Subdistrict set gillnet fishery based on specific criteria. However, it has always been the intent of the board that use of the KRSHA was to be exempt from the provisions in the king salmon management plan that apply to the Upper Subdistrict set gillnet fishery. This exemption is listed in subsection (f) of the king salmon management plan.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The effects of this proposal would reflect current management practices and would not change the way the department manages the KRSHA.

BACKGROUND: In 2002, changes were made to the *Kasilof River Salmon Management Plan*, including the name of the plan. Prior to 2002, the name of the management plan was *Kasilof River Sockeye Salmon Special Harvest Area Management Plan* and provisions within the plan pertained directly to creation and management of the KRSHA. Beginning in 2002, many other provisions were added to the management plan guiding management of Kasilof River sockeye salmon. The *Kenai River Late-Run King Salmon Management Plan* was not updated to reflect the changes made within the *Kasilof River Salmon Management Plan* in 2002. By adding (f) to the *Kenai River Late-Run King Salmon Management Plan*, it will correctly refer only to the Kasilof River Special Harvest Area and not to all of the provisions within the *Kasilof River Salmon Management Plan*.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** 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 215 – 5 AAC 21.359. Kenai River Late-Run King Salmon Management Plan.

PROPOSED BY: Brian Nelson.

WHAT WOULD THE PROPOSAL DO? This proposal would allow set gillnet fishing to occur in the East Foreland Section of the Upper District during times when the projected inriver return of Kenai River late-run king salmon is less than 15,000 fish.

WHAT ARE THE CURRENT REGULATIONS? The department manages the late run of Kenai River king salmon to achieve a sustainable escapement goal of 15,000–30,000 king salmon. If the projected inriver return is less than 15,000 king salmon, the department shall close the sport fisheries in the Kenai River and in the salt waters of Cook Inlet north of the latitude of Bluff Point to the taking of king salmon; close the commercial drift gillnet fishery in the Central District within one mile of the Kenai Peninsula shoreline north of the Kenai River and within one and one-half miles of the Kenai Peninsula shoreline south of the Kenai River; and close the commercial set gillnet fishery in the Upper Subdistrict of the Central District. The Upper Subdistrict is comprised of the Kasilof, Kenai, and East Foreland sections (south to north).

If the projected inriver return of late-run king salmon is less than 40,000 fish and the inriver sport fishery harvest is projected to result in an escapement below 15,000 king salmon, the department may restrict the inriver sport fishery. If the inriver sport fishery is closed under this section, the commercial set gillnet fishery in the Upper Subdistrict shall be closed. In addition, if the projected inriver return of king salmon is less than 40,000 fish, the department may not reduce the closed waters at the mouth of the Kenai River.

The East Foreland Section is defined as all waters from the northern boundary of the Upper Subdistrict to the latitude of the base of Colliers Dock at 60° 40.35' N. lat. (the southernmost of the pile-supported docks at Nikiski) and within one nautical mile of the mean high tide mark on the Kenai Peninsula shoreline (Figure 215-1).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Limitations to commercial set gillnet fishing time in the East Foreland Section would be for sockeye salmon management, not king salmon management. It is likely that sockeye salmon harvest would increase in the East Foreland Section, if all other set gillnet areas were closed because of the known sockeye salmon migration pattern of swinging north of the Kenai River and then entering the river on ebb tides. King salmon harvest would vary depending on king salmon abundance and the amount of fishing time allowed in the section. Opening this area when the Kenai Section is closed could potentially introduce user conflicts because users from closed fishing areas might try to find an open area to fish in the East Foreland Section. However, because most of the fishing in this area is confined to very near shore due to the very strong tides, the potential for conflict would not be as great as in other areas.

BACKGROUND: In 1999, the department revised the Upper Subdistrict into its current configuration of six statistical areas. The Kasilof Section (Figure 215-1) extends from one mile north of the Ninilchik River to four and one-half miles north of the Kasilof River (the Blanchard Line), a distance of approximately 30 miles (straight line). Prior to July 8, this area is managed

primarily for the harvest of Kasilof River sockeye salmon stocks. The Kenai and East Foreland sections begin at the Blanchard Line and extend to Boulder Point on the Kenai Peninsula. This area opens on or after July 8 and is managed primarily for harvest of Kenai River sockeye salmon stocks.

Originally developed in 1988, the *Upper Subdistrict King Salmon Management Plan* provided the department with direction on how to manage the Upper Subdistrict set gillnet fishery (ESSN). In this plan, the ESSN fishery would close until July 25 if 7,000 king salmon (greater than 28 inches) were harvested; king salmon harvest in the Kasilof River Special Harvest Area (KRSHA) did not count toward the limit. In the event of a closure, the area north of Rig Tenders Dock remained open to set gillnetting (this is approximately the present day East Foreland Section). The ESSN fishery would reopen after July 25 with no king salmon harvest limit.

In 1989, the plan was renamed the *Kenai River Late-Run Chinook Salmon Management Plan* and several modifications were made. If the projected spawning escapement was to fall below 15,500 fish, the recreational fishery in the Kenai River and the ESSN would close. If the projected spawning escapement was projected to be between 15,500 fish and 23,000 fish, the department was directed to restrict the recreational fishery in the Kenai River to ensure adequate escapement. In 1991, a provision to restrict the ESSN to regular periods only if the projected escapement was between 15,500 and 19,000 fish was added; however, if the final Kenai River sockeye salmon inriver run was projected to exceed 700,000 fish, the ESSN would not be restricted unless the final king salmon escapement was projected to be less than 15,500 fish. With respect to the commercial fishery, provisions in the plan changed little until 1999.

In 1999, the department established a new biological escapement goal of 17,800–35,700 Kenai River late-run king salmon. Under the plan, if the projected inriver return was less than 17,800 fish, the ESSN fishery would close. From July 20–31, if the projected inriver return of late-run king salmon is less than 40,000 fish and the inriver sport fishery harvest is projected to result in an escapement below 17,800 king salmon, the department may restrict the inriver sport fishery. If the sport fishery is closed during this time period, all of the Upper Subdistrict set gillnet fishery must also be closed.

Based on harvest data from 2002–2011, the estimated number of Kenai River late-run king salmon harvested per day in the East Foreland Section was five fish (Table 215-1). During the same period, it is estimated that approximately 4,500 sockeye salmon per day were harvested. From 2002–2011, drift gillnet harvest data show that fishing in the Kenai and Kasilof sections full corridor produced an average daily harvest of 12 Kenai River late-run king salmon and 26,500 sockeye salmon (Table 215-2). From 1999–2013, an average of 33 permit holders per year fished in the East Foreland Section.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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.

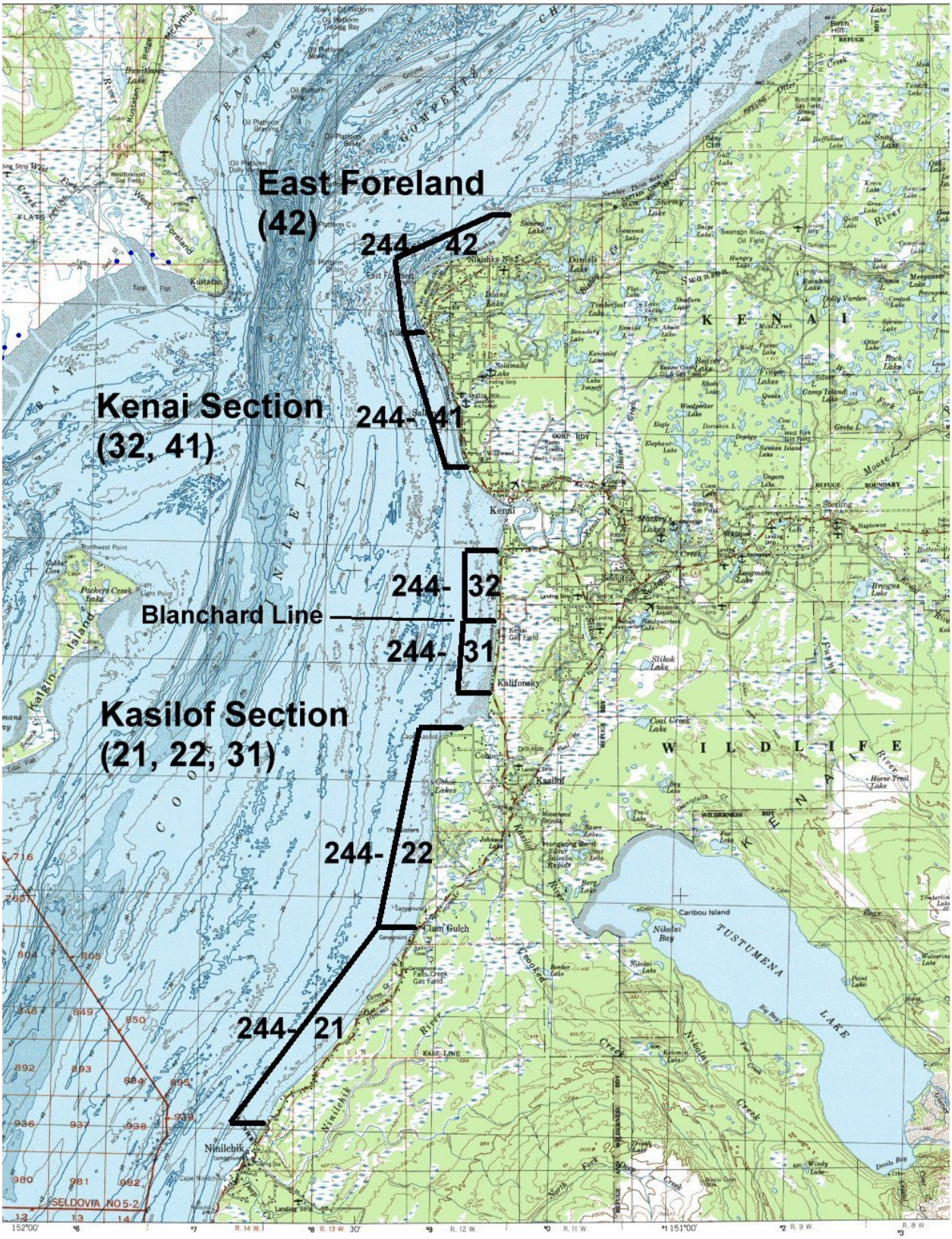

Figure 215-1.–Map of Upper Subdistrict set gillnet fishery (ESSN) statistical areas.

Table 215-1.–East Foreland Section harvests of Kenai River late-run king salmon and sockeye salmon during, 2002–2013.

Year	Total King Harvest	Kenai King Harvest	Sockeye Harvest	Days fished	Kenai King Harvest/day	Sockeye Harvest/day
2002	38	26	45,120	17	2	2,654
2003	92	63	72,315	18	4	4,018
2004	163	112	110,908	25	4	4,436
2005	214	148	195,056	25	6	7,802
2006	100	69	36,556	12	6	3,046
2007	146	101	74,524	18	6	4,140
2008	48	33	41,755	5	7	8,351
2009	88	61	35,441	9	7	3,938
2010	69	44	65,842	20	2	3,292
2011	83	56	102,595	18	3	5,700
2012	14	10	6,125	4	2	1,531
2013	58	45	31,296	6	7	5,216
Average	93	64	68,128	15	5	4,510

[a] Kenai king salmon harvest was estimated based on genetic stock identification (GSI) estimates of Kenai king salmon mainstem proportions from 2010 (0.64), 2011(0.67), and 2013(0.77). Average of those 3 years (0.69) was applied to all other years. This average was based on data from all sections.

Table 215-2.–Drift gillnet harvest of king and sockeye salmon when fishing only in the Kenai and Kasilof sections or Expanded Kenai and Expanded Kasilof sections (full corridor), 2002–2013.

	King Salmon			Sockeye Salmon		
Year	Total Harvest	Kenai King Harvest/Day	Kenai King Harvest/day	Total Harvest	Harvest /day	Days fished
2002	155	93	9	218,442	21,844	10
2003	430	258	20	299,054	23,004	13
2004	225	135	8	378,185	23,637	16
2005	806	484	25	775,586	40,820	19
2006	234	140	18	61,034	7,629	8
2007	131	79	9	105,560	11,729	9
2008	18	11	11	2,550	2,550	1
2009	140	84	9	64,521	7,169	9
2010	190	114	8	930,141	66,439	14
2012	55	33	3	586,803	58,680	10
2013	181	109	9	333,012	27,751	12
Average	233	140	12	341,353	26,477	11

PROPOSAL 216 – 5 AAC 21.359. Kenai River Late-Run King Salmon Management Plan.

PROPOSED BY: South K-Beach Independent Fishermen's, SOK-I.

WHAT WOULD THE PROPOSAL DO? This proposal would amend the management plan to change effective dates of provisions in the plan; delegate authority to the commissioner to manage restrictions by time, area, methods, and means during times of low king salmon abundance; and remove the provision in the plan of closing the Kenai River sport fishery and the Upper Subdistrict set gillnet fishery prior to July 21. It also would remove the mandatory closure of the Upper Subdistrict set gillnet fishery after July 21 based on a closure of the inriver sport fishery.

WHAT ARE THE CURRENT REGULATIONS? The purposes of the *Kenai River Late-Run King Salmon Management Plan* are to ensure an adequate escapement of late-run king salmon into the Kenai River system and to provide management guidelines to the department. The department shall manage the late-run Kenai River king salmon stocks primarily for sport and guided sport uses in order to provide the sport and guided sport fishermen with a reasonable opportunity to harvest these salmon resources over the entire run, as measured by the frequency of inriver restrictions.

The department manages the late run of Kenai River king salmon to achieve a sustainable escapement goal of 15,000–30,000 king salmon. If the projected inriver return is less than 15,000 king salmon, the department shall close the sport fisheries in the Kenai River and in the salt waters of Cook Inlet north of the latitude of Bluff Point to the taking of king salmon; close the commercial drift gillnet fishery in the Central District within one mile of the Kenai Peninsula shoreline north of the Kenai River and within one and one-half miles of the Kenai Peninsula shoreline south of the Kenai River; and close the commercial set gillnet fishery in the Upper Subdistrict of the Central District.

If the projected inriver return of late-run king salmon is less than 40,000 fish and the inriver sport fishery harvest is projected to result in an escapement below 15,000 king salmon, the department may restrict the inriver sport fishery. If the inriver sport fishery is closed under this section, the commercial set gillnet fishery in the Upper Subdistrict shall be closed. In addition, if the projected inriver return of king salmon is less than 40,000 fish, the department may not reduce the closed waters at the mouth of the Kenai River.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It is possible, in years of low king salmon abundance, that delaying restrictive management actions for king salmon conservation until after July 21 would reduce the department's ability to adapt to changing conditions as the season progresses. Varying run strength and run timing could confound the ability to achieve the king salmon escapement goal. It may result in complete closures more often to all fisheries rather than just reduced opportunity if management is not allowed to slow down harvests earlier in the season. It is possible, in years of low king salmon abundance that additional fishing opportunity would be provided prior to July 21 and result in additional king and sockeye salmon harvest.

BACKGROUND: The *Kenai River Late-run King Salmon Management Plan* provides the department with several directives aimed to ensure an adequate escapement of late-run king salmon into the Kenai River.

Originally developed in 1988, the *Upper Subdistrict King Salmon Management Plan* provided the department with direction on how to manage the Upper Subdistrict set gillnet fishery (ESSN). In this plan, the ESSN fishery would close until July 25 if 7,000 king salmon (greater than 28 inches) were harvested; king salmon harvest in the Kasilof River Special Harvest Area did not count toward the limit. In the event of a closure, the area north of Rig Tenders Dock remained open to set gillnetting (this is approximately the present day East Foreland Section). The ESSN fishery would reopen after July 25 with no king salmon harvest limit.

In 1989, the plan was renamed the *Kenai River Late-Run Chinook Salmon Management Plan* and several modifications were made. If the projected spawning escapement was to fall below 15,500 fish, the recreational fishery in the Kenai River and the ESSN would close. If the projected spawning escapement was projected to be between 15,500 fish and 23,000 fish, the department was directed to restrict the recreational fishery in the Kenai River to ensure adequate escapement. In 1991, a provision to restrict the ESSN to regular periods only if the projected escapement was between 15,500 and 19,000 fish was added; however, if the final Kenai River sockeye salmon inriver run was projected to exceed 700,000 fish, the ESSN would not be restricted unless the final king salmon escapement was projected to be less than 15,500 fish. With respect to the commercial fishery, provisions in the plan changed little until 1999.

In 1999, the department established a new biological escapement goal of 17,800–35,700 Kenai River late-run king salmon. Under the plan, if the projected inriver return was less than 17,800 fish, the ESSN fishery would close. From July 20–31, if the projected inriver return of late-run king salmon was less than 40,000 fish and the inriver sport fishery harvest was projected to result in an escapement below 17,800 king salmon, the department may restrict the inriver sport fishery. If the sport fishery was closed during this time period, all of the Upper Subdistrict set gillnet fishery must also be closed.

In 2012, new interim SEGs were developed for the early and late runs to reflect this new gear type and reassessment of past data. The goals are considered interim because the king salmon assessment project is still in transition while development of a new sonar location continues. In 2013, the estimated inriver run was 17,015 fish and after accounting for inriver sport fishing mortality above the sonar, the estimated escapement was 15,395 king salmon (Table 216-1).

Inseason assessment information from the 2011–2013 seasons resulted in restrictive actions to all fisheries harvesting Kenai River king salmon. In 2012, the sport and commercial set gillnet fisheries closed in mid-July when it was projected that the escapement goal would not be met. Restrictive actions for both commercial and inriver sport fisheries were also implemented during early August to reduce mortality of king salmon needed for escapement.

A low run of late-run king salmon during the 2013 season resulted in inseason restrictions to all fisheries to conserve king salmon in an effort to achieve the escapement goal. On July 25, the department projected the SEG would not be achieved, therefore the July 25 regularly scheduled

fishing period for set gillnets in the Upper Subdistrict was closed and the Kenai River sport fishery was closed to king salmon fishing on July 28.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. The department supports a review of the management plan, particularly in regard to low levels of king salmon abundance.

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 216-1.–Late-run Kenai River king salmon population data, 1986–2013.

Year	Marine Sport Harvest[a]	Eastside Setnet Harvest[b]	Drift Gillnet Harvest[b]	Commercial Personal Use[c]	Kenaitze Educational	Subsistence[d]	Personal Use Dipnet[e]	Sport Harvest Below Sonar[fg]	Inriver Run Estimate[h]	Sport Harvest Above Sonar[fg]	Catch-and-Release Mortality[f]	Spawning Escapement	Total Run	Harvest Rate
1986	378	13,619	1,100	ND	ND	ND	ND	ND	62,740	9,872	316	52,552	77,837	0.32
1987	731	14,536	2,731	ND	ND	ND	235	ND	63,550	13,100	123	50,327	81,783	0.38
1988	892	8,834	1,330	ND	ND	ND	0	ND	61,760	19,695	176	41,889	72,816	0.42
1989	821	7,498	0	ND	ND	22	0	ND	36,370	9,691	88	26,591	44,711	0.41
1990	963	2,843	373	91	ND	13	ND	ND	34,200	6,897	69	27,234	38,483	0.29
1991	1,023	3,361	145	130	ND	288	ND	ND	38,940	7,903	16	31,021	43,887	0.29
1992	1,269	7,363	326	50	ND	402	0	ND	42,290	7,556	234	34,500	51,700	0.33
1993	1,700	9,672	451	81	ND	27	0	ND	50,210	17,775	478	31,957	62,142	0.49
1994	1,121	10,700	276	9	1	392	ND	ND	47,440	17,837	572	29,031	59,939	0.52
1995	1,241	8,291	314	25	3	ND	712	ND	44,770	12,609	472	31,689	55,355	0.43
1996	1,223	7,944	219	31	1	ND	295	ND	42,790	8,112	337	34,341	52,503	0.35
1997	1,759	7,780	293	30	20	ND	364	ND	41,120	12,755	570	27,795	51,367	0.46
1998	1,070	3,495	199	35	2	ND	254	ND	47,110	7,515	595	39,000	52,165	0.25
1999	602	6,501	345	59	4	ND	488	1,170	43,670	12,425	682	30,563	52,839	0.42
2000	631	2,531	162	27	6	ND	410	831	47,440	14,391	499	32,550	52,038	0.37
2001	552	4,128	371	80	8	ND	638	1,336	53,610	15,144	825	37,641	60,724	0.38
2002	256	6,511	249	15	6	ND	606	1,929	56,800	10,678	665	45,457	66,372	0.32
2003	120	10,174	744	53	11	ND	1,016	823	85,110	16,120	1,803	67,187	98,052	0.31
2004	996	14,897	916	218	10	ND	792	2,386	79,690	14,988	1,019	63,683	99,905	0.36
2005	624	15,183 [i]	1,103	639	11	ND	997	2,287	77,440	15,927	1,267	60,246	98,284	0.39
2006	563	6,840 [i]	631	61	11	ND	1,034	3,322	62,270	12,490	830	48,950	74,732	0.34
2007	478	8,445 [i]	547	38	6	0	1,509	1,750	47,370	9,690	670	37,010	60,143	0.38
2008	310	5,203 [i]	392	23	15	0	1,362	1,011	42,840	10,128	370	32,342	51,156	0.37
2009	154	3,839	515	64	4	0	1,189	1,132	29,940	7,904	626	21,410	36,837	0.42
2010	335	4,567	323	32	21	0	865	445	23,250	6,762	264	16,224	29,839	0.46
2011	528	5,596	356	88	5	0	1,243	458	27,090	6,894	479	19,717	35,363	0.44
2012	30	484	115	41	0	0	40	2	27,910	101	95	27,714	28,622	0.03
2013[j]	ND	2,289	267	117	8	0	11	37	17,015	1,541	79	15,395	19,744	0.22
Average														
1986–2002	955	7,389	523	51	6	191	308	1,317	47,930	11,997	395	35,538	57,451	0.38
2003–2013	414	7,047	537	125	9	0	914	1,241	47,266	9,322	682	37,262	57,516	0.34
1986–2013	754	7,255	528	85	8	88	586	1,261	47,669	10,946	508	36,215	57,476	0.36

Source: Statewide Harvest Surveys (SWHS) from Mills 1987–1994, Howe et al. 1995, 1996, 2001a-d, Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b, 2011, *In Prep* a-b; Hammarstrom and Timmons 2001b; Brannian and Fox 1996; Ruesch and Fox 1996; Reimer and Sigurdsson 2004; Dunker and Lafferty 2007, Dunker, K.J. 2010, K. J. Dunker, Sport Fish Biologist, ADF&G, Anchorage, personal communication; Shields and Dupois 2013, P. Shields, Comm Fish Biologist, ADF&G, Soldotna, personal communication; Fleischman and McKinley 2013, FMS 13-02; Tim McKinley personal communication; Robert Begich personal communication.

Note: ND = No data available

[a] From Fleischman and McKinley 2013, FMS 13-02.

[b] Eastside setnet and drift gillnet commercial harvest data using genetic stock allocation from Fleischman and McKinley 2013, FMS 13-02; Tony Eskelin personal communication.

[c] Eastside setnet and drift gillnet personal use data using genetic stock allocation from Fleischman and McKinley 2013, FMS 13-02; Tony Eskelin personal communication..

[d] Total includes fish harvested from Cohoe, Salamatof, and Kalifornsky Beaches, and the Kenai River.

[e] 1986–1994 from SWHS; 1995 (Ruesch and Fox 1996); 1996–2012 are estimates from returned permits.

[f] Some harvest is below sonar and not counted against escapement.

[g] Sport harvest includes Creel survey estimates for the area from Cook Inlet to the Soldotna Bridge and estimates from the SWHS for Soldotna Bridge to outlet of Skilak Lake.

[h] Inriver run estimates thru 2012 are median values inTable 6 of Fleischman and McKinley 2013, FMS 13-02.

[i] Harvest estimate does not include Kasilof River terminal fishery which occurred 2005–2008.

[j] 2013 estimates are preliminary until biometrically reviewed and published.

PROPOSAL 217 – 5 AAC 21.359. Kenai River Late-Run King Salmon Management Plan.

PROPOSED BY: Central Peninsula Fish and Game Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would delete the preamble language in Cook Inlet management plans that states: "The department shall manage commercial fisheries to minimize the harvest of late-run Kenai River king in order to provide personal use, sport and guided sport fishermen with a reasonable opportunity to harvest salmon resources" and replace it with language that states: "The department shall manage common property fisheries for a reasonable opportunity to harvest salmon resources." However, the author does not identify which management plans contain this language.

WHAT ARE THE CURRENT REGULATIONS? There are two management plans that provide the Alaska Department of Fish and Game (department) with direction on minimizing the harvest of late-run Kenai River king salmon. The *Kenai River Late-Run King Salmon Management Plan* states that the purposes of this management plan are to ensure an adequate escapement of late-run king salmon into the Kenai River system and to provide management guidelines to the department. The subsection also states that the department shall manage the late-run Kenai River king salmon stocks primarily for sport and guided sport uses in order to provide the sport and guided sport fishermen with a reasonable opportunity to harvest these salmon resources over the entire run, as measured by the frequency of inriver restrictions.

The Kenai River Late-Run Sockeye Salmon Management Plan directs the department to manage the Kenai River late-run sockeye salmon stocks primarily for commercial uses based on abundance. The department shall also manage the commercial fisheries to minimize the harvest of Northern District coho, late-run Kenai River king, and Kenai River coho salmon stocks in order to provide personal use, sport, and guided sport fishermen with a reasonable opportunity to harvest salmon resources.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Changing the preambles as proposed would direct the department to manage to a different priority among users. Without changing specific provisions of the plan, it is not clear how the department would manage the fisheries to implement the change in priorities.

BACKGROUND: The preambles to both the *Kenai River Late-Run King Salmon Management Plan* and the *Kenai River Late-Run Sockeye Salmon Management Plan* were first adopted in 1999.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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 218 – 5 AAC 21.359. Kenai River Late-Run King Salmon Management Plan.

PROPOSED BY: Lynn Whitmore.

WHAT WOULD THE PROPOSAL DO? This proposal would use the southern Anchor River ADF&G regulatory marker instead of the Bluff Point ADF&G regulatory marker when restricting the marine king salmon fishery to protect Kenai River king salmon.

WHAT ARE THE CURRENT REGULATIONS? If the projected inriver return of Kenai River late-run king salmon is less than 15,000 fish, the department shall close the sport fisheries in the Kenai River and in the salt waters of Cook Inlet north of the latitude of Bluff Point to the taking of king salmon.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would increase the harvest of king salmon by an unknown, but likely small, amount in years the inriver late-run king salmon sport fishery is closed. This proposal would also create an inconsistency in regulations because the southern Anchor River marker was replaced with the Anchor Point Light during the December 2013 Lower Cook Inlet Alaska Board of Fisheries (board) meeting (figures 218-1 and 218-2).

BACKGROUND: Department information about the origin of king salmon stocks harvested in the nearshore marine waters along the eastside of Cook Inlet from Cape Ninilchik to Bluff Point, have been documented. From 1996 through 2002, the department conducted a coded wire tag recovery project to answer questions regarding the magnitude of marine exploitation rates for king salmon stocks originating in Cook Inlet. Although specific information is available about marine exploitation of Cook Inlet origin stocks for the early-run marine recreational king salmon fishery from May 1 through June 24 over several years, some information was collected during the late-run time period (June 25–July 31) in both 1997 and 1998. Two coded wire tagged king salmon of Kenai River origin were collected from sport harvests sampled in these years. Both fish were recovered north of the latitude of Anchor Point. Anchor Point is north of the latitude of the southern Anchor River ADF&G regulatory marker sought by this proposal. No coded wire tagged king salmon of Kenai River origin were recovered in the harvests sampled from the 1997 and 1998 late-run (June 25–July 31) marine recreational fishery south of the latitude of Anchor Point.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. Should the board adopt this proposal, the department would recommend that the Anchor Point Light be used in place of the proposed southern Anchor River marker as the designated boundary.

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 218-1.–Location of Bluff Point and the Anchor South Marker and distances between the locations.

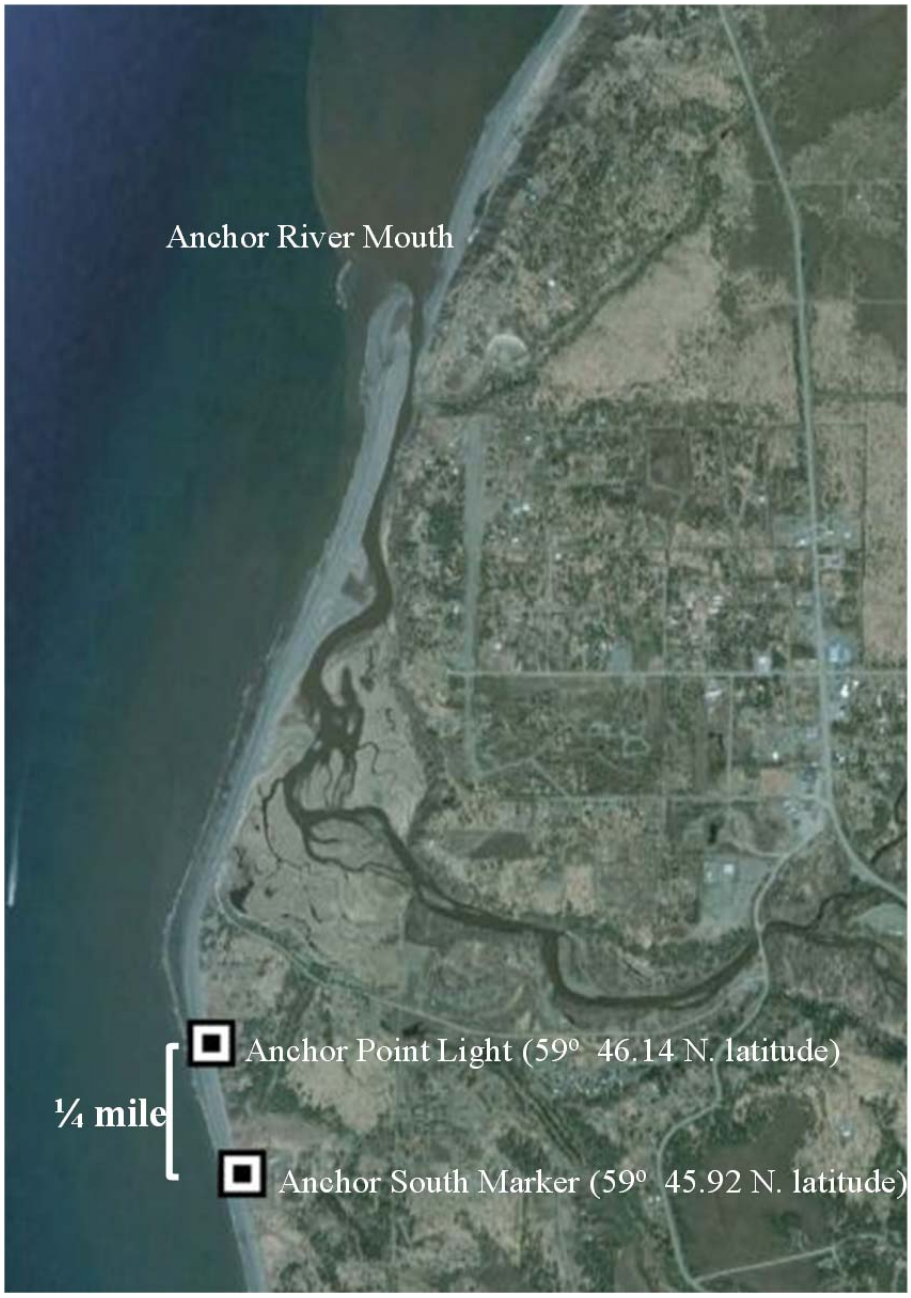

Figure 218-2.–Marker location between the old southern Anchor River closed-water boundary marker (Anchor South Marker) and the new boundary marker (Anchor Point Light).

COMMITTEE OF THE WHOLE – GROUP 3: KENAI RIVER EARLY-RUN KING SALMON MANAGEMENT PLAN (10 PROPOSALS)

Kenai River Early-Run King Salmon Management Plan (10 Proposals): 190, 186–189, 191-194, 196

PROPOSAL 190 – 5 AAC 57.160. Kenai River and Kasilof River Early-run King Salmon Management Plan.

PROPOSED BY: Kenai River Sportfishing Association.

WHAT WOULD THE PROPOSAL DO? This proposal would undertake a comprehensive revision of the *Kenai River and Kasilof River Early-run King Salmon Management Plan*. The review would include consideration of the following alternatives:

- Regulatory approach that stabilizes fishery predictability and limits the potential for disruptive closures during low runs, (conservative early-season management and inseason triggers and areas for catch-and-release or closure).
- Measures to increase opportunity during large run years in order to avoid exceeding escapement goals (e.g. opening the season with bait based on forecasts rather than by inseason emergency order (EO), allowing multiple hooks).
- Elimination of the slot limit.

The proposal also makes three modifications to the current plan, including: directing the department to act based on a spawning escapement forecast, in addition to a projection; removing the current slot (size) limit; and directing the department to liberalize the sport fishery downstream of the outlet of Skilak Lake by allowing the use of multiple hooks, when the escapement is projected to exceed the optimal escapement goal (OEG).

WHAT ARE THE CURRENT REGULATIONS? The purpose of the management plan is to ensure an adequate escapement of early-run king salmon into the Kenai and Kasilof rivers, to conserve the unique large size early-run king salmon in the Kenai River, and to provide the department with management guidelines. The department shall manage the Kenai River early-run king salmon sport and guided sport fisheries to achieve the OEG, to provide reasonable harvest opportunities over the entire run, and to ensure the age and size composition of the harvest closely approximates the age and size composition of the run.

In waters of the Kenai River open to king salmon sport fishing, early-run regulations allow for the harvest of 10 king salmon less than 20 inches per day, and harvest of one king salmon per day 20 inches or greater in length and less than 46 inches or 55 inches or greater in length. Any king salmon caught that is 46 inches or longer, but less than 55 inches, must be released unharmed. The non-retention slot limit is in effect from January 1–June 30 in the Kenai River from the mouth upstream to the Soldotna Bridge and from January 1–July 14 for those waters of the Kenai River from the Soldotna Bridge upstream to the outlet of Skilak Lake.

If the spawning escapement is projected to be less than the lower the end of the OEG, the commissioner shall, by EO, restrict as necessary the taking of king salmon in the sport and guided sport fisheries in the Kenai River to achieve the OEG using one of the following methods:

(A) prohibit the retention of king salmon less than 55 inches in length, except king salmon less than 20 inches in length, downstream from the outlet of Skilak Lake through June 30, and require that upstream from the Soldotna Bridge to the outlet of Skilak Lake and in the Moose River from its confluence with the Kenai River upstream to the northernmost edge of the Sterling Highway Bridge, from July 1–July 14, only one unbaited, single-hook, artificial lure may be used and only king salmon less than

(i) 46 inches in length and 55 inches or greater in length may be retained; or

(ii) 20 inches in length and 55 inches or greater in length may be retained; or

(B) close the sport and guided sport fisheries to the taking of king salmon in the Kenai River

(i) downstream from the outlet of Skilak Lake through June 30; and

(ii) from July 1–July 14, upstream from the Soldotna Bridge to the outlet of Skilak Lake and in the Moose River from its confluence with the Kenai River upstream to the northernmost edge of the Sterling Highway Bridge.

If the spawning escapement is projected to fall within the OEG, the commissioner shall, by EO, liberalize the sport fishery downstream from the outlet of Skilak Lake, by allowing the use of bait if the department projects that the total harvest under a liberalized sport fishery will not reduce the spawning escapement below the OEG; only king salmon less than 46 inches in length or 55 inches or greater in length may be retained.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Although the proposal suggests a comprehensive revision of the management plan, and provides broad objectives, it also provides specific regulatory changes. The proposed regulatory changes would allow for preseason management actions, eliminate the slot limit, and allow the use of multiple hooks by EO when liberalizing the sport fishery. The first would have no effect because the department may act on a preseason forecast under current regulations. Eliminating the slot limit would likely increase the sport harvest of king salmon, which would likely lead to increased pre- and/or inseason restrictions to the inriver fishery during low runs. It would also increase the harvest of large age-4 and age-5 fish that fall within the current slot limit.

BACKGROUND: Prior to 2002, there was no slot limit in the Kenai River king salmon sport fishery; anglers were permitted to harvest king salmon regardless of the total length of the fish. However, the department, along with the public, recognized a decline in larger, older-aged king salmon returning to the Kenai River during the early run. Although the exact cause for the decline in older king salmon during the early run is not understood, the selective harvest or exploitation of larger, ocean-age-5 fish was the only practical factor that could be directly influenced by fishery managers. Therefore, at the department's request, the Alaska Board of Fisheries (board) adopted a slot limit harvest restriction in 2002 of 40–55 inches. This restriction almost completely eliminated the harvest potential of ocean-age-5 fish, allowed the retention of rare record-sized fish, and allowed harvest of younger, smaller fish.

In 2003, the board adjusted the slot limit to 44–55 inches based on a department-recommended slot limit of 45–55 inches to protect the larger, older, ocean-age-5 king salmon returning to the Kenai River during the early run. This slot limit allowed approximately 73% of the returning early-run stocks to be available for harvest. Within this slot limit, most (87%) of the ocean-age-5 fish were protected, as were about 40% of the ocean-age-4 fish in the run.

In 2008, the board relaxed the slot limit again to 46–55 inches to allow for more harvest during years of higher abundance, yet still protect ocean-age-5 king salmon. This slot limit made approximately 83% of the returning early-run stocks available for harvest. Within this slot limit, 69% of the ocean-age-5 fish are protected, as are about 26% of the ocean-age-4 fish in the run (Figure 190-1). Also within this slot limit, 42% of ocean-age-5 females are protected and 86% of ocean-age-5 males are protected, while 8% of ocean-age-4 females are protected and 51% of ocean-age-4 males are protected (Figure 190-2).

From 1986–1995, the early run included an average 1,076 ocean-age-5 king salmon, which comprised about 7.2% of the run (tables 190-1 and 190-2; Figure 190-3). During 1996–2002, the average decreased to 330 ocean-age-5 king salmon, which comprised 2.8% of the run. From 2003–2009, the average increased to an estimated 564 ocean-age-5 king salmon, which comprised about 3.4% of the run. From 2010–2013, however, an average of only 105 ocean-age-5 king salmon were estimated in the run, comprising about 1.8%. The last four years were the lowest estimates of ocean-age-5 early-run king salmon the department has on record.

Harvest selectivity prior to the slot limit being enacted favored harvesting older larger king salmon. From 2003–2007, harvest selectivity shifted to favor ocean-age-3 (5-year-olds) king salmon and very few ocean-age-5 (7-year-olds) king salmon were harvested (Figure 190-4). Since 2008, when the slot limit was adjusted to 46–55 inches, selectivity for ocean-age-3 king salmon decreased, while selectivity for the other age classes remained stable compared to the previous slot limit of 44–55 inches. From 2002–2013, a creel survey of the inriver sport fishery downstream of the Soldotna Bridge did not detect any harvest of ocean-age-5 king salmon, except for in 2007 and 2008 when 33 fish (0.9%) and 11 fish (0.3%), respectively, were estimated to have been harvested (tables 190-3 and 190-4).

In 2013, the estimated inriver run was 2,038 fish and after accounting for inriver sport fishing mortality above the sonar, the estimated escapement was 2,033 king salmon (Table 190-5).

The transition of the king salmon assessment program from escapement goals based on split-beam sonar technology at river mile (RM) 8.6 to escapement goals based on DIDSON (dual-frequency identification sonar) multi-beam technology has been completed. DIDSON located at the RM 8.6 sonar site remains the primary tool used to evaluate the escapement goals and estimate fish passage for both early- and late-run stocks. Transition to a DIDSON-based assessment at RM 13.7 is occurring simultaneously. DIDSON was first deployed for the entire season at RM 13.7 in 2013 to determine if the location is suitable for accurately assessing total king salmon passage. Research projects initiated in 2010, which include a tagging project augmented by weirs, provide an estimate of king salmon abundance each year independent of the DIDSON assessment. Results from the recent RM 13.7 sonar research as well as the tagging project are forthcoming.

While the sonar program is in transition, the department is using the RM 8.6 DIDSON sonar to manage the fishery. This will continue until the time when the RM 13.7 sonar site estimates, tagging project abundance estimates, and escapement goals can be fully reviewed to complete the transition.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. The department is supportive of reviewing management plans during regular cycle board meetings, and would support a review of this plan. We suggest that such a review would be most beneficial at a subsequent cycle, after sufficient experience is gained by the DIDSON project at RM 13.7. The department also recommends caution with regards to broad changes to the management plan while the department's inseason assessment of the early-run stocks is in transition to a new location.

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.

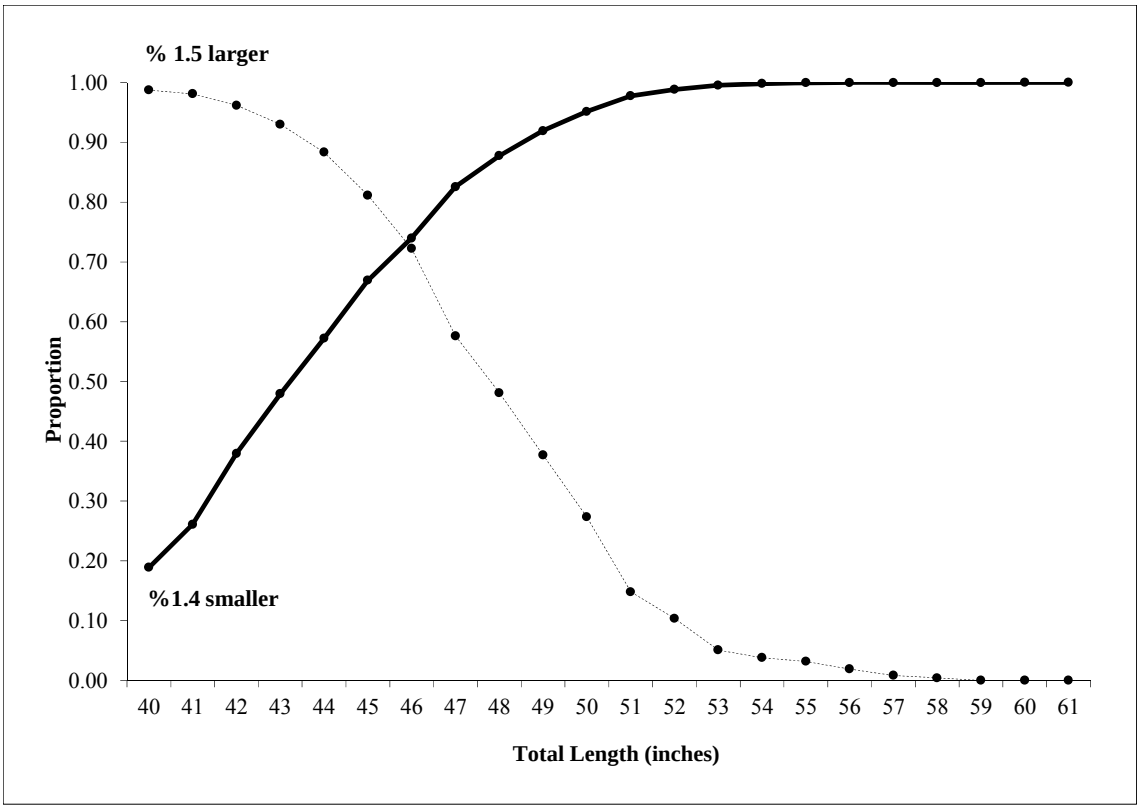

Figure 190-1.–Cumulative proportion of Kenai River early-run king salmon aged 1.4 that are smaller (solid line), and those aged 1.5 that are larger (dotted line), than each 1-inch increment between 40 and 60 inches in total length.

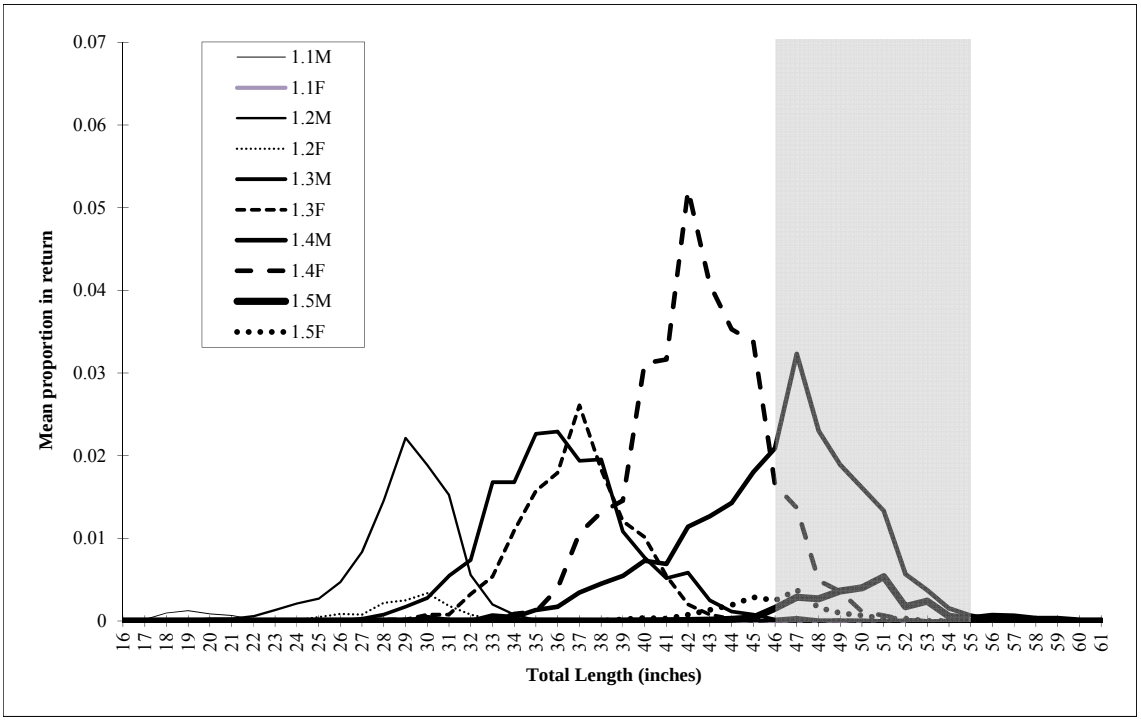

Figure 190-2.–Age-length-sex frequency relationships for Kenai River early-run king salmon, 1986–2013.

Table 190-1.–Total run by age class for Kenai River early-run king salmon, 1986–2013.

Year	Age Class					Total [a]
	1.1	1.2	1.3	1.4	1.5	
1986	404	6,690	7,281	4,272	1,540	20,187
1987	280	2,424	9,098	9,443	733	21,978
1988	322	1,889	4,076	11,330	2,612	20,229
1989	294	1,986	2,413	6,483	1,510	12,686
1990	338	2,113	2,972	4,144	744	10,311
1991	364	2,430	2,702	4,826	606	10,928
1992	337	2,903	3,656	4,738	688	12,322
1993	316	2,143	4,127	5,989	628	13,203
1994	312	2,139	3,299	6,953	838	13,541
1995	324	2,311	3,199	6,516	856	13,206
1996	262	2,235	3,142	4,373	343	10,355
1997	438	1,859	4,055	4,878	278	11,508
1998	316	4,532	3,775	3,226	440	12,289
1999	341	2,746	6,834	3,698	184	13,803
2000	485	2,643	4,156	3,587	223	11,094
2001	516	5,149	3,639	4,578	420	14,302
2002	435	1,995	4,028	4,216	424	11,098
2003	306	6,091	4,691	9,143	335	20,566
2004	307	3,880	8,008	10,510	937	23,642
2005	289	2,681	6,265	10,840	845	20,920
2006	229	5,006	3,787	8,422	809	18,253
2007	80	3,099	4,106	5,872	506	13,663
2008	73	1,364	3,914	4,626	286	10,263
2009	233	1,291	1,844	4,225	232	7,825
2010	484	1,965	3,434	1,899	101	7,883
2011	213	2,477	3,087	3,998	168	9,943
2012	240	656	1,901	2,519	103	5,419
2013	150	400	549	900	49	2,048
Historical Mean	310	2,753	4,073	5,579	623	13,338
Recent 10-yr. Mean	245	2,851	4,104	6,205	432	13,838
Recent 5-yr. Mean	249	1,551	2,836	3,453	178	8,267

[a] Total and individual estimates are mean values from Appendix B1 in McKinley and Fleischman, 2013 FMS 13-03.

Table 190-2.–Percentage of total run by age class for Kenai River early-run king salmon, 1986–2013.

	Age Class				
Year	1.1	1.2	1.3	1.4	1.5
1986	2.0	33.1	36.1	21.2	7.6
1987	1.3	11.0	41.4	43.0	3.3
1988	1.6	9.3	20.1	56.0	12.9
1989	2.3	15.7	19.0	51.1	11.9
1990	3.3	20.5	28.8	40.2	7.2
1991	3.3	22.2	24.7	44.2	5.5
1992	2.7	23.6	29.7	38.5	5.6
1993	2.4	16.2	31.3	45.4	4.8
1994	2.3	15.8	24.4	51.3	6.2
1995	2.5	17.5	24.2	49.3	6.5
1996	2.5	21.6	30.3	42.2	3.3
1997	3.8	16.2	35.2	42.4	2.4
1998	2.6	36.9	30.7	26.3	3.6
1999	2.5	19.9	49.5	26.8	1.3
2000	4.4	23.8	37.5	32.3	2.0
2001	3.6	36.0	25.4	32.0	2.9
2002	3.9	18.0	36.3	38.0	3.8
2003	1.5	29.6	22.8	44.5	1.6
2004	1.3	16.4	33.9	44.5	4.0
2005	1.4	12.8	29.9	51.8	4.0
2006	1.3	27.4	20.7	46.1	4.4
2007	0.6	22.7	30.1	43.0	3.7
2008	0.7	13.3	38.1	45.1	2.8
2009	3.0	16.5	23.6	54.0	3.0
2010	6.1	24.9	43.6	24.1	1.3
2011	2.1	24.9	31.0	40.2	1.7
2012	4.4	12.1	35.1	46.5	1.9
2013[a]	7.3	19.5	26.8	43.9	2.4
Historical Mean	2.7	20.6	30.7	41.6	4.3
Recent 10-yr. Mean	2.2	20.1	30.9	44.0	2.8
Recent 5-yr. Mean	3.3	18.3	34.3	42.0	2.1

[a] 2013 estimates are preliminary until biometrically reviewed and published.

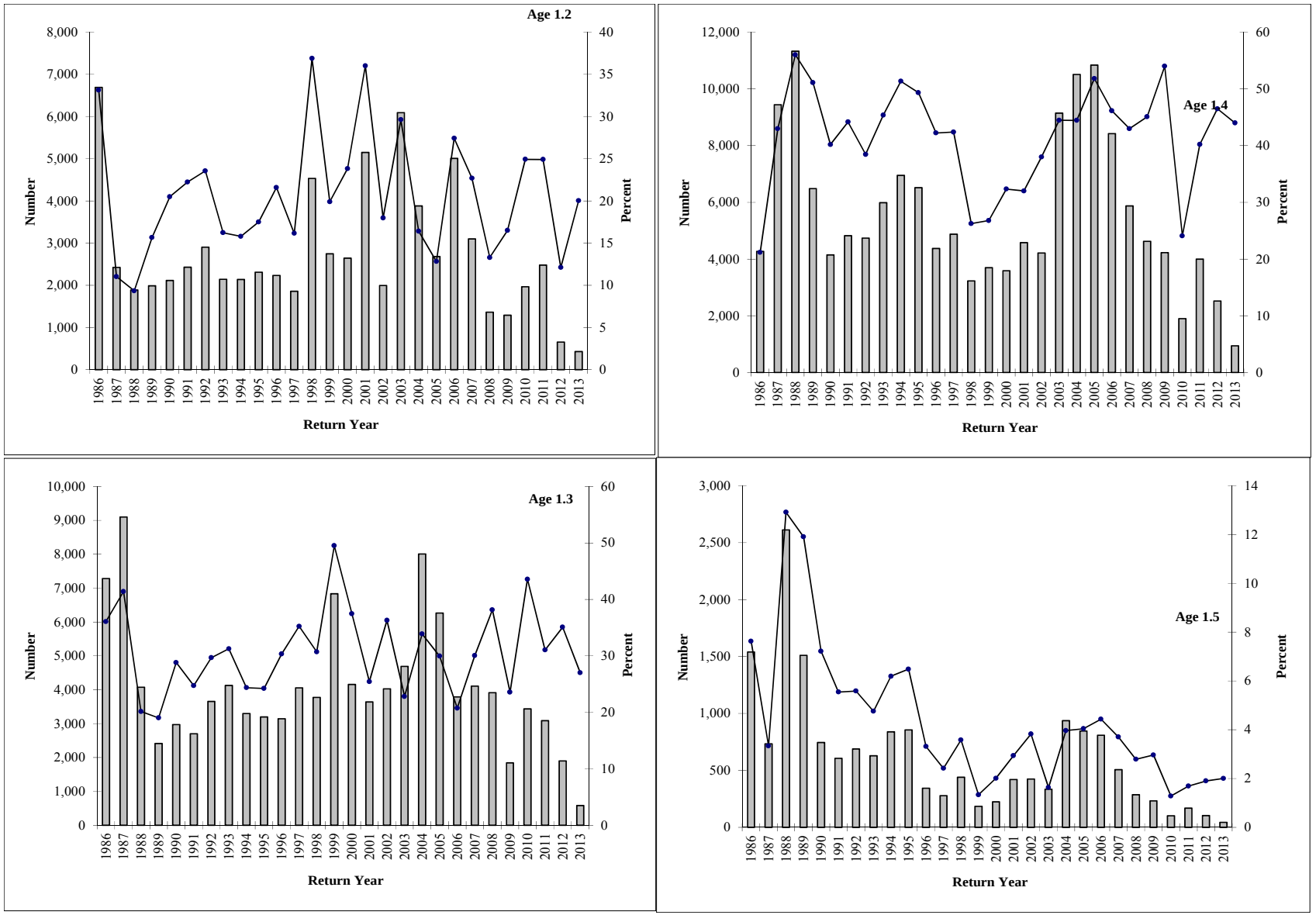

Figure 190-3.–Number (gray bars) and percent (lines) of Kenai River early-run king salmon aged 1.2, 1.3, 1.4, and 1.5 in the total run, 1986–2013.

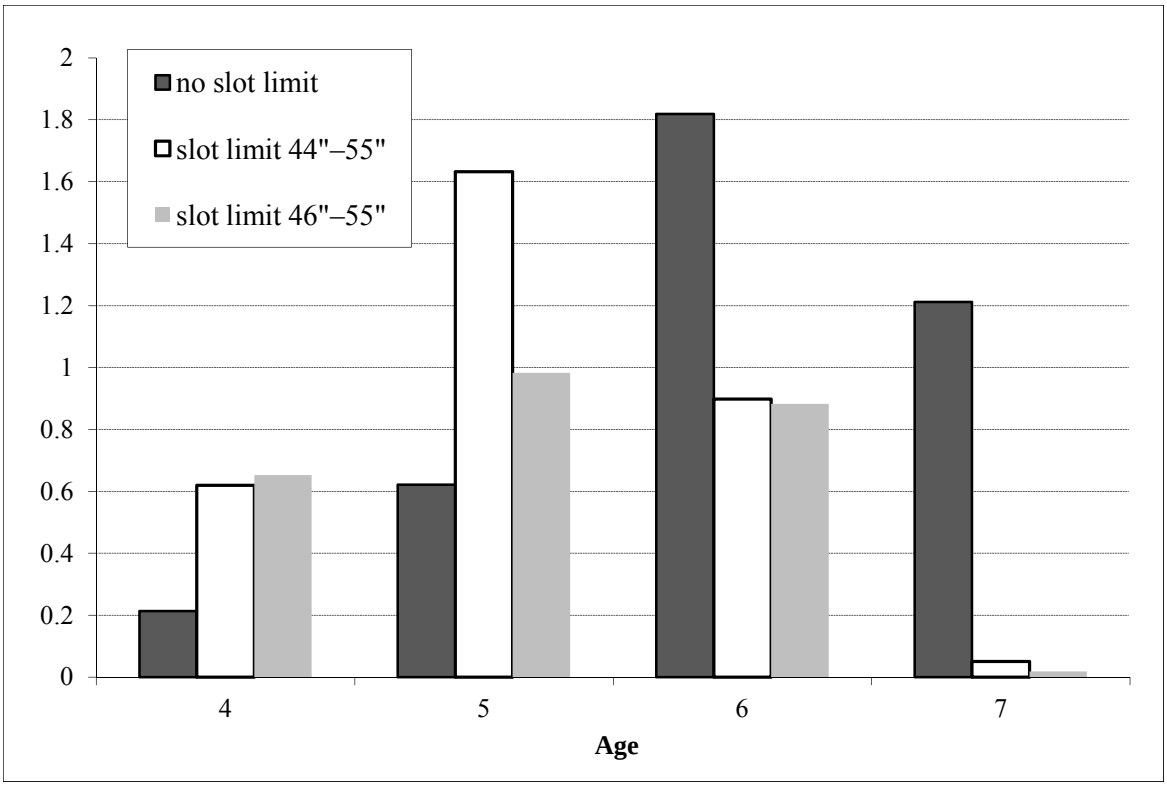

Figure 190-4.–Relative harvest selectivity by age for Kenai River early-run king salmon, before a slot limit (1986–2002), with a 44–55 slot limit (2003–2007), and with a 46–55 slot limit (2008–2013). Selectivity estimates less than 1 equate to no selectivity for that age class, 1 equates to no selectivity or neutral for that age class, and values greater than 1 equates to selectivity for that age class.

Table 190-3.–Estimated sport harvest of Kenai River early-run king salmon by age class, 1986–2013.

Year	3	4	5	6	7	All
1986	15	583	2,957	3,874	728	8,156
1987	0	116	4,220	8,498	723	13,557
1988	26	291	1,855	11,950	1,086	15,209
1989	92	275	2,202	5,275	550	8,394
1990	0	102	102	1,349	255	1,807
1991	0	0	166	1,573	207	1,945
1992	0	94	377	1,698	71	2,241
1993	0	290	1,868	6,636	547	9,342
1994	0	303	675	6,960	233	8,171
1995	0	0	378	8,451	1,387	10,217
1996	0	414	1,288	4,760	161	6,623
1997	0	200	679	5,271	280	6,429
1998	0	15	228	851	76	1,170
1999	36	677	2,984	4,202	230	8,129
2000	38	19	303	1,401	57	1,818
2001	34	304	405	1,622	34	2,399
2002	0	116	377	406	0	899
2003	0	506	1,212	1,121	0	2,839
2004	0	372	1,693	1,321	0	3,386
2005	56	252	1,681	1,821	0	3,810
2006	62	781	1,738	2,112	0	4,693
2007	33	555	1,632	1,241	33	3,493
2008	0	397	1,977	1,115	11	3,500
2009	15	282	491	679	0	1,466
2010	30	295	679	333	0	1,337
2011	0	263	478	597	0	1,337
2012	0	18	165	512	0	695
2013	ND	ND	ND	ND	ND	ND
Avg. 1986–2013	16	269	1,172	3,058	238	4,752
Avg. 1986–2002	14	223	1,239	4,399	390	6,265
Avg. 2003–2013	18	338	1,068	986	4	2,414

Note: Slot limit went into regulation in 2002.

Table 190-4.–Estimated sport harvest of Kenai River early-run king salmon by percent composition of age class, 1986–2013.

Year	3	4	5	6	7
1986	0.18	7.14	36.25	47.50	8.93
1987	0.00	0.85	31.13	62.69	5.33
1988	0.17	1.92	12.20	78.57	7.14
1989	1.09	3.28	26.23	62.84	6.56
1990	0.00	5.63	5.63	74.65	14.08
1991	0.00	0.00	8.51	80.85	10.64
1992	0.00	4.21	16.84	75.79	3.16
1993	0.00	3.10	20.00	71.03	5.86
1994	0.00	3.70	8.26	85.19	2.85
1995	0.00	0.00	3.70	82.72	13.58
1996	0.00	6.25	19.44	71.88	2.43
1997	0.00	3.11	10.56	81.99	4.35
1998	0.00	1.30	19.48	72.73	6.49
1999	0.45	8.32	36.71	51.69	2.83
2000	2.09	1.04	16.67	77.08	3.13
2001	1.42	12.68	16.90	67.61	1.41
2002	0.00	12.90	41.94	45.16	0.00
2003	0.00	17.81	42.69	39.50	0.00
2004	0.00	11.00	50.00	39.01	0.00
2005	1.47	6.62	44.12	47.79	0.00
2006	1.33	16.65	37.03	45.00	0.00
2007	0.93	15.89	46.73	35.51	0.93
2008	0.00	11.36	56.49	31.85	0.31
2009	0.99	19.23	33.50	46.28	0.00
2010	2.21	22.09	50.80	24.90	0.00
2011	0.00	19.64	35.71	44.64	0.00
2012	0.00	2.59	23.74	73.67	0.00
2013	ND	ND	ND	ND	ND
Avg. 1986–2013	0.44	7.80	26.83	57.79	3.57
Avg. 1986–2002	0.32	4.44	19.44	70.00	5.81
Avg. 2003–2013	0.69	14.29	42.08	42.82	0.12

Note: Slot limit went into regulation in 2002.

Table 190-5.–Kenai River early-run king salmon population data, 1986–2013.

Year	Marine Sport Harvest	Misc. Marine Harvest[a]	Kenaitze Educational Harvest[b]	Inriver Run[c]	Sport Harvest Above Sonar[d]	Catch-and-Release Mortality	Spawning Escapement	Total Run	Harvest Rate
1986	144	0	ND	20,100	8,156	242	11,702	20,244	0.42
1987	181	0	ND	21,750	13,557	306	7,887	21,931	0.64
1988	212	0	ND	19,800	15,209	340	4,251	20,012	0.79
1989	193	0	73	12,290	8,394	149	3,747	12,556	0.70
1990	235	0	40	9,842	1,807	378	7,657	10,117	0.24
1991	241	0	2	10,620	1,945	152	8,523	10,863	0.22
1992	300	0	73	11,930	2,241	236	9,453	12,303	0.23
1993	407	0	118	12,490	9,342	286	2,862	13,015	0.78
1994	343	0	56	13,160	8,171	285	4,704	13,559	0.65
1995	412	0	37	12,890	10,217	357	2,316	13,339	0.83
1996	235	0	104	9,764	6,623	287	2,854	10,103	0.72
1997	282	0	122	11,140	6,429	349	4,362	11,544	0.62
1998	289	0	131	11,930	1,170	254	10,506	12,350	0.15
1999	245	0	114	13,480	8,129	261	5,090	13,839	0.63
2000	239	0	124	10,790	1,818	185	8,787	11,153	0.21
2001	184	0	198	14,020	2,399	205	11,416	14,402	0.21
2002	168	0	48	10,860	899	78	9,883	11,076	0.11
2003	202	0	126	20,450	2,839	389	17,222	20,778	0.17
2004	194	0	72	23,460	3,386	257	19,817	23,726	0.16
2005	187	341	76	20,810	3,810	253	16,747	21,414	0.22
2006	252	0	65	18,180	4,693	205	13,282	18,497	0.28
2007	201	41	16	13,630	3,493	220	9,917	13,888	0.29
2008	107	102	40	10,210	3,500	123	6,587	10,459	0.37
2009	71	16	49	7,741	1,466	97	6,178	7,877	0.22
2010	88	48	32	7,830	1,337	90	6,403	7,998	0.20
2011	110	0	42	9,895	1,337	92	8,466	10,047	0.16
2012	89	0	19	5,387	316	10	5,061	5,495	0.08
2013[e]	ND	0	11	2,038	0	5	2,033	2,049	0.01
Average									
1986–2002	254	0	89	13,344	6,265	256	6,824	13,671	0.48
2003–2013	150	50	50	12,694	2,380	158	10,156	12,930	0.20
1986–2013	215	20	72	13,089	4,739	218	8,133	13,380	0.37

Source: Statewide Harvest Surveys (SWHS) from Mills 1987-1994, Howe et al. 1995, 1996, 2001a-d, Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b, 2011, *In Prep* a-b; Alexandersdottir and Marsh 1990; Nelson et al. 1999; Hammarstrom and Timmons 2001a; Reimer et al. 2002, Reimer, A. 2003, 2004a-b, 2007; Eskelin, A. 2007, 2009, 2010; Perschbacher 2012a-d, J. Perschbacher, Sport Fish Biologist, ADF&G, Soldotna, personal communication; McKinley and Fleischman 2013; 1994-2012 Educational data, Kenaitze Indian Tribe; Tim mcKinley personal communication.

Note: ND = No data available

[a] Commercial cost-recovery harvest.

[b] Prior to 1994, there was no educational fishery, this was considered a subsistence fishery.

[c] Inriver run estimate is median value from Table 8 in McKinley and Fleischman 2013, FMS 13-03.

[d] Includes creel survey estimates for the area from Cook Inlet to the Soldotna Bridge and estimates from the SWHS from the Soldotna Bridge to the outlet of Kenai Lake.

[e] 2013 estimates are preliminary until biometrically reviewed and published.

PROPOSAL 186 – 5 AAC 57.160. Kenai River and Kasilof River Early-run King salmon Management Plan methods and means for the Lower Section of the Kenai River Drainage Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would modify the Kenai River early-run king salmon plan by adding a reference to the existing optimal escapement goal (OEG) and by stating the department may liberalize the sport fishery instead of stating shall liberalize the sport fishery.

WHAT ARE THE CURRENT REGULATIONS? In the Kenai River, if the spawning escapement is projected to fall within the OEG, the commissioner shall, by emergency order, liberalize the sport fishery downstream from the outlet of Skilak Lake, by allowing the use of bait if the department projects that the total harvest under a liberalized sport fishery will not reduce the spawning escapement below the OEG.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would put into codified regulations the numerical values of the Kenai River early-run king salmon OEG range, which is 5,300–9,000 fish, making the numeric values readily accessible to members of the public. The language change from "shall" to "may" would give managers more flexibility in regards to when to liberalize the fishery based on inseason run assessment and would be reflective of current management practices.

BACKGROUND: The existing OEG was adopted into regulation in 2005 after the department recommended changing the biological escapement goal of Kenai River early-run king salmon from 7,200–14,400 to 4,000–9,000. From 2005–2007, liberalization of the early run fishery was allowed only when the OEG was projected to be exceeded. In 2008, the Alaska Board of Fisheries changed the management plan to the present language which directs the department to liberalize the fishery when the OEG is projected to be met.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** 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 187 – 5 AAC 57.160. Kenai River and Kasilof River Early-run King Salmon Management Plan.

PROPOSED BY: Kenai Area Fisherman's Coalition.

WHAT WOULD THE PROPOSAL DO? This proposal would modify the Kenai River early-run king salmon plan by stating the department may liberalize the sport fishery instead of stating shall liberalize the sport fishery.

WHAT ARE THE CURRENT REGULATIONS? In the Kenai River, if the spawning escapement is projected to fall within the optimal escapement goal (OEG), the commissioner shall, by emergency order, liberalize the sport fishery downstream from the outlet of Skilak Lake, by allowing the use of bait if the department projects that the total harvest under a liberalized sport fishery will not reduce the spawning escapement below the OEG.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The language change from "shall" to "may" would give managers more flexibility in regards to when to liberalize the fishery based on inseason run assessment and would be reflective of current management practices.

BACKGROUND: The existing OEG was adopted into regulation in 2005 after the department recommended changing the biological escapement goal of Kenai River early-run king salmon from 7,200–14,400 to 4,000–9,000. From 2005–2007, liberalization of the early run fishery was allowed only when the OEG was projected to be exceeded. In 2008, the Alaska Board of Fisheries changed the management plan to the present language which directs the department to liberalize the fishery when the OEG is projected to be met.

DEPARTMENT COMMENTS: The department **SUPPORTS** 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 188 – 5 AAC 57.160. Kenai River and Kasilof River Early-run King Salmon Management Plan.

PROPOSED BY: Kenai River Sportfishing Association.

WHAT WOULD THE PROPOSAL DO? This proposal would maintain the existing optimal escapement goal (OEG) of 5,300–9,000 Kenai River early-run king salmon.

WHAT ARE THE CURRENT REGULATIONS? In the Kenai River, if the spawning escapement is projected to fall within the OEG, the commissioner shall, by emergency order, liberalize the sport fishery downstream from the outlet of Skilak Lake, by allowing the use of bait if the department projects that the total harvest under a liberalized sport fishery will not reduce the spawning escapement below the OEG.

The *Policy for the management of sustainable salmon fisheries* (5 AAC 39.222) contains principles and criteria for the management of salmon fisheries by the state, and defines escapement goal terms. The *Policy for statewide salmon escapement goals* (5 AAC 39.223) recognizes the establishment of salmon escapement goals as a joint responsibility of the Alaska Department of Fish and Game (department) and the Alaska Board of Fisheries (board) and describes the concepts, criteria, and procedures for establishing and modifying salmon escapement goals. This policy describes the roles of the department and the board in developing, reviewing, and modifying escapement goals (see staff comments for proposals 207 and 208).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would result in no changes to the OEG.

BACKGROUND: The existing OEG was adopted into regulation in 2005 after the department recommended changing the biological escapement goal of Kenai River early-run king salmon from 7,000–14,400 to 4,000–9,000. From 2005–2007, liberalization of the early run fishery was allowed only when the OEG was projected to be exceeded. In 2008, the Alaska Board of Fisheries changed the management plan to the present language which directs the department to liberalize the fishery when the OEG is projected to be met.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. Based on a 2013 re-evaluation of the early run escapement goal, expected yields from this proposed OEG would have a greater than 90% chance of being greater than 90% of maximum sustained yield (MSY) at the lower bound (5,300) and would have a less than 50% chance of being greater than 70% of MSY at the upper bound (9,000).

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 189 – 5 AAC 57.160. Kenai River and Kasilof River Early-run King Salmon Management Plan.

PROPOSED BY: Scott M. Miller.

WHAT WOULD THE PROPOSAL DO? This proposal would increase the Kenai River early-run king salmon optimal escapement goal (OEG) from 5,300–9,000 to 9,000–14,000 fish.

WHAT ARE THE CURRENT REGULATIONS? The purpose of this management plan is to ensure an adequate escapement of early-run king salmon into the Kenai and Kasilof rivers, to conserve the unique large size early-run king salmon in the Kenai River, and to provide the department with management guidelines. The department shall manage the Kenai River early-run king salmon sport and guided sport fisheries to achieve the OEG, to provide reasonable harvest opportunities over the entire run, and to ensure the age and size composition of the harvest closely approximates the age and size composition of the run.

The *Policy for the management of sustainable salmon fisheries* (5 AAC 39.222) contains principles and criteria for the management of salmon fisheries by the state, and defines escapement goal terms. The *Policy for statewide salmon escapement goals* (5 AAC 39.223) recognizes the establishment of salmon escapement goals as a joint responsibility of the Alaska Department of Fish and Game (department) and the Alaska Board of Fisheries (board) and describes the concepts, criteria, and procedures for establishing and modifying salmon escapement goals. This policy describes the roles of the department and the board in developing, reviewing, and modifying escapement goals (see staff comments for proposals 207 and 208).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would result in an increase in the number of king salmon required to achieve escapement. It would reduce fishing opportunity and king salmon harvest, and increase the frequency of inseason restrictions to sport fisheries needed to achieve the OEG. Based on recent department information published in a 2013 scientific re-evaluation of the escapement goal for this stock, this proposed goal could substantially reduce future yield (figures 189-1 and 189-2; Table 189-1). Expected sustained yields resulting from the proposed lower bound (9,000) are likely to have less than a 50% chance of producing at least 70% of maximum sustained yield (MSY) and the proposed upper bound (14,000) is likely unsustainable, given that the best estimate of carrying capacity (i.e., an expected yield of zero) of this stock is at an escapement of 12,270 fish (Figure 189-1).

BACKGROUND: The existing OEG was adopted into regulation in 2005 after the department recommended changing the biological escapement goal (BEG) of Kenai River early-run king salmon from 7,000–14,400 to 4,000–9,000. From 2005–2007, liberalization of the early run fishery was allowed only when the OEG was projected to be exceeded. In 2008, the board changed the management plan to the present language which directs the department to liberalize the fishery when the OEG is projected to be met.

The estimated escapements of Kenai River early-run king salmon from 1986 to present are found on Table 189-1. The estimated expected yields based on the run reconstruction analysis for early-run Kenai River king salmon can be found on Figure 189-2.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of the proposed OEG. However, the department is **OPPOSED** to this proposed goal range because of the magnitude of the reduction in expected yield that would result. The proposed upper bound of 14,000 king salmon will produce no yields and is therefore unsustainable.

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.

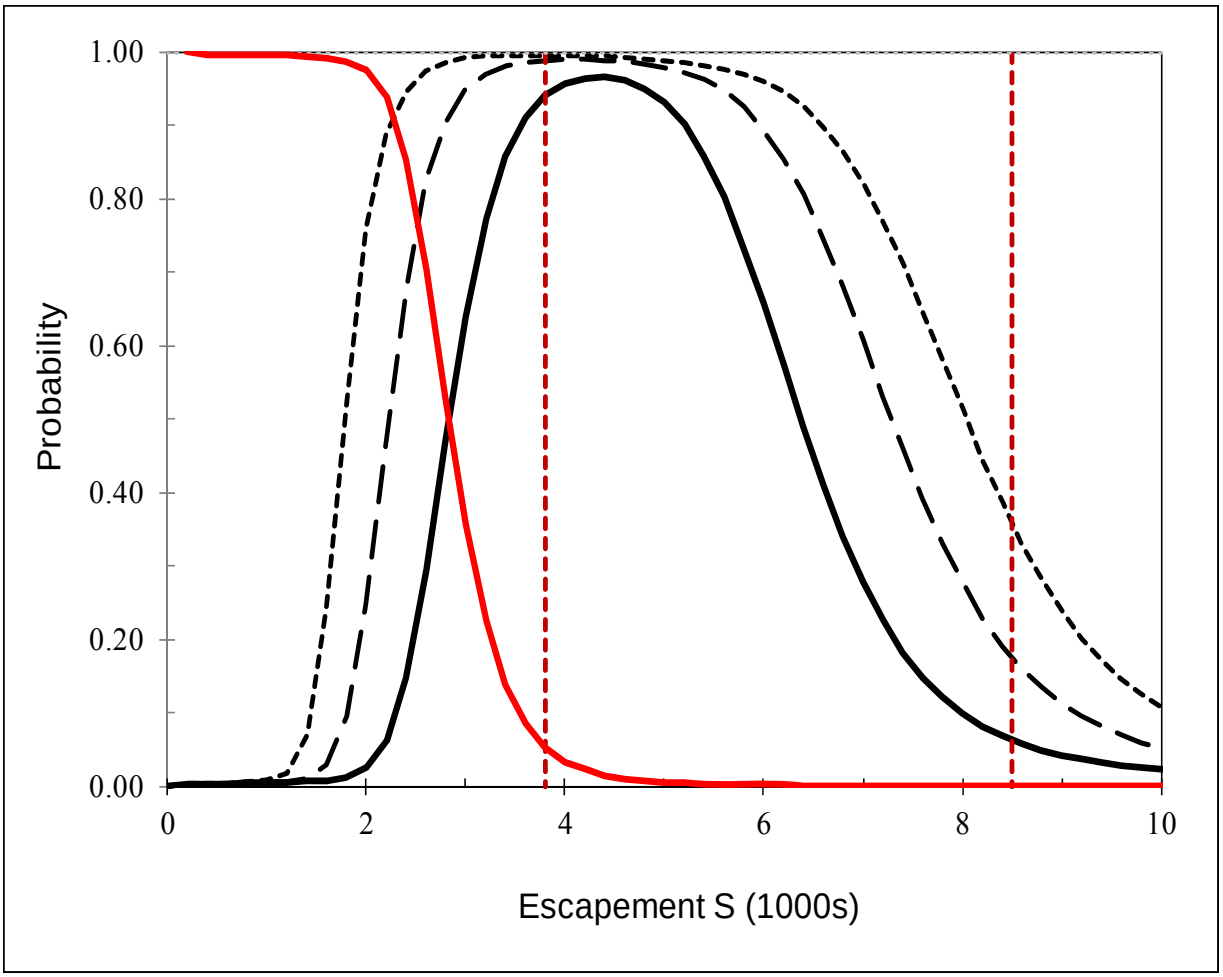

Figure 189-1.–Optimal yield profiles (OYPs) and overfishing profile (OFP) for Kenai River early-run king salmon. OYPs (black dome-shaped profiles) show probability that a specified spawning abundance will achieve 70% (short dashes), 80% (long dashes), and 90% (solid line) of maximum sustained yield (MSY). OFP (solid declining line) is the probability that reducing the escapement to a specified spawning abundance will result in less than 90% of MSY. Vertical dashed lines show recommended escapement goal range.

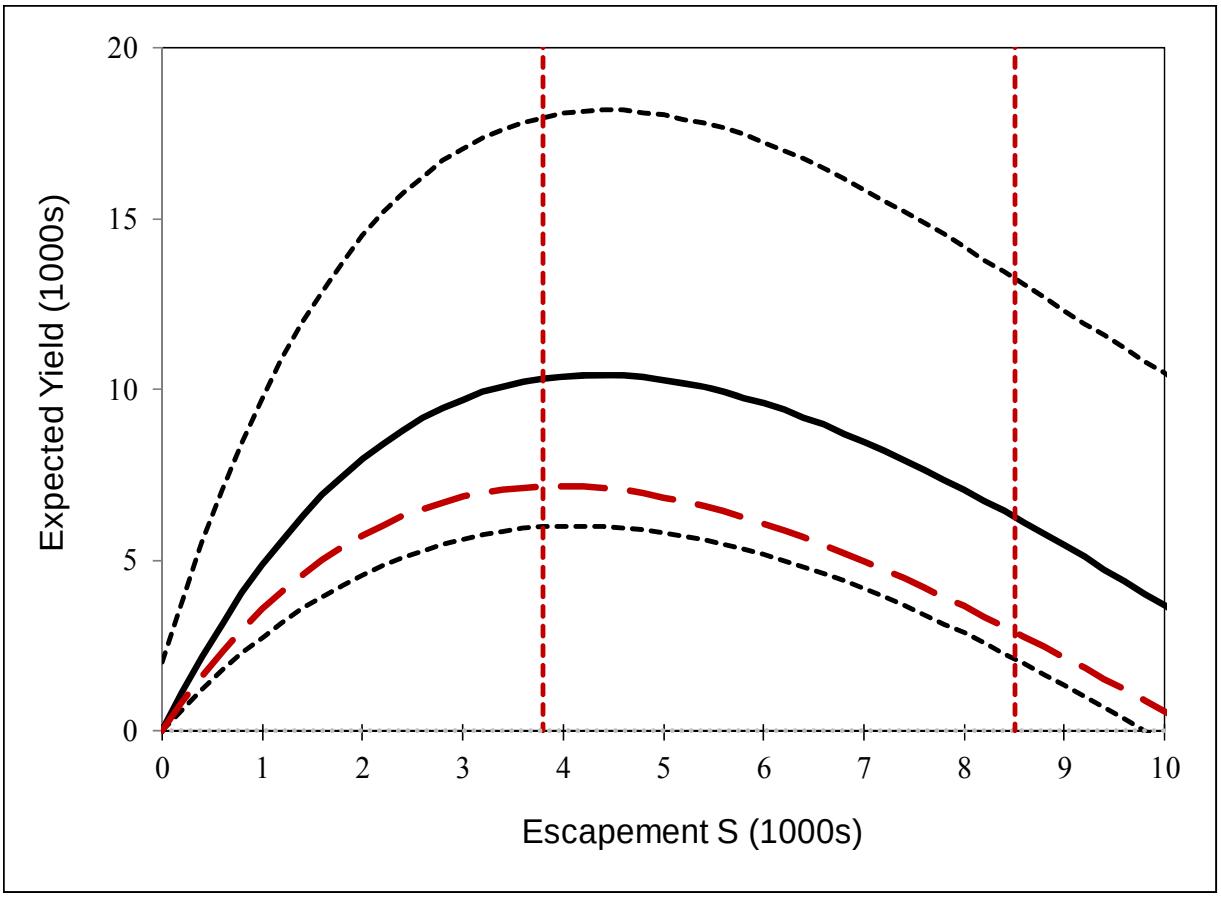

Figure 189-2.–Expected sustained yield (solid line), and 80% interval (short dashed lines) versus spawning escapement for Kenai River early-run king salmon, assuming average productivity for brood years 1979–2008. Vertical lines bracket recommended escapement goal range. Expected sustained yield under recent, reduced productivity (brood years 2004–2008) is also shown (long dashed line).

Table 189-1.–Kenai River early-run king salmon population data, 1986–2013.

Year	Marine Sport Harvest	Misc. Marine Harvest[a]	Kenaitze Educational Harvest[b]	Inriver Run[c]	Sport Harvest Above Sonar[d]	Catch-and-Release Mortality	Spawning Escapement	Total Run	Harvest Rate
1986	144	0	ND	20,100	8,156	242	11,702	20,244	0.42
1987	181	0	ND	21,750	13,557	306	7,887	21,931	0.64
1988	212	0	ND	19,800	15,209	340	4,251	20,012	0.79
1989	193	0	73	12,290	8,394	149	3,747	12,556	0.70
1990	235	0	40	9,842	1,807	378	7,657	10,117	0.24
1991	241	0	2	10,620	1,945	152	8,523	10,863	0.22
1992	300	0	73	11,930	2,241	236	9,453	12,303	0.23
1993	407	0	118	12,490	9,342	286	2,862	13,015	0.78
1994	343	0	56	13,160	8,171	285	4,704	13,559	0.65
1995	412	0	37	12,890	10,217	357	2,316	13,339	0.83
1996	235	0	104	9,764	6,623	287	2,854	10,103	0.72
1997	282	0	122	11,140	6,429	349	4,362	11,544	0.62
1998	289	0	131	11,930	1,170	254	10,506	12,350	0.15
1999	245	0	114	13,480	8,129	261	5,090	13,839	0.63
2000	239	0	124	10,790	1,818	185	8,787	11,153	0.21
2001	184	0	198	14,020	2,399	205	11,416	14,402	0.21
2002	168	0	48	10,860	899	78	9,883	11,076	0.11
2003	202	0	126	20,450	2,839	389	17,222	20,778	0.17
2004	194	0	72	23,460	3,386	257	19,817	23,726	0.16
2005	187	341	76	20,810	3,810	253	16,747	21,414	0.22
2006	252	0	65	18,180	4,693	205	13,282	18,497	0.28
2007	201	41	16	13,630	3,493	220	9,917	13,888	0.29
2008	107	102	40	10,210	3,500	123	6,587	10,459	0.37
2009	71	16	49	7,741	1,466	97	6,178	7,877	0.22
2010	88	48	32	7,830	1,337	90	6,403	7,998	0.20
2011	110	0	42	9,895	1,337	92	8,466	10,047	0.16
2012	89	0	19	5,387	316	10	5,061	5,495	0.08
2013[e]	ND	0	11	2,038	0	5	2,033	2,049	0.01
Average									
1986–2002	254	0	89	13,344	6,265	256	6,824	13,671	0.48
2003–2013	150	50	50	12,694	2,380	158	10,156	12,930	0.20
1986–2013	215	20	72	13,089	4,739	218	8,133	13,380	0.37

Source: Statewide Harvest Surveys (SWHS) from Mills 1987-1994, Howe et al. 1995, 1996, 2001a-d, Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b, 2011, *In Prep* a-b; Alexandersdottir and Marsh 1990; Nelson et al. 1999; Hammarstrom and Timmons 2001a; Reimer et al. 2002, Reimer, A. 2003, 2004a-b, 2007; Eskelin, A. 2007, 2009, 2010; Perschbacher 2012a-d, J. Perschbacher, Sport Fish Biologist, ADF&G, Soldotna, personal communication; McKinley and Fleischman 2013; 1994-2012 Educational data, Kenaitze Indian Tribe; Tim mcKinley personal communication.

Note: ND = No data available

[a] Commercial cost-recovery harvest.

[b] Prior to 1994, there was no educational fishery, this was considered a subsistence fishery.

[c] Inriver run estimate is median value from Table 8 in McKinley and Fleischman 2013, FMS 13-03.

[d] Includes creel survey estimates for the area from Cook Inlet to the Soldotna Bridge and estimates from the SWHS from the Soldotna Bridge to the outlet of Kenai Lake.

[e] 2013 estimates are preliminary until biometrically reviewed and published.

PROPOSAL 191 – 5 AAC 57.120. General provisions for seasons, bag, possession, and size limits, and methods and means for the Kenai River Drainage Area; and 5 AAC 57.160. Kenai River and Kasilof River Early-run King Salmon Management Plan.

PROPOSED BY: Joe Hanes.

WHAT WOULD THE PROPOSAL DO? This proposal would repeal the slot limit for Kenai River early-run king salmon.

WHAT ARE THE CURRENT REGULATIONS? In waters of the Kenai River open to king salmon sport fishing, early-run regulations allow for the harvest of 10 king salmon less than 20 inches per day, and harvest of one king salmon per day 20 inches or greater in length and less than 46 inches or 55 inches or greater in length. Any king salmon caught that is 46 inches or longer, but less than 55 inches, must be released unharmed. The non-retention slot limit is in effect from January 1–June 30 in the Kenai River from the mouth upstream to the Soldotna Bridge and from January 1–July 14 for those waters of the Kenai River from the Soldotna Bridge upstream to the outlet of Skilak Lake.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would increase the sport harvest potential for king salmon. It would increase the frequency and magnitude of inseason restrictions needed to achieve the optimal escapement goal, particularly during low runs. It may result in increased participation by those anglers who currently choose not to participate in the fishery due to the slot limit. It could increase harvest selectivity to favor older king salmon and skew the age composition of the escapement to favor younger king salmon by an unknown amount.

BACKGROUND: Prior to 2002, there was no slot limit in the Kenai River king salmon sport fishery; anglers were permitted to harvest king salmon regardless of the total length of the fish. However, the department, along with the public, recognized a decline in larger, older-aged king salmon returning to the Kenai River during the early run. Although the exact cause for the decline in older king salmon during the early run is not understood, the selective harvest or exploitation of larger, ocean-age-5 fish was the only practical factor that could be directly influenced by fishery managers. In 2002, the Alaska Board of Fisheries (board) adopted a slot limit harvest restriction in 2002 of 40–55 inches. In 2003, the board adjusted the slot limit to 44–55 inches, and again in 2008 to 46–55 inches.

On average, approximately 38% of the early-run stock is comprised of fish between 42–55 inches in total length (Figure 191-1). A slot limit of 42–55 inches allows approximately 62% of the returning early-run stocks to be available for harvest. Within this slot limit, most (92%) of the ocean-age-5 fish are protected, as are about 62% of the ocean-age-4 fish in the run. Also within this slot limit, 91% of ocean-age-5 females are protected and 93% of ocean-age-5 males are protected, while 49% of ocean-age-4 females are protected and 0% of ocean-age-4 males are protected. (Table 191-1)

A slot limit of 46–55 inches allows approximately 83% of the returning early-run stocks to be available for harvest. Within this slot limit, most (69%) of the ocean-age-5 fish are protected, as

are about 26% of the ocean-age-4 fish in the run. Also within this slot limit, 42% of ocean-age-5 females are protected and 86% of ocean-age-5 males are protected, while 8% of ocean-age-4 females are protected and 51% of ocean-age-4 males are protected.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. It would increase potential harvest on Kenai River early-run king salmon when king salmon production is currently at low levels. The slot limit, along with other existing regulations, has restricted the harvest of early-run king salmon while allowing some level of sport fishing opportunity over a period of below-average abundance. It is unclear whether or not the slot limit will increase the production of ocean-age-5 king salmon. However, the slot limit supports the purpose of the management plan to conserve the unique large size early-run king salmon in the Kenai River by nearly eliminating the sport harvest of ocean-age-5 fish.

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.

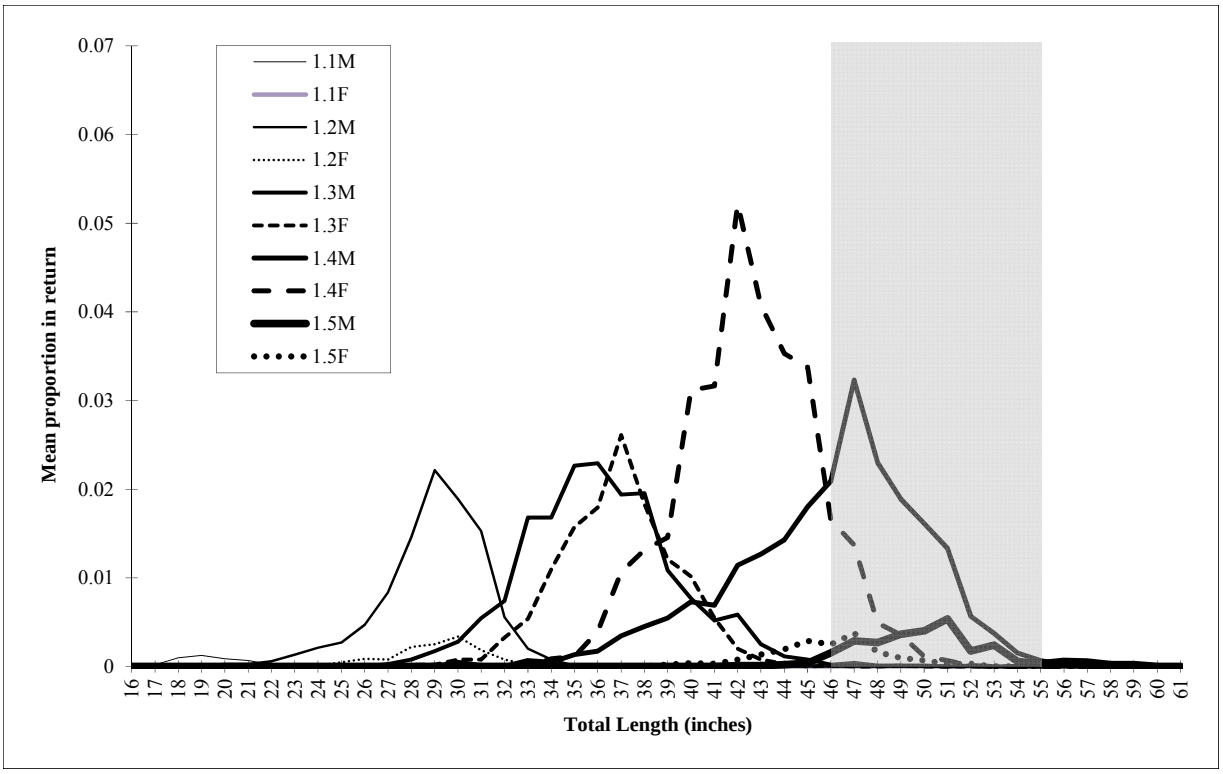

Figure 191-1.–Age-length-sex frequency relationships for Kenai River early-run king salmon, 1986–2013.

Table 191-1.–Percentages of Kenai River early-run king salmon relative to various slot limit ranges, 1986–2013.

	Early-Run King Salmon				
Slot Limit	% of Run Available to Harvest	% of Run Within Slot Limit	% of 5-Ocean Fish Protected	% of 5-Ocean Females Protected	% of 4-Ocean Females Protected
42–55	62%	38%	92%	91%	49%
44–55	73%	27%	85%	73%	24%
46–55	83%	17%	68%	42%	8%

PROPOSAL 192 – 5 AAC 57.120. General provisions for seasons, bag, possession, and size limits, and methods and means for the Kenai River Drainage Area; and 5 AAC 57.160. Kenai River and Kasilof River Early-run King Salmon Management Plan.
(Note: The proposal book incorrectly stated the dates the proposed regulation would be effective. The proposal should have read, "(i) from January 1 through June 30…")

PROPOSED BY: Greg Brush.

WHAT WOULD THE PROPOSAL DO? This proposal would increase the Kenai River early-run king salmon slot limit size requirement from 46–55 inches in length to 42–55 inches in length.

WHAT ARE THE CURRENT REGULATIONS? In waters of the Kenai River open to king salmon sport fishing, early-run regulations allow for the harvest of 10 king salmon less than 20 inches per day, and harvest of one king salmon per day 20 inches or greater in length and less than 46 inches or 55 inches or greater in length. Any king salmon caught that is 46 inches or longer, but less than 55 inches, must be released unharmed. The non-retention slot limit is in effect from January 1–June 30 in the Kenai River from the mouth upstream to the Soldotna Bridge and from January 1–July 14 for those waters of the Kenai River from the Soldotna Bridge upstream to the outlet of Skilak Lake.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would decrease the harvest and exploitation of king salmon during the early run. It would protect more 4-ocean and nearly all 5-ocean female king salmon. It may result in decreased participation by discouraging anglers who want to harvest king salmon, due to reduced harvest opportunity.

BACKGROUND: Prior to 2002, there was no slot limit in the Kenai River king salmon sport fishery; anglers were permitted to harvest king salmon regardless of the total length of the fish. However, the department, along with the public, recognized a decline in larger, older-aged king salmon returning to the Kenai River during the early run. Although the exact cause for the decline in older king salmon during the early run is not understood, the selective harvest or exploitation of larger, ocean-age-5 fish was the only practical factor that could be directly influenced by fishery managers. In 2002, the Alaska Board of Fisheries (board) adopted a slot limit harvest restriction in 2002 of 40–55 inches. In 2003, the board adjusted the slot limit to 44–55 inches, and again in 2008 to 46–55 inches.

On average, approximately 38% of the early-run stock is comprised of fish between 42–55 inches in total length (Figure 192-1). A slot limit of 42–55 inches allows approximately 62% of the returning early-run stocks to be available for harvest. Within this slot limit, most (92%) of the ocean-age-5 fish are protected, as are about 62% of the ocean-age-4 fish in the run. Also within this slot limit, 91% of ocean-age-5 females are protected and 93% of ocean-age-5 males are protected, while 49% of ocean-age-4 females are protected and 0% of ocean-age-4 males are protected. (Table 192-1)

A slot limit of 46–55 inches allows approximately 83% of the returning early-run stocks to be available for harvest. Within this slot limit, most (69%) of the ocean-age-5 fish are protected, as are about 26% of the ocean-age-4 fish in the run. Also within this slot limit, 42% of ocean-age-5 females are protected and 86% of ocean-age-5 males are protected, while 8% of ocean-age-4 females are protected and 51% of ocean-age-4 males are protected.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. The objective of the current slot limit regulation is to prevent the harvest of ocean-age-5 early-run king salmon. Although it is unclear if the slot limit will increase the production of ocean-age-5 early-run king salmon, the current slot limit regulation has succeeded in allowing the department to meet a purpose of the management plan to conserve the unique large size early-run king salmon in the Kenai River by nearly eliminating the sport harvest of ocean-age-5 early-run king salmon. Expanding the slot limit will give 5-ocean king salmon additional protection, but will reduce king salmon harvest opportunity.

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.

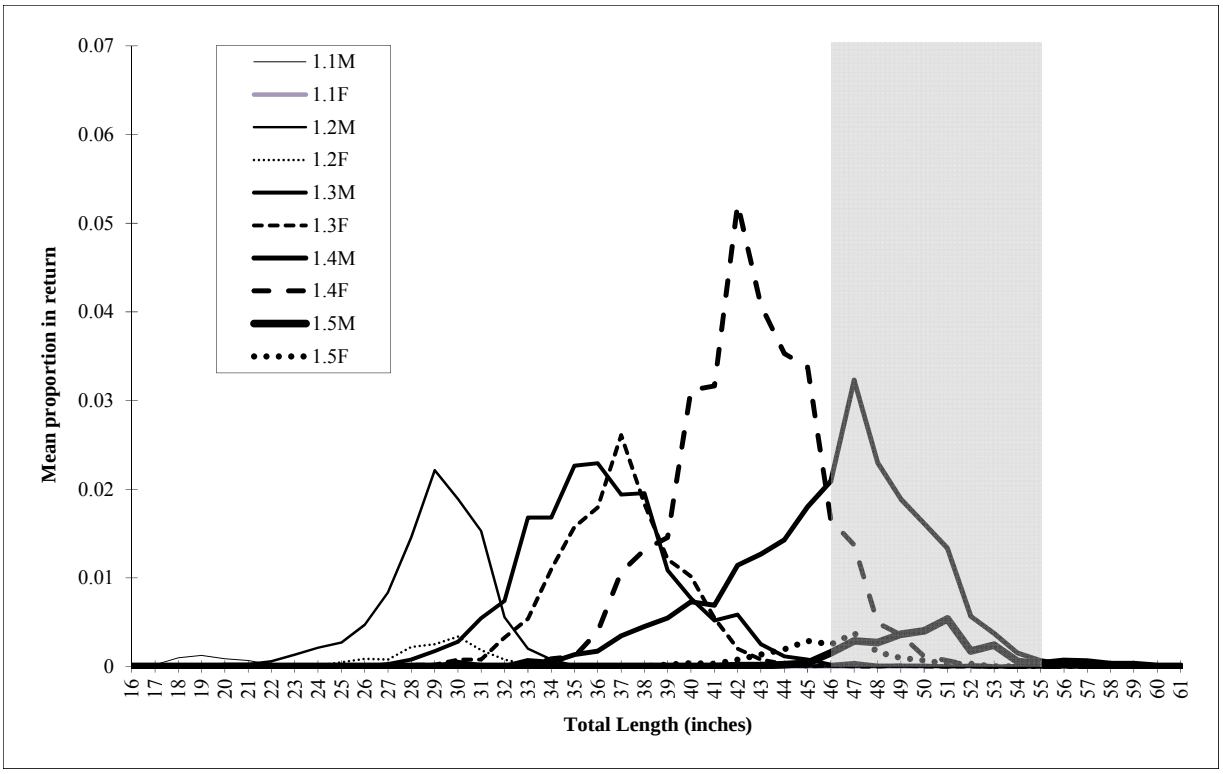

Figure 192-1.–Age-length-sex frequency relationships for Kenai River early-run king salmon, 1986–2013.

Table 192-1.–Percentages of Kenai River early-run king salmon relative to various slot limit ranges, 1986–2013.

	Early-Run King Salmon				
Slot Limit	% of Run Available to Harvest	% of Run Within Slot Limit	% of 5-Ocean Fish Protected	% of 5-Ocean Females Protected	% of 4-Ocean Females Protected
42–55	62%	38%	92%	91%	49%
44–55	73%	27%	85%	73%	24%
46–55	83%	17%	68%	42%	8%

PROPOSAL 193 – 5 AAC 57.120. General provisions for seasons, bag, possession, and size limits, and methods and means for the Kenai River Drainage Area; and 5 AAC 57.160. Kenai River and Kasilof River Early-run King Salmon Management Plan.

PROPOSED BY: Greg Brush.

WHAT WOULD THE PROPOSAL DO? This proposal would increase the Kenai River early-run king salmon slot limit size requirement from 46–55 inches in length to 42–55 inches in length, and extend the slot limit through July 31.

WHAT ARE THE CURRENT REGULATIONS? In waters of the Kenai River open to king salmon sport fishing, early-run regulations allow for the harvest of 10 king salmon less than 20 inches per day, and harvest of one king salmon per day 20 inches or greater in length and less than 46 inches or 55 inches or greater in length. Any king salmon caught that is 46 inches or longer, but less than 55 inches, must be released unharmed. The non-retention slot limit is in effect from January 1–June 30 in the Kenai River from the mouth upstream to the Soldotna Bridge and from January 1–July 14 for those waters of the Kenai River from the Soldotna Bridge upstream to the outlet of Skilak Lake.

Late-run regulations are in effect from July 1–31 below the Soldotna Bridge, and from July 15–31 upstream of the Soldotna Bridge; there is a bag and possession limit of one king salmon per day 20 inches or greater in length.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would decrease the harvest and exploitation of large early- and late-run king salmon in the Kenai River from the mouth upstream to Skilak Lake. The magnitude of reductions to late run harvest and exploitation would be unknown, but likely significant. It would protect more 4-ocean and nearly all 5-ocean female king salmon in the early run and preclude about 38% of the early run from harvest. Moreover, approximately 55% of the late run would be protected from harvest during the late-run inriver sport fishery. It may result in decreased participation by discouraging anglers who want to harvest king salmon due to reduced harvest opportunity. Decreasing harvest of late-run king salmon by the inriver sport fishery may result in fewer restrictions to sport, personal use, and commercial fisheries during periods of low king salmon abundance.

BACKGROUND: Prior to 2002, there was no slot limit in the Kenai River king salmon sport fishery; anglers were permitted to harvest king salmon regardless of the total length of the fish. However, the department, along with the public, recognized a decline in larger, older-aged king salmon returning to the Kenai River during the early run. Although the exact cause for the decline in older king salmon during the early run is not understood, the selective harvest or exploitation of larger, ocean-age-5 fish was the only practical factor that could be directly influenced by fishery managers. In 2002, the Alaska Board of Fisheries (board) adopted a slot limit harvest restriction in 2002 of 40–55 inches. In 2003, the board adjusted the slot limit to 44–55 inches, and again in 2008 to 46–55 inches.

A decline in ocean-age-5 king salmon returning to the Kenai River during the late run is not, at present, a biological concern for the department. Data from the sport fishery and the inriver netting program indicate that the late run age-class composition of the total run is relatively stable and within the bounds experienced historically since 1986 (tables 193-1 and 193-2; Figure 193-1). From 2009–2013, the estimated total run has averaged approximately 30,313 late-run king salmon, which is approximately 50% of the historical average of an estimated 57,869 late-run king salmon (Table 193-1). The lowest estimates of ocean-age-5 late-run king salmon the department has on record all occurred during the recent years of low abundance of late-run king salmon.

Sport harvest selectivity of late-run king salmon favors older, larger king salmon. However, gear used in the commercial harvest of late-run king salmon tends to select smaller, younger fish due to the mesh size used in the fishery. The age and size composition of the combined harvest tends to be in proportion to that of the total late run each year, although recently, more younger, smaller king salmon are being selected for, likely due to their increased abundance (Figure 193-2).

The average total proportion of ocean-age-4 (6 year-old) king salmon in the late run has varied considerably over 25 years, since first estimated in 1986 (tables 193-1 and 193-2; Figure 193-1). Data indicate that the relative abundance of younger, smaller fish in the run has increased and the relative abundance of older, larger fish in the run has decreased. On average, approximately 55% of the late-run stock is comprised of fish between 42–55 inches in total length (Figure 193-3).

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. A decline in ocean-age-5 king salmon returning to the Kenai River during the late run is not, at present, a biological concern for the department. The objective of the current slot limit regulation is to prevent the harvest of ocean-age-5 early-run king salmon. Sanctuary areas at the confluence of lower river tributaries provide additional protection through the end of the king salmon season on July 31. The department is **NEUTRAL** to the allocative aspects of 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.

Table 193-1.–Total run by age class for Kenai River late-run king salmon, 1986–2013.

Year	Age Class					
	1.1	1.2	1.3	1.4	1.5	Total [a]
1986	453	12,150	31,680	31,430	3,110	78,823
1987	805	5,135	21,950	53,450	1,589	82,929
1988	803	3,977	6,655	53,170	9,096	73,701
1989	358	5,578	7,248	26,870	5,198	45,252
1990	323	5,977	7,181	23,590	1,902	38,973
1991	361	5,320	8,966	27,540	2,306	44,493
1992	367	5,676	10,460	34,030	1,754	52,287
1993	822	6,342	11,200	41,280	2,961	62,605
1994	873	5,674	8,661	42,510	3,020	60,738
1995	800	12,090	12,550	27,390	3,314	56,144
1996	709	6,274	16,610	28,500	1,174	53,267
1997	1,026	4,440	11,810	33,230	1,462	51,968
1998	770	8,248	8,814	32,930	2,016	52,778
1999	759	8,466	11,860	29,890	2,305	53,280
2000	791	4,473	15,400	30,460	1,469	52,593
2001	954	9,588	11,780	36,790	2,097	61,209
2002	2,134	13,500	14,650	33,890	2,366	66,540
2003	1,899	28,680	20,900	44,600	1,880	97,959
2004	1,646	14,480	28,370	53,670	2,101	100,267
2005	1,156	9,561	17,680	64,710	4,041	97,148
2006	1,597	16,820	11,900	37,540	6,543	74,400
2007	562	11,570	16,480	27,470	4,148	60,230
2008	1,191	4,069	10,450	32,250	3,232	51,192
2009	922	9,868	4,617	19,880	1,840	37,127
2010	2,043	5,714	9,489	11,250	1,642	30,138
2011	955	9,772	7,137	17,120	897	35,881
2012	585	3,376	10,280	13,220	1,214	28,675
2013	957	5,979	4,416	7,821	571	19,744
Historical Mean	951	8,671	12,828	32,731	2,687	57,869
Recent 10-yr. Mean	1,161	9,121	12,082	28,493	2,623	53,480
Recent 5-yr. Mean	1,092	6,942	7,188	13,858	1,233	30,313

[a] Total and individual estimates are mean values from Appendix C1 in Fleischman and McKinley, 2013 FMS 13-02.

Table 193-2.–Percentage of total run by age class for Kenai River late-run king salmon, 1986–2013.

Year	Age Class				
	1.1	1.2	1.3	1.4	1.5
1986	0.6	15.4	40.2	39.9	3.9
1987	1.0	6.2	26.5	64.5	1.9
1988	1.1	5.4	9.0	72.1	12.3
1989	0.8	12.3	16.0	59.4	11.5
1990	0.8	15.3	18.4	60.5	4.9
1991	0.8	12.0	20.2	61.9	5.2
1992	0.7	10.9	20.0	65.1	3.4
1993	1.3	10.1	17.9	65.9	4.7
1994	1.4	9.3	14.3	70.0	5.0
1995	1.4	21.5	22.4	48.8	5.9
1996	1.3	11.8	31.2	53.5	2.2
1997	2.0	8.5	22.7	63.9	2.8
1998	1.5	15.6	16.7	62.4	3.8
1999	1.4	15.9	22.3	56.1	4.3
2000	1.5	8.5	29.3	57.9	2.8
2001	1.6	15.7	19.2	60.1	3.4
2002	3.2	20.3	22.0	50.9	3.6
2003	1.9	29.3	21.3	45.5	1.9
2004	1.6	14.4	28.3	53.5	2.1
2005	1.2	9.8	18.2	66.6	4.2
2006	2.1	22.6	16.0	50.5	8.8
2007	0.9	19.2	27.4	45.6	6.9
2008	2.3	7.9	20.4	63.0	6.3
2009	2.5	26.6	12.4	53.5	5.0
2010	6.8	19.0	31.5	37.3	5.4
2011	2.7	27.2	19.9	47.7	2.5
2012	2.0	11.8	35.9	46.1	4.2
2013[a]	4.8	30.3	22.4	39.6	2.9
Historical Mean	1.8	15.5	22.2	55.8	4.7
Recent 10-yr. Mean	2.7	18.9	23.2	50.4	4.8
Recent 5-yr. Mean	3.8	23.0	24.4	44.9	4.0

[a] 2013 estimates are preliminary until biometrically reviewed and published.

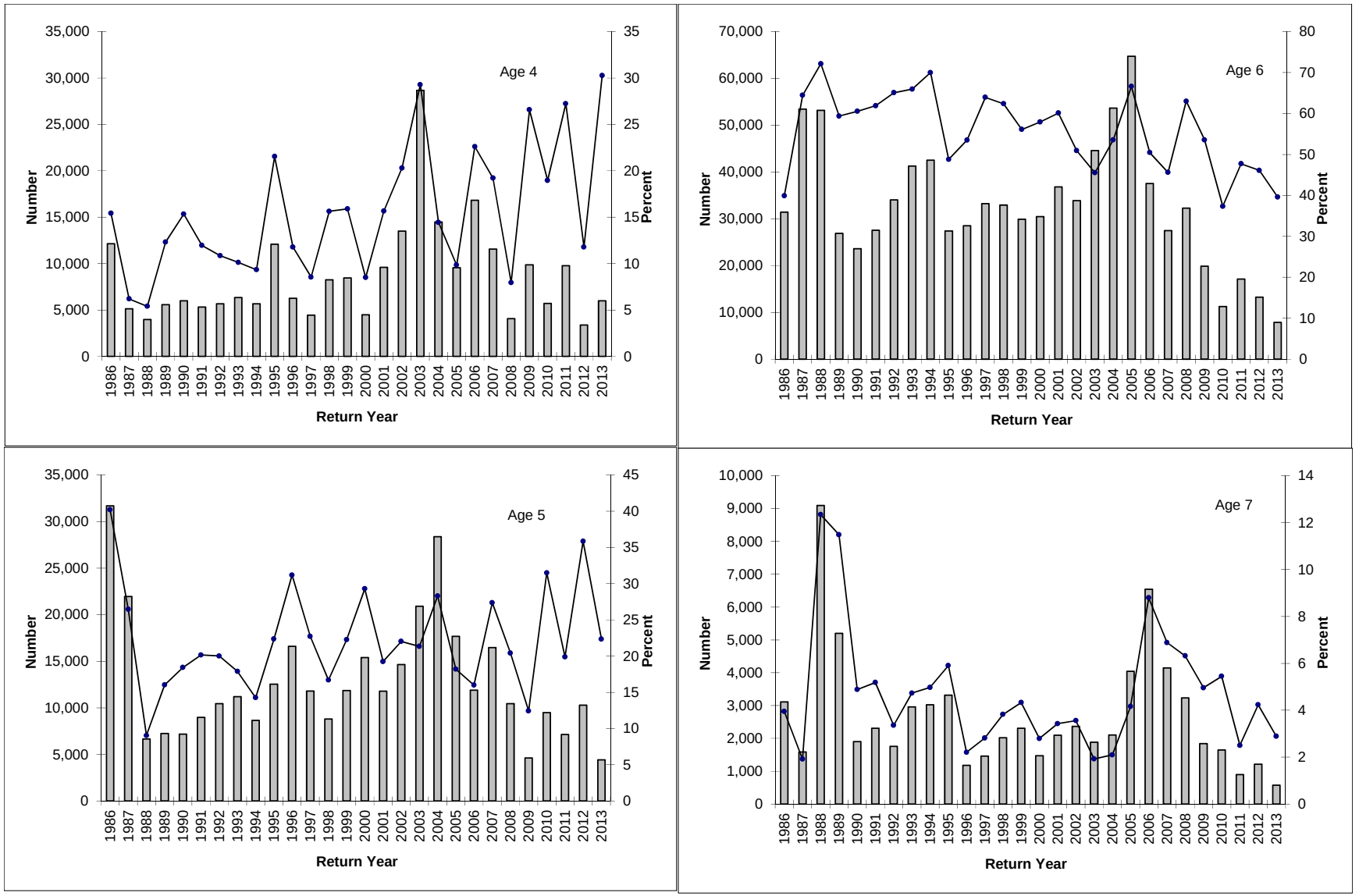

Figure 193-1.–Number (gray bars) and percent (lines) of Kenai River late-run king salmon aged 4, 5, 6, and 7 in the total run, 1986–2013.

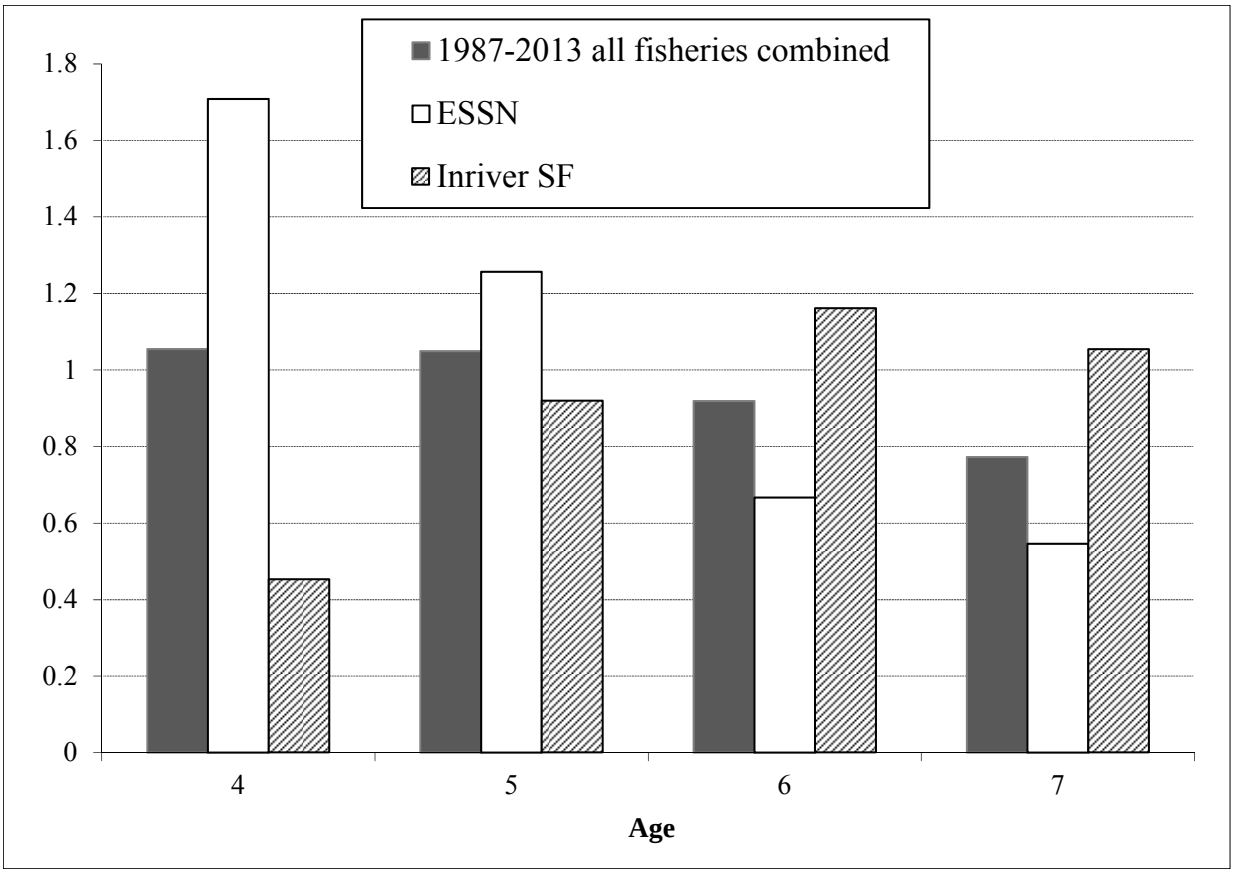

Figure 193-2.–Relative harvest selectivity by age for Kenai River late-run king salmon by the two primary fisheries, and by all fisheries combined, for 1986–2013. Selectivity estimates less than 1 equate to no selectivity for that age class, 1 equates to no selectivity or neutral for that age class, and values greater than 1 equates to selectivity for that age class.

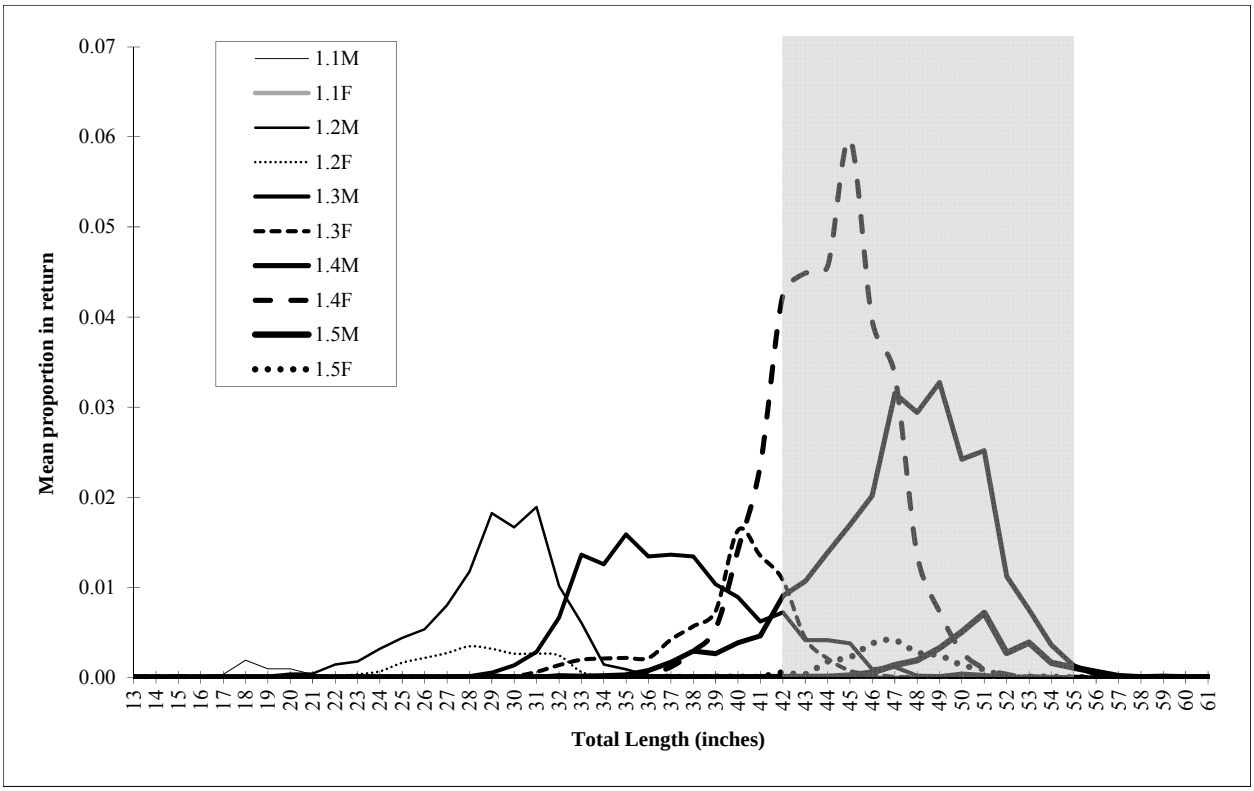

Figure 193-3.–Age-length-sex frequency relationships for Kenai River late-run king salmon, 1986–2013.

PROPOSAL 194 – 5 AAC 57.120. General provisions for seasons, bag, possession, and size limits, and methods and means for the Kenai River Drainage Area; and 5 AAC 57.160. Kenai River and Kasilof River Early-run King Salmon Management Plan.

PROPOSED BY: Greg Davis.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit the retention of early-run and late-run Kenai River king salmon 42 inches or greater in length.

WHAT ARE THE CURRENT REGULATIONS? In waters of the Kenai River open to king salmon sport fishing, early-run regulations allow for the harvest of 10 king salmon less than 20 inches per day, and harvest of one king salmon per day 20 inches or greater in length and less than 46 inches or 55 inches or greater in length. Any king salmon caught that is 46 inches or longer, but less than 55 inches, must be released unharmed. The non-retention slot limit is in effect from January 1–June 30 in the Kenai River from the mouth upstream to the Soldotna Bridge and from January 1–July 14 for those waters of the Kenai River from the Soldotna Bridge upstream to the outlet of Skilak Lake.

Late-run regulations are in effect from July 1–31 below the Soldotna Bridge, and from July 15–31 upstream of the Soldotna Bridge; there is a bag and possession limit of one king salmon per day 20 inches or greater in length.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would decrease the harvest and exploitation of large early- and late-run king salmon in the Kenai River from the mouth upstream to Skilak Lake by a significant amount since approximately 55% of the late–run would be protected from harvest during the late-run inriver sport fishery. It may result in decreased participation by discouraging anglers who want to harvest king salmon due to reduced harvest opportunity. Decreasing harvest of late-run king salmon by the inriver sport fishery may result in fewer restrictions to sport, personal use, and commercial fisheries during periods of low king salmon abundance.

BACKGROUND: Prior to 2002, there was no slot limit in the Kenai River king salmon sport fishery; anglers were permitted to harvest king salmon regardless of the total length of the fish. However, the department, along with the public, recognized a decline in larger, older-aged king salmon returning to the Kenai River during the early run. Although the exact cause for the decline in older king salmon during the early run is not understood, the selective harvest or exploitation of larger, ocean-age-5 fish was the only practical factor that could be directly influenced by fishery managers. In 2002, the Alaska Board of Fisheries (board) adopted a slot limit harvest restriction in 2002 of 40–55 inches. In 2003, the board adjusted the slot limit to 44–55 inches, and again in 2008 to 46–55 inches. A decline in ocean-age-5 king salmon returning to the Kenai River during the late run is not, at present, a biological concern for the department.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. A decline in ocean-age-5 king salmon returning to the Kenai River during the late run is not, at present, a biological concern for the department. The objective of the current slot limit regulation is to prevent the harvest of ocean-age-5 early-run king salmon. Sanctuary areas at the confluence of lower river

tributaries provide additional protection through the end of the king salmon season on July 31. The department is **NEUTRAL** to the allocative aspects of 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 196 – 5 AAC 57.120. General provisions for seasons, bag, possession, and size limits, and methods and means for the Kenai River Drainage Area; 5 AAC 57.121. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for the Lower Section of the Kenai River Drainage Area; and 5 AAC 57.160. Kenai River and Kasilof River Early-run King Salmon Management Plan.

PROPOSED BY: Greg Davis.

WHAT WOULD THE PROPOSAL DO? This proposal would extend Kenai River early-run king salmon regulations through July 9.

WHAT ARE THE CURRENT REGULATIONS? In waters of the Kenai River open to king salmon sport fishing, early-run regulations allow for the harvest of 10 king salmon less than 20 inches per day, and harvest of one king salmon per day 20 inches or greater in length and less than 46 inches or 55 inches or greater in length. Any king salmon caught that is 46 inches or longer, but less than 55 inches, must be released unharmed. The non-retention slot limit is in effect from January 1–June 30 in the Kenai River from the mouth upstream to the Soldotna Bridge and from January 1–July 14 for those waters of the Kenai River from the Soldotna Bridge upstream to the outlet of Skilak Lake.

Late-run regulations are in effect from July 1–31 below the Soldotna Bridge, and from July 15–31 upstream of the Soldotna Bridge; there is a bag and possession limit of one king salmon per day 20 inches or greater in length.

There is an annual limit of two king salmon 20 inches or greater in length from the Kenai River (except for king salmon less than 28 inches harvested before July 1). King salmon 20 inches or greater in length must be recorded on the back of the angler's fishing license. Any king salmon harvested in the Kenai River that is 55 inches or larger must be sealed by an authorized representative of the department within three days after harvest.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would decrease the harvest and exploitation of large early- and late-run king salmon in the Kenai River from the mouth upstream to Skilak Lake by an unknown amount, because the slot limit would remain in effect below the Soldotna Bridge for an additional nine days. Use of bait would also be prohibited for an additional nine days for those portions of the entire river open to king salmon fishing.

BACKGROUND: Kenai River king salmon radio telemetry study results from 2010–2013 for tributary spawning king salmon indicate at least 96% of the radiotagged, tributary-spawning king salmon were in waters closed to fishing (existing king salmon sanctuaries or spawning tributaries) by July 16 in every year studied (figures 196-1 and 196-2). The median date for the completion of spawning activity for tributary spawning fish was July 30 for all years.

Study results also indicate that on average, approximately 89% and 97% of radiotagged early-run tributary spawning fish (Funny and Killey rivers, respectively) were within their respective tributary or sanctuary above the Soldotna Bridge by July 10 (figures 196-1 and 196-4).

Other studies indicate that all tributary-spawning fish tagged and released prior to July 1 have migrated upstream past the Soldotna Bridge by July 1. Approximately 15–28% of the king salmon tagged during June spawned in the mainstem. Of these mainstem spawners, about 50% migrated upstream of the Soldotna Bridge by July 1 (Table 196-1).

Mainstem spawning king salmon spawn throughout the Kenai River upstream of tidal influence. The most heavily utilized sections are RMs 14–15, 17–21, and 46–47 (Figure 196-3). The median date for the completion of spawning activity is August 21 for mainstem-spawning king salmon that return during the early-run from mid-May through June 30, and August 30 for mainstem-spawning king salmon that return during the late run (July 1 through mid-August).

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. Tagging data suggest that the majority of early-run king salmon migrate upstream of the Soldotna Bridge by July 1. The current period that the slot limit regulation in effect is based upon migratory timing of tributary-spawning, early-run king salmon relative to the timing of late-run king salmon. Based on the tagging data, the current period provides an appropriate balance between protecting early-run king salmon and affording fishing opportunity for late-run king salmon. Sanctuary areas at the confluence of lower river tributaries provide additional protection through the end of the king salmon season on July 31. The department is **NEUTRAL** to the allocative aspects of 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.

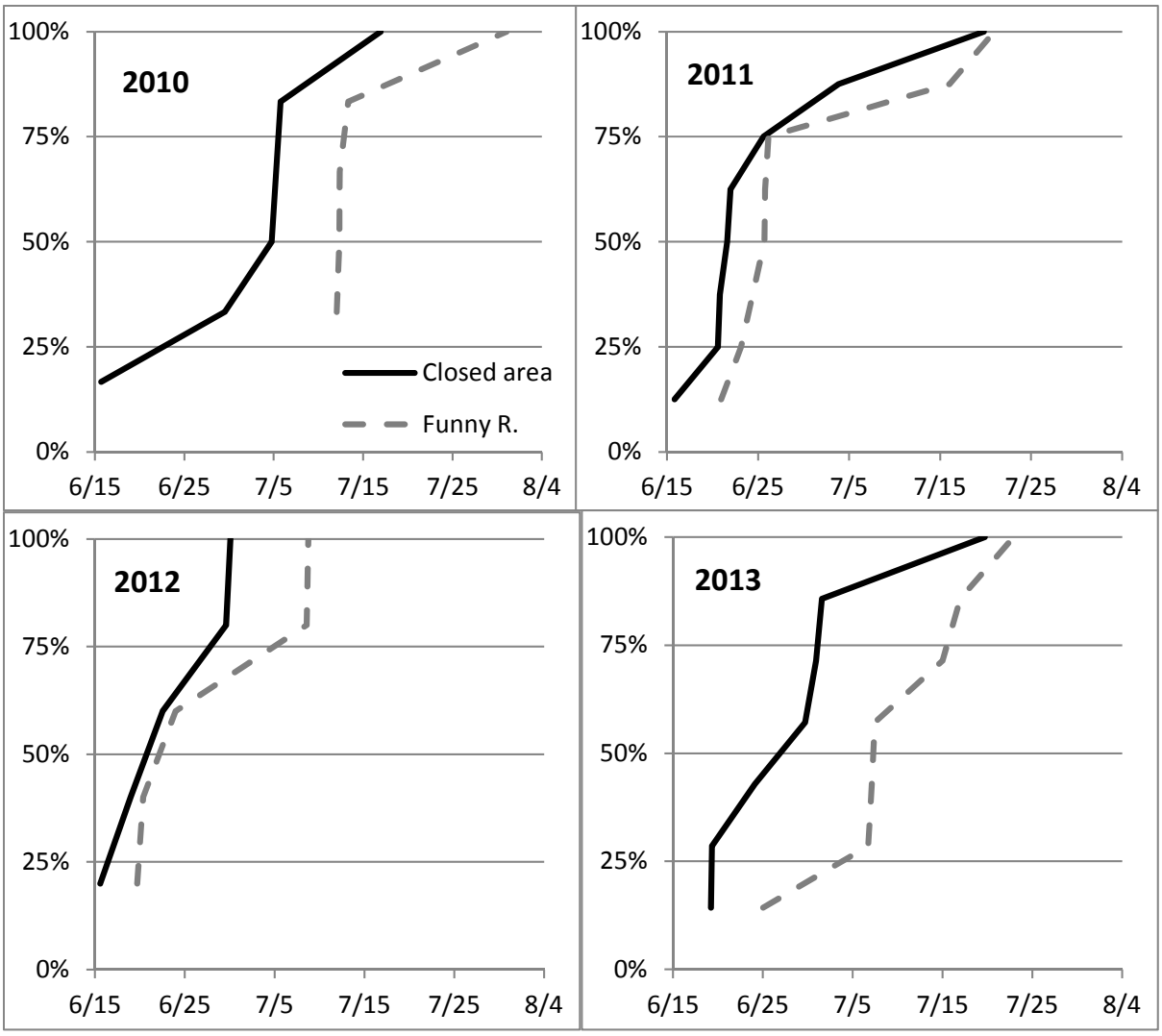

Figure 196-1.–Cumulative entry timing of Funny River-bound king salmon into the Funny River closed area and into the Funny River drainage, 2010–2013.

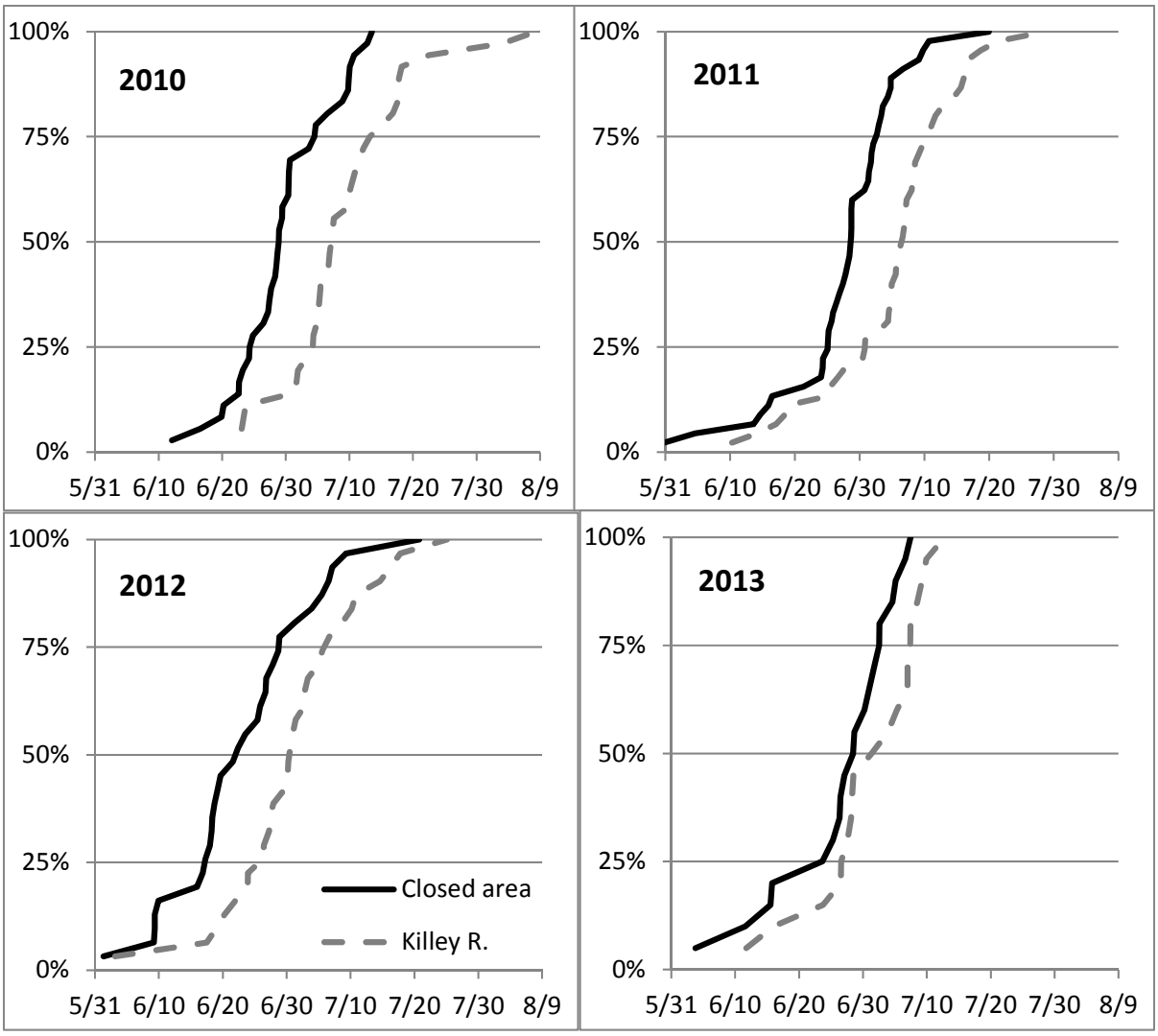

Figure 196-2.–Cumulative entry timing of Killey River/Benjamin Creek-bound king salmon into the Killey River closed area and into the Killey River drainage, 2010–2013.

Table 196-1.–Distribution of early-run, mainstem spawning king salmon by date and area[a], Kenai River 2010–2013.

			Upstream of Slikok Creek	
		Downstream of Slikok Creek	Unrestricted	Closed or restricted
Year	Date	Prop. (SE)	Prop. (SE)	Prop. (SE)
2010				
	16 Jun	1.0 (0.0)	0.0 (0.0)	0.0 (0.0)
	21 Jun	0.5 (0.35)	0.0 (0.0)	0.5 (0.35)
	26 Jun	0.6 (0.22)	0.0 (0.0)	0.4 (0.22)
	1 Jul	0.56 (0.17)	0.11 (0.1)	0.33 (0.16)
	6 Jul	0.56 (0.17)	0.22 (0.14)	0.22 (0.14)
	11 Jul	0.63 (0.17)	0.13 (0.12)	0.25 (0.15)
	16 Jul	0.5 (0.18)	0.38 (0.17)	0.13 (0.12)
	21 Jul	0.38 (0.17)	0.5 (0.18)	0.13 (0.12)
	26 Jul	0.43 (0.19)	0.43 (0.19)	0.14 (0.13)
	31 Jul	0.29 (0.17)	0.43 (0.19)	0.29 (0.17)
2011				
	16 Jun	0.75 (0.22)	0.0 (0.0)	0.25 (0.22)
	21 Jun	0.86 (0.13)	0.14 (0.13)	0.0 (0.0)
	26 Jun	0.69 (0.13)	0.15 (0.1)	0.15 (0.1)
	1 Jul	0.73 (0.09)	0.14 (0.07)	0.14 (0.07)
	6 Jul	0.59 (0.1)	0.18 (0.08)	0.23 (0.09)
	11 Jul	0.57 (0.11)	0.19 (0.09)	0.24 (0.09)
	16 Jul	0.43 (0.11)	0.29 (0.1)	0.29 (0.1)
	21 Jul	0.3 (0.1)	0.5 (0.11)	0.2 (0.09)
	26 Jul	0.16 (0.08)	0.47 (0.11)	0.37 (0.11)
	31 Jul	0.16 (0.08)	0.32 (0.11)	0.53 (0.11)
2012				
	16 Jun	1.0 (0.0)	0.0 (0.0)	0.0 (0.0)
	21 Jun	1.0 (0.0)	0.0 (0.0)	0.0 (0.0)
	26 Jun	0.67 (0.27)	0.0 (0.0)	0.33 (0.27)
	1 Jul	0.43 (0.19)	0.29 (0.17)	0.29 (0.17)
	6 Jul	0.29 (0.17)	0.71 (0.17)	0.0 (0.0)
	11 Jul	0.14 (0.13)	0.43 (0.19)	0.43 (0.19)
	16 Jul	0.14 (0.13)	0.71 (0.17)	0.14 (0.13)
	21 Jul	0.17 (0.15)	0.67 (0.19)	0.17 (0.15)
	26 Jul	0.17 (0.15)	0.5 (0.2)	0.33 (0.19)
	31 Jul	0.17 (0.15)	0.5 (0.2)	0.33 (0.19)
2013				
	16 Jun	1.0 (0.0)	0.0 (0.0)	0.0 (0.0)
	21 Jun	1.0 (0.0)	0.0 (0.0)	0.0 (0.0)
	26 Jun	0.8 (0.18)	0.0 (0.0)	0.2 (0.18)
	1 Jul	0.5 (0.18)	0.25 (0.15)	0.25 (0.15)
	6 Jul	0.25 (0.15)	0.38 (0.17)	0.38 (0.17)
	11 Jul	0.13 (0.12)	0.5 (0.18)	0.38 (0.17)
	16 Jul	0.0 (0.0)	0.63 (0.17)	0.38 (0.17)
	21 Jul	0.0 (0.0)	0.71 (0.17)	0.29 (0.17)
	26 Jul	0.0 (0.0)	0.57 (0.19)	0.43 (0.19)
	31 Jul	0.0 (0.0)	0.57 (0.19)	0.43 (0.19)

[a] River miles 0–19 describe Cook Inlet to Slikok Creek. River miles 19–50 describe Slikok Creek to Skilak Lake excluding closed/restricted fishing areas around Slikok Creek, Centenial Park, Funny River, Morgan's Landing, and Killey River. Closed/restricted waters describe the excusions noted above plus the Kenai River upstream of and including Skilak Lake

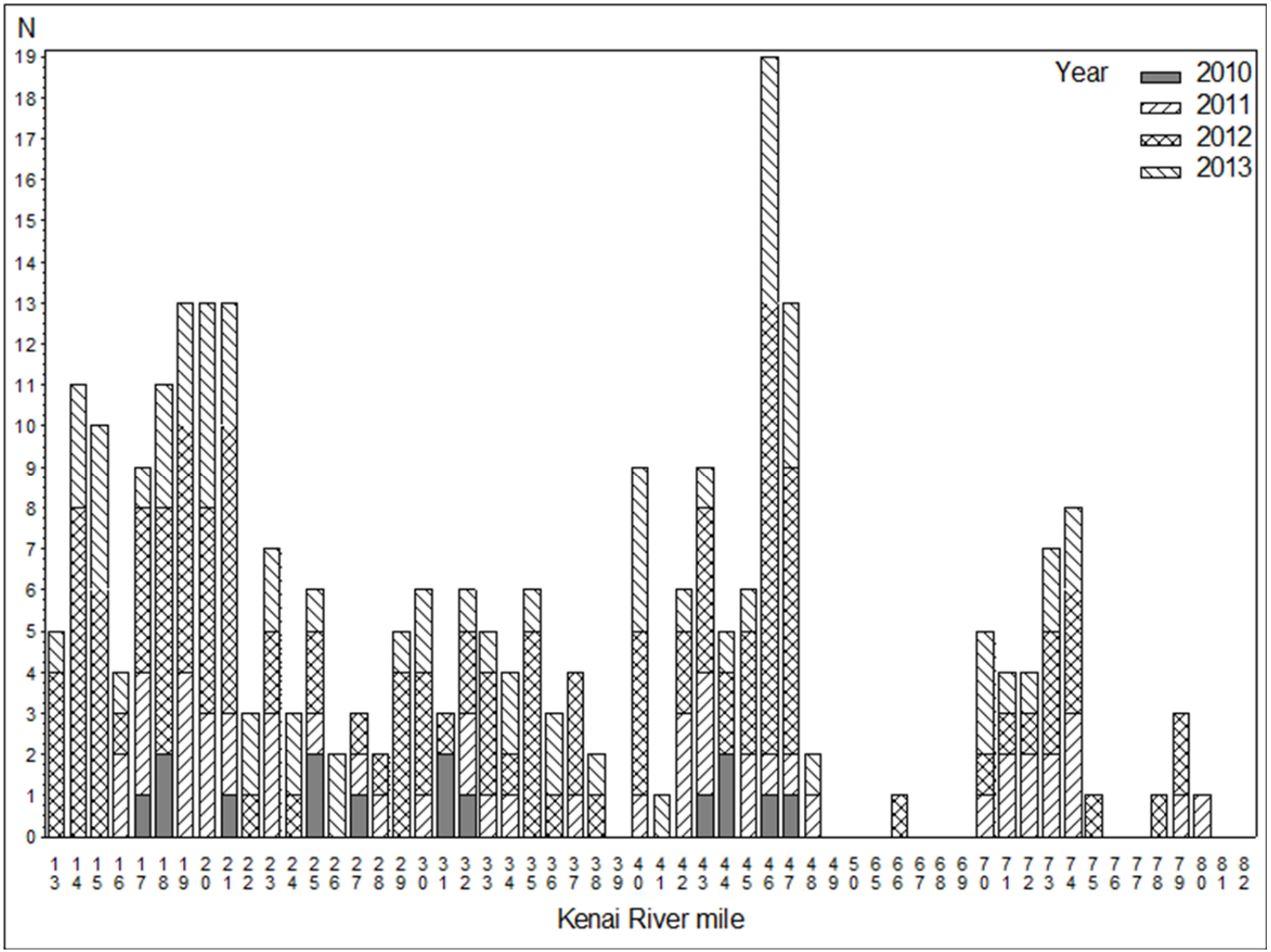

Figure 196-3.–King salmon spawning distribution within the mainstem Kenai River by river mile, 2010–2013.

COMMITTEE OF THE WHOLE – GROUP 4: KENAI RIVER EARLY- AND LATE-RUN KING SALMON SPORT FISHERY (21 PROPOSALS)

Kenai River Early- and Late-Run King Salmon Sport Fishery (11 proposals): 195, 197–206
Kenai River Late-Run King Salmon Sport Fishery (10 proposals): 219–228

Kenai River Early- and Late-Run King Salmon Sport Fishery (1 Proposal): 195, 197–206

PROPOSAL 195 – 5 AAC 57.120. General provisions for seasons, bag, possession, and size limits, and methods and means for the Kenai River Drainage Area; 5 AAC 57.121. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for the Lower Section of the Kenai River Drainage Area.; and 5 AAC 57.160. Kenai River and Kasilof River Early-run King Salmon Management Plan.

PROPOSED BY: Christine Brandt.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit the retention of female king salmon greater than 33 inches in length in the Kenai River sport fishery.

WHAT ARE THE CURRENT REGULATIONS? In waters of the Kenai River open to king salmon sport fishing, early-run regulations allow for the harvest of 10 king salmon less than 20 inches per day, and harvest of one king salmon per day 20 inches or greater in length and less than 46 inches or 55 inches or greater in length. Any king salmon caught that is 46 inches or longer, but less than 55 inches, must be released unharmed. The non-retention slot limit is in effect from January 1–June 30 in the Kenai River from the mouth upstream to the Soldotna Bridge and from January 1–July 14 for those waters of the Kenai River from the Soldotna Bridge upstream to the outlet of Skilak Lake.

Late-run regulations are in effect from July 1–31 below the Soldotna Bridge, and from July 15–31 upstream of the Soldotna bridge; bag and possession limit of one king salmon per day 20 inches or greater in length.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would decrease the harvest and exploitation of early- and late-run king salmon in the Kenai River from the mouth upstream to Skilak Lake by an unknown, but likely significant, amount. However, total catch would remain the same, or possibly increase. It would increase harvest selectivity to favor male king salmon and could change the sex composition of the escapement to favor female king salmon by an undetermined amount. This proposal would increase regulatory complexity and likely result in violations by anglers who are not proficient in determining the sex of a salmon.

BACKGROUND: Historically, there have been no regulations on the Kenai River that restricted retention of king salmon based on sex of the fish. On average, approximately 45% of the early-run stock, and 43% of the late-run stock is comprised of female king salmon greater than 33 inches in total length (figures 195-1 and 195-2).

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. Determining the sex of the fish could be difficult for anglers, and may lead to unintended violations. The department's emergency order authority already allows the department to prohibit retention of king salmon to achieve the escapement goal. The department is **NEUTRAL** to the allocative aspects of 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.

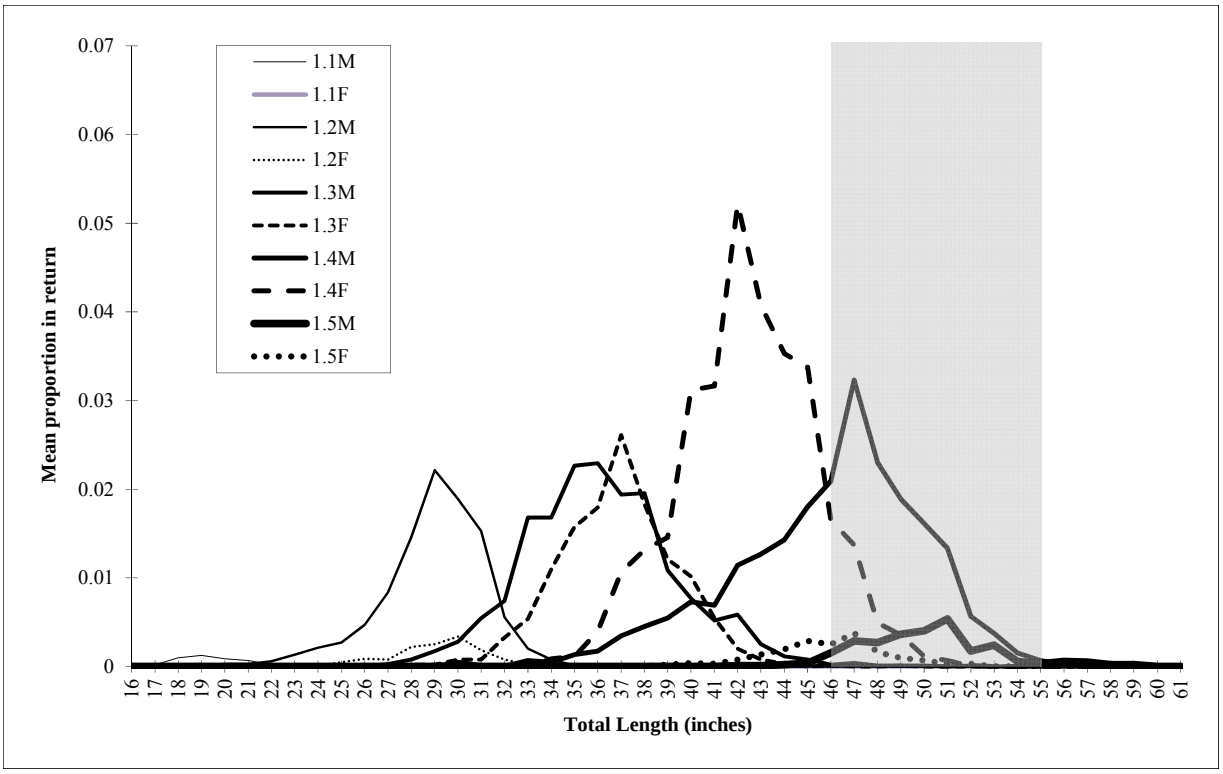

Figure 195-1.–Age-length-sex frequency relationships for Kenai River early-run king salmon, 1986–2013.

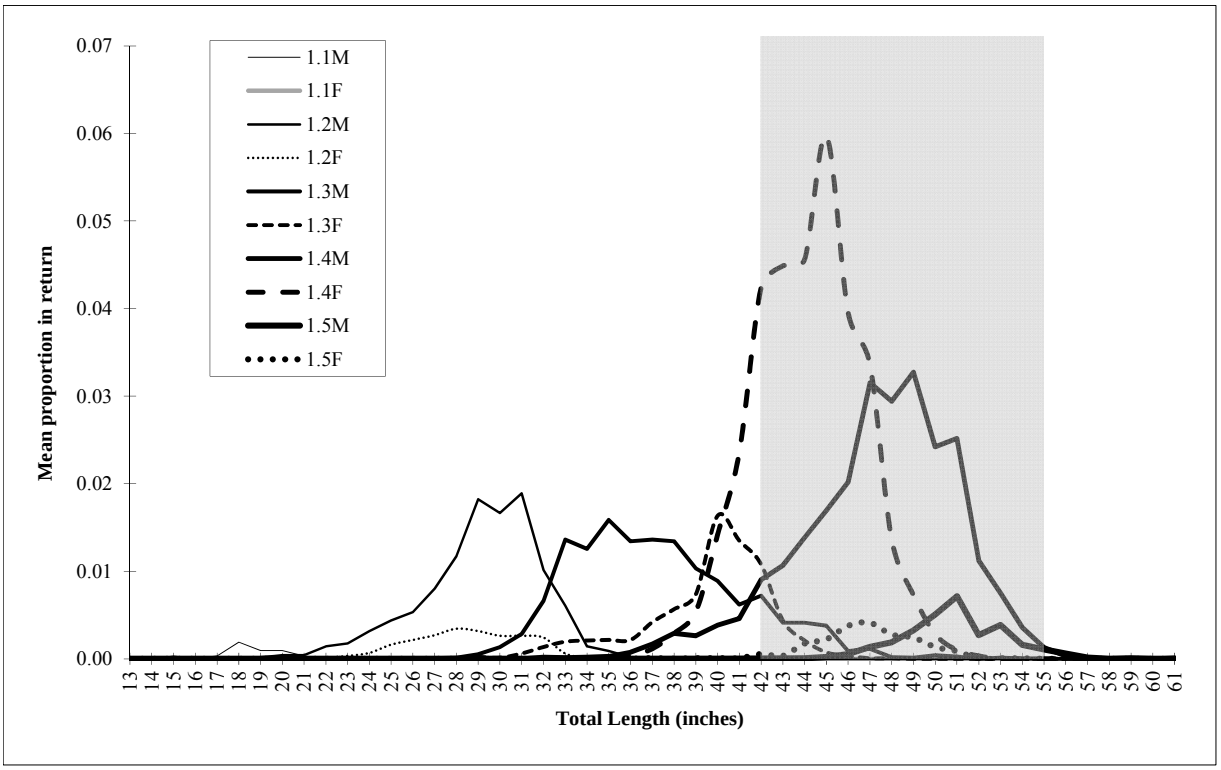

Figure 195-2.–Age-length-sex frequency relationships for Kenai River late-run king salmon, 1986–2013.

PROPOSAL 197 – 5 AAC 21.359. Kenai River Late-Run King Salmon Management Plan; 5 AAC 57.120. General provisions for seasons, bag, possession, and size limits, and methods and means for the Kenai River Drainage Area; 5 AAC 57.121. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for the Lower Section of the Kenai River Drainage Area; and 5 AAC 57.160. Kenai River and Kasilof River Early-run King Salmon Management Plan.

PROPOSED BY: Greg Brush.

WHAT WOULD THE PROPOSAL DO? This proposal would start the Kenai River early- and late-run king salmon sport fisheries restricted to catch-and-release only and without bait, by regulation, until the department can project the optimal escapement goal (OEG) will be achieved. The proposal would also increase the OEG from 5,300–9,000 to 9,000–14,000 early-run king salmon. The proposal does not appear to modify the late-run sustainable escapement goal (SEG).

WHAT ARE THE CURRENT REGULATIONS? In waters of the Kenai River open to king salmon sport fishing, early-run regulations allow for the harvest of 10 king salmon less than 20 inches per day, and harvest of one king salmon per day 20 inches or greater in length and less than 46 inches or 55 inches or greater in length. Any king salmon caught that is 46 inches or longer, but less than 55 inches, must be released unharmed. The non-retention slot limit is in effect from January 1–June 30 in the Kenai River from the mouth upstream to the Soldotna Bridge and from January 1–July 14 for those waters of the Kenai River from the Soldotna Bridge upstream to the outlet of Skilak Lake. If the early-run spawning escapement is projected to fall within the OEG, the commissioner shall, by emergency order (EO), liberalize the sport fishery downstream from the outlet of Skilak Lake, by allowing the use of bait if the department projects that the total harvest under a liberalized sport fishery will not reduce the spawning escapement below the OEG.

Late-run regulations are in effect from July 1–31 below the Soldotna Bridge, and from July 15–31 upstream of the Soldotna bridge; bag and possession limit of one king salmon per day 20 inches or greater in length. The department shall manage the late run of Kenai River king salmon to achieve a sustainable escapement goal of 15,000–30,000 king salmon. In the Kenai River, from the mouth upstream to Skilak Lake, from July 1 through July 31, only one single hook may be used and bait is allowed.

The *Policy for the management of sustainable salmon fisheries* (5 AAC 39.222) contains principles and criteria for the management of salmon fisheries by the state, and defines escapement goal terms. The *Policy for statewide salmon escapement goals* (5 AAC 39.223) recognizes the establishment of salmon escapement goals as a joint responsibility of the Alaska Department of Fish and Game (department) and the Alaska Board of Fisheries (board) and describes the concepts, criteria, and procedures for establishing and modifying salmon escapement goals. This policy describes the roles of the department and the board in developing, reviewing, and modifying escapement goals (see staff comments for proposals 207 and 208).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would result in an increase in the number of early-run king salmon required to achieve

escapement and would decrease the harvest and exploitation of large early- and late-run king salmon in the Kenai River from the mouth upstream to Skilak Lake by an unknown, but likely significant, amount. This proposal would reduce future yield of the early run and fishing opportunity for both runs during most years when there is a harvestable surplus. Decreasing harvest of late-run king salmon by the inriver sport fishery may result in fewer restrictions to sport, personal use, and commercial fisheries during periods of low king salmon abundance.

BACKGROUND: The existing OEG was adopted into regulation in 2005 after the department recommended changing the BEG of Kenai River early-run king salmon from 7,000–14,400 to 4,000–9,000. From 2005–2007, liberalization of the early run fishery was allowed only when the OEG was projected to be exceeded. In 2008, the board changed the management plan to the present language which directs the department to liberalize the fishery when the OEG is projected to be met.

King salmon returning to the Kenai River are managed as two distinct runs: early (May 16–June 30) and late (July 1–August10). Early-run fish spawn primarily in tributary streams, whereas late-run fish are destined primarily for mainstem spawning locations. King salmon of Kenai River origin are harvested in several fisheries, including a recreational marine fishery along the eastern shore of Cook Inlet from Anchor Point to Cape Ninilchik; commercial set and drift gillnet fisheries in Cook Inlet that harvest late-run king salmon; and the sport fishery and personal use fisheries in the Kenai River itself.

Management plans for the Kenai River king salmon sport fishery have been structured to provide fishing opportunity under various run sizes and ensure escapement goals are achieved. In 2011–2013 the Kenai River king salmon sport fishery was closed or restricted to catch-and-release fishing during late June through July, 300 yards downstream from the mouth of Slikok Creek at approximately RM 18.5, upstream to the outlet of Skilak Lake at RM 50. The area affected by these restrictive actions comprises about 60% of the Kenai River waters normally open to sport fishing for king salmon.

DEPARTMENT COMMENTS: The department is **OPPOSED** to the proposed goal range because of the magnitude of the reduction in expected yield that would result. The proposed upper bound of 14,000 king salmon will produce no yields and is therefore unsustainable. Over the past four years during low runs of king salmon, the department has used inseason stock assessment data and emergency order authority, as well as preseason catch and release (2013 early run) and bait prohibition (2012 and 2013 late run) emergency order restrictions to reduce harvest potential to achieve escapement goals for both runs. Standard regulations to begin the season are designed to achieve king salmon escapement goals by ensuring sufficient harvest potential exists to accommodate a variety of run strengths. The department is **NEUTRAL** to the allocative aspects of 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 198 – 5 AAC 21.359. Kenai River Late-Run King Salmon Management Plan; 5 AAC 57.120. General provisions for seasons, bag, possession, and size limits, and methods and means for the Kenai River Drainage Area; 5 AAC 57.121. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for the Lower Section of the Kenai River Drainage Area; and 5 AAC 57.160. Kenai River and Kasilof River Early-run King Salmon Management Plan.

PROPOSED BY: Greg Davis.

WHAT WOULD THE PROPOSAL DO? This proposal would begin the early- and late-run king salmon seasons with catch-and-release only fishing by regulation, then liberalize during the season by allowing harvest, use of bait, and extending king salmon sport fishing season depending upon run abundance.

WHAT ARE THE CURRENT REGULATIONS? In waters of the Kenai River open to king salmon sport fishing, early-run regulations allow for the harvest of 10 king salmon less than 20 inches per day, and harvest of one king salmon per day 20 inches or greater in length and less than 46 inches or 55 inches or greater in length. Any king salmon caught that is 46 inches or longer, but less than 55 inches, must be released unharmed. The non-retention slot limit is in effect from January 1–June 30 in the Kenai River from the mouth upstream to the Soldotna Bridge and from January 1–July 14 for those waters of the Kenai River from the Soldotna Bridge upstream to the outlet of Skilak Lake. If the early-run spawning escapement is projected to fall within the OEG, the commissioner shall, by emergency order (EO), liberalize the sport fishery downstream from the outlet of Skilak Lake, by allowing the use of bait if the department projects that the total harvest under a liberalized sport fishery will not reduce the spawning escapement below the OEG.

Late-run regulations are in effect from July 1–31 below the Soldotna Bridge, and from July 15–31 upstream of the Soldotna bridge; bag and possession limit of one king salmon per day 20 inches or greater in length. The department shall manage the late run of Kenai River king salmon to achieve a sustainable escapement goal of 15,000–30,000 king salmon. In the Kenai River, from the mouth upstream to Skilak Lake, from July 1 through July 31, only one single hook may be used and bait is allowed.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would decrease the harvest and exploitation of large early- and late-run king salmon in the Kenai River from the mouth upstream to Skilak Lake by an unknown, but likely significant, amount. This proposal would also likely reduce future yields and harvest opportunity for both stocks when runs are larger than average as it could be difficult to achieve escapements within established escapement goal ranges. Decreasing harvest of late-run king salmon by the inriver sport fishery may result in fewer restrictions to sport, personal use, and commercial fisheries during periods of low king salmon abundance.

BACKGROUND: King salmon returning to the Kenai River are managed as two distinct runs: early (May 16–June 30) and late (July 1–August10). Early-run fish spawn primarily in tributary streams, whereas late-run fish are destined primarily for mainstem spawning locations. King

salmon of Kenai River origin are harvested in several fisheries, including a recreational marine fishery along the eastern shore of Cook Inlet from Anchor Point to Cape Ninilchik; commercial set and drift gillnet fisheries in Cook Inlet that harvest late-run king salmon; and the sport fishery and personal use fisheries in the Kenai River itself.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. Standard regulations to begin the season are designed to achieve king salmon escapement goals by ensuring sufficient harvest potential exists to accommodate a variety of run strengths. Over the past four years during low runs of king salmon, the department used inseason stock assessment data and emergency order authority, as well as preseason catch and release (2013 early run) and bait prohibition (2012 and 2013 late run) emergency order restrictions to reduce harvest potential to achieve escapement goals for both runs. The department is **NEUTRAL** to the allocative aspects of 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 199 – 5 AAC 21.359. Kenai River Late-Run King Salmon Management Plan; and 5 AAC 57.160. Kenai River and Kasilof River Early-run King Salmon Management Plan.

PROPOSED BY: Mel Erickson.

WHAT WOULD THE PROPOSAL DO? This proposal would allow catch-and-release fishing for king salmon on the Kenai River when runs are projected to be below the escapement goal.

WHAT ARE THE CURRENT REGULATIONS? Under statewide regulations, the commissioner may, by emergency order (EO), change bag and possession limits and annual limits and alter methods and means in sport fisheries. These changes may not reduce the allocation of harvest among other user groups. An EO may not supersede provisions for increasing or decreasing bag and possession limits or changing methods and means established in regulatory management plans established by the Alaska Board of Fisheries.

If the recreational harvest must be curtailed in any fishery for conservation reasons; the department may issue a "catch-and-release only" EO when the estimated hooking mortality is not projected to reduce the population of fish below the number required for spawning escapement.

Under the *Kenai River and Kasilof River Early-run King Salmon Management Plan,* the department shall manage the Kenai River early-run king salmon sport and guided sport fisheries to achieve the optimal escapement goal (OEG), to provide reasonable harvest opportunities over the entire run, and to ensure the age and size composition of the harvest closely approximates the age and size composition of the run.

Under the *Kenai River and Kasilof River Early-run King Salmon Management Plan,* the department manages the late run of Kenai River king salmon to achieve a sustainable escapement goal of 15,000–30,000 king salmon. If the projected inriver return is less than 15,000 king salmon, the department shall close the sport fisheries in the Kenai River and in the salt waters of Cook Inlet north of the latitude of Bluff Point to the taking of king salmon; close the commercial drift gillnet fishery in the Central District within one mile of the Kenai Peninsula shoreline north of the Kenai River and within one and one-half miles of the Kenai Peninsula shoreline south of the Kenai River; and close the commercial set gillnet fishery in the Upper Subdistrict of the Central District.

If the projected inriver return of late-run king salmon is less than 40,000 fish and the inriver sport fishery harvest is projected to result in an escapement below 15,000 king salmon, the department may restrict the inriver sport fishery. If the inriver sport fishery is closed under this section, the commercial set gillnet fishery in the Upper Subdistrict shall be closed. In addition, if the projected inriver return of king salmon is less than 40,000 fish, the department may not reduce the closed waters at the mouth of the Kenai River.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would decrease the probability of ensuring future yields of Kenai River king salmon by an unknown amount, depending on the mortality of king salmon caught while the fishery was restricted to catch-and-release, and the projected escapement level.

BACKGROUND: Information from Kenai River catch-and-release mortality studies indicate that the overall delayed hooking mortality for king salmon is approximately 8% using all gear types. Since the mid-1980's, when management plans were first adopted for the Kenai River king salmon stocks thru the 2013 season, inseason stock assessment data has warranted the total closure of the early-run king salmon sport fishery on four occasions (2002, 2010, 2012 and 2013) and the total closure of late-run king salmon sport fishery on two occasions (2012 and 2013) (tables 199-1 and 199-2). During king salmon sport fishing closures, anglers fishing the Kenai River may fish for other species such as sockeye salmon, rainbow trout and Dolly Varden.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal as it relates to the early-run OEG, but **OPPOSES** this proposal as it relates to the early- and late-run SEGs because achievement of the lower end of escapement goals is a priority for the department. The department is **NEUTRAL** to the allocative aspects of 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.

Table 199-1.–Early-run Kenai River king salmon population data, 1986–2013.

Year	Marine Sport Harvest	Misc. Marine Harvest[a]	Kenaitze Educational Harvest[b]	Inriver Run[c]	Sport Harvest Above Sonar[d]	Catch-and-Release Mortality	Spawning Escapement	Total Run	Harvest Rate
1986	144	0	ND	20,100	8,156	242	11,702	20,244	0.42
1987	181	0	ND	21,750	13,557	306	7,887	21,931	0.64
1988	212	0	ND	19,800	15,209	340	4,251	20,012	0.79
1989	193	0	73	12,290	8,394	149	3,747	12,556	0.70
1990	235	0	40	9,842	1,807	378	7,657	10,117	0.24
1991	241	0	2	10,620	1,945	152	8,523	10,863	0.22
1992	300	0	73	11,930	2,241	236	9,453	12,303	0.23
1993	407	0	118	12,490	9,342	286	2,862	13,015	0.78
1994	343	0	56	13,160	8,171	285	4,704	13,559	0.65
1995	412	0	37	12,890	10,217	357	2,316	13,339	0.83
1996	235	0	104	9,764	6,623	287	2,854	10,103	0.72
1997	282	0	122	11,140	6,429	349	4,362	11,544	0.62
1998	289	0	131	11,930	1,170	254	10,506	12,350	0.15
1999	245	0	114	13,480	8,129	261	5,090	13,839	0.63
2000	239	0	124	10,790	1,818	185	8,787	11,153	0.21
2001	184	0	198	14,020	2,399	205	11,416	14,402	0.21
2002	168	0	48	10,860	899	78	9,883	11,076	0.11
2003	202	0	126	20,450	2,839	389	17,222	20,778	0.17
2004	194	0	72	23,460	3,386	257	19,817	23,726	0.16
2005	187	341	76	20,810	3,810	253	16,747	21,414	0.22
2006	252	0	65	18,180	4,693	205	13,282	18,497	0.28
2007	201	41	16	13,630	3,493	220	9,917	13,888	0.29
2008	107	102	40	10,210	3,500	123	6,587	10,459	0.37
2009	71	16	49	7,741	1,466	97	6,178	7,877	0.22
2010	88	48	32	7,830	1,337	90	6,403	7,998	0.20
2011	110	0	42	9,895	1,337	92	8,466	10,047	0.16
2012	89	0	19	5,387	316	10	5,061	5,495	0.08
2013[e]	ND	0	11	2,038	0	5	2,033	2,049	0.01
Average									
1986–2002	254	0	89	13,344	6,265	256	6,824	13,671	0.48
2003–2013	150	50	50	12,694	2,380	158	10,156	12,930	0.20
1986–2013	215	20	72	13,089	4,739	218	8,133	13,380	0.37

Source: Statewide Harvest Surveys (SWHS) from Mills 1987-1994, Howe et al. 1995, 1996, 2001a-d, Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b, 2011, *In Prep* a-b; Alexandersdottir and Marsh 1990; Nelson et al. 1999; Hammarstrom and Timmons 2001a; Reimer et al. 2002, Reimer, A. 2003, 2004a-b, 2007; Eskelin, A. 2007, 2009, 2010; Perschbacher 2012a-d, J. Perschbacher, Sport Fish Biologist, ADF&G, Soldotna, personal communication; McKinley and Fleischman 2013; 1994-2012 Educational data, Kenaitze Indian Tribe; Tim mcKinley personal communication.

Note: ND = No data available

[a] Commercial cost-recovery harvest.

[b] Prior to 1994, there was no educational fishery, this was considered a subsistence fishery.

[c] Inriver run estimate is median value from Table 8 in McKinley and Fleischman 2013, FMS 13-03.

[d] Includes creel survey estimates for the area from Cook Inlet to the Soldotna Bridge and estimates from the SWHS from the Soldotna Bridge to the outlet of Kenai Lake.

[e] 2013 estimates are preliminary until biometrically reviewed and published.

Table 199-2.–Late-run Kenai River king salmon population data, 1986–2013.

Year	Marine Sport Harvest[a]	Eastside Setnet Harvest[b]	Drift Gillnet Harvest[b]	Commercial Personal Use[c]	Kenaitze Educational	Subsistence[d]	Personal Use Dipnet[e]	Sport Harvest Below Sonar[fg]	Inriver Run Estimate[h]	Sport Harvest Above Sonar[fg]	Catch-and-Release Mortality[f]	Spawning Escapement	Total Run	Harvest Rate
1986	378	13,619	1,100	ND	ND	ND	ND	ND	62,740	9,872	316	52,552	77,837	0.32
1987	731	14,536	2,731	ND	ND	ND	235	ND	63,550	13,100	123	50,327	81,783	0.38
1988	892	8,834	1,330	ND	ND	ND	0	ND	61,760	19,695	176	41,889	72,816	0.42
1989	821	7,498	0	ND	ND	22	0	ND	36,370	9,691	88	26,591	44,711	0.41
1990	963	2,843	373	91	ND	13	ND	ND	34,200	6,897	69	27,234	38,483	0.29
1991	1,023	3,361	145	130	ND	288	ND	ND	38,940	7,903	16	31,021	43,887	0.29
1992	1,269	7,363	326	50	ND	402	0	ND	42,290	7,556	234	34,500	51,700	0.33
1993	1,700	9,672	451	81	ND	27	0	ND	50,210	17,775	478	31,957	62,142	0.49
1994	1,121	10,700	276	9	1	392	ND	ND	47,440	17,837	572	29,031	59,939	0.52
1995	1,241	8,291	314	25	3	ND	712	ND	44,770	12,609	472	31,689	55,355	0.43
1996	1,223	7,944	219	31	1	ND	295	ND	42,790	8,112	337	34,341	52,503	0.35
1997	1,759	7,780	293	30	20	ND	364	ND	41,120	12,755	570	27,795	51,367	0.46
1998	1,070	3,495	199	35	2	ND	254	ND	47,110	7,515	595	39,000	52,165	0.25
1999	602	6,501	345	59	4	ND	488	1,170	43,670	12,425	682	30,563	52,839	0.42
2000	631	2,531	162	27	6	ND	410	831	47,440	14,391	499	32,550	52,038	0.37
2001	552	4,128	371	80	8	ND	638	1,336	53,610	15,144	825	37,641	60,724	0.38
2002	256	6,511	249	15	6	ND	606	1,929	56,800	10,678	665	45,457	66,372	0.32
2003	120	10,174	744	53	11	ND	1,016	823	85,110	16,120	1,803	67,187	98,052	0.31
2004	996	14,897	916	218	10	ND	792	2,386	79,690	14,988	1,019	63,683	99,905	0.36
2005	624	15,183 [i]	1,103	639	11	ND	997	2,287	77,440	15,927	1,267	60,246	98,284	0.39
2006	563	6,840 [i]	631	61	11	ND	1,034	3,322	62,270	12,490	830	48,950	74,732	0.34
2007	478	8,445 [i]	547	38	6	0	1,509	1,750	47,370	9,690	670	37,010	60,143	0.38
2008	310	5,203 [i]	392	23	15	0	1,362	1,011	42,840	10,128	370	32,342	51,156	0.37
2009	154	3,839	515	64	4	0	1,189	1,132	29,940	7,904	626	21,410	36,837	0.42
2010	335	4,567	323	32	21	0	865	445	23,250	6,762	264	16,224	29,839	0.46
2011	528	5,596	356	88	5	0	1,243	458	27,090	6,894	479	19,717	35,363	0.44
2012	30	484	115	41	0	0	40	2	27,910	101	95	27,714	28,622	0.03
2013[j]	ND	2,289	267	117	8	0	11	37	17,015	1,541	79	15,395	19,744	0.22
Average														
1986–2002	955	7,389	523	51	6	191	308	1,317	47,930	11,997	395	35,538	57,451	0.38
2003–2013	414	7,047	537	125	9	0	914	1,241	47,266	9,322	682	37,262	57,516	0.34
1986–2013	754	7,255	528	85	8	88	586	1,261	47,669	10,946	508	36,215	57,476	0.36

Source: Statewide Harvest Surveys (SWHS) from Mills 1987–1994, Howe et al. 1995, 1996, 2001a-d, Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b, 2011, *In Prep* a-b; Hammarstrom and Timmons 2001b; Brannian and Fox 1996; Ruesch and Fox 1996; Reimer and Sigurdsson 2004; Dunker and Lafferty 2007, Dunker, K.J. 2010, K. J. Dunker, Sport Fish Biologist, ADF&G, Anchorage, personal communication; Shields and Dupois 2013, P. Shields, Comm Fish Biologist, ADF&G, Soldotna, personal communication; Fleischman and McKinley 2013, FMS 13-02; Tim McKinley personal communication; Robert Begich personal communication.

Note: ND = No data available

[a] From Fleischman and McKinley 2013, FMS 13-02.

[b] Eastside setnet and drift gillnet commercial harvest data using genetic stock allocation from Fleischman and McKinley 2013, FMS 13-02; Tony Eskelin personal communication.

[c] Eastside setnet and drift gillnet personal use data using genetic stock allocation from Fleischman and McKinley 2013, FMS 13-02; Tony Eskelin personal communication..

[d] Total includes fish harvested from Cohoe, Salamatof, and Kalifornsky Beaches, and the Kenai River.

[e] 1986–1994 from SWHS; 1995 (Ruesch and Fox 1996); 1996–2012 are estimates from returned permits.

[f] Some harvest is below sonar and not counted against escapement.

[g] Sport harvest includes Creel survey estimates for the area from Cook Inlet to the Soldotna Bridge and estimates from the SWHS for Soldotna Bridge to outlet of Skilak Lake.

[h] Inriver run estimates thru 2012 are median values inTable 6 of Fleischman and McKinley 2013, FMS 13-02.

[i] Harvest estimate does not include Kasilof River terminal fishery which occurred 2005–2008.

[j] 2013 estimates are preliminary until biometrically reviewed and published.

PROPOSAL 200 – 5 AAC 57.120. General provisions for seasons, bag, possession, and size limits, and methods and means for the Kenai River Drainage Area.

PROPOSED BY: John McCombs.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit catch-and-release fishing for king salmon on the Kenai River.

WHAT ARE THE CURRENT REGULATIONS? Under statewide regulations, the commissioner may, by emergency order (EO), change bag and possession limits and annual limits and alter methods and means in sport fisheries. These changes may not reduce the allocation of harvest among other user groups. An EO may not supersede provisions for increasing or decreasing bag and possession limits or changing methods and means established in regulatory management plans established by the Alaska Board of Fisheries.

If the recreational harvest must be curtailed in any fishery for conservation reasons; the department may issue a "catch-and-release only" EO when the estimated hooking mortality is not projected to reduce the population of fish below the number required for spawning escapement.

Under the *Kenai River and Kasilof River Early-run King Salmon Management Plan,* the department shall manage the Kenai River early-run king salmon sport and guided sport fisheries to achieve the optimal escapement goal (OEG), to provide reasonable harvest opportunities over the entire run, and to ensure the age and size composition of the harvest closely approximates the age and size composition of the run.

Under the *Kenai River and Kasilof River Early-run King Salmon Management Plan,* the department manages the late run of Kenai River king salmon to achieve a sustainable escapement goal of 15,000–30,000 king salmon. If the projected inriver return is less than 15,000 king salmon, the department shall close the sport fisheries in the Kenai River and in the salt waters of Cook Inlet north of the latitude of Bluff Point to the taking of king salmon; close the commercial drift gillnet fishery in the Central District within one mile of the Kenai Peninsula shoreline north of the Kenai River and within one and one-half miles of the Kenai Peninsula shoreline south of the Kenai River; and close the commercial set gillnet fishery in the Upper Subdistrict of the Central District.

If the projected inriver return of late-run king salmon is less than 40,000 fish and the inriver sport fishery harvest is projected to result in an escapement below 15,000 king salmon, the department may restrict the inriver sport fishery. If the inriver sport fishery is closed under this section, the commercial set gillnet fishery in the Upper Subdistrict shall be closed. In addition, if the projected inriver return of king salmon is less than 40,000 fish, the department may not reduce the closed waters at the mouth of the Kenai River.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would reduce fishing opportunity because it would require anglers who would otherwise intend to release king salmon alive to harvest the fish, or not fish at all. It would conflict with existing size limit regulations during the early run that require the release of slot-

limit fish. Removing catch-and-release as a step-down management option would increase the frequency of closures to the inriver sport fishery and would reduce fishing opportunity for sport, personal use, and commercial fisheries.

BACKGROUND: The mortality of release fish is dependent mostly on hook placement. Hooking mortality is often higher for fish that have hooked in vital areas, such as the esophagus or gills. Other factors, such as fish size, gear type, bleeding, and elapsed time to unhook the fish, can influence survival to a lesser degree than hook location.

Information from Kenai River catch-and-release mortality studies indicate that the overall delayed hooking mortality for king salmon is approximately 8% using all gear types. Since the mid-1980's when management plans were first adopted for the Kenai River king salmon stocks thru the 2013 season, inseason stock assessment data has warranted the total closure of the early-run king salmon sport fishery on four occasions (2002, 2010, 2012 and 2013) and the total closure of late-run king salmon sport fishery on two occasions (2012 and 2013). During king salmon sport fishing closures, anglers fishing the Kenai River may fish for other species such as sockeye salmon, rainbow trout and Dolly Varden.

The Alaska Board of Fisheries (board) has adopted regulations to promote best practices for releasing fish and reducing release-related mortality by prohibiting removing a fish from the water if it is to be released; prohibiting bait, which can affect hook placement and increase catch rates; prohibiting multiple hooks; and prohibiting fishing after a limit of a specific species is harvested. The department promotes best practices for releasing fish through education and outreach. The department uses emergency order authority to reduce mortality when necessary to achieve escapement goals or provide sustainability. It does so primarily through harvest limit reductions, but also by prohibiting use of bait and multiple hooks.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal**.** Anglers release fish for a number of reasons. Catch-and-release fishing also allows fishing opportunity for all users and provides managers with the ability to allow fisheries to continue thru the season to achieve escapement goals. Importantly, the ability to provide additional time between a harvest fishery and total closure enables managers to more accurately assess run strength. The department encourages anglers to use best practices through outreach efforts.

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 201 – 5 AAC 57.120. General provisions for seasons, bag, possession, and size limits, and methods and means for the Kenai River Drainage Area; 5 AAC 57.121. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for the Lower Section of the Kenai River Drainage Area; and 5 AAC 57.160. Kenai River and Kasilof River Early-run King salmon Management Plan.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would establish the lower Slikok Creek king salmon sanctuary area as the lower boundary for standard regulations and restrictive emergency order (EO) actions in July to conserve early-run king salmon.

WHAT ARE THE CURRENT REGULATIONS? In waters of the Kenai River open to king salmon sport fishing, early-run regulations allow for the harvest of 10 king salmon less than 20 inches per day, and harvest of one king salmon per day 20 inches or greater in length and less than 46 inches or 55 inches or greater in length. Any king salmon caught that is 46 inches or longer, but less than 55 inches, must be released unharmed. The non-retention slot limit is in effect from January 1–June 30 in the Kenai River from the mouth upstream to the Soldotna Bridge and from January 1–July 14 for those waters of the Kenai River from the Soldotna Bridge upstream to the outlet of Skilak Lake.

Late-run regulations are in effect from July 1–31 below the Soldotna Bridge, and from July 15–31 upstream of the Soldotna Bridge; there is a bag and possession limit of one king salmon per day 20 inches or greater in length.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would increase the area of the Kenai River affected with standard early-run king salmon regulations by an additional 2.5 river miles (Figure 201-1). These regulations include the protective slot limit and bait prohibition from July 1–14. In addition, the area affected by restrictive EO actions to ensure adequate escapement of early-run king salmon would increase by the same amount. This proposal would also include more restrictive standard regulations in a larger area adjacent to Slikok Creek, which is the lowest Kenai River tributary supporting tributary-spawning king salmon. It will lower king salmon fishing effort and harvest in this area of the Kenai River during the first 14 days of July, particularly in approximately one river mile that is closed to fishing from boats at Centennial Park, where shore-based anglers anticipate fishing from shore with bait during July. It may displace some anglers who prefer to fish with bait without constraint of their harvest by the protected slot limit regulation, and they may move to lower river fishing areas.

BACKGROUND: Early-run king salmon stocks are comprised mainly of tributary-spawning stocks that migrate above Slikok Creek. Slikok Creek also supports tributary-spawning king salmon. Tributary stocks are the primary stock available to the fishery until mid- to late-June when the king salmon mainstem stocks begin entering the river. Regulations for the Kenai River early-run king salmon fishery prohibit use of bait during June and prohibit harvest of king salmon greater than 46 inches and less than 55 inches during that same time period. Standard regulations for the Kenai River allow use of bait from the mouth of the river upstream to Skilak

Lake beginning July 1, but the slot limit remains in effect upstream of the Soldotna Bridge. Radiotelemetry projects conducted by the department from 2010–2013 show that early-run king salmon are present in the Kenai River, above Slikok Creek, until about mid-July. The current boundary of the Soldotna Bridge is inconsistent with management of tributary-spawning stocks because Slikok Creek is downstream of this boundary. In addition, use of bait in the area where the slot limit remains in effect during years when restrictive actions are necessary to ensure adequate escapement is inconsistent with management of fisheries where non-retention of salmon is required.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. The department is **NEUTRAL** to the allocative aspects this proposal may have between shore-based king salmon anglers who fish at Centennial Park and anglers who fish for king salmon from boats are able to access downstream waters that have less restrictive 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.

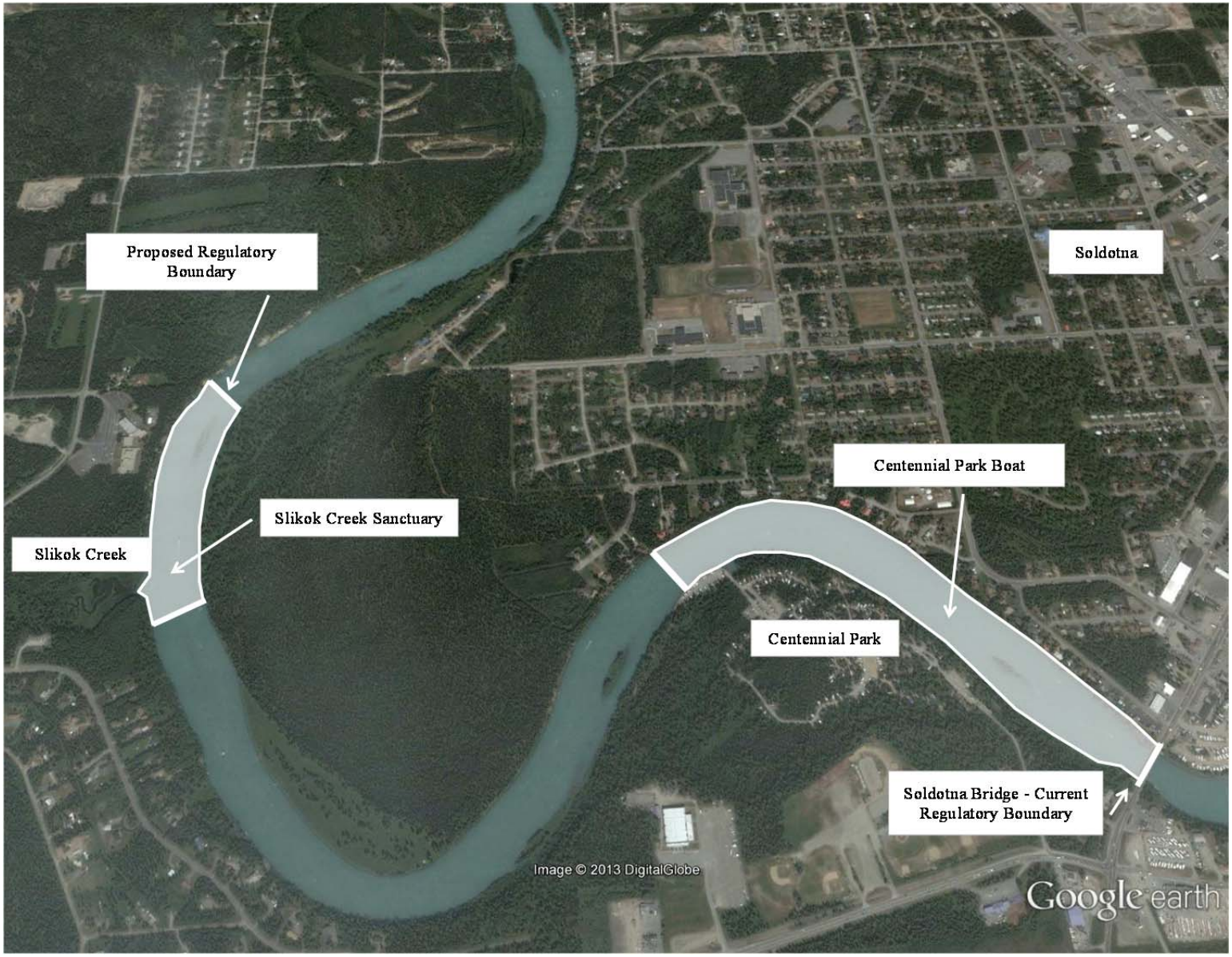

Figure 201-1.–Map of proposed Slikok Creek sanctuary boundary, Kenai River.

PROPOSAL 202 – 5 AAC 57.121. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for the Lower Section of the Kenai River Drainage Area.

PROPOSED BY: Kenai Area Fisherman's Coalition.

WHAT WOULD THE PROPOSAL DO? This proposal would increase the Slikok Creek king salmon sanctuary area by an additional 200 yards upstream of the current area.

WHAT ARE THE CURRENT REGULATIONS? From January 1–July 31, that portion of the Kenai River from a department regulatory marker located approximately 300 yards downstream from the mouth of Slikok Creek, upstream to a department regulatory marker located approximately 100 yards upstream from the mouth of Slikok Creek, is closed to the taking of king salmon, closed to sport fishing from a boat, and are fly-fishing-only waters.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It would decrease king salmon harvest by an unknown, but likely small, amount. It will also decrease fishing opportunity from boats and restrict fishing methods from shore by an additional 200 feet.

BACKGROUND: In 1992, the Alaska Board of Fisheries adopted the seasonal closed-water regulations that restricted fishing in the confluence area of Slikok Creek (figures 202-1 and 202-2). In 2008, the effective date of the seasonally closed-water regulations, including Slikok Creek, was extended an additional 17 days to include July 15–31. This tributary sanctuary, as well as the Killey River and Funny River sanctuaries, provides refuge for both early-run king salmon that spawn in tributaries, and those that spawn in the mainstem of the Kenai River.

Early-run king salmon are managed to achieve a spawning escapement within the optimum escapement goal of 5,300 to 9,000 early-run king salmon. Achievement of this escapement objective requires information on the number of early-run king salmon entering the river, the ability to project the total inriver run, and an estimate of harvest and final spawning escapement. The numbers of fish entering each individual tributary are not used for inseason management of tributary spawning king salmon. Management of these fish is addressed through achievement of the Kenai River early-run king salmon escapement goal (which encompasses all tributary-spawning stocks), regulatory sport fishing closures of selected mainstem Kenai River areas and tributaries to king salmon fishing, bait and gear restrictions, restrictive bag and annual limits, and harvest slot limits.

Radiotelemetry studies indicated all radiotagged early-run tributary spawners ascended into larger tributaries (Funny and Killey rivers) by July 21, while all radiotagged Slikok Creek spawners ascended into Slikok Creek by July 29. Studies also indicated that all king salmon tagged during the early run period prior to July 1, which were determined to have spawned above the Soldotna Bridge, had migrated past the bridge by July 19.

Foot surveys in Slikok Creek were initiated in 1990 due to concern about beaver dams being migratory barriers to free passage of anadromous fish to spawning areas (Table 202-1). The annual run of king salmon to Slikok Creek has been assessed by a foot survey count in 1982,

1990–2004, and 2006, and by weir counts in 2008–2010. Peak foot survey index counts of king salmon have ranged from 40 fish to 313 fish, while weir counts were 68 fish (44 males, 24 females) in 2008, 70 fish (54 males, 16 females) in 2009, and 28 fish (12 males, 16 females) in 2010. The Slikok Creek weir was first installed in 2008 as part of a road culvert replacement fish passage assessment project. The focus of this project was to assess juvenile and adult fish passage before and after replacement of a perched culvert located approximately one mile above the Slikok Creek-Kenai River confluence. The culvert was replaced in 2007 because it was determined to be below fish passage standards, thereby negatively impacting fish production. Preliminary results from the study indicate that the new culvert has significantly improved upstream and downstream passage of juvenile fish, and increased the quantity of available habitat. Escapement into Slikok Creek, as measured by weir counts, ranged from 27 to 70 fish (Table 202-2).

Of the 241 early-run king salmon radiotagged from 2010–2013 that survived tagging and were presumed to have spawned, only one fish ascended Slikok Creek (Table 202-3). Therefore, we are unable to identify any preferred holding locations from several radiotagged Slikok Creek king salmon by multiple tracking events over the years. However, locations were determined for the one radiotagged Slikok Creek king salmon as well as other radiotagged king salmon within the current Slikok Creek sanctuary, as well as the proposed sanctuary. The Slikok Creek fish held within the proposed sanctuary area but outside the present sanctuary area. For other king salmon bound for other spawning areas, throughout the season, multiple tracking runs identified a preferred holding location for tagged king salmon near the mouth of Slikok Creek, while other identified locations were more scattered throughout the proposed sanctuary area. Four Slikok Creek king salmon were radiotagged in telemetry studies done in 1990 and 1991 (Table 202-4). Prior to entering Slikok Creek, these king salmon were primarily detected near river mile 19.0, which is near the mouth of Slikok Creek. Two of the fish were occasionally detected holding both upstream and downstream of the mouth, ranging anywhere from river mile 17.0 to river mile 25.0.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal. In 2011, one radiotagged Slikok Creek king salmon displayed site affinity to waters immediately upstream of the existing Slikok Creek sanctuary for an extended time period prior to migrating up Slikok Creek.

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.

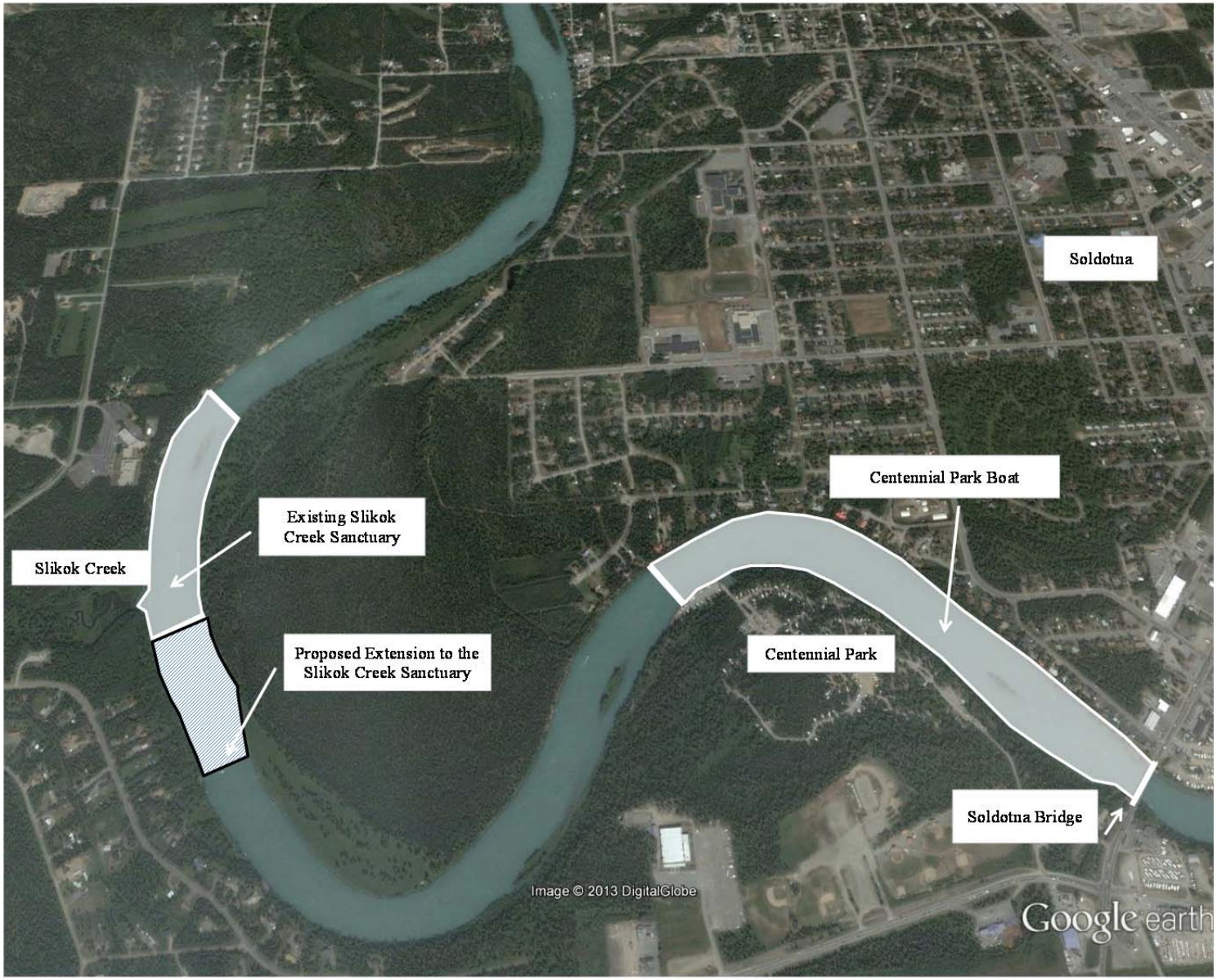

Figure 202-1.–Map of proposed Slikok Creek early-run king salmon sanctuary boundary, Kenai River.

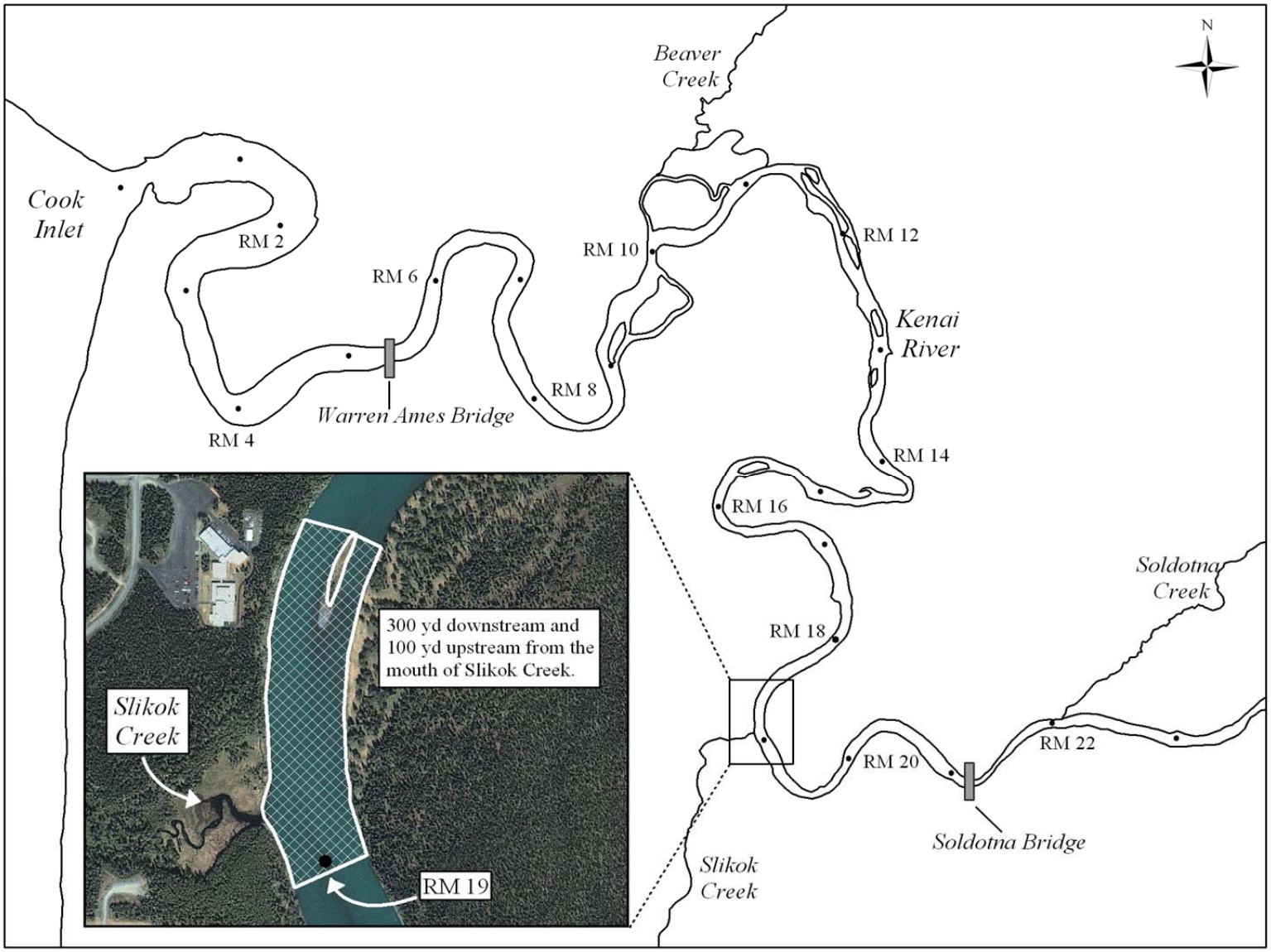

Figure 202-2.–Map of current Slikok Creek early-run king salmon sanctuary area, Kenai River.

Table 202-1.–Slikok Creek king salmon foot surveys, 1990–2004.

		King Salmon					
Year	Date	Dead	Live	Total	Number Observed w/ Adipose -Fin Clips	Creek Sections	Number of Beaver Dams Observed
1990	8/3	207	8	215	ND	1,2,3,4	none mentioned
1991	7/16	16	80	96	ND	1,2,3,4	3
1991	8/9	157	3	160	ND	1,2,3,4	4
1992	8/4	151	5	156	ND	1,2,3,4	4
1993	8/6	299	8	307	ND	1,2,3,4	none mentioned
1994	8/3	255	40	295	ND	1,2,3,4	none mentioned
1995	8/7	ND	ND	ND	ND	ND	none mentioned
1995	8/8	101	1	102	ND	1,2,3,4	none mentioned
1996	8/6	87	1	88	ND	1,2,3,4	2
1997	7/16	148	165	313	9	1,2,3,4	3
1998	8/7	56	5	61	4	1,2,3,4	multiple
1999	7/23	64	116	180	see below	1,2,3,4	4
1999	7/30	29	43	72	see below	1,2,3,4	4
1999	8/11	6	3	9	5[b]	1,2,3	4
2000	7/19	8	98	106	see below	L, M, U	1
2000	7/26	13	100	113	see below	L, M, U	1
2000	8/2	19	10	29	1[b]	L, M, U	1
2001	7/20	12	83	95	see below	L, M, U	none mentioned
2001	7/27	27	37	64	see below	L, M, U	none mentioned
2001	8/3	31	9	40	3[b]	L, M, U	none mentioned
2002	7/19	11	25	36	see below	L, M, U	none mentioned
2002	7/26	21	50	71	see below	L, M, U	none mentioned
2002	8/2	35	26	61	4[b]	L, M, U	none mentioned
2003	7/18	4	49	53	see below	L, M, U	none mentioned
2003	7/25	20	95	115	see below	L, M, U	none mentioned
2003	8/1	33	39	72	15[b]	L, M, U	none mentioned
2004	7/22	13	140	153	see below	L, M, U	none mentioned
2004	7/30	22	65	87	see below	L, M, U	none mentioned
2004	8/6	28	42	70	2[b]	L, M, U	none mentioned

[a] sections described below:

	SECTIONS
1	Kenai River to College Loop Rd. culverts
2	College Loop Rd. culverts to K-Beach Rd. culverts
3	K-Beach Rd. culverts to Silver Barn
4	Silver Barn to Jefferson Rd.
5	Jefferson Rd. to Sterling Highway
L	Kenai River to College Loop Rd. culverts
M	College Loop Rd. culverts to K-Beach Rd. culverts
U	K-Beach Rd. culverts to Jefferson Rd.

[b] cumulative number of adipose fin clipped Chinook observed oppurtunistically during the year.

Table 202-2.–Slikok Creek king salmon escapement estimated by weir, 2008–2012.

	2008[a]			2009[b]			2010[c]			2011[d]			2012[e]		
Date	Daily	Daily Cumulative	Cumulative Proportion	Daily	Daily Cumulative	Cumulative Proportion	Daily	Daily Cumulative	Cumulative Proportion	Daily	Daily Cumulative	Cumulative Proportion	Daily	Daily Cumulative	Cumulative Proportion
7/10	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
7/11	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	5	5	0.19
7/12	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	5	0.19
7/13	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	5	0.19
7/14	0	0	0.00	1	1	0.01	0	0	0.00	0	0	0.00	6	11	0.41
7/15	0	0	0.00	0	1	0.01	1	1	0.04	0	0	0.00	1	12	0.44
7/16	0	0	0.00	0	1	0.01	0	1	0.04	0	0	0.00	4	16	0.59
7/17	0	0	0.00	0	1	0.01	0	1	0.04	0	0	0.00	1	17	0.63
7/18	2	2	0.03	0	1	0.01	0	1	0.04	0	0	0.00	1	18	0.67
7/19	0	2	0.03	0	1	0.01	2	3	0.11	4	4	0.09	1	19	0.70
7/20	6	8	0.14	6	7	0.10	0	3	0.11	4	8	0.18	1	20	0.74
7/21	6	14	0.24	16	23	0.33	1	4	0.14	4	12	0.27	-3	17	0.63
7/22	0	14	0.24	0	23	0.33	7	11	0.39	2	14	0.32	2	19	0.70
7/23	10	24	0.41	13	36	0.51	0	11	0.39	3	17	0.39	1	20	0.74
7/24	8	32	0.54	18	54	0.77	0	11	0.39	4	21	0.48	0	20	0.74
7/25	6	38	0.64	0	54	0.77	1	12	0.43	0	21	0.48	0	20	0.74
7/26	4	42	0.71	2	56	0.80	5	17	0.61	2	23	0.52	0	20	0.74
7/27	0	42	0.71	3	59	0.84	7	24	0.86	0	23	0.52	1	21	0.78
7/28	1	43	0.73	2	61	0.87	2	26	0.93	1	24	0.55	0	21	0.78
7/29	2	45	0.76	2	63	0.90	2	28	1.00	3	27	0.61	1	22	0.81
7/30	0	45	0.76	1	64	0.91	0	28	1.00	2	29	0.66	-1	21	0.78
7/31	1	46	0.78	2	66	0.94	0	28	1.00	4	33	0.75	4	25	0.93
8/1	13	59	1.00	0	66	0.94	0	28	1.00	1	34	0.77	1	26	0.96
8/2	0	59	1.00	0	66	0.94	0	28	1.00	1	35	0.80	0	26	0.96
8/3	0	59	1.00	1	67	0.96	0	28	1.00	1	36	0.82	0	26	0.96
8/4	0	59	1.00	2	69	0.99	0	28	1.00	1	37	0.84	0	26	0.96
8/5	0	59	1.00	0	69	0.99	0	28	1.00	1	38	0.86	1	27	1.00
8/6	0	59	1.00	0	69	0.99	0	28	1.00	2	40	0.91	0	27	1.00
8/7	0	59	1.00	0	69	0.99	0	28	1.00	0	40	0.91	0	27	1.00
8/8	0	59	1.00	0	69	0.99	0	28	1.00	2	42	0.95	0	27	1.00
8/9	0	59	1.00	0	69	0.99	0	28	1.00	0	42	0.95	0	27	1.00
8/10	0	59	1.00	1	70	1.00	0	28	1.00	2	44	1.00	0	27	1.00
Total	59			70			28			44			27		

[a] Weir operated from 7/2 to 9/24.

[b] Weir operated from 6/5 to 10/2.

[c] Weir operated from 6/2 to 8/10.

[d] Weir operated from 6/22 to 8/17.

[e] Weir operated from 6/26 to 8/15.

Table 202-3.–Spawning distribution determined for Kenai River early-run king salmon tagged near river mile 8.5, 2010–2013.

	2010		2011		2012		2013 Midriver		2013 Nearshore		2013 Combined	
Location	N	% (SE)[a]	N	% (SE)	N	% (SE)	N	% (SE)	N	% (SE)	N	% (SE)
Tributary												
Slikok C.			1	1% (1%)								
Funny R.	10	12% (4%)	8	10% (3%)	5	11% (5%)	7	22% (7%)			7	19% (6%)
Killey R.	31	38% (5%)	23	29% (5%)	21	46% (7%)	6	19% (7%)	4	80% (18%)	10	27% (7%)
Benjamin C.	19	25% (5%)	22	28% (5%)	10	22% (6%)	9	28% (8%)	1	20% (18%)	10	27% (7%)
Russian R.	1	1% (1%)										
Juneau C.	1	1% (1%)	1	1% (1%)	1	2% (2%)						
Quartz C.							1	3% (3%)			1	3% (3%)
Crescent C.	1	1% (1%)					1	3% (3%)			1	3% (3%)
Daves C.	1	1% (1%)										
Grant C.	1	1% (1%)	1	1% (1%)	2	4% (3%)						
Tributary sum	65	81% (9%)	56	72% (5%)	39	85% (5%)	24	75% (8%)	5	100% (0%)	29	78% (7%)
Mainstem												
Kenai R. RM 0–21	4	5% (2%)	7	9% (3%)	1	2% (2%)	2	6% (4%)			2	5% (4%)
Kenai R. RM 22–39	4	5% (2%)	5	6% (3%)	3	7% (4%)	3	9% (5%)			3	8% (4%)
Kenai R. RM 40–50	5	6% (3%)	2	3% (2%)	2	4% (3%)	1	3% (3%)			1	3% (3%)
Skilak Lake	2	3% (2%)										
Kenai R. RM 65–82			8	10% (3%)	1	2% (2%)	2	6% (4%)			2	5% (4%)
Mainstem sum	15	19% (5%)	22	28% (5%)	7	15% (5%)	8	25% (8%)	0	0% (0%)	8	22% (7%)

[a] The number of tags was weighted to account for varied levels of tagging effort.

Table 202-4.–Historic spawning distribution of Kenai River early-run king salmon by date of tagging, 1980, 1981, 1990–1991.

	Early run							
	19 May–30 Jun 1980[a]		13 May–30 Jun 1981[a]		16 May–30 Jun 1990[b]		16 May–30 Jun 1991[b]	
Location	N	%	N	%	N	%	N	%
Tributary								
Slikok C.			1	5%	1	1%	2	3%
Funny R.	3	14%	3	16%	19	20%	16	21%
Killey R.	18	86%	12	63%	39	41%	28	36%
Benjamin C.					4	4%	21	27%
Russian R.								
Juneau C.			1	5%	1	1%	1	1%
Quartz C.			1	5%	1	1%	2	3%
Crescent C.								
Daves C.								
Grant C.					1	1%		
Tributary sum	21	100%	18	95%	66	70%	70	91%
Mainstem								
Kenai R. RM 10–21			1	5%	8	9%	1	1%
Kenai R. RM 21–40					10	11%	5	6%
Kenai R. RM 40–50					3	3%	1	1%
Skilak Lake					2	2%		
Kenai R. RM 65–82					5	5%		0%
Mainstem sum	0	0%	1	5%	28	30%	7	9%

a Gillnet captured fish. (Burger et al, 1983)

b Sport captured fish. (Bendock and Alexandersdottir, 1992)

PROPOSAL 203 – 5 AAC 57.121. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for the Lower Section of the Kenai River Drainage Area.

PROPOSED BY: John McCombs.

WHAT WOULD THE PROPOSAL DO? This proposal would increase the Slikok Creek king salmon sanctuary area by an additional 600 feet (200 yards).

WHAT ARE THE CURRENT REGULATIONS? From January 1–July 31, that portion of the Kenai River from an ADF&G regulatory marker located approximately 300 yards downstream from the mouth of Slikok Creek, upstream to an ADF&G regulatory marker located approximately 100 yards upstream from the mouth of Slikok Creek is closed to the taking of king salmon, closed to sport fishing from a boat, and are designated fly-fishing-only waters.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It would decrease king salmon harvest by an unknown, but likely small, amount. It will also decrease fishing opportunity from boats and restrict fishing methods from shore by an additional 200 feet. It is not known what waters (upstream, downstream or both) this proposal seeks add to the Slikok Creek king salmon sanctuary.

BACKGROUND: In 1992, the Alaska Board of Fisheries adopted the seasonal closed-water regulations that restricted fishing in the confluence area of Slikok Creek. In 2008, the effective date of the seasonally closed-water regulations, including Slikok Creek, was extended an additional 17 days to include July 15–31. This tributary sanctuary, as well as the Killey River and Funny River sanctuaries, provides refuge for both early-run king salmon that spawn in tributaries, and those that spawn in the mainstem of the Kenai River.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal, but recommends the changes proposed under Proposal 202 because that proposal clearly identifies the expanded area as upstream of the existing sanctuary area. In 2011, one radiotagged Slikok Creek king salmon displayed site affinity to waters immediately upstream of the existing Slikok Creek sanctuary for an extended time period prior to migrating up Slikok Creek.

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 204 – 5 AAC 57.121. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for the Lower Section of the Kenai River Drainage Area.

PROPOSED BY: John McCombs.

WHAT WOULD THE PROPOSAL DO? This proposal would increase the Killey River king salmon sanctuary area an additional 600 feet.

WHAT ARE THE CURRENT REGULATIONS? From January 1–July 31, that portion of the Kenai River from a department regulatory marker located approximately three-quarters of a mile downstream from the mouth of the Lower Killey River, upstream to a department regulatory marker located approximately one mile upstream from the mouth of the lower Killey River, is open to fly-fishing-only, closed to fishing for king salmon, and closed to fishing from boats.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It would decrease king salmon harvest by an unknown, but likely small, amount. It will also decrease fishing opportunity from boats and restrict fishing methods from shore by an additional 600 feet. It is not known what waters (upstream, downstream or both) this proposal seeks add to the Killey River king salmon sanctuary.

BACKGROUND: In 1996, the Alaska Board of Fisheries adopted seasonal closures that restricted fishing in the confluence areas of Funny and Killey rivers (figures 204-1 and 204-2). Information gathered during tagging and radiotelemetry studies conducted by the department and other resource agencies in 1980, 1981, 1990, 1991, and 2010–2013, indicated that king salmon entering the Kenai River in May and June primarily spawn in tributaries of the 50-mile section of Kenai River open to king salmon fishing, such as Killey River/Benjamin Creek (46–64%) and Funny River (12–21%), as well as other tributaries such as Russian River, Slikok, Juneau, Quartz, and Grant creeks (4–7%) (tables 204-1 and 204-2). Furthermore, a much smaller percentage of fish (9–30%) entering the Kenai River in May and June were thought to spawn in various reaches of the mainstem Kenai River.

In 2008, the effective date of the Killey River seasonal closure was changed to begin January 1 rather than June 25 to better protect holding Killey River spawners and to be consistent with the start date of the other king salmon sanctuaries. All of the king salmon tributary sanctuaries were extended 17 days from July 15 through July 31. In addition, the Killey River closed area was expanded in size to include the area around the relatively new primary Killey River outlet forming at the "middle" Killey River mouth near "Wally's Hole".

Multiple radiotelemetry studies on the Kenai River have found that early-run king salmon can hold in these seasonally-closed confluence areas of the mainstem for some time into July before ascending tributaries to spawn. A radiotelemetry study in 1990 found that by July 15, 91% of radiotagged Killey River/Benjamin Creek spawners (N=46) had left the Kenai River mainstem holding areas to enter the Killey River to migrate upstream to their spawning areas. In 1991, 98% of radiotagged Killey River spawners (N=49) had left the mainstem holding areas by July 15. From 2010–2013, 100%, 98%, 97%, and 100% of radiotagged Killey River spawners had

entered the Killey River sanctuary area in the mainstem Kenai River by July 15 (Figure 204-3). All radiotagged early-run tributary-spawners ascended into these larger tributaries from 2010–2013 by August 8, July 28, July 25, and July 12 respectively. The 2010–2013 studies also indicated that 81%, 72%, 90%, and 88% of king salmon tagged during the early-run period prior to July 1, respectively, had migrated past the mouth of Slikok Creek by July 1 (Table 204-3; Figure 204-4).

Social issues surround the Lower Killey River, as well as other seasonally-closed-waters. One issue is that the closure extension through July 31 prevents using "standard" sport fishing gear while fishing for other species, such as sockeye salmon and resident species within the restricted area. Fishing methods and means that are prohibited to prevent unlawful take of king salmon include fishing with a single-hook with gap between point and shank greater than three-eighths inch, and fishing with a bead not attached to a hook. In addition, these waters are closed to fishing from a boat beginning January 1–July 31.

In summary Kenai River king salmon radiotelemetry study results from 2010–2013 for tributary-spawning king salmon indicate at least 96% of the radiotagged, tributary-spawning king salmon were in protected waters (existing king salmon sanctuaries or spawning tributaries that are closed to fishing) by July 16 in every year studied.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. The Killey River king salmon sanctuary at its current size, combined with other regulations, is effective in conserving Killey River king salmon as well as early-run king salmon bound for other spawning destinations. In 2011–2013, the Kenai River king salmon sport fishery was closed or restricted to catch-and-release fishing during late June thru July by emergency order from a department regulatory marker located approximately 300 yards downstream from the mouth of Slikok Creek, upstream to the outlet of Skilak Lake. The area affected by these restrictive actions encompassed about sixty percent of the Kenai River waters normally open to sport fishing for king salmon under standard regulations, including the waters 600 feet both upstream and downstream of the Killey River king salmon sanctuary.

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.

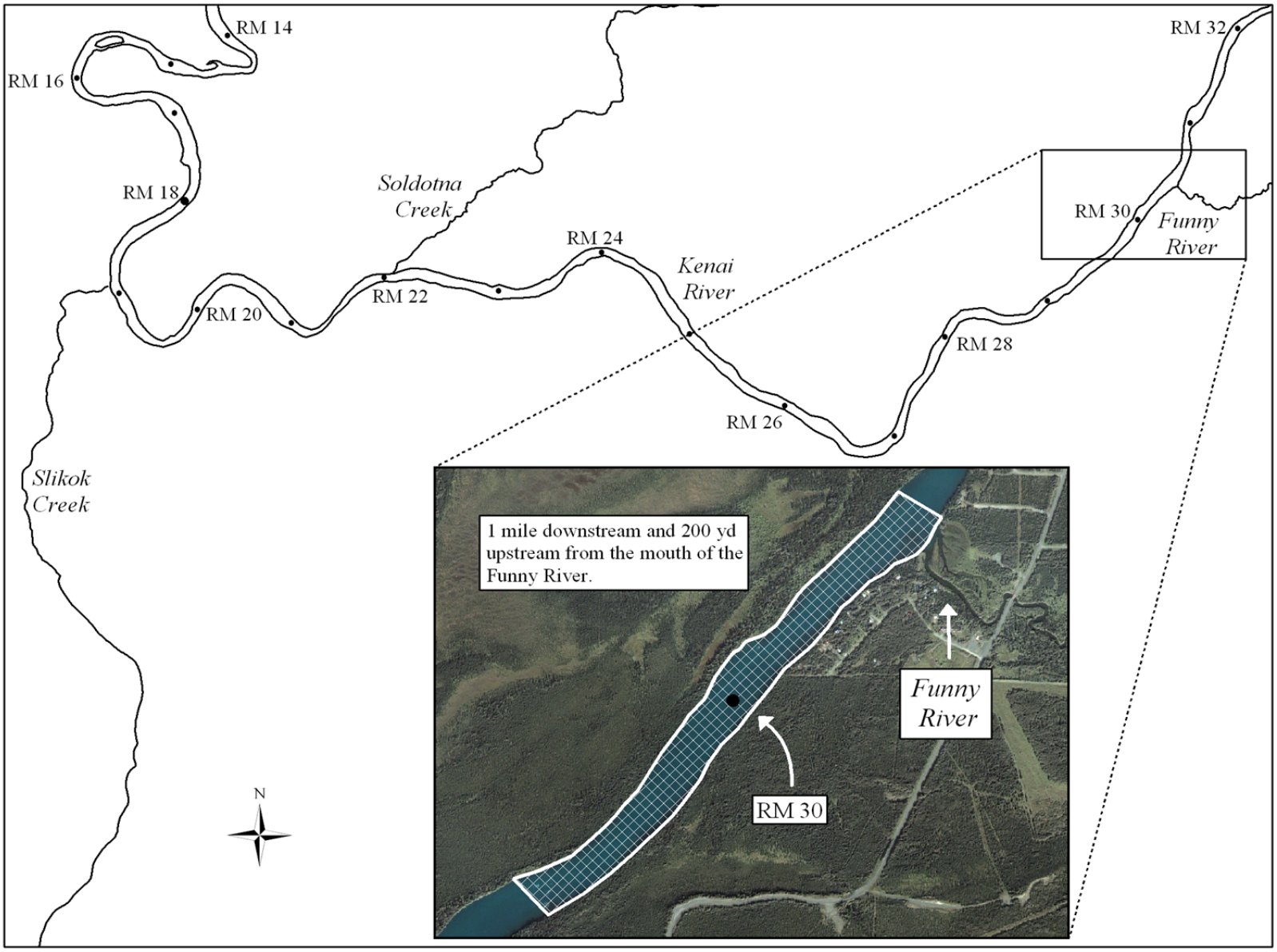

Figure 204-1.–Map of Funny River early-run king salmon sanctuary area, Kenai River.

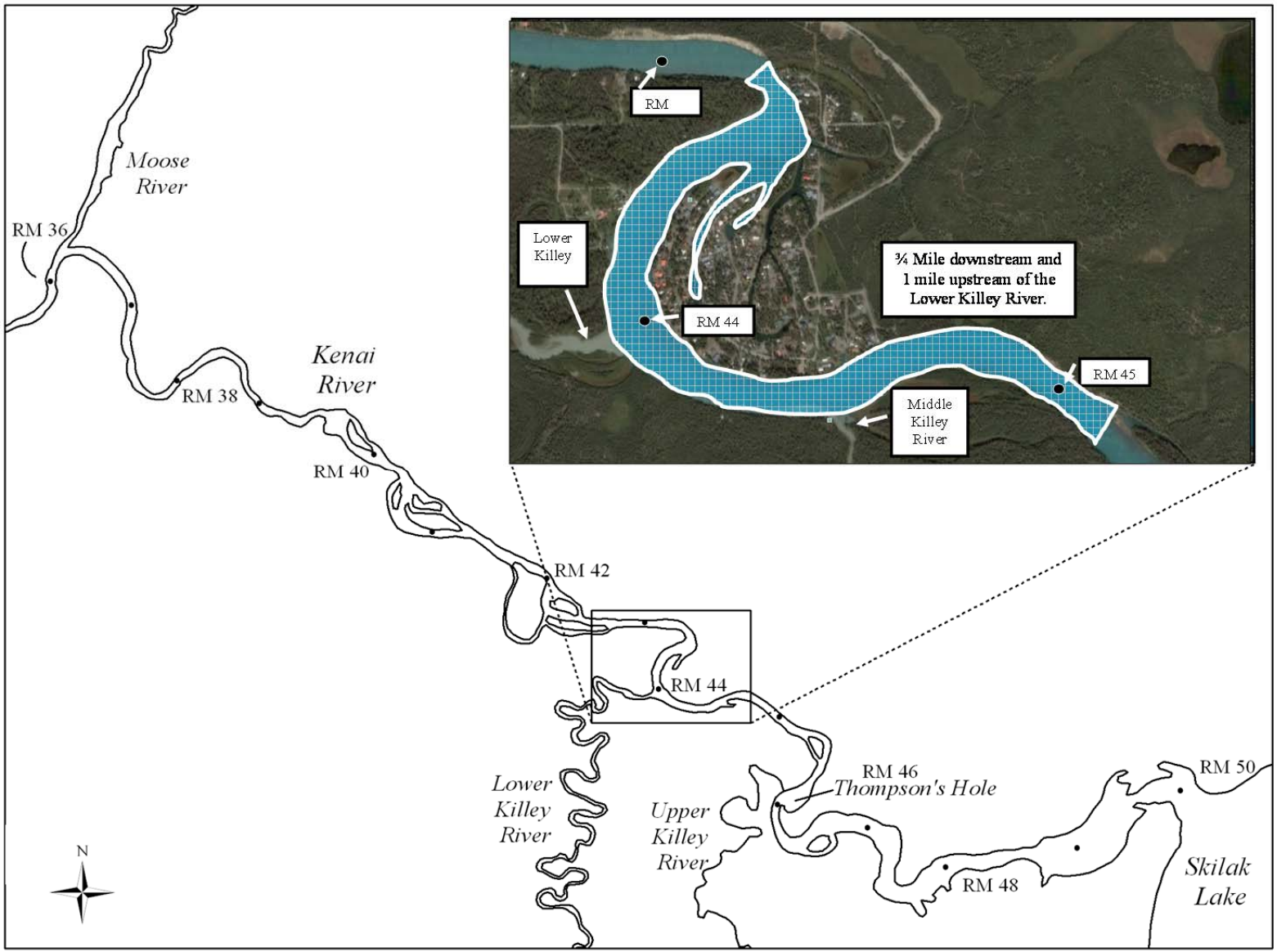

Figure 204-2.–Map of Killey River early-run king salmon sanctuary, Kenai River.

Table 204-1.–Historic spawning distribution of Kenai River early-run king salmon by date of tagging, 1980, 1981, 1990–1991.

	Early run							
	19 May–30 Jun 1980[a]		13 May–30 Jun 1981[a]		16 May–30 Jun 1990[b]		16 May–30 Jun 1991[b]	
Location	N	%	N	%	N	%	N	%
Tributary								
Slikok C.			1	5%	1	1%	2	3%
Funny R.	3	14%	3	16%	19	20%	16	21%
Killey R.	18	86%	12	63%	39	41%	28	36%
Benjamin C.					4	4%	21	27%
Russian R.								
Juneau C.			1	5%	1	1%	1	1%
Quartz C.			1	5%	1	1%	2	3%
Crescent C.								
Daves C.								
Grant C.					1	1%		
Tributary sum	21	100%	18	95%	66	70%	70	91%
Mainstem								
Kenai R. RM 10–21			1	5%	8	9%	1	1%
Kenai R. RM 21–40					10	11%	5	6%
Kenai R. RM 40–50					3	3%	1	1%
Skilak Lake					2	2%		
Kenai R. RM 65–82					5	5%		0%
Mainstem sum	0	0%	1	5%	28	30%	7	9%

a Gillnet captured fish. (Burger et al, 1983)

b Sport captured fish. (Bendock and Alexandersdottir, 1992)

Table 204-2.–Spawning distribution determined for Kenai River early-run king salmon tagged near river mile 8.5, 2010–2013.

	2010		2011		2012		2013					
							Midriver		Nearshore		Combined	
Location	N	% (SE)[a]	N	% (SE)	N	% (SE)	N	% (SE)	N	% (SE)	N	% (SE)
Tributary												
Slikok C.			1	1% (1%)								
Funny R.	10	12% (4%)	8	10% (3%)	5	11% (5%)	7	22% (7%)			7	19% (6%)
Killey R.	31	38% (5%)	23	29% (5%)	21	46% (7%)	6	19% (7%)	4	80% (18%)	10	27% (7%)
Benjamin C.	19	25% (5%)	22	28% (5%)	10	22% (6%)	9	28% (8%)	1	20% (18%)	10	27% (7%)
Russian R.	1	1% (1%)										
Juneau C.	1	1% (1%)	1	1% (1%)	1	2% (2%)						
Quartz C.							1	3% (3%)			1	3% (3%)
Crescent C.	1	1% (1%)					1	3% (3%)			1	3% (3%)
Daves C.	1	1% (1%)										
Grant C.	1	1% (1%)	1	1% (1%)	2	4% (3%)						
Tributary sum	65	81% (9%)	56	72% (5%)	39	85% (5%)	24	75% (8%)	5	100% (0%)	29	78% (7%)
Mainstem												
Kenai R. RM 0–21	4	5% (2%)	7	9% (3%)	1	2% (2%)	2	6% (4%)			2	5% (4%)
Kenai R. RM 22–39	4	5% (2%)	5	6% (3%)	3	7% (4%)	3	9% (5%)			3	8% (4%)
Kenai R. RM 40–50	5	6% (3%)	2	3% (2%)	2	4% (3%)	1	3% (3%)			1	3% (3%)
Skilak Lake	2	3% (2%)										
Kenai R. RM 65–82			8	10% (3%)	1	2% (2%)	2	6% (4%)			2	5% (4%)
Mainstem sum	15	19% (5%)	22	28% (5%)	7	15% (5%)	8	25% (8%)	0	0% (0%)	8	22% (7%)

[a] The number of tags was weighted to account for varied levels of tagging effort.

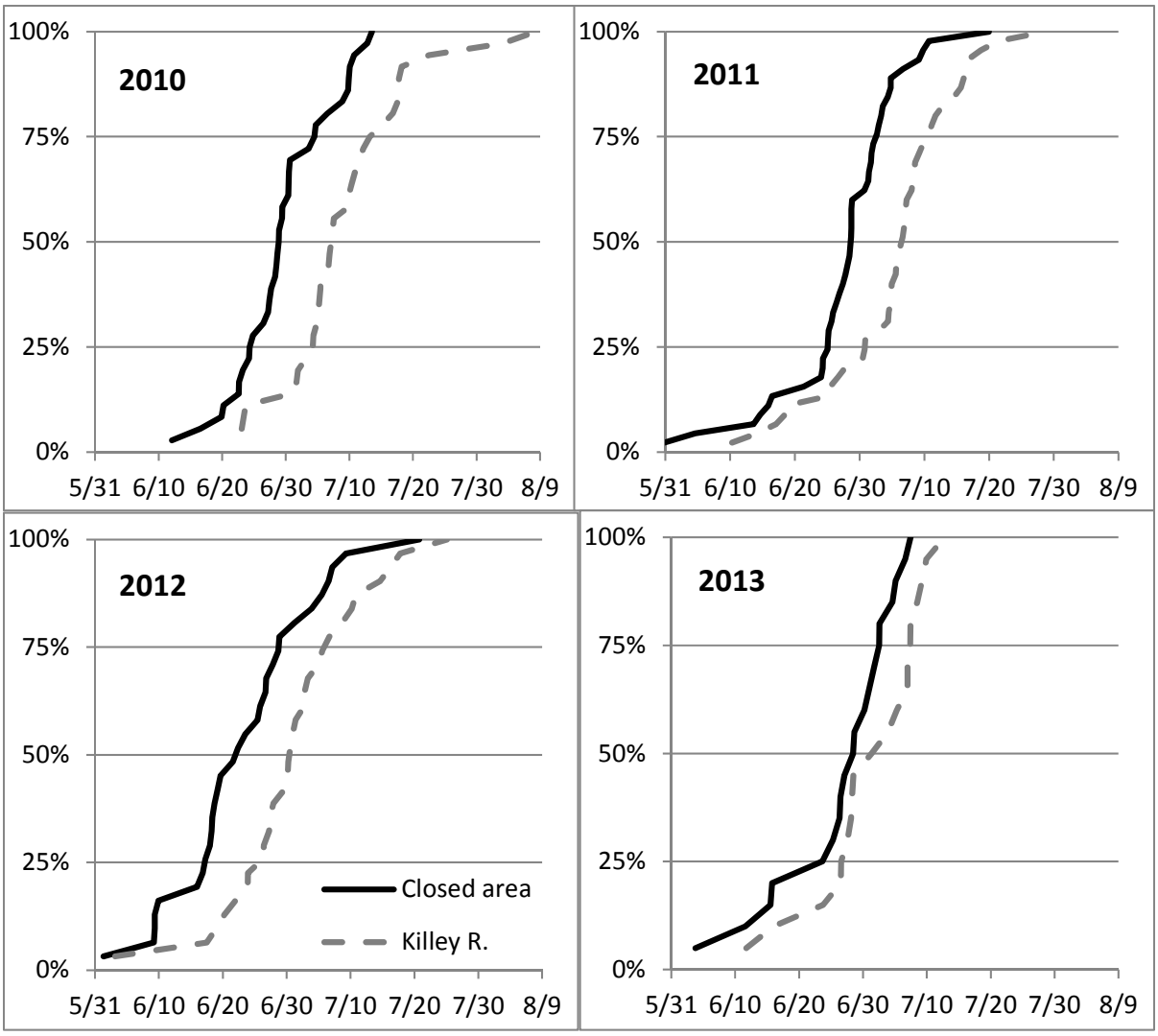

Figure 204-3.–Cumulative entry timing of Killey River/Benjamin Creek-bound king salmon into the Killey River closed area and into the Killey River drainage, 2010–2013.

Table 204-3.–Distribution of Kenai River early-run king salmon by date and area[a], 2010–2013.

			Upstream of Slikok Creek	
		Downstream of Slikok Creek	Unrestricted	Closed or restricted
Year	Date	Prop. (SE)	Prop. (SE)	Prop. (SE)
2010				
	17 May	1.0 (.)	0.0 (0.0)	0.0 (0.0)
	22 May	1.0 (0.0)	0.0 (0.0)	0.0 (0.0)
	27 May	0.75 (0.22)	0.0 (0.0)	0.25 (0.22)
	1 Jun	0.56 (0.17)	0.44 (0.17)	0.0 (0.0)
	6 Jun	0.69 (0.12)	0.31 (0.12)	0.0 (0.0)
	11 Jun	0.73 (0.09)	0.15 (0.07)	0.12 (0.06)
	16 Jun	0.54 (0.08)	0.24 (0.07)	0.22 (0.07)
	21 Jun	0.32 (0.07)	0.32 (0.07)	0.37 (0.08)
	26 Jun	0.24 (0.06)	0.37 (0.07)	0.39 (0.07)
	1 Jul	0.2 (0.05)	0.2 (0.05)	0.61 (0.07)
	6 Jul	0.13 (0.04)	0.13 (0.04)	0.75 (0.06)
	11 Jul	0.11 (0.04)	0.11 (0.04)	0.78 (0.06)
	16 Jul	0.08 (0.04)	0.08 (0.04)	0.85 (0.05)
	21 Jul	0.06 (0.03)	0.08 (0.04)	0.87 (0.05)
	26 Jul	0.07 (0.04)	0.07 (0.04)	0.86 (0.05)
	31 Jul	0.05 (0.03)	0.07 (0.04)	0.88 (0.05)
2011				
	17 May	1.0 (0.0)	0.0 (0.0)	0.0 (0.0)
	22 May	1.0 (0.0)	0.0 (0.0)	0.0 (0.0)
	27 May	0.86 (0.13)	0.14 (0.13)	0.0 (0.0)
	1 Jun	0.58 (0.14)	0.08 (0.08)	0.33 (0.14)
	6 Jun	0.64 (0.1)	0.23 (0.09)	0.14 (0.07)
	11 Jun	0.75 (0.07)	0.14 (0.06)	0.11 (0.05)
	16 Jun	0.65 (0.07)	0.1 (0.04)	0.24 (0.06)
	21 Jun	0.43 (0.06)	0.3 (0.06)	0.27 (0.06)
	26 Jun	0.28 (0.06)	0.35 (0.06)	0.37 (0.06)
	1 Jul	0.28 (0.05)	0.22 (0.05)	0.5 (0.06)
	6 Jul	0.21 (0.05)	0.12 (0.04)	0.67 (0.05)
	11 Jul	0.19 (0.04)	0.08 (0.03)	0.73 (0.05)
	16 Jul	0.14 (0.04)	0.11 (0.04)	0.75 (0.05)
	21 Jul	0.11 (0.04)	0.15 (0.04)	0.74 (0.05)
	26 Jul	0.07 (0.04)	0.2 (0.05)	0.73 (0.06)
	31 Jul	0.08 (0.04)	0.13 (0.05)	0.79 (0.06)

continued

Table 204-3.–Distribution of Kenai River early-run king salmon by date and area[a], 2010–2013.

continued

Year	Date	Downstream of Slikok Creek Prop. (SE)	Upstream of Slikok Creek: Unrestricted Prop. (SE)	Upstream of Slikok Creek: Closed or restricted Prop. (SE)
2012				
	17 May	1.0 (0.0)	0.0 (0.0)	0.0 (0.0)
	22 May	0.86 (0.13)	0.14 (0.13)	0.0 (0.0)
	27 May	0.9 (0.09)	0.1 (0.09)	0.0 (0.0)
	1 Jun	0.86 (0.09)	0.14 (0.09)	0.0 (0.0)
	6 Jun	0.59 (0.1)	0.27 (0.09)	0.14 (0.07)
	11 Jun	0.21 (0.08)	0.41 (0.09)	0.38 (0.09)
	16 Jun	0.13 (0.06)	0.48 (0.09)	0.39 (0.09)
	21 Jun	0.19 (0.07)	0.33 (0.08)	0.47 (0.08)
	26 Jun	0.17 (0.06)	0.24 (0.07)	0.59 (0.08)
	1 Jul	0.11 (0.05)	0.2 (0.06)	0.7 (0.07)
	6 Jul	0.07 (0.04)	0.24 (0.06)	0.69 (0.07)
	11 Jul	0.02 (0.02)	0.09 (0.04)	0.89 (0.05)
	16 Jul	0.02 (0.02)	0.15 (0.06)	0.83 (0.06)
	21 Jul	0.03 (0.03)	0.11 (0.05)	0.86 (0.06)
	26 Jul	0.03 (0.03)	0.1 (0.06)	0.86 (0.06)
	31 Jul	0.05 (0.05)	0.16 (0.08)	0.79 (0.09)
2013				
	17 May	1.0 (.)	0.0 (0.0)	0.0 (0.0)
	22 May	0.5 (0.35)	0.0 (0.0)	0.5 (0.35)
	27 May	0.33 (0.27)	0.67 (0.27)	0.0 (0.0)
	1 Jun	0.33 (0.27)	0.67 (0.27)	0.0 (0.0)
	6 Jun	0.5 (0.25)	0.25 (0.22)	0.25 (0.22)
	11 Jun	0.79 (0.11)	0.14 (0.09)	0.07 (0.07)
	16 Jun	0.55 (0.11)	0.2 (0.09)	0.25 (0.1)
	21 Jun	0.38 (0.1)	0.23 (0.08)	0.38 (0.1)
	26 Jun	0.31 (0.09)	0.24 (0.08)	0.45 (0.09)
	1 Jul	0.13 (0.06)	0.19 (0.07)	0.69 (0.08)
	6 Jul	0.06 (0.04)	0.22 (0.07)	0.72 (0.08)
	11 Jul	0.03 (0.03)	0.19 (0.07)	0.78 (0.07)
	16 Jul	0.0 (0.0)	0.19 (0.07)	0.81 (0.07)
	21 Jul	0.0 (0.0)	0.17 (0.07)	0.83 (0.07)
	26 Jul	0.0 (0.0)	0.18 (0.08)	0.82 (0.08)
	31 Jul	0.0 (0.0)	0.2 (0.09)	0.8 (0.09)

[a] Rivermiles 0–19 describe Cook Inlet to Slikok Creek. Rivermiles 19–50 describe Slikok Creek to Skilak Lake excluding closed/restricted fishing areas around Slikok Creek, Centenial Park, Funny River, Morgan's Landing, and Killey River. Closed/restricted waters describe the excusions noted above plus the Kenai River upstream of and including Skilak Lake and all tributaries to the Kenai River drainage.

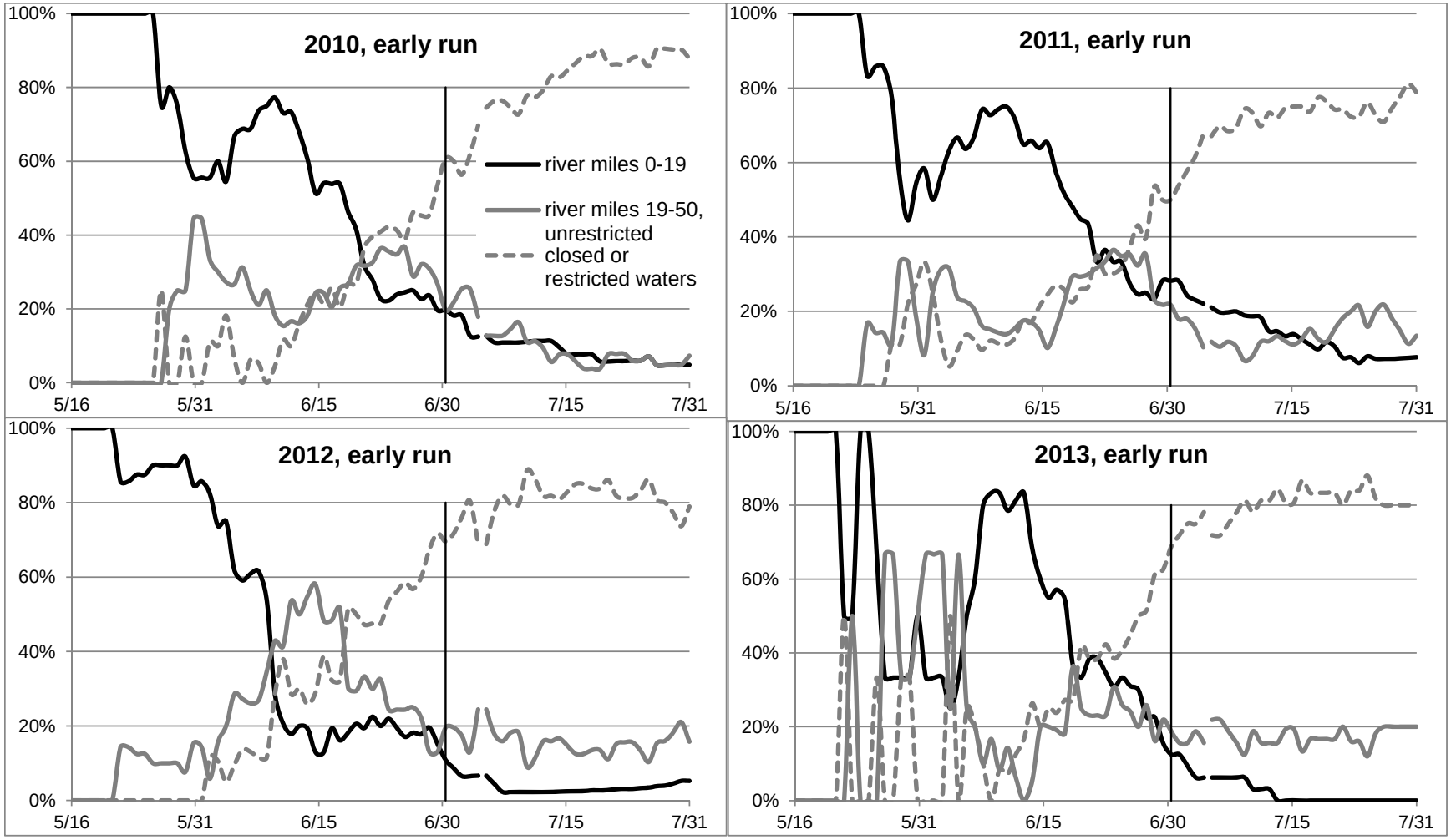

Figure 204-4.–Proportional distribution of early-run radiotagged king salmon by date and area, Kenai River, 2010–2013.

PROPOSAL 205 – 5 AAC 57.120. General provisions for seasons, bag, possession, and size limits, and methods and means for the Kenai River Drainage Area.

PROPOSED BY: Homer Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would close Kenai River tributaries to all fishing July 1–August 30, and the Kenai River mainstem upstream of river mile 13 from July 10–September 20.

WHAT ARE THE CURRENT REGULATIONS? There are many regulations pertaining to closed waters in the Kenai River. Under existing regulations, the majority of the Kenai River drainage is closed to king salmon fishing. Several tributaries are closed to fishing for other salmon species, and/or are closed seasonally to all sport fishing.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would reduce most of the sport fishing opportunity, catch and harvest for all sport fish species in the Kenai River drainage. It would severely restrict and in some cases eliminate the opportunity to catch and harvest resident species (rainbow trout, Dolly Varden, Arctic grayling). This proposal would increase crowding in the small amount of the river remaining open to fishing. It would likely result in an increase in the number of salmon taken by commercial and personal use fisheries. It would also displace anglers to other Kenai Peninsula sport fishing areas and broadly impact all individuals both directly and indirectly connected to the local recreation economy.

BACKGROUND: Kenai River sport fishing regulations are designed to achieve sustainable fisheries by ensuring sufficient harvest potential exists to accommodate a variety of run strengths of Pacific salmon while ensuring escapement goals are achieved. Resident species within the Kenai River drainage are conservatively managed. Nearly all Kenai River drainage lakes and tributaries, and selected areas of the river mainstem, are closed to fishing on an annual or seasonal basis, depending upon the species. The mainstem Kenai River above river mile 13 and several tributaries support sustainable sport fisheries valued by residents of the State of Alaska, including fisheries for resident species as well as the Russian River sockeye salmon sport fishery.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. This proposal is not biologically necessary and would unnecessarily reduce angler opportunity.

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 206 – 5 AAC 57.120. General provisions for seasons, bag, possession, and size limits, and methods and means for the Kenai River Drainage Area; 5 AAC 57.121. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for the Lower Section of the Kenai River Drainage Area; and 5 AAC 57.160. Kenai River and Kasilof River Early-run King Salmon Management Plan.

PROPOSED BY: Bob Krogseng, Ron Weilbacher, Mindy Payne.

WHAT WOULD THE PROPOSAL DO? This proposal would close the Kenai River upstream of the Soldotna Bridge to sport fishing for king salmon.

WHAT ARE THE CURRENT REGULATIONS? In the Kenai River, there are five king salmon "sanctuary areas" that contain sport fishing restrictions designed to protect king salmon from January 1–July 31. Those waters are at the confluence of the following streams; Slikok Creek, Funny River, Lower Killey River, Moose River, and Morgan's Hole (Figure 206-1). Additional waters are closed to fishing from boats at Centennial Park from about river mile (RM) 20 upstream to RM 21, Morgan's Hole at RM 31 and at the confluence of the Moose and Kenai rivers near RM 36. The seasonal king salmon area closures total approximately 3.1 river miles of the 50 river miles open to king salmon fishing. In addition, the Kenai River upstream of Skilak Lake and all tributaries are closed to king salmon fishing.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would close an additional 29 river miles, approximately 60% of the lower Kenai River downstream of Skilak Lake, to king salmon fishing on an annual basis. This proposal would reduce the harvest of both early and late-run king salmon by an unknown amount. Early run harvest would be reduced less than late run harvest. Total fishing effort would likely decrease and crowding would likely increase downstream of Soldotna. Resulting decreases in harvest may lead to increases in escapement. However, conservation benefits to spawning fish would be limited because most mainstem-spawning king salmon spawn after the king salmon season is closed on July 31. All regulations relating to sanctuary areas, boating restrictions, tackle restrictions, and size limits would need to be updated to reflect this proposed change.

BACKGROUND: King salmon returning to the Kenai River are managed as two distinct runs: early (May 16–June 30) and late (July 1–August10). Early-run fish spawn primarily in tributary streams, whereas late-run fish are destined primarily for mainstem spawning locations. King salmon of Kenai River origin are harvested in several fisheries, including a recreational marine fishery along the eastern shore of Cook Inlet from Anchor Point to Cape Ninilchik; commercial set and drift gillnet fisheries in Cook Inlet that harvest late-run king salmon; and the sport fishery and personal use fisheries in the Kenai River itself (tables 206-1 and 206-2).

Management plans for the Kenai River king salmon sport fishery have been structured to provide fishing opportunity under various run sizes and ensure escapement goals are achieved. In 2011–2013 the Kenai River king salmon sport fishery was closed or restricted to catch-and-release fishing during late June through July, 300 yards downstream from the mouth of Slikok Creek at approximately RM 18.5, upstream to the outlet of Skilak Lake at RM 50. The area affected by

these restrictive actions comprises about 60% of the Kenai River waters normally open to sport fishing for king salmon.

Kenai River king salmon radiotelemetry study results from 2010–2013 indicates mainstem spawning king salmon spawned throughout the Kenai River upstream of tidal influence. The most heavily utilized sections were RMs 14–15, 17-21 and 46–47 (Figure 206-2). The median date for the completion of spawning activity was August 21 for mainstem-spawning king salmon that returned during the early-run, and August 30 for mainstem-spawning king salmon that returned during the late run.

Since mainstem spawning king salmon did not show site fidelity to spawning areas until after the sport fishery closed on July 31, proposed regulations to conserve mainstem spawning king salmon by closing areas to king salmon fishing during July cannot be evaluated by spawning distribution.

To evaluate measures to conserve mainstem spawning king salmon while the fishery is open during July is also difficult because their distribution was different for each year studied. For example, the inseason emergency orders (EO) to close king salmon fishing upstream of Slikok Creek (RM 18.5) would have been more effective to protect mainstem spawning king salmon in 2012 and 2013 than in 2010 and 2011, because during 2010 and 2011 a large percentage of the early-run, mainstem-spawning radiotagged king salmon monitored remained downstream of Slikok Creek during July. The Kenai River downstream of the Soldotna Bridge (RM 21) was the most heavily utilized mainstem spawning area during the study, closures upstream of Slikok Creek have little conservation value for the largest mainstem spawning component. (figures 206-2 and 206-3).

From 2010–2013, at least 96% of the radiotagged, tributary-spawning king salmon were located in closed waters (existing king salmon sanctuaries or spawning tributaries) by July 16 in every year studied.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal as a conservation measure. Tributary-spawning king salmon already have adequate protection through existing regulations and the department's use of EO authority to restrict the sport fishery as necessary. Closing large areas of the river to protect mainstem-spawning king salmon would provide marginal benefits according to the biology and behavior of mainstem spawning Kenai River king salmon. Adopting this regulation would exacerbate crowding in the lower river, which could have a consequence that is counter to what the proposal is seeking. It would also increase regulatory complexity when added to the existing sanctuary areas and boat fishing closures, and creating three categories of sport fishing waters between the Soldotna Bridge and Skilak Lake, each having different methods and terminal tackle restrictions.

With respect to conservation, the department has the emergency authority to restrict the sport fishery as necessary to achieve escapement goals.

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.

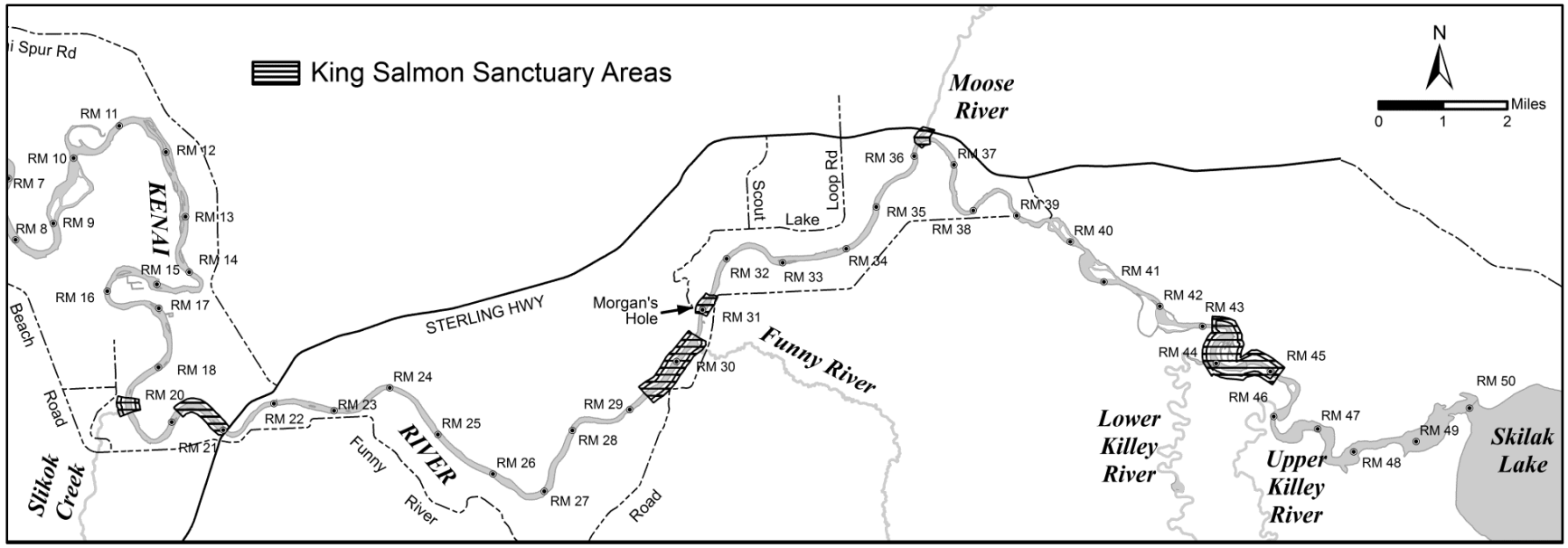

Figure 206-1.–Map of Kenai River showing king salmon spawning sanctuary areas.

Table 206-1.–Kenai River early-run king salmon population data, 1986–2013.

Year	Marine Sport Harvest	Misc. Marine Harvest[a]	Kenaitze Educational Harvest[b]	Inriver Run[c]	Sport Harvest Above Sonar[d]	Catch-and-Release Mortality	Spawning Escapement	Total Run	Harvest Rate
1986	144	0	ND	20,100	8,156	242	11,702	20,244	0.42
1987	181	0	ND	21,750	13,557	306	7,887	21,931	0.64
1988	212	0	ND	19,800	15,209	340	4,251	20,012	0.79
1989	193	0	73	12,290	8,394	149	3,747	12,556	0.70
1990	235	0	40	9,842	1,807	378	7,657	10,117	0.24
1991	241	0	2	10,620	1,945	152	8,523	10,863	0.22
1992	300	0	73	11,930	2,241	236	9,453	12,303	0.23
1993	407	0	118	12,490	9,342	286	2,862	13,015	0.78
1994	343	0	56	13,160	8,171	285	4,704	13,559	0.65
1995	412	0	37	12,890	10,217	357	2,316	13,339	0.83
1996	235	0	104	9,764	6,623	287	2,854	10,103	0.72
1997	282	0	122	11,140	6,429	349	4,362	11,544	0.62
1998	289	0	131	11,930	1,170	254	10,506	12,350	0.15
1999	245	0	114	13,480	8,129	261	5,090	13,839	0.63
2000	239	0	124	10,790	1,818	185	8,787	11,153	0.21
2001	184	0	198	14,020	2,399	205	11,416	14,402	0.21
2002	168	0	48	10,860	899	78	9,883	11,076	0.11
2003	202	0	126	20,450	2,839	389	17,222	20,778	0.17
2004	194	0	72	23,460	3,386	257	19,817	23,726	0.16
2005	187	341	76	20,810	3,810	253	16,747	21,414	0.22
2006	252	0	65	18,180	4,693	205	13,282	18,497	0.28
2007	201	41	16	13,630	3,493	220	9,917	13,888	0.29
2008	107	102	40	10,210	3,500	123	6,587	10,459	0.37
2009	71	16	49	7,741	1,466	97	6,178	7,877	0.22
2010	88	48	32	7,830	1,337	90	6,403	7,998	0.20
2011	110	0	42	9,895	1,337	92	8,466	10,047	0.16
2012	89	0	19	5,387	316	10	5,061	5,495	0.08
2013[e]	ND	0	11	2,038	0	5	2,033	2,049	0.01
Average									
1986–2002	254	0	89	13,344	6,265	256	6,824	13,671	0.48
2003–2013	150	50	50	12,694	2,380	158	10,156	12,930	0.20
1986–2013	215	20	72	13,089	4,739	218	8,133	13,380	0.37

Source: Statewide Harvest Surveys (SWHS) from Mills 1987-1994, Howe et al. 1995, 1996, 2001a-d, Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b, 2011, *In Prep* a-b; Alexandersdottir and Marsh 1990; Nelson et al. 1999; Hammarstrom and Timmons 2001a; Reimer et al. 2002, Reimer, A. 2003, 2004a-b, 2007; Eskelin, A. 2007, 2009, 2010; Perschbacher 2012a-d, J. Perschbacher, Sport Fish Biologist, ADF&G, Soldotna, personal communication; McKinley and Fleischman 2013; 1994-2012 Educational data, Kenaitze Indian Tribe; Tim mcKinley personal communication.

Note: ND = No data available

[a] Commercial cost-recovery harvest.

[b] Prior to 1994, there was no educational fishery, this was considered a subsistence fishery.

[c] Inriver run estimate is median value from Table 8 in McKinley and Fleischman 2013, FMS 13-03.

[d] Includes creel survey estimates for the area from Cook Inlet to the Soldotna Bridge and estimates from the SWHS from the Soldotna Bridge to the outlet of Kenai Lake.

[e] 2013 estimates are preliminary until biometrically reviewed and published.

Table 206-2.–Kenai River late-run king salmon population data, 1986–2013.

Year	Marine Sport Harvest[a]	Eastside Setnet Harvest[b]	Drift Gillnet Harvest[b]	Commercial Personal Use[c]	Kenaitze Educational	Subsistence[d]	Personal Use Dipnet[e]	Sport Harvest Below Sonar[fg]	Inriver Run Estimate[h]	Sport Harvest Above Sonar[fg]	Catch-and-Release Mortality[f]	Spawning Escapement	Total Run	Harvest Rate
1986	378	13,619	1,100	ND	ND	ND	ND	ND	62,740	9,872	316	52,552	77,837	0.32
1987	731	14,536	2,731	ND	ND	ND	235	ND	63,550	13,100	123	50,327	81,783	0.38
1988	892	8,834	1,330	ND	ND	ND	0	ND	61,760	19,695	176	41,889	72,816	0.42
1989	821	7,498	0	ND	ND	22	0	ND	36,370	9,691	88	26,591	44,711	0.41
1990	963	2,843	373	91	ND	13	ND	ND	34,200	6,897	69	27,234	38,483	0.29
1991	1,023	3,361	145	130	ND	288	ND	ND	38,940	7,903	16	31,021	43,887	0.29
1992	1,269	7,363	326	50	ND	402	0	ND	42,290	7,556	234	34,500	51,700	0.33
1993	1,700	9,672	451	81	ND	27	0	ND	50,210	17,775	478	31,957	62,142	0.49
1994	1,121	10,700	276	9	1	392	ND	ND	47,440	17,837	572	29,031	59,939	0.52
1995	1,241	8,291	314	25	3	ND	712	ND	44,770	12,609	472	31,689	55,355	0.43
1996	1,223	7,944	219	31	1	ND	295	ND	42,790	8,112	337	34,341	52,503	0.35
1997	1,759	7,780	293	30	20	ND	364	ND	41,120	12,755	570	27,795	51,367	0.46
1998	1,070	3,495	199	35	2	ND	254	ND	47,110	7,515	595	39,000	52,165	0.25
1999	602	6,501	345	59	4	ND	488	1,170	43,670	12,425	682	30,563	52,839	0.42
2000	631	2,531	162	27	6	ND	410	831	47,440	14,391	499	32,550	52,038	0.37
2001	552	4,128	371	80	8	ND	638	1,336	53,610	15,144	825	37,641	60,724	0.38
2002	256	6,511	249	15	6	ND	606	1,929	56,800	10,678	665	45,457	66,372	0.32
2003	120	10,174	744	53	11	ND	1,016	823	85,110	16,120	1,803	67,187	98,052	0.31
2004	996	14,897	916	218	10	ND	792	2,386	79,690	14,988	1,019	63,683	99,905	0.36
2005	624	15,183 [i]	1,103	639	11	ND	997	2,287	77,440	15,927	1,267	60,246	98,284	0.39
2006	563	6,840 [i]	631	61	11	ND	1,034	3,322	62,270	12,490	830	48,950	74,732	0.34
2007	478	8,445 [i]	547	38	6	0	1,509	1,750	47,370	9,690	670	37,010	60,143	0.38
2008	310	5,203 [i]	392	23	15	0	1,362	1,011	42,840	10,128	370	32,342	51,156	0.37
2009	154	3,839	515	64	4	0	1,189	1,132	29,940	7,904	626	21,410	36,837	0.42
2010	335	4,567	323	32	21	0	865	445	23,250	6,762	264	16,224	29,839	0.46
2011	528	5,596	356	88	5	0	1,243	458	27,090	6,894	479	19,717	35,363	0.44
2012	30	484	115	41	0	0	40	2	27,910	101	95	27,714	28,622	0.03
2013[j]	ND	2,289	267	117	8	0	11	37	17,015	1,541	79	15,395	19,744	0.22
Average														
1986–2002	955	7,389	523	51	6	191	308	1,317	47,930	11,997	395	35,538	57,451	0.38
2003–2013	414	7,047	537	125	9	0	914	1,241	47,266	9,322	682	37,262	57,516	0.34
1986–2013	754	7,255	528	85	8	88	586	1,261	47,669	10,946	508	36,215	57,476	0.36

Source: Statewide Harvest Surveys (SWHS) from Mills 1987–1994, Howe et al. 1995, 1996, 2001a-d, Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b, 2011, *In Prep* a-b; Hammarstrom and Timmons 2001b; Brannian and Fox 1996; Ruesch and Fox 1996; Reimer and Sigurdsson 2004; Dunker and Lafferty 2007, Dunker, K.J. 2010, K. J. Dunker, Sport Fish Biologist, ADF&G, Anchorage, personal communication; Shields and Dupois 2013, P. Shields, Comm Fish Biologist, ADF&G, Soldotna, personal communication; Fleischman and McKinley 2013, FMS 13-02; Tim McKinley personal communication; Robert Begich personal communication.

Note: ND = No data available

[a] From Fleischman and McKinley 2013, FMS 13-02.

[b] Eastside setnet and drift gillnet commercial harvest data using genetic stock allocation from Fleischman and McKinley 2013, FMS 13-02; Tony Eskelin personal communication.

[c] Eastside setnet and drift gillnet personal use data using genetic stock allocation from Fleischman and McKinley 2013, FMS 13-02; Tony Eskelin personal communication..

[d] Total includes fish harvested from Cohoe, Salamatof, and Kalifornsky Beaches, and the Kenai River.

[e] 1986–1994 from SWHS; 1995 (Ruesch and Fox 1996); 1996–2012 are estimates from returned permits.

[f] Some harvest is below sonar and not counted against escapement.

[g] Sport harvest includes Creel survey estimates for the area from Cook Inlet to the Soldotna Bridge and estimates from the SWHS for Soldotna Bridge to outlet of Skilak Lake.

[h] Inriver run estimates thru 2012 are median values in Table 6 of Fleischman and McKinley 2013, FMS 13-02.

[i] Harvest estimate does not include Kasilof River terminal fishery which occurred 2005–2008.

[j] 2013 estimates are preliminary until biometrically reviewed and published.

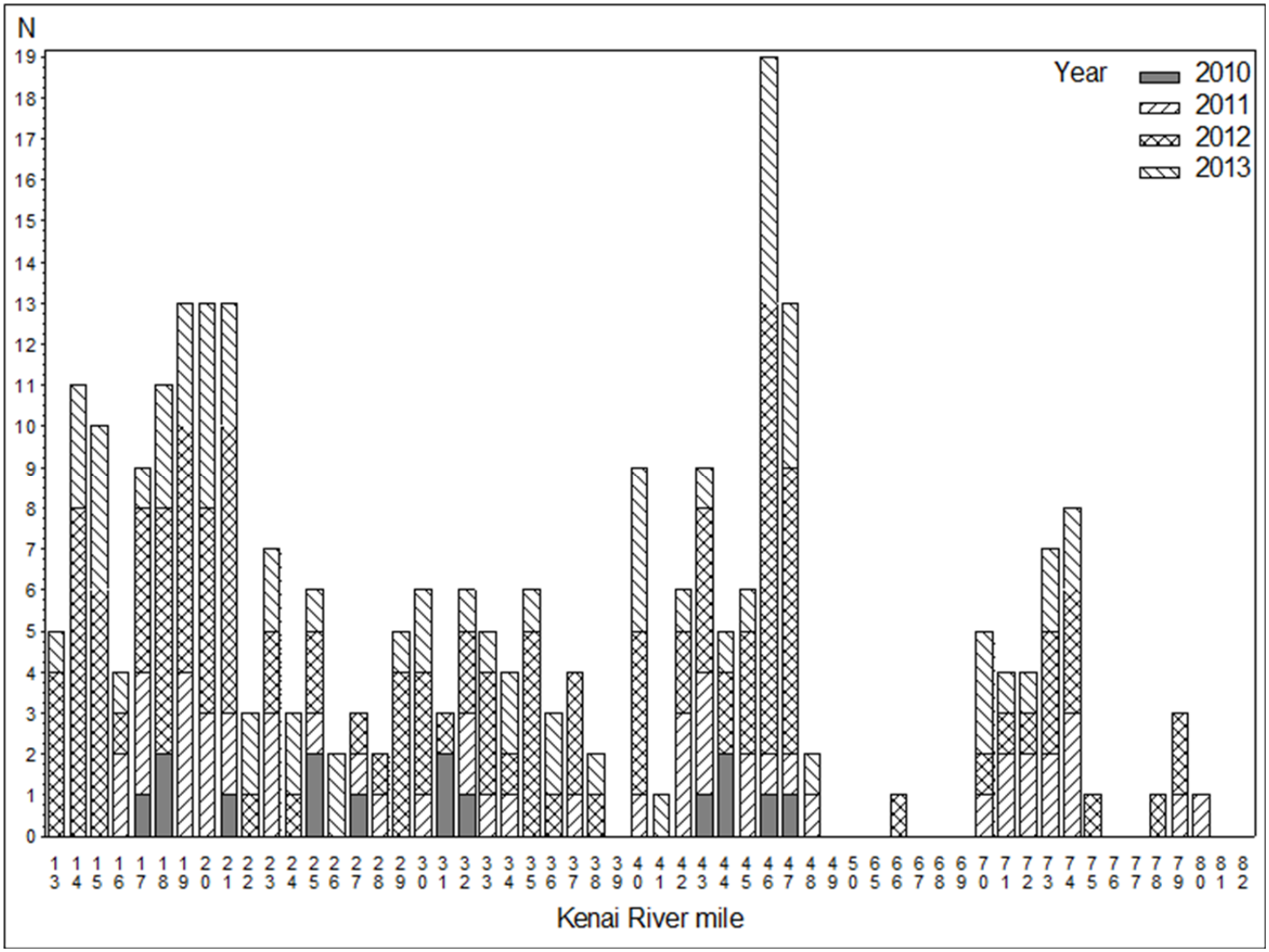

Figure 206-2.–King salmon spawning distribution within the mainstem Kenai River by river mile, 2010–2013.

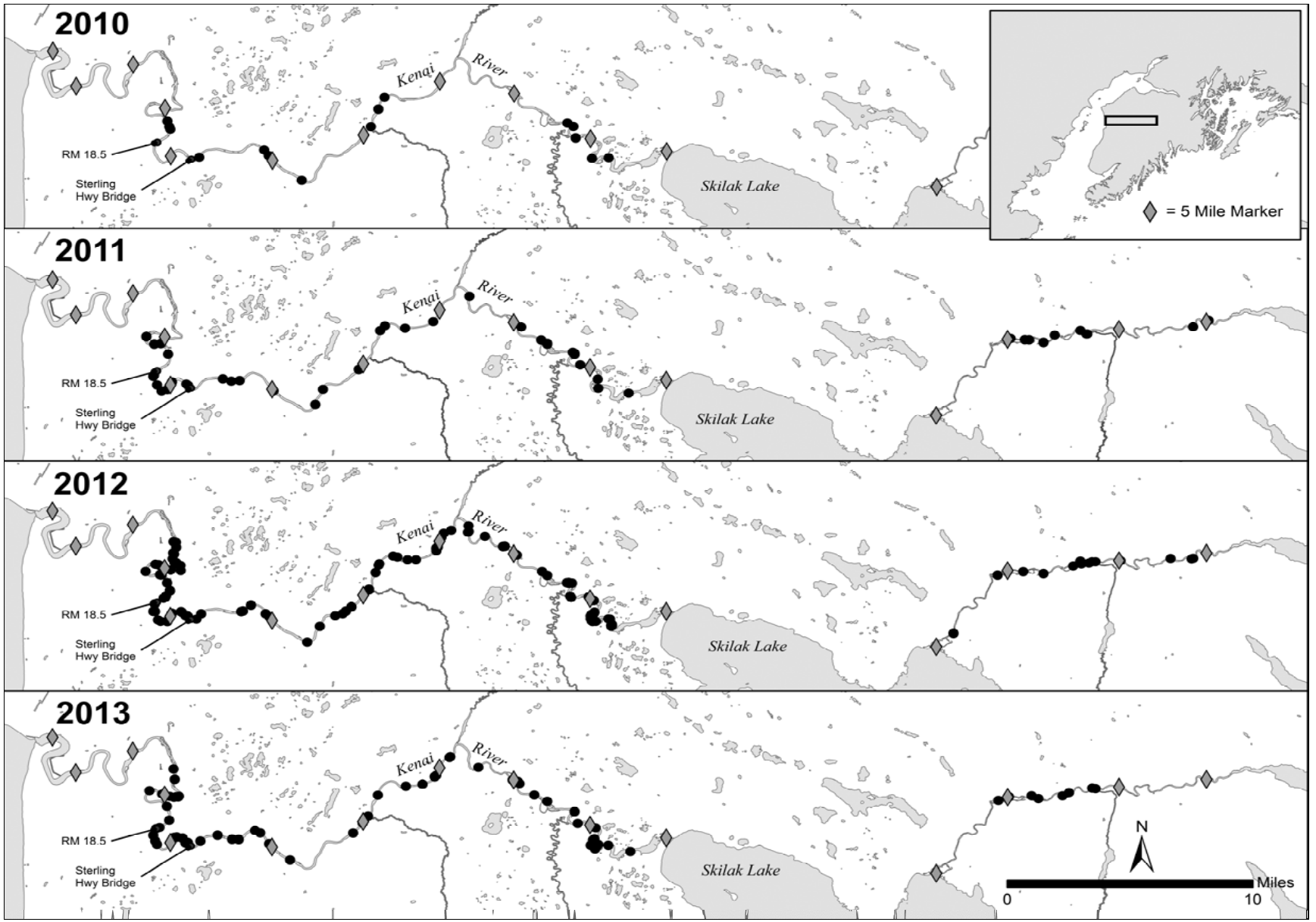

Figure 206-3.–Spawning destinations determined for radiotagged king salmon within mainstem Kenai River, 2010–2013.

Kenai River Late-Run King Salmon Sport Fishery (10 Proposals): 219–228

PROPOSAL 219 – 5 AAC 57.120. General provisions for seasons, bag, possession, and size limits, and methods and means for the Kenai River Drainage Area; and 5 AAC 57.121. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for the Lower Section of the Kenai River Drainage Area.

PROPOSED BY: Kenai Area Fisherman's Coalition.

WHAT WOULD THE PROPOSAL DO? This proposal would establish two king salmon spawning closure areas on the Kenai River during July. One spawning closure area would be from the Moose River upstream to Skilak Lake and sport fishing for king salmon would be closed in this area during the month of July. The other spawning closure area would be from the Soldotna Bridge upstream to Moose River and sport fishing for king salmon would be closed from July 10–July 31.

WHAT ARE THE CURRENT REGULATIONS? In the Kenai River, there are five king salmon "sanctuary areas" that contain sport fishing restrictions designed to protect king salmon from January 1–July 31. Those waters are at the confluence of the following streams; Slikok Creek, Funny River, Lower Killey River, Moose River, and Morgan's Hole (Figure 219-1). Additional waters are closed to fishing from boats at Centennial Park from about river mile (RM) 20 upstream to RM 21, Morgan's Hole at RM 31 and at the confluence of the Moose and Kenai rivers near RM 36. The seasonal king salmon area closures total approximately 3.1 river miles of the 50 river miles open to king salmon fishing. In addition, the Kenai River upstream of Skilak Lake and all tributaries are closed to king salmon fishing.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would close an additional 12 to 29 river miles, approximately 25–60% of the lower Kenai River downstream of Skilak Lake, to king salmon fishing on an annual basis. This proposal would reduce the harvest of both early and late-run king salmon by an unknown amount. Early run harvest would be reduced less than late run harvest. Total fishing effort would likely decrease and crowding would likely increase downstream of Soldotna. Resulting decreases in harvest may lead to increases in escapement. However, conservation benefits to spawning fish would be limited because most mainstem-spawning king salmon spawn after the king salmon season is closed on July 31. All regulations relating to sanctuary areas, boating restrictions, tackle restrictions, and size limits would need to be updated to reflect this proposed change.

BACKGROUND: King salmon returning to the Kenai River are managed as two distinct runs: early (May 16–June 30) and late (July 1–August 10). Early-run fish spawn primarily in tributary streams, whereas late-run fish are destined primarily for mainstem spawning locations. King salmon of Kenai River origin are harvested in several fisheries, including a recreational marine fishery along the eastern shore of Cook Inlet from Anchor Point to Cape Ninilchik; commercial set and drift gillnet fisheries in Cook Inlet that harvest late-run king salmon; and the sport fishery and personal use fisheries in the Kenai River itself (tables 219-1 and 219-2).

Management plans for the Kenai River king salmon sport fishery have been structured to provide fishing opportunity under various run sizes and ensure escapement goals are achieved. In 2011–2013 the Kenai River king salmon sport fishery was closed or restricted to catch-and-release fishing during late June through July, 300 yards downstream from the mouth of Slikok Creek at approximately RM 18.5, upstream to the outlet of Skilak Lake at RM 50. The area affected by these restrictive actions comprises about 60% of the Kenai River waters normally open to sport fishing for king salmon.

Kenai River king salmon radiotelemetry study results from 2010–2013 indicates mainstem spawning king salmon spawned throughout the Kenai River upstream of tidal influence. The most heavily utilized sections were RMs 14–15, 17-21 and 46–47 (Figure 219-2). The median date for the completion of spawning activity was August 21 for mainstem-spawning king salmon that returned during the early-run, and August 30 for mainstem-spawning king salmon that returned during the late run.

Since mainstem spawning king salmon did not show site fidelity to spawning areas until after the sport fishery closed on July 31, proposed regulations to conserve mainstem spawning king salmon by closing areas to king salmon fishing during July cannot be evaluated by spawning distribution.

To evaluate measures to conserve mainstem spawning king salmon while the fishery is open during July is also difficult because their distribution was different for each year studied. For example, the inseason emergency orders (EO) to close king salmon fishing upstream of Slikok Creek (RM 18.5) would have been more effective to protect mainstem spawning king salmon in 2012 and 2013 than in 2010 and 2011, because during 2010 and 2011 a large percentage of the early-run, mainstem-spawning radiotagged king salmon monitored remained downstream of Slikok Creek during July. The Kenai River downstream of the Soldotna Bridge (RM 21) was the most heavily utilized mainstem spawning area during the study, closures upstream of Slikok Creek have little conservation value for the largest mainstem spawning component. (figures 219-2 and 219-3).

From 2010–2013, at least 96% of the radiotagged, tributary-spawning king salmon were located in closed waters (existing king salmon sanctuaries or spawning tributaries) by July 16 in every year studied.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal as a conservation measure. Tributary-spawning king salmon already have adequate protection through existing regulations and the department's use of EO authority to restrict the sport fishery as necessary. Closing large areas of the river to protect mainstem-spawning king salmon would provide marginal benefits according to the biology and behavior of mainstem-spawning Kenai River king salmon. Adopting this regulation would occur at the expense of exacerbating crowding in the lower river which could have a consequence that is counter to what the proposal is seeking. It would also increase regulatory complexity when added to the existing sanctuary areas and boat fishing closures, and creating three categories of sport fishing waters between the Soldotna Bridge and Skilak Lake, each having different methods and terminal tackle restrictions.

With respect to conservation, the department has the emergency authority to restrict the sport fishery as necessary to achieve escapement goals.

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.

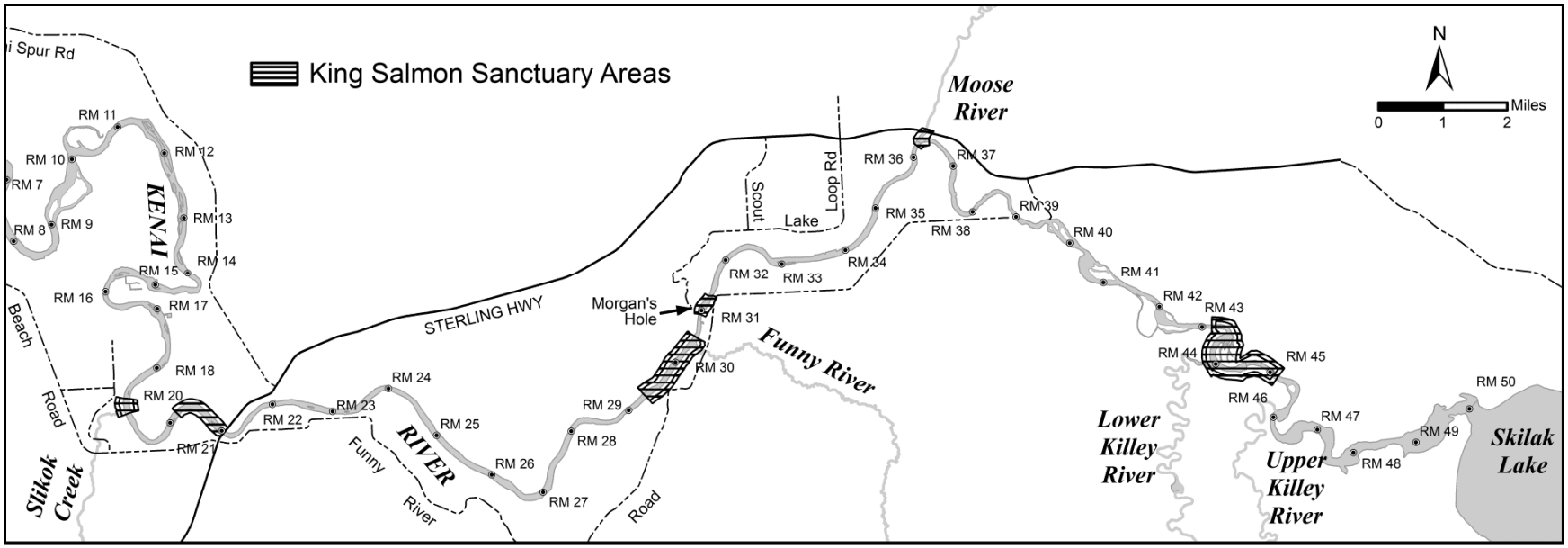

Figure 219-1.–Map of Kenai River showing king salmon spawning sanctuary areas.

Table 219-1.–Kenai River early-run king salmon population data, 1986–2013.

Year	Marine Sport Harvest	Misc. Marine Harvest[a]	Kenaitze Educational Harvest[b]	Inriver Run[c]	Sport Harvest Above Sonar[d]	Catch-and-Release Mortality	Spawning Escapement	Total Run	Harvest Rate
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1994	343	0	56	13,160	8,171	285	4,704	13,559	0.65
1995	412	0	37	12,890	10,217	357	2,316	13,339	0.83
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Source: Statewide Harvest Surveys (SWHS) from Mills 1987-1994, Howe et al. 1995, 1996, 2001a-d, Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b, 2011, *In Prep* a-b; Alexandersdottir and Marsh 1990; Nelson et al. 1999; Hammarstrom and Timmons 2001a; Reimer et al. 2002, Reimer, A. 2003, 2004a-b, 2007; Eskelin, A. 2007, 2009, 2010; Perschbacher 2012a-d, J. Perschbacher, Sport Fish Biologist, ADF&G, Soldotna, personal communication; McKinley and Fleischman 2013; 1994-2012 Educational data, Kenaitze Indian Tribe; Tim mcKinley personal communication.

Note: ND = No data available

[a] Commercial cost-recovery harvest.

[b] Prior to 1994, there was no educational fishery, this was considered a subsistence fishery.

[c] Inriver run estimate is median value from Table 8 in McKinley and Fleischman 2013, FMS 13-03.

[d] Includes creel survey estimates for the area from Cook Inlet to the Soldotna Bridge and estimates from the SWHS from the Soldotna Bridge to the outlet of Kenai Lake.

[e] 2013 estimates are preliminary until biometrically reviewed and published.

Table 219-2.–Kenai River late-run king salmon population data, 1986–2013.

Year	Marine Sport Harvest[a]	Eastside Setnet Harvest[b]	Drift Gillnet Harvest[b]	Commercial Personal Use[c]	Kenaitze Educational	Subsistence[d]	Personal Use Dipnet[e]	Sport Harvest Below Sonar[fg]	Inriver Run Estimate[h]	Sport Harvest Above Sonar[fg]	Catch-and-Release Mortality[f]	Spawning Escapement	Total Run	Harvest Rate
1986	378	13,619	1,100	ND	ND	ND	ND	ND	62,740	9,872	316	52,552	77,837	0.32
1987	731	14,536	2,731	ND	ND	ND	235	ND	63,550	13,100	123	50,327	81,783	0.38
1988	892	8,834	1,330	ND	ND	ND	0	ND	61,760	19,695	176	41,889	72,816	0.42
1989	821	7,498	0	ND	ND	22	0	ND	36,370	9,691	88	26,591	44,711	0.41
1990	963	2,843	373	91	ND	13	ND	ND	34,200	6,897	69	27,234	38,483	0.29
1991	1,023	3,361	145	130	ND	288	ND	ND	38,940	7,903	16	31,021	43,887	0.29
1992	1,269	7,363	326	50	ND	402	0	ND	42,290	7,556	234	34,500	51,700	0.33
1993	1,700	9,672	451	81	ND	27	0	ND	50,210	17,775	478	31,957	62,142	0.49
1994	1,121	10,700	276	9	1	392	ND	ND	47,440	17,837	572	29,031	59,939	0.52
1995	1,241	8,291	314	25	3	ND	712	ND	44,770	12,609	472	31,689	55,355	0.43
1996	1,223	7,944	219	31	1	ND	295	ND	42,790	8,112	337	34,341	52,503	0.35
1997	1,759	7,780	293	30	20	ND	364	ND	41,120	12,755	570	27,795	51,367	0.46
1998	1,070	3,495	199	35	2	ND	254	ND	47,110	7,515	595	39,000	52,165	0.25
1999	602	6,501	345	59	4	ND	488	1,170	43,670	12,425	682	30,563	52,839	0.42
2000	631	2,531	162	27	6	ND	410	831	47,440	14,391	499	32,550	52,038	0.37
2001	552	4,128	371	80	8	ND	638	1,336	53,610	15,144	825	37,641	60,724	0.38
2002	256	6,511	249	15	6	ND	606	1,929	56,800	10,678	665	45,457	66,372	0.32
2003	120	10,174	744	53	11	ND	1,016	823	85,110	16,120	1,803	67,187	98,052	0.31
2004	996	14,897	916	218	10	ND	792	2,386	79,690	14,988	1,019	63,683	99,905	0.36
2005	624	15,183 [i]	1,103	639	11	ND	997	2,287	77,440	15,927	1,267	60,246	98,284	0.39
2006	563	6,840 [i]	631	61	11	ND	1,034	3,322	62,270	12,490	830	48,950	74,732	0.34
2007	478	8,445 [i]	547	38	6	0	1,509	1,750	47,370	9,690	670	37,010	60,143	0.38
2008	310	5,203 [i]	392	23	15	0	1,362	1,011	42,840	10,128	370	32,342	51,156	0.37
2009	154	3,839	515	64	4	0	1,189	1,132	29,940	7,904	626	21,410	36,837	0.42
2010	335	4,567	323	32	21	0	865	445	23,250	6,762	264	16,224	29,839	0.46
2011	528	5,596	356	88	5	0	1,243	458	27,090	6,894	479	19,717	35,363	0.44
2012	30	484	115	41	0	0	40	2	27,910	101	95	27,714	28,622	0.03
2013[j]	ND	2,289	267	117	8	0	11	37	17,015	1,541	79	15,395	19,744	0.22
Average														
1986–2002	955	7,389	523	51	6	191	308	1,317	47,930	11,997	395	35,538	57,451	0.38
2003–2013	414	7,047	537	125	9	0	914	1,241	47,266	9,322	682	37,262	57,516	0.34
1986–2013	754	7,255	528	85	8	88	586	1,261	47,669	10,946	508	36,215	57,476	0.36

Source: Statewide Harvest Surveys (SWHS) from Mills 1987–1994, Howe et al. 1995, 1996, 2001a-d, Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b, 2011, *In Prep* a-b; Hammarstrom and Timmons 2001b; Brannian and Fox 1996; Ruesch and Fox 1996; Reimer and Sigurdsson 2004; Dunker and Lafferty 2007, Dunker, K.J. 2010, K. J. Dunker, Sport Fish Biologist, ADF&G, Anchorage, personal communication; Shields and Dupois 2013, P. Shields, Comm Fish Biologist, ADF&G, Soldotna, personal communication; Fleischman and McKinley 2013, FMS 13-02; Tim McKinley personal communication; Robert Begich personal communication.

Note: ND = No data available

[a] From Fleischman and McKinley 2013, FMS 13-02.

[b] Eastside setnet and drift gillnet commercial harvest data using genetic stock allocation from Fleischman and McKinley 2013, FMS 13-02; Tony Eskelin personal communication.

[c] Eastside setnet and drift gillnet personal use data using genetic stock allocation from Fleischman and McKinley 2013, FMS 13-02; Tony Eskelin personal communication..

[d] Total includes fish harvested from Cohoe, Salamatof, and Kalifornsky Beaches, and the Kenai River.

[e] 1986–1994 from SWHS; 1995 (Ruesch and Fox 1996); 1996–2012 are estimates from returned permits.

[f] Some harvest is below sonar and not counted against escapement.

[g] Sport harvest includes Creel survey estimates for the area from Cook Inlet to the Soldotna Bridge and estimates from the SWHS for Soldotna Bridge to outlet of Skilak Lake.

[h] Inriver run estimates thru 2012 are median values in Table 6 of Fleischman and McKinley 2013, FMS 13-02.

[i] Harvest estimate does not include Kasilof River terminal fishery which occurred 2005–2008.

[j] 2013 estimates are preliminary until biometrically reviewed and published.

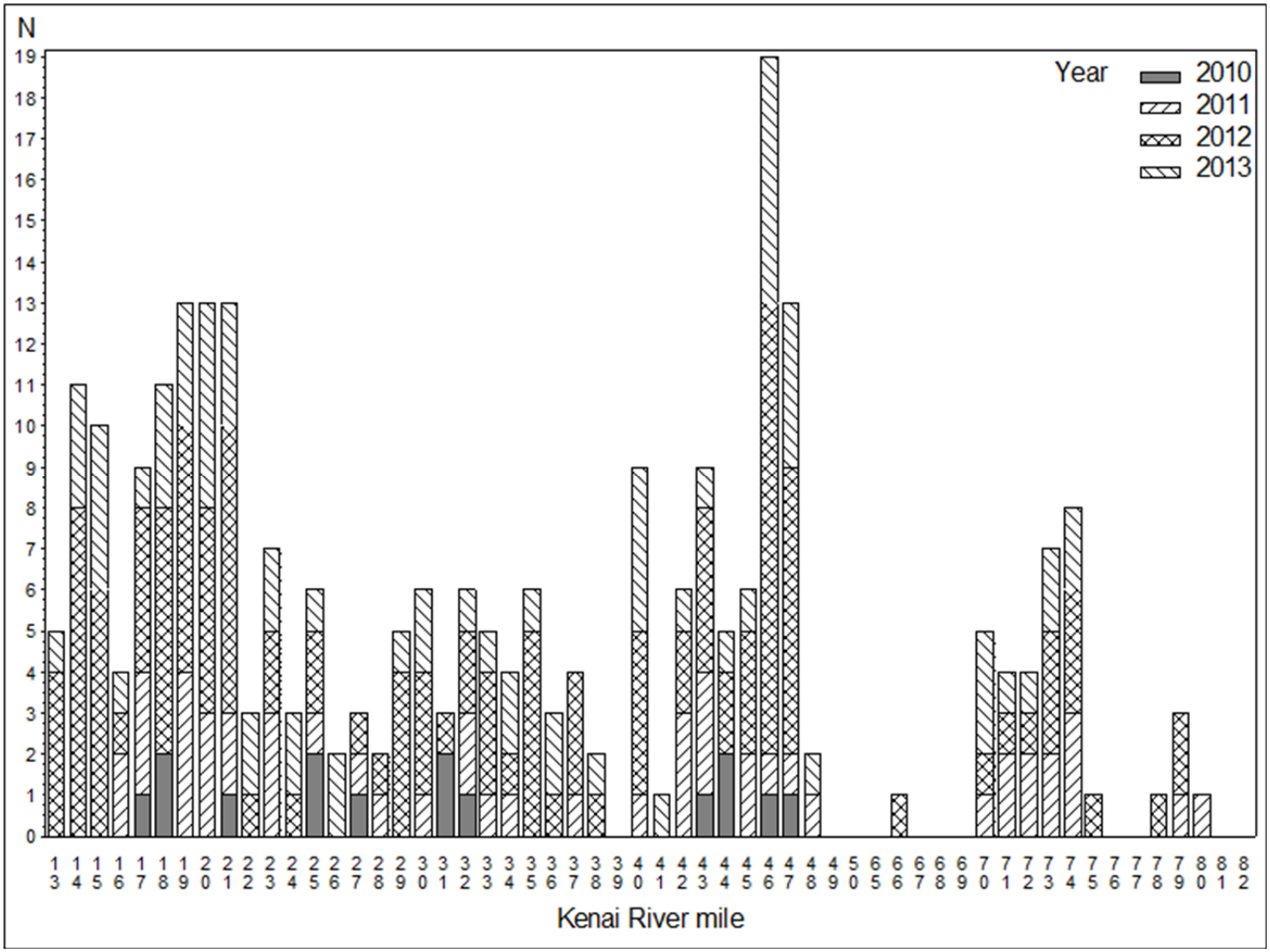

Figure 219-2.–King salmon spawning distribution within the mainstem Kenai River by river mile, 2010–2013.

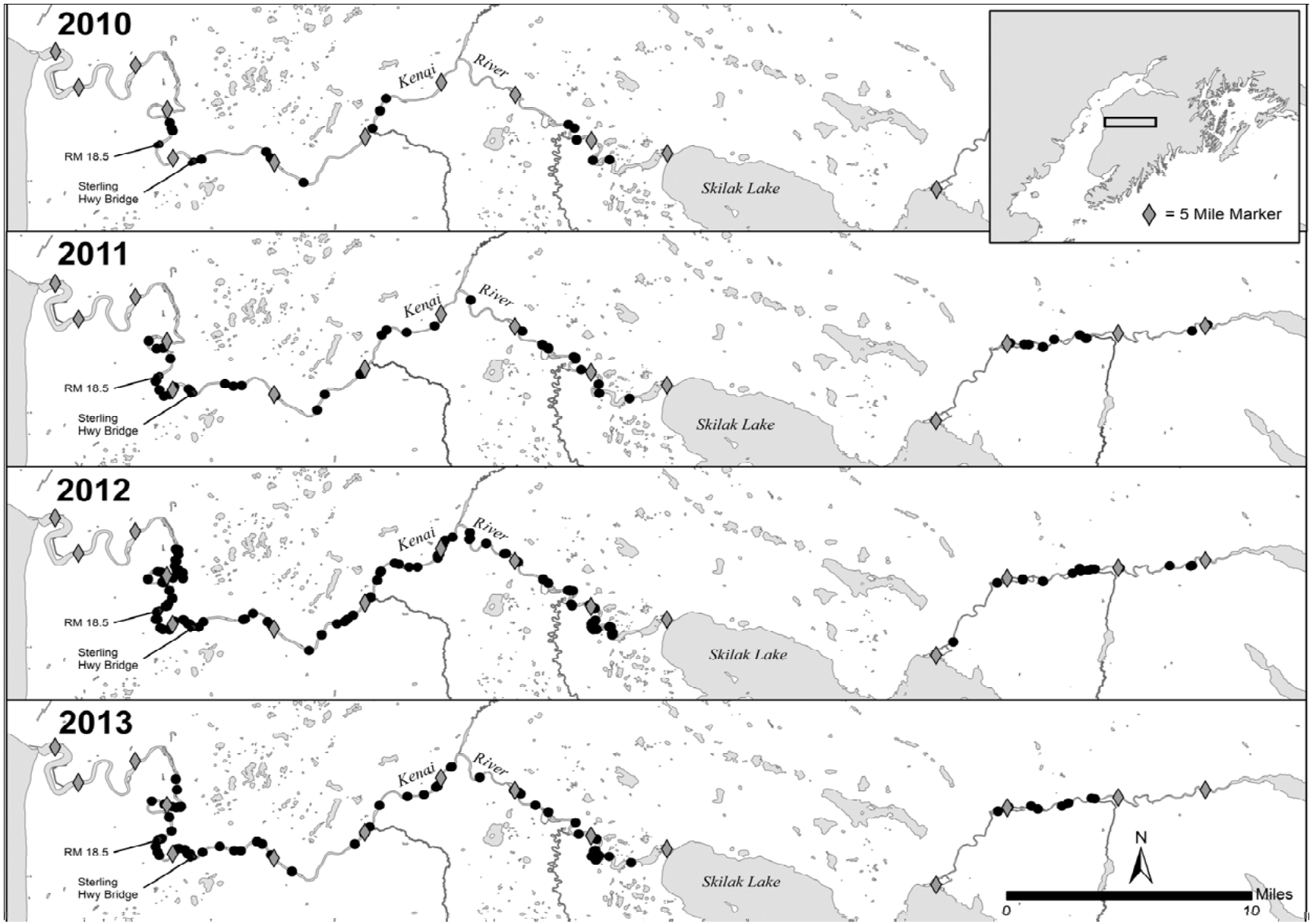

Figure 219-3.–Spawning destinations determined for radiotagged king salmon within mainstem Kenai River, 2010–2013.

PROPOSAL 220 – 5 AAC 57.120. General provisions for seasons, bag, possession, and size limits, and methods and means for the Kenai River Drainage Area; and 5 AAC 57.121. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for the Lower Section of the Kenai River Drainage Area.

PROPOSED BY: Dennis Randa.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit sport fishing for king salmon every other mile on the Kenai River between Eagle Rock and the Soldotna Bridge.

WHAT ARE THE CURRENT REGULATIONS? In the Kenai River, there are five king salmon "sanctuary areas" that contain sport fishing restrictions designed to protect king salmon from January 1–July 31. Those waters are at the confluence of the following streams; Slikok Creek, Funny River, Lower Killey River, Moose River, and Morgan's Hole (Figure 220-1). Additional waters are closed to fishing from boats at Centennial Park from about river mile (RM) 20 upstream to RM 21, Morgan's Hole at RM 31 and at the confluence of the Moose and Kenai rivers near RM 36. The seasonal king salmon area closures total approximately 3.1 river miles of the 50 river miles open to king salmon fishing. In addition, the Kenai River upstream of Skilak Lake and all tributaries are closed to king salmon fishing.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would close approximately five river miles (every other mile) to king salmon fishing from Eagle Rock (river mile (RM) 12) upstream to the Sterling Highway Bridge crossing in Soldotna (RM 21). It would reduce the harvest of king salmon in five miles of the lower Kenai River by an unknown amount, and would increase congestion into the remaining sections open to king salmon fishing from January 1–July 31 or the end of king salmon season, whichever is later. Resulting decreases in harvest may lead to increases in escapement. This proposal would further complicate regulations, likely increase confusion among the public, and increase the need for additional management and law enforcement efforts.

BACKGROUND: King salmon returning to the Kenai River are managed as two distinct runs: early (May 16–June 30) and late (July 1–August10). Early-run fish spawn primarily in tributary streams, whereas late-run fish are destined primarily for mainstem spawning locations. King salmon of Kenai River origin are harvested in several fisheries, including a recreational marine fishery along the eastern shore of Cook Inlet from Anchor Point to Cape Ninilchik; commercial set and drift gillnet fisheries in Cook Inlet that harvest late-run king salmon; and the sport fishery and personal use fisheries in the Kenai River itself (tables 220-1 and 220-2).

Management plans for the Kenai River king salmon sport fishery have been structured to provide fishing opportunity under various run sizes and ensure escapement goals are achieved. In 2011–2013 the Kenai River king salmon sport fishery was closed or restricted to catch-and-release fishing during late June through July, 300 yards downstream from the mouth of Slikok Creek at approximately RM 18.5, upstream to the outlet of Skilak Lake at RM 50. The area affected by these restrictive actions comprises about 60% of the Kenai River waters normally open to sport fishing for king salmon.

Kenai River king salmon radiotelemetry study results from 2010–2013 indicates mainstem spawning king salmon spawned throughout the Kenai River upstream of tidal influence. The most heavily utilized sections were RMs 14–15, 17-21 and 46–47 (Figure 220-2). The median date for the completion of spawning activity was August 21 for mainstem-spawning king salmon that returned during the early-run, and August 30 for mainstem-spawning king salmon that returned during the late run.

Since mainstem spawning king salmon did not show site fidelity to spawning areas until after the sport fishery closed on July 31, proposed regulations to conserve mainstem spawning king salmon by closing areas to king salmon fishing during July cannot be evaluated by spawning distribution.

To evaluate measures to conserve mainstem spawning king salmon while the fishery is open during July is also difficult because their distribution was different for each year studied. For example, the inseason emergency orders (EO) to close king salmon fishing upstream of Slikok Creek (RM 18.5) would have been more effective to protect mainstem spawning king salmon in 2012 and 2013 than in 2010 and 2011, because during 2010 and 2011 a large percentage of the early-run, mainstem-spawning radiotagged king salmon monitored remained downstream of Slikok Creek during July. The Kenai River downstream of the Soldotna Bridge (RM 21) was the most heavily utilized mainstem spawning area during the study, closures upstream of Slikok Creek have little conservation value for the largest mainstem spawning component. (figures 220-2 & 220-3).

From 2010–2013, at least 96% of the radiotagged, tributary-spawning king salmon were located in closed waters (existing king salmon sanctuaries or spawning tributaries) by July 16 in every year studied.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal due to the increased complexity that would result in the sport fishery from establishing the additional closed areas for certain periods of time. With respect to conservation, the department has the EO to restrict the sport fishery as necessary to achieve escapement goals. The department is **NEUTRAL** to the allocative aspects of 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.

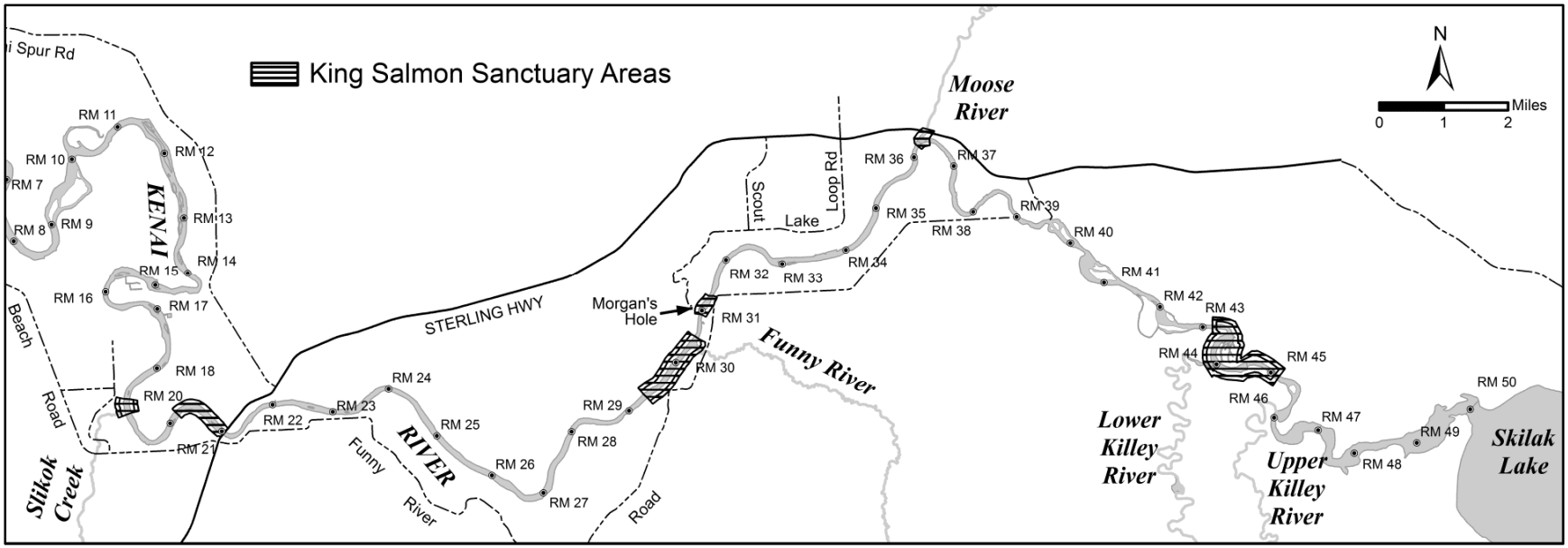

Figure 220-1.–Map of Kenai River showing king salmon spawning sanctuary areas.

Table 220-1.–Kenai River early-run king salmon population data, 1986–2013.

Year	Marine Sport Harvest	Misc. Marine Harvest[a]	Kenaitze Educational Harvest[b]	Inriver Run[c]	Sport Harvest Above Sonar[d]	Catch-and-Release Mortality	Spawning Escapement	Total Run	Harvest Rate
1986	144	0	ND	20,100	8,156	242	11,702	20,244	0.42
1987	181	0	ND	21,750	13,557	306	7,887	21,931	0.64
1988	212	0	ND	19,800	15,209	340	4,251	20,012	0.79
1989	193	0	73	12,290	8,394	149	3,747	12,556	0.70
1990	235	0	40	9,842	1,807	378	7,657	10,117	0.24
1991	241	0	2	10,620	1,945	152	8,523	10,863	0.22
1992	300	0	73	11,930	2,241	236	9,453	12,303	0.23
1993	407	0	118	12,490	9,342	286	2,862	13,015	0.78
1994	343	0	56	13,160	8,171	285	4,704	13,559	0.65
1995	412	0	37	12,890	10,217	357	2,316	13,339	0.83
1996	235	0	104	9,764	6,623	287	2,854	10,103	0.72
1997	282	0	122	11,140	6,429	349	4,362	11,544	0.62
1998	289	0	131	11,930	1,170	254	10,506	12,350	0.15
1999	245	0	114	13,480	8,129	261	5,090	13,839	0.63
2000	239	0	124	10,790	1,818	185	8,787	11,153	0.21
2001	184	0	198	14,020	2,399	205	11,416	14,402	0.21
2002	168	0	48	10,860	899	78	9,883	11,076	0.11
2003	202	0	126	20,450	2,839	389	17,222	20,778	0.17
2004	194	0	72	23,460	3,386	257	19,817	23,726	0.16
2005	187	341	76	20,810	3,810	253	16,747	21,414	0.22
2006	252	0	65	18,180	4,693	205	13,282	18,497	0.28
2007	201	41	16	13,630	3,493	220	9,917	13,888	0.29
2008	107	102	40	10,210	3,500	123	6,587	10,459	0.37
2009	71	16	49	7,741	1,466	97	6,178	7,877	0.22
2010	88	48	32	7,830	1,337	90	6,403	7,998	0.20
2011	110	0	42	9,895	1,337	92	8,466	10,047	0.16
2012	89	0	19	5,387	316	10	5,061	5,495	0.08
2013[e]	ND	0	11	2,038	0	5	2,033	2,049	0.01
Average									
1986–2002	254	0	89	13,344	6,265	256	6,824	13,671	0.48
2003–2013	150	50	50	12,694	2,380	158	10,156	12,930	0.20
1986–2013	215	20	72	13,089	4,739	218	8,133	13,380	0.37

Source: Statewide Harvest Surveys (SWHS) from Mills 1987-1994, Howe et al. 1995, 1996, 2001a-d, Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b, 2011, *In Prep* a-b; Alexandersdottir and Marsh 1990; Nelson et al. 1999; Hammarstrom and Timmons 2001a; Reimer et al. 2002, Reimer, A. 2003, 2004a-b, 2007; Eskelin, A. 2007, 2009, 2010; Perschbacher 2012a-d, J. Perschbacher, Sport Fish Biologist, ADF&G, Soldotna, personal communication; McKinley and Fleischman 2013; 1994-2012 Educational data, Kenaitze Indian Tribe; Tim mcKinley personal communication.

Note: ND = No data available

[a] Commercial cost-recovery harvest.

[b] Prior to 1994, there was no educational fishery, this was considered a subsistence fishery.

[c] Inriver run estimate is median value from Table 8 in McKinley and Fleischman 2013, FMS 13-03.

[d] Includes creel survey estimates for the area from Cook Inlet to the Soldotna Bridge and estimates from the SWHS from the Soldotna Bridge to the outlet of Kenai Lake.

[e] 2013 estimates are preliminary until biometrically reviewed and published.

Table 220-2.–Kenai River late-run king salmon population data, 1986–2013.

Year	Marine Sport Harvest[a]	Eastside Setnet Harvest[b]	Drift Gillnet Harvest[b]	Commercial Personal Use[c]	Kenaitze Educational	Subsistence[d]	Personal Use Dipnet[e]	Sport Harvest Below Sonar[fg]	Inriver Run Estimate[h]	Sport Harvest Above Sonar[fg]	Catch-and-Release Mortality[f]	Spawning Escapement	Total Run	Harvest Rate
1986	378	13,619	1,100	ND	ND	ND	ND	ND	62,740	9,872	316	52,552	77,837	0.32
1987	731	14,536	2,731	ND	ND	ND	235	ND	63,550	13,100	123	50,327	81,783	0.38
1988	892	8,834	1,330	ND	ND	ND	0	ND	61,760	19,695	176	41,889	72,816	0.42
1989	821	7,498	0	ND	ND	22	0	ND	36,370	9,691	88	26,591	44,711	0.41
1990	963	2,843	373	91	ND	13	ND	ND	34,200	6,897	69	27,234	38,483	0.29
1991	1,023	3,361	145	130	ND	288	ND	ND	38,940	7,903	16	31,021	43,887	0.29
1992	1,269	7,363	326	50	ND	402	0	ND	42,290	7,556	234	34,500	51,700	0.33
1993	1,700	9,672	451	81	ND	27	0	ND	50,210	17,775	478	31,957	62,142	0.49
1994	1,121	10,700	276	9	1	392	ND	ND	47,440	17,837	572	29,031	59,939	0.52
1995	1,241	8,291	314	25	3	ND	712	ND	44,770	12,609	472	31,689	55,355	0.43
1996	1,223	7,944	219	31	1	ND	295	ND	42,790	8,112	337	34,341	52,503	0.35
1997	1,759	7,780	293	30	20	ND	364	ND	41,120	12,755	570	27,795	51,367	0.46
1998	1,070	3,495	199	35	2	ND	254	ND	47,110	7,515	595	39,000	52,165	0.25
1999	602	6,501	345	59	4	ND	488	1,170	43,670	12,425	682	30,563	52,839	0.42
2000	631	2,531	162	27	6	ND	410	831	47,440	14,391	499	32,550	52,038	0.37
2001	552	4,128	371	80	8	ND	638	1,336	53,610	15,144	825	37,641	60,724	0.38
2002	256	6,511	249	15	6	ND	606	1,929	56,800	10,678	665	45,457	66,372	0.32
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2005	624	15,183 [i]	1,103	639	11	ND	997	2,287	77,440	15,927	1,267	60,246	98,284	0.39
2006	563	6,840 [i]	631	61	11	ND	1,034	3,322	62,270	12,490	830	48,950	74,732	0.34
2007	478	8,445 [i]	547	38	6	0	1,509	1,750	47,370	9,690	670	37,010	60,143	0.38
2008	310	5,203 [i]	392	23	15	0	1,362	1,011	42,840	10,128	370	32,342	51,156	0.37
2009	154	3,839	515	64	4	0	1,189	1,132	29,940	7,904	626	21,410	36,837	0.42
2010	335	4,567	323	32	21	0	865	445	23,250	6,762	264	16,224	29,839	0.46
2011	528	5,596	356	88	5	0	1,243	458	27,090	6,894	479	19,717	35,363	0.44
2012	30	484	115	41	0	0	40	2	27,910	101	95	27,714	28,622	0.03
2013[j]	ND	2,289	267	117	8	0	11	37	17,015	1,541	79	15,395	19,744	0.22
Average														
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2003–2013	414	7,047	537	125	9	0	914	1,241	47,266	9,322	682	37,262	57,516	0.34
1986–2013	754	7,255	528	85	8	88	586	1,261	47,669	10,946	508	36,215	57,476	0.36

Source: Statewide Harvest Surveys (SWHS) from Mills 1987–1994, Howe et al. 1995, 1996, 2001a-d, Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b, 2011, *In Prep* a-b; Hammarstrom and Timmons 2001b; Brannian and Fox 1996; Ruesch and Fox 1996; Reimer and Sigurdsson 2004; Dunker and Lafferty 2007, Dunker, K.J. 2010, K. J. Dunker, Sport Fish Biologist, ADF&G, Anchorage, personal communication; Shields and Dupois 2013, P. Shields, Comm Fish Biologist, ADF&G, Soldotna, personal communication; Fleischman and McKinley 2013, FMS 13-02; Tim McKinley personal communication; Robert Begich personal communication.

Note: ND = No data available

[a] From Fleischman and McKinley 2013, FMS 13-02.

[b] Eastside setnet and drift gillnet commercial harvest data using genetic stock allocation from Fleischman and McKinley 2013, FMS 13-02; Tony Eskelin personal communication.

[c] Eastside setnet and drift gillnet personal use data using genetic stock allocation from Fleischman and McKinley 2013, FMS 13-02; Tony Eskelin personal communication..

[d] Total includes fish harvested from Cohoe, Salamatof, and Kalifornsky Beaches, and the Kenai River.

[e] 1986–1994 from SWHS; 1995 (Ruesch and Fox 1996); 1996–2012 are estimates from returned permits.

[f] Some harvest is below sonar and not counted against escapement.

[g] Sport harvest includes Creel survey estimates for the area from Cook Inlet to the Soldotna Bridge and estimates from the SWHS for Soldotna Bridge to outlet of Skilak Lake.

[h] Inriver run estimates thru 2012 are median values in Table 6 of Fleischman and McKinley 2013, FMS 13-02.

[i] Harvest estimate does not include Kasilof River terminal fishery which occurred 2005–2008.

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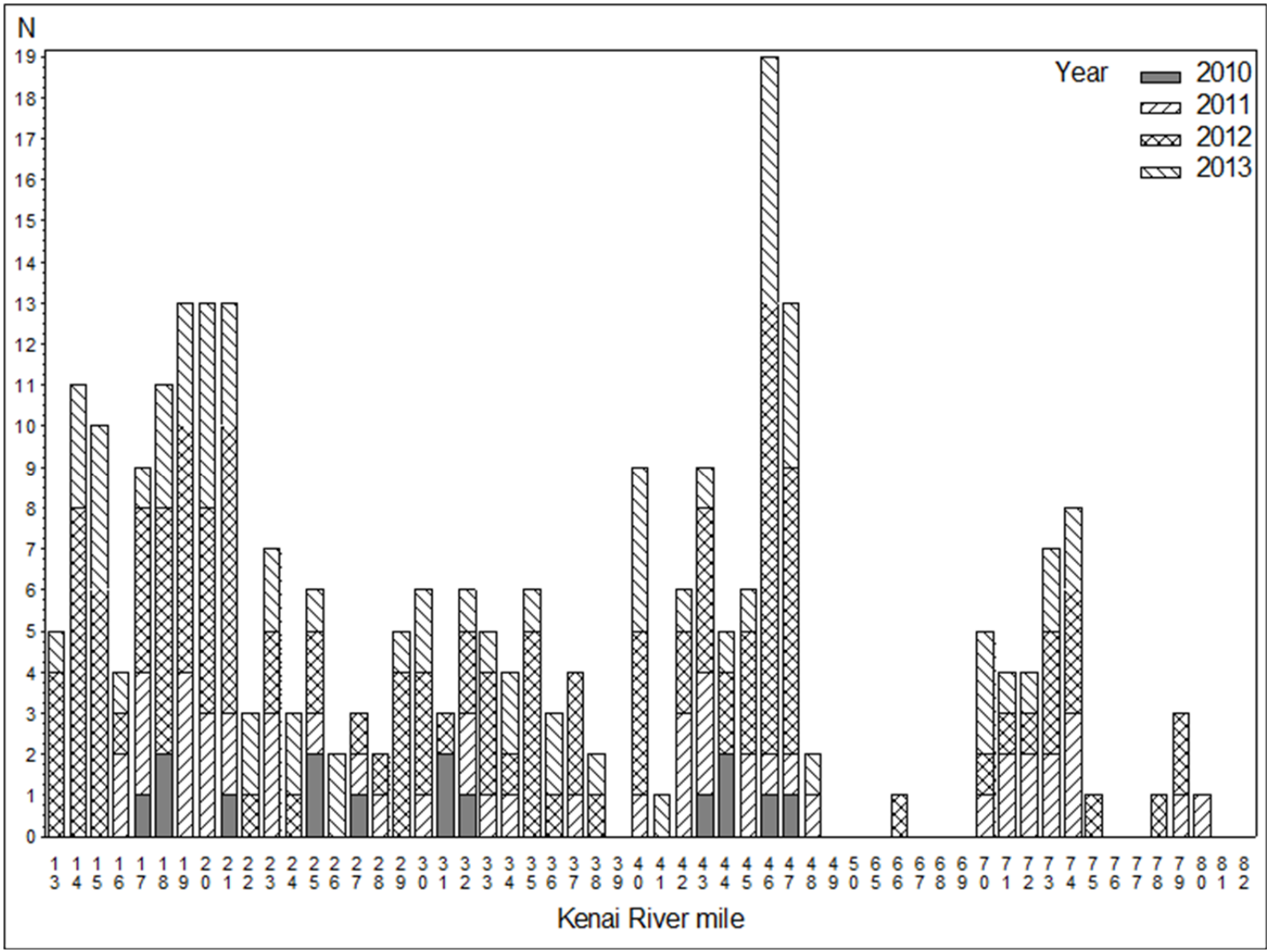

Figure 220-2.–King salmon spawning distribution within the mainstem Kenai River by river mile, 2010–2013.

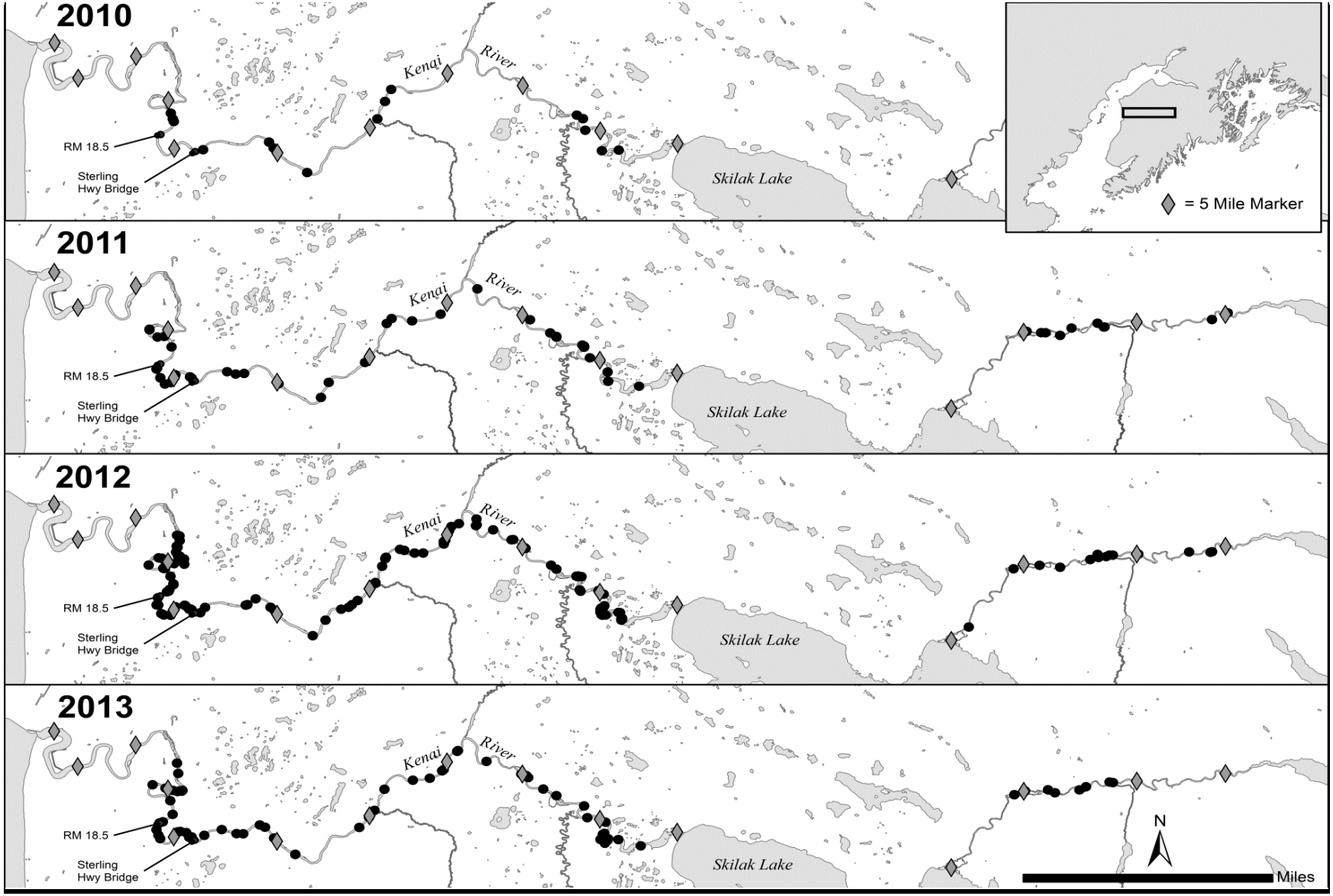

Figure 220-3.–Spawning destinations determined for radiotagged king salmon within mainstem Kenai River, 2010–2013.

PROPOSAL 221 – 5 AAC 57.120. General provisions for seasons, bag, possession, and size limits, and methods and means for the Kenai River Drainage Area.

PROPOSED BY: John McCombs.

WHAT WOULD THE PROPOSAL DO? This proposal would close or create conservation zones in the Kenai River where king salmon spawn in times of low escapement.

WHAT ARE THE CURRENT REGULATIONS? In the Kenai River, there are five king salmon "sanctuary areas" that contain sport fishing restrictions designed to protect king salmon from January 1–July 31. Those waters are at the confluence of the following streams; Slikok Creek, Funny River, Lower Killey River, Moose River, and Morgan's Hole. Additional waters are closed to fishing from boats at Centennial Park from about river mile (RM) 20 upstream to RM 21, Morgan's Hole at RM 31 and at the confluence of the Moose and Kenai rivers near RM 36. The seasonal king salmon area closures total approximately 3.1 river miles of the 50 river miles open to king salmon fishing. In addition, the Kenai River upstream of Skilak Lake and all tributaries are closed to king salmon fishing.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would close an unknown amount of river to fishing for king salmon, for an unspecified period of time. The proposal would reduce the harvest of king salmon in the Kenai River by an undetermined amount, and would increase congestion in remaining open river sections.

BACKGROUND: Management plans for the Kenai River king salmon sport fishery have been structured to provide fishing opportunity under various run sizes and ensure escapement goals are achieved. In 2011–2013 the Kenai River king salmon sport fishery was closed or restricted to catch-and-release fishing during late June through July, 300 yards downstream from the mouth of Slikok Creek at approximately RM 18.5, upstream to the outlet of Skilak Lake at RM 50. The area affected by these restrictive actions comprises about 60% of the Kenai River waters normally open to sport fishing for king salmon. .

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. Existing regulations prohibit king salmon fishing in Kenai River drainage tributaries, and the king salmon season is closed during the spawning period for most mainstem spawning 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.

PROPOSALS 222 and 223 – 5 AAC 57.120. General provisions for seasons, bag, possession, and size limits, and methods and means for the Kenai River Drainage Area; 5 AAC 57.121. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for the Lower Section of the Kenai River Drainage Area.; and 5 AAC 57.160. Kenai River and Kasilof River Early-run King Salmon Management Plan.

PROPOSED BY: Christine Brandt (Proposal 222), and Bob Krogseng and Ron Weilbacher (Proposal 223).

WHAT WOULD THESE PROPOSALS DO? These proposals would prohibit the use of eggs for bait in the Kenai River king salmon sport fishery; Proposal 223 would prohibit use of bait.

WHAT ARE THE CURRENT REGULATIONS? In the Kenai River, from the mouth upstream to Skilak Lake, from January 1–June 30, only one unbaited, single-hook, artificial lure may be used. From July 1–July 31, only one single hook may be used and bait is allowed.

WHAT WOULD BE THE EFFECT IF THESE PROPOSALS WERE ADOPTED? These proposals may lower the catch rate of king salmon on the Kenai River by an unknown amount. The prohibition of using salmon roe "eggs" as bait would likely result in the increased use of other types of gear and bait, mostly the use of plugs with sardine wraps, or artificial scents. It is unknown if prohibiting the use of salmon roe for bait in the king salmon fishery would have any effect on reducing retention of female king salmon in the fishery.

BACKGROUND: Use of salmon eggs as bait, when bait is not prohibited, is an integral component of Alaska king salmon sport fisheries. When inseason emergency order (EO) actions have been implemented during July, bait is the first restriction to take place as a means of reducing harvest. During 2011–2013, the use of bait was prohibited by EO in July. The department does not have information to indicate whether the use of eggs as bait is more or less effective than use of other types of bait (plugs with sardine wraps) to catch king salmon, or harvests of female king salmon would be reduced by prohibiting use of salmon eggs as bait.

DEPARTMENT COMMENTS: The department **OPPOSES** these proposals. The department's EO authority already allows the department to prohibit bait when necessary to achieve escapement goals.

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

PROPOSAL 224 – 5 AAC 57.121. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for the Lower Section of the Kenai River Drainage Area.

PROPOSED BY: John McCombs.

WHAT WOULD THE PROPOSAL DO? This proposal would require barbless hooks when the use of bait is prohibited on the Kenai River.

WHAT ARE THE CURRENT REGULATIONS? In the Kenai River, from the mouth upstream to Skilak Lake, from January 1 to June 30, only one unbaited single-hook, artificial lure may be used. From July 1 to July 31, only one single hook may be used and bait is allowed. Upstream from Skilak Lake, only one unbaited single-hook, artificial lure may be used with gap between point and shank of 3/8 inch or less, year round.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Prohibiting the use of barbed hooks would reduce angler efficiency by some amount, with young and inexperienced anglers disproportionately affected. Reduced angler efficiency would result in either anglers fishing longer in order to achieve their bag limit for salmon, or a reduced harvest. Prohibiting barbed hooks would add complexity to the Kenai River king salmon regulations. It would not reduce mortality of released fish by a measurable amount.

BACKGROUND: The mortality of released fish is dependent mostly on hook placement. Hooking mortality is often higher for fish that have been hooked in vital areas, such the esophagus or gills. Other factors, such as fish size, gear type, bleeding, and elapsed time to unhook the fish, can influence survival to a lesser degree than hook location. Studies of mortality rates on fish released using barbed and barbless hooks are inconclusive. Results largely suggest there is no significant difference in mortality rates of fish caught on barbed versus barbless hooks, although due to the vast body of research on the topic, some studies do support the use of barbless hooks for specific species in some fisheries. It is important to consider the species and fishery when reviewing the results of release mortality studies.

Some western states have implemented barbless hook regulations. Washington and Oregon have barbless regulations for salmon, steelhead (Endangered Species Act listed), and cutthroat trout on sections of the Columbia and Willamette rivers as part of a broadbased policy to restructure Columbia River sport fisheries and address allocation issues by reducing angler efficiency. Montana, Colorado, Wyoming, Utah, and Nevada have either rejected barbless hook proposals or repealed barbless regulations for reasons, including regulatory complexity and lack of measurable biological benefit.

The Alaska Board of Fisheries (board) has adopted regulations to promote best practices for releasing fish and reducing release-related mortality by prohibiting removing a fish from the water if it is to be released; prohibiting bait, which can affect hook placement and increase catch rates; prohibiting multiple hooks; and prohibiting fishing after a limit of a specific species is harvested. The department promotes best practices for releasing fish, including the use of barbless hooks, through education and outreach. The department uses emergency order authority

to reduce mortality when necessary to achieve escapement goals or provide sustainability. It does so primarily through harvest limit reductions, but also by prohibiting use of bait and multiple hooks.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. Anglers may currently use barbless hooks and many do. The department encourages anglers to use best practices through outreach efforts. However, we do not support a regulation requiring the practice because of the negative effects it would cause to sport fishing opportunity in the absence of a measurable biological benefit.

COST ANALYSIS: Depending on how the board defines a barbless hook, approval of this proposal could result in an additional direct cost for a private person to participate in these fisheries.

PROPOSAL 225 – 5 AAC 57.120. General provisions for seasons, bag, possession, and size limits, and methods and means for the Kenai River Drainage Area.

PROPOSED BY: Scott M. Miller.

WHAT WOULD THE PROPOSAL DO? This proposal would modify the Kenai River king salmon annual limit of two fish of any size, to two fish, of which only one may be greater than 28 inches in length. The proposal does not specify whether or not existing size limits would remain in place.

WHAT ARE THE CURRENT REGULATIONS? Early-run regulations allow for the harvest of 10 king salmon per day less than 20 inches, and one king salmon per day 20 inches or greater in length and less than 46 inches, or 55 inches or greater in length. King salmon 46 inches or longer, but less than 55 inches, must be released unharmed. The regulations for king salmon greater than 20 inches are in effect from January 1–June 30 in the Kenai River from the mouth upstream to the Soldotna Bridge, and from January 1–July 14 for those waters of the Kenai River from the Soldotna Bridge upstream to the outlet of Skilak Lake.

Late-run regulations are in effect from July 1–31 below the Soldotna Bridge, and from July 15–31 upstream of the Soldotna bridge; bag and possession limit of one king salmon per day 20 inches or greater in length.

There is an annual limit of two king salmon 20 inches or greater in length from the Kenai River (except for king salmon less than 28 inches harvested before July 1). King salmon 20 inches or greater in length must be recorded on the back of the angler's fishing license. Any king salmon harvested in the Kenai River that is 55 inches or larger must be sealed by an authorized representative of the department within three days after harvest.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Changing the annual limit as proposed would result in different size limits between the bag and annual limits, unless the bag limits were subsequently changed. It is unknown if this proposal would reduce the total harvest of king salmon, however, it would likely reduce the number of larger, older king salmon harvested during July, and may increase, depending upon the age composition of the run, harvest of king salmon less than 28 inches. It is also unclear if this proposal, by default, would eliminate the current daily bag limit of 10 king salmon less than 20 inches.

BACKGROUND: Prior to 1999, no more than five king salmon, 16 inches or greater in length, could be harvested from Cook Inlet fresh and salt waters annually, of which no more than two could be taken from the Kenai River. Harvested king salmon 16 inches or greater in length had to be recorded on the back of an angler's fishing license. In 1999, harvest and recording requirements were changed by the board to apply to king salmon, 20 inches or more in length, in all Cook Inlet waters.

In 2008, the board adopted a proposal that allowed the harvest of Kenai River early-run king salmon between the lengths of 20 and 28 inches to not count towards an angler's annual limit of

two on the Kenai River from January 1–June 30. The bag limit, however, was kept at one king salmon over 20 inches.

According to freshwater logbook data, the percentage of guided anglers who retained more than one king salmon in both the early and late run Kenai River king salmon fisheries combined ranged from less than 1% to 5% per year from 2006 to 2012 (Table 225-1).

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal as a conservation measure. The annual limit for the Kenai River is already conservative and is not often achieved by anglers. The department is **NEUTRAL** on the allocative aspects of 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.

Table 225-1.–The estimated number and percent of guided anglers on the Kenai River downstream of Skilak Lake from May through July who harvested more than one king salmon from 2006–2013.

Year	Total Anglers	Caught Annual Limit[a]	% Anglers Who Caught Annual Limit
2006	18,827	938	4.98%
2007	17,727	712	4.02%
2008	16,369	690	4.22%
2009	11,627	398	3.42%
2010	11,042	377	3.41%
2011	11,706	303	2.59%
2012	7,948	14	0.18%
2013[b]	7,351	41	0.56%

[a] Logbook data does not distinguish between large and small kings so this number likely overestimates the true number of anglers that caught their annual limit of king salmon (king salmon greater than 28 inches count towards the annual limit on the Kenai River prior to July 1, and king salmon greater than 20 inches count towards the annual limit after July 1).

[b] 2013 data is preliminary

PROPOSAL 226 – 5 AAC 57.120. General provisions for seasons, bag, possession, and size limits, and methods and means for the Kenai River Drainage Area; and 5 AAC 75.011. Sport fishing by proxy.

PROPOSED BY: Greg Davis.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit proxy fishing for king salmon in the Kenai River.

WHAT ARE THE CURRENT REGULATIONS? Any species of finfish, except halibut, and shellfish that may be taken by sport or personal use fishing under 5 AAC 47–5 AAC 74, and 5 AAC 77, may be taken by proxy.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would reduce the effort and harvest of king salmon in the Kenai River by an unknown, but likely small, amount.

BACKGROUND: In 2012, approximately 3,883 proxy fishing information forms were issued statewide. Of those, 3,316 (85.4%) were issued in the Southcentral region (Table 226-1). It is not known how many proxy anglers participated in the Kenai River king salmon sport fishery. A department king salmon creel survey conducted in the lower Kenai River provides estimates of sport fishing effort, catch, and harvest for guided and unguided anglers. Proxy information is not obtained by the creel survey.

All fresh and salt waters in Alaska have the potential to hold trophy fish that may be certified by the department under the trophy fish program, provided they meet the minimum weight requirement for certification. There is no regulation or department policy to designate selected waters of the state as "trophy fish status waters". For king salmon, a certifiable trophy can come from any water body if it meets the minimum weight requirement of 50 pounds, except the minimum weight certification requirement for a Kenai River king salmon is 75 pounds.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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.

Table 226-1.–Residence of the proxy beneficiary by year, 2006–2012.

	2006		2007		2008		2009		2010		2011		2012	
City	Proxies	%	Proxies	%	Proxies	%	Proxies	%	Proxies	%	Proxies	%	Proxies	%
AKHIOK	1	0.0%	1	0.0%	1	0.0%	1	0.0%						
ALEXANDER CREEK					1	0.0%								
ANCHOR POINT	39	1.1%	35	1.0%	32	0.9%	41	1.1%	32	0.8%	33	0.8%	38	1.0%
ANCHORAGE	1,614	44.9%	1,607	46.6%	1,552	44.0%	1,683	45.6%	1,697	44.6%	1,801	43.9%	1,696	43.7%
BIG LAKE	21	0.6%	21	0.6%	27	0.8%	30	0.8%	31	0.8%	37	0.9%	31	0.8%
BIRD CREEK									1	0.0%	1	0.0%		
CANTWELL					1	0.0%							1	0.0%
CHENEGA BAY											1	0.0%	1	0.0%
CHICKALOON	2	0.1%	1	0.0%	1	0.0%			1	0.0%	1	0.0%		
CHINIAK													1	0.0%
CHUGIAK	37	1.0%	29	0.8%	30	0.8%	44	1.2%	42	1.1%	51	1.2%	50	1.3%
CLAM GULCH	5	0.1%	4	0.1%	6	0.2%	5	0.1%	5	0.1%	3	0.1%	4	0.1%
COOPER LANDING	5	0.1%	10	0.3%	7	0.2%	10	0.3%	8	0.2%	11	0.3%	6	0.2%
CORDOVA	13	0.4%	23	0.7%	28	0.8%	14	0.4%	18	0.5%	11	0.3%	23	0.6%
EAGLE RIVER	110	3.1%	96	2.8%	113	3.2%	106	2.9%	114	3.0%	129	3.1%	118	3.0%
ELMENDORF AFB			1	0.0%			1	0.0%	1	0.0%	1	0.0%	1	0.0%
FORT RICHARDSON	2	0.1%	1	0.0%	1	0.0%	1	0.0%	1	0.0%			1	0.0%
FRITZ CREEK	6	0.2%	5	0.1%	7	0.2%	5	0.1%	8	0.2%	9	0.2%	6	0.2%
GIRDWOOD	4	0.1%	4	0.1%	11	0.3%	10	0.3%	8	0.2%	8	0.2%	8	0.2%
HALIBUT COVE			1	0.0%										
HOMER	170	4.7%	164	4.8%	165	4.7%	177	4.8%	163	4.3%	205	5.0%	173	4.5%
HOPE	1	0.0%	1	0.0%							1	0.0%		
HOUSTON	6	0.2%	4	0.1%	4	0.1%	5	0.1%	5	0.1%	3	0.1%	5	0.1%
INDIAN	4	0.1%	3	0.1%	3	0.1%	2	0.1%	1	0.0%	2	0.0%	2	0.1%
KACHEMAK									1	0.0%	1	0.0%		
KASILOF	22	0.6%	15	0.4%	21	0.6%	26	0.7%	24	0.6%	23	0.6%	28	0.7%
KENAI	100	2.8%	110	3.2%	110	3.1%	131	3.5%	104	2.7%	112	2.7%	124	3.2%
KING COVE									1	0.0%				
KODIAK	12	0.3%	6	0.2%	15	0.4%	28	0.8%	31	0.8%	38	0.9%	51	1.3%
MEADOW LAKES			1	0.0%	2	0.1%			2	0.1%	2	0.0%	2	0.1%
MOOSE PASS													1	0.0%
NIKISKI	15	0.4%	13	0.4%	16	0.5%	26	0.7%	16	0.4%	10	0.2%	21	0.5%
NIKOLAEVSK	3	0.1%	6	0.2%	5	0.1%	4	0.1%	3	0.1%	2	0.0%	2	0.1%
NINILCHIK	34	0.9%	23	0.7%	27	0.8%	28	0.8%	33	0.9%	47	1.1%	46	1.2%
PALMER	223	6.2%	224	6.5%	209	5.9%	198	5.4%	229	6.0%	225	5.5%	182	4.7%
PORT ALSWORTH	2	0.1%												
PORT GRAHAM									1	0.0%				
RIDGEWAY							1	0.0%						
SAINT PAUL ISLAND							2	0.1%	1	0.0%			1	0.0%
SELDOVIA	4	0.1%	3	0.1%	2	0.1%	1	0.0%	1	0.0%	1	0.0%	3	0.1%
SEWARD	16	0.4%	15	0.4%	7	0.2%	11	0.3%	11	0.3%	14	0.3%	15	0.4%
SKWENTNA	2	0.1%												
SOLDOTNA	152	4.2%	144	4.2%	194	5.5%	177	4.8%	187	4.9%	217	5.3%	188	4.8%
STERLING	64	1.8%	51	1.5%	62	1.8%	46	1.2%	67	1.8%	80	2.0%	54	1.4%
SUTTON	10	0.3%	8	0.2%	12	0.3%	11	0.3%	10	0.3%	14	0.3%	12	0.3%
TALKEETNA	10	0.3%	6	0.2%	9	0.3%	5	0.1%	14	0.4%	9	0.2%	14	0.4%
TRAPPER CREEK	1	0.0%	2	0.1%			4	0.1%	3	0.1%	4	0.1%	2	0.1%
VALDEZ	4	0.1%	3	0.1%	3	0.1%	2	0.1%	5	0.1%	2	0.0%	6	0.2%
WASILLA	384	10.7%	315	9.1%	363	10.3%	370	10.0%	364	9.6%	399	9.7%	365	9.4%
WHITTIER	1	0.0%	1	0.0%	1	0.0%			1	0.0%	1	0.0%		
WILLOW	27	0.8%	27	0.8%	29	0.8%	26	0.7%	30	0.8%	38	0.9%	33	0.8%
UNKNOWN	2	0.1%			2	0.1%					1	0.0%	1	0.0%
Total	3,128	87.0%	2,984	86.5%	3,079	87.2%	3,232	87.5%	3,275	86.2%	3,548	86.5%	3,316	85.4%

Blank cells = No permits issued.

PROPOSAL 227 – 5 AAC 21.359. Kenai River Late-Run King Salmon Management Plan; and 5 AAC 57.160. Kenai River and Kasilof River Early-run King Salmon Management Plan.

PROPOSED BY: Mel Erickson.

WHAT WOULD THE PROPOSAL DO? This proposal would require the department to demonstrate that a restrictive management action would result in a significant savings of fish prior to restricting the Kenai River king salmon sport fisheries. A definition of significant would have to include a savings of at least 100 fish or more.

WHAT ARE THE CURRENT REGULATIONS? Statewide regulations provide broad direction to the department concerning use of its emergency order (EO) authority. With respect to the Kenai River king salmon fishery, the *Kenai River and Kasilof River Early-run King Salmon Management Plan* (5 AAC 57.160), and the *Kenai River Late-Run King Salmon Management Plan* (5 AAC 21.359) provide more specific direction. While current regulations specify the circumstances under which EOs are used, they do not require the department to demonstrate a specific result or benefit.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would restrict the department's EO authority. The requirement to demonstrate or quantify the number of fish saved, in some cases, would have little practical effect. The department assesses the effects of inseason EO actions for the Kenai River king salmon sport fisheries relative to achieving escapement goals, including quantifying general harvest reductions and resulting increases to escapement to the degree possible. The proposal may, however, imply that the department has an ability to quantify effects, or prove to a level, beyond what it actually can.

BACKGROUND: The department is directed to achieve escapement goals regulations including management plans for Kenai River king salmon. To ensure adequate escapement, inseason estimates of king salmon run strength, fishing effort, catch, harvest, and delayed hooking mortality are generated on a routine, oftentimes daily, basis.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. It is not necessary for conservation, could limit the department's ability to achieve escapement goals under current management plans, and may create uncertainty as to the standard that would be required before restricting the king salmon fishery by EO.

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 228 – 57.XXX New Section.

PROPOSED BY: John McCombs.

WHAT WOULD THE PROPOSAL DO? This proposal would stock the Kenai River with 50,000 king salmon smolt.

WHAT ARE THE CURRENT REGULATIONS? The Alaska Board of Fisheries (board) may adopt regulations it considers advisable in accordance with AS 16.05.251(a)(7) for watershed and habitat improvement, and management, consideration, protection, use, disposal, propagation, and stocking of fish.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The effects of this proposal are unknown. The department would need to reconsider current stocking policy guidelines as they would apply to the resulting regulation, and cost may be substantial. If the department were to stock king salmon into the Kenai River, the board could limit the amount of stocked fish, or place other conditions on the release or harvest of stocked fish.

BACKGROUND: Hatcheries can be used to mitigate impacts to fisheries by providing additional fish for harvest. As a general rule, Alaska salmon hatchery programs are designed so that supplemental production and harvest is focused away from natural stocks. Although, with careful design and planning, it is known that supplemental harvest opportunities can be provided on rivers with wild stocks of salmon. The process for initiating a stocking program is multidivisional and interagency and involves a public process. The *Statewide Stocking Plan* (SSP), in accordance with the statewide stocking policy, is a five-year planning document which is updated on an annual basis. The SSP receives state, federal, and public review. The process begins when area management biologists or regional stocking program personnel recommend potential stocking projects, oftentimes following a request from the public and pending investigations into potential survivability of the stocked product and adequate public access. Stocking is guided by two additional policies. The genetics policy was developed to protect the genetic integrities of wild and hatchery stocks. The disease policy was developed to prevent the spread of fish diseases to wild and hatchery fish stocks. Stocking salmon into open systems in which anadromy and interactions with wild fish is anticipated requires careful consideration and review.

The genetics policy has been developed to provide guidelines that will allow development of a hatchery/enhancement program while minimizing the potential for genetic impacts on wild stocks to an acceptable level. Stock interaction must allow for the long-term retention of natural communities under conditions that provide the potential for continuing evolution. There are two primary genetic concerns in protecting wild stocks and implementing a successful enhancement program. The first concern is possible genetic impacts due to gene flow into wild or enhanced stocks. The second concern is the loss of genetic variation within or among stocks. Both gene flow and loss of genetic variation can potentially cause the reduction of total fitness in wild stocks and hatchery broodstocks. The intent of the genetics policy is not to avoid all genetic change, but to allow for the long-term retention of natural communities under conditions that would provide for continuing evolution.

Over the past two years, a number of requests for stocking king salmon to enhance or rebuild wild stock fisheries have been received by the department. Prioritization is necessary because of limiting factors that include brood availability under conditions of low marine survival (e.g., king salmon) and rearing space availability at the hatchery. About 1.7 million king salmon smolt are stocked into Cook Inlet area stocking sites. The historical marine survival (MS) rate has been 2%, so it is expected that the current smolt release of 1.7 million king salmon would return an aggregate of 34,000 adult salmon. Based on recent adult escapements to brood collection sites, current MS is running as low as 0.25% (1/8 of the historical average). With a MS rate this low, a release of approximately 13.6 million smolt would be required to produce 34,000 returning adults. Since brood availability is the prime limiting factor to smolt production, it is not possible to achieve this elevated release level even if rearing space were available. Under these conditions of low MS and rearing availability, the department is planning to boost releases at Deception Creek and the Eklutna Tailrace in order to provide the best potential for achieving target level returns. The department is also looking at adjusting size of smolt at release and timing of releases to maximize survivals.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. The department already has the authority to stock the Kenai River if it chose to do so. Initiation of any stocking program is administered through a department process that involves requests by the public, which may lead to multidivisional evaluation by the department in accordance with a statewide stocking policy and genetics policy.

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.

COMMITTEE OF THE WHOLE – GROUP 5: KENAI RIVER LATE-RUN SOCKEYE SALMON MANAGEMENT PLAN, KASILOF SOCKEYE SALMON MANAGEMENT PLAN, AND COMMERCIAL FISHING SEASONS, PERIODS, AND PERMIT STACKING (31 Proposals)

Kenai River Late-Run Sockeye Salmon Management Plan (15 Proposals): 157–171
Kasilof River Late-Run Sockeye Salmon Management Plan (9 Proposals): 148–156
Permit Stacking, Fishing Seasons and Periods (6 Proposals): 126, 111–115, 118

Kenai River Late-Run Sockeye Salmon Management Plan (15 Proposals): 157–171

PROPOSAL 157 – 5 AAC 21.360. Kenai River Late-Run Sockeye Salmon Management Plan.

PROPOSED BY: Central Peninsula Fish and Game Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would amend the preamble to the management plan by removing references to minimizing the harvest of Northern District coho, late-run Kenai River king, and Kenai River coho salmon stocks, and adding language that states the Alaska Department of Fish and Game (department) shall manage common property fisheries for a reasonable opportunity to harvest salmon resources. This proposal would also remove the optimal escapement goal (OEG) of 700,000–1,400,000 fish from the plan and replace it with a "spawning escapement goal range" of 750,000–900,000 fish past the sonar counter at river mile 19.

WHAT ARE THE CURRENT REGULATIONS? The preamble to the *Kenai River Late-Run Sockeye Salmon Management Plan* (a) currently reads, "The department shall manage the Kenai River late-run sockeye salmon stocks primarily for commercial uses based on abundance. The department shall also manage the commercial fisheries to minimize the harvest of Northern District coho, late-run Kenai River king, and Kenai River coho salmon stocks in order to provide personal use, sport, and guided sport fishermen with a reasonable opportunity to harvest salmon resources."

The department manages commercial, sport, and personal use fisheries in the Kenai River to: 1) meet an OEG range of 700,000–1,400,000 late-run sockeye salmon, 2) achieve inriver goals as established by the Alaska Board of Fisheries (board) and measured at the Kenai River sonar counter located at river mile 19, and 3) to distribute escapement of sockeye salmon evenly within the OEG range, in proportion to the size of the run. The current sustainable escapement goal (SEG) is 700,000–1,200,000 sockeye salmon.

The *Policy for the management of sustainable salmon fisheries* (5 AAC 39.222) contains principles and criteria for the management of salmon fisheries by the state. The policy defines escapement goal terms as follows:

Biological escapement goal (BEG): "means the escapement that provides the greatest potential for maximum sustained yield; BEG will be the primary management objective for the escapement unless an optimal escapement or inriver run goal has been adopted; BEG will be developed from the best available biological information, and should be scientifically defensible

on the basis of available biological information; BEG will be determined by the department and will be expressed as a range based on factors such as salmon stock productivity and data uncertainty; the department will seek to maintain evenly distributed salmon escapements within the bounds of a BEG."

Sustainable escapement goal (SEG): "means a level of escapement, indicated by an index or an escapement estimate, that is known to provide for sustained yield over a 5 to 10 year period, used in situations where a BEG cannot be estimated or managed for; the SEG is the primary management objective for the escapement, unless an optimal escapement or inriver run goal has been adopted by the board; the SEG will be developed from the best available biological information; and should be scientifically defensible on the basis of that information; the SEG will be determined by the department and will take into account data uncertainty and be stated as either a "SEG range" or "lower bound SEG; the department will seek to maintain escapements within the bounds of the SEG range or above the level of a lower bound SEG."

Optimal escapement goal (OEG): "means a specific management objective for salmon escapement that considers biological and allocative factors and may differ from the SEG or BEG; an OEG will be sustainable and may be expressed as a range with the lower bound above the level of SET, and will be adopted as a regulation by the board; the department will seek to maintain evenly distributed escapements within the bounds of the OEG."

The *Policy for statewide salmon escapement goals* (5 AAC 39.223) recognizes the establishment of salmon escapement goals as a joint responsibility of the department and the board and describes the concepts, criteria, and procedures for establishing and modifying salmon escapement goals. Under the policy, the board recognizes and describes the department's responsibility for establishing and modifying biological escapement goals (BEG), sustainable escapement goals (SEG), and sustained escapement thresholds (SET).

The policy also states that the board will: "…in recognition of its joint responsibilities, and in consultation with the department, during the regulatory process, review a biological escapement goal (BEG), sustainable escapement goal (SEG), or sustainable escapement threshold (SET) determined by the department and, with the assistance of the department, determine the appropriateness of establishing an OEG; the board will provide an explanation of the reasons for establishing an OEG and provide, to the extent practicable, and with the assistance of the department, an estimate of expected differences in yield of any salmon stock, relative to maximum sustained yield, resulting from implementation of an OEG."

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Directions on to how minimize harvest of Northern District coho and late-run Kenai River king and coho salmon stocks are in other sections of this and other management plans. Therefore, amendments to the plan's preamble would likely not affect management of the fishery, but future board action would no longer be guided by the principles contained in the plan that describe elements the board will consider. Statewide guidance, such as found in the *Policy for the management of sustainable salmon fisheries* (5 AAC 39.222), would continue to apply. Removing the OEG and replacing it with a lower spawning escapement goal may increase the commercial harvest of sockeye, king, and coho salmon.

BACKGROUND: The *Kenai River Sockeye Salmon Management Plan* (5 AAC 21.360) was first adopted in 1980. The purpose of this management plan was to ensure an adequate escapement, as determined by the department, of sockeye salmon into the Kenai River system and to provide management guidelines to the department in an effort to preclude allocation conflicts between various users of this resource. In 1996, the name of the plan was changed to the *Kenai River Late-Run Sockeye Salmon Management Plan* and the plan stated that its purpose is to achieve the biological escapement goal, as determined by the department, of late-run sockeye salmon into the Kenai River system and to provide management guidelines to the department. In 1999, the purpose statement was changed and it now stated that the department shall manage the Kenai River late-run sockeye salmon stocks primarily for commercial uses in order to provide commercial fishermen with an economic yield from the harvest of these salmon resources based on abundance. It also stated the department shall also manage commercial fisheries to minimize harvest of Northern District coho salmon, and late-run Kenai River king and coho salmon stocks, in order to provide personal use, sport, and guided sport fishermen with a reasonable opportunity to harvest salmon resources. Since 1999, the purpose statement has changed slightly over the years as the board has deliberated extensively to balance the allocation needs and desires of the various user groups.

In 1999, the following management principles were also adopted: "The Kenai River late-run sockeye salmon commercial, sport, and personal use fisheries shall be managed to: meet an OEG range of 500,000–1,000,000 late-run sockeye salmon; achieve inriver goals as established by the Alaska Board of Fisheries (board) and measured at the Kenai River sonar counter located at river mile 19; and distribute the escapement of sockeye salmon evenly within the OEG range, in proportion to the size of the run." Finally, in 1999, the three-tiered abundance-based inriver goals for Kenai River sockeye salmon were adopted (Table 157-1). The tiers were originally set at less than 2 million; 2 million to 4 million; and greater than 4 million fish.

In 2011, the abundance-based tiers were adjusted as the department transitioned from Bendix sonar to the new Dual-frequency Identification Sonar (DIDSON) technology. The transition was completed after three years of comparison counts between the two types of sonar. The tiers are now set at less than 2.3 million; 2.3 million to 4.6 million; and greater than 4.6 million fish.

The escapement and inriver goals for Kenai River sockeye salmon have undergone numerous changes through time (Table 157-2). From 1978–1986, the escapement goal for Kenai River sockeye salmon was technically an inriver goal, since department escapement goal reports completed at the time referred to it as an escapement goal measured at the Kenai River sonar site. Since 1999, the inriver goal has been used to provide sockeye salmon to the inriver sport fishery and distribute escapements throughout the OEG range.

In 2011, the SEG for Kenai River sockeye salmon was changed from a range of 500,000–800,000 spawners to 700,000–1,200,000 spawners as part of the transition to DIDSON. In theory, the change in the SEG resulted in no change in the number of spawners in the system; it just reflected that the new sonar technology enumerated more fish passing the sonar than the Bendix sonar system did. The range of 700,000–1,200,000 approximately represented the escapement that on average would produce 90–100% of maximum sustained yield (MSY). The change in the SEG range also led to a change in the OEG: it was modified from 500,000–

1,000,000 fish to 700,000–1,400,000 million fish to reflect the change in the SEG range. The department's 2013 escapement goal review report did not recommend changes to the SEG for Kenai River late-run sockeye salmon.

In the last 15 years (1999–2013), the forecasted abundance of late-run Kenai River sockeye salmon has been in the same run tier as the actual inseason abundance in four years and has differed in 11 years (Table 157-3). For the 11 years that differed, the actual run increased tier(s) eight times and decreased tier(s) three times.

Since 1986 (28 years), the final sonar estimate for Kenai River late-run sockeye salmon has been above the inriver goals in 17 years (61%)and within the inriver goals in 11 years (39%); it has never been below the inriver goals (Table 157-4). From 1987–2012, the final spawning escapement (based on postseason analysis) was above the BEG/SEG goals in 15 years (58%), within the BEG/SEG goals in 8 years (31%), and below the BEG/SEG goals in 3 years (11%). Since converting to DIDSON-based goals in 2011, the final spawning escapement (based on postseason analysis) was within the OEG in 2011 and 2012.

Harvest levels of sockeye salmon in the Kenai River drainage by sport anglers have increased since 1981 (Table 157-4). Since 1986, the sockeye salmon bag limit has been liberalized 15 out of 28 years. The highest seven inriver sport harvests of sockeye salmon have occurred from 2002–present, when the daily bag limit started at three per day.

From 1980–2013, commercial harvest in the Upper Subdistrict set gillnet fishery (ESSN) averaged approximately 10,000 king, 1,500,000 sockeye, 36,000 coho, 122,000 pink, and 3,000 chum salmon (Table 157-5). More recently (2004–2013), commercial harvest averaged approximately 10,000 king, 1,400,000 sockeye, 19,000 coho, 80,000 pink, and 1,000 chum salmon.

From 1980–2013, commercial harvest in the Central District drift gillnet fishery averaged approximately 1,100 king, 1,700,000 sockeye, 147,000 coho, 212,000 pink, and 393,000 chum salmon (Table 157-6). More recently (2004–2013), commercial harvest averaged approximately 1,000 king, 1,900,000 sockeye, 113,000 coho, 130,000 pink, and 119,000 chum salmon.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal.
The department reviewed the SEG for Kenai River late-run sockeye salmon as part of its 2013 escapement goal review and recommended no change.

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 157-1.–History of tiers, windows, and limitations on use of emergency order (EO) extra fishing hours in the *Kenai River Late-Run Sockeye Salmon Management Plan*.

Year	Tier	Window	EO Limitation
1999	< 2 million	None	none
	2 to 4 million	after July 20, 24 hours beginning at 12 noon Friday in Kenai/E. Foreland sections	none
	> 4 million	None; extra time for Kenai sockeye only in Kenai/E. Foreland sections	none
2002	< 2 million	None	24 hours/week in July
	2 to 4 million	In July, Upper Subdistrict Set Gillnet Fishery closed for one 48-hour period/week	36 hours/week in July
	> 4 million	In July, Upper Subdistrict Set Gillnet Fishery closed for one 36-hour period/week	60 hours/week in July
2005	< 2 million	None	24 hours/week
	2 to 4 million	One 36-hour period beginning between 7pm Thursday and 7am Friday One additional 24-hour period/week	51 hours/week
	> 4 million	One 36-hour period beginning between 7pm Thursday and 7am Friday	84 hours/week
2008	< 2 million	None	24 hours/week
	2 to 4 million	One 36-hour period beginning between 7pm Thursday and 7am Friday One additional 24-hour period/week	51 hours/week
	> 4 million	One 36-hour period beginning between 7pm Thursday and 7am Friday	84 hours/week
2011	< 2.3 million	None	24 hours/week
	2.3 to 4.6 million	One 36-hour period beginning between 7pm Thursday and 7am Friday One 24-hour period/week on Tuesday	51 hours/week
	> 4.6 million	One 36-hour period beginning between 7pm Thursday and 7am Friday	84 hours/week

Table 157-2.–Kenai River sockeye salmon goal history.

Year[a]	BEG/SEG[b]	Inriver Goals	OEG[b]
1969		150,000	
1972		150,000–250,000	
1978		350,000–500,000	
1987	330,000–600,000	400,000–700,000	
1995	330,000–600,000	450,000–700,000	
1996	330,000–600,000	550,000–800,000	
1997	330,000–600,000	550,000–825,000	
1998	330,000–600,000	550,000–850,000	
1999	500,000–800,000	600,000–1,100,000[c]	500,000–1,000,000
2005	500,000–800,000	650,000–1,100,000[c]	500,000–1,000,000
2011	700,000–1,200,000	900,000–1,350,000[c]	700,000–1,400,000

Note: Blank cell indicate no data.

[a] Only years where a change in goals occurred are listed.

[b] BEG = biological escapement goal, SEG=sustainable escapement goal, and OEG = optimum escapement goal.

[c] Inriver goal is set at one of three tiers depending upon total run size.

Table 157-3.–Comparison of the Upper Cook Inlet sockeye salmon preseason forecast versus inseason assessment of actual abundance. Shaded years are where preseason forecast and inseason assessments did not agree.

	Millions of Fish		
Year	Preseason forecast	Preseason tier	Inseason tier
1999	1.6	< 2.0	2.0–4.0
2000	2.5	2.0–4.0	< 2.0
2001	2.5	2.0–4.0	< 2.0
2002	1.7	< 2.0	2.0–4.0
2003	2.0	2.0–4.0	2.0–4.0
2004	3.2	2.0–4.0	> 4.0
2005	3.3	2.0–4.0	> 4.0
2006	1.8	< 2.0	< 2.0
2007	2.4	2.0–4.0	2.0–4.0
2008	3.1	2.0–4.0	< 2.0
2009	2.4	2.0–4.0	< 2.0
2010	1.7	< 2.0	2.0–4.0
2011	3.9	2.3–4.6	>4.6
2012	4.0	2.3–4.6	>4.6
2013	4.0	2.3–4.6	2.3–4.6

Table 157-4.–Late-run Kenai River sockeye salmon goals, sonar estimates, and escapements, 1986–2013.

Year	Inriver Sonar Enumeration Goal[a]	Biological/ Sustainable Escapement Goal	Optimum Escapement Goal	Final Sonar Count	Inriver Sport Harvest	Final Escapement	Actual Run Size (Millions)
1986	350,000–500,000			501,157	72,398	410,458	2.7
1987	400,000–700,000	330,000–600,000	330,000–600,000	1,596,871	240,819	1,363,028	8.7
1988	400,000–700,000	330,000–600,000	330,000–600,000	1,021,469	152,751	877,558	5.9
1989	400,000–700,000	330,000–600,000	330,000–600,000	1,599,959	277,906	1,331,701	ND
1990	400,000–700,000	330,000–600,000	330,000–600,000	659,520	118,287	503,916	2.9
1991	400,000–700,000	330,000–600,000	330,000–600,000	647,597	161,678	419,989	ND
1992	400,000–700,000	330,000–600,000	330,000–600,000	994,798	242,491	772,316	7.8
1993	400,000–700,000	330,000–600,000	330,000–600,000	813,617	137,179	676,425	3.9
1994	400,000–700,000	330,000–600,000	330,000–600,000	1,003,446	93,616	901,094	3.4
1995	400,000–700,000	330,000–600,000	330,000–600,000	630,447	125,428	522,405	2.3
1996	550,000–800,000	330,000–600,000	330,000–600,000	797,847	186,291	631,698	3.4
1997	550,000–825,000	330,000–600,000	330,000–600,000	1,064,818	177,133	917,831	4.0
1998	550,000–850,000	330,000–600,000	330,000–600,000	767,558	164,536	611,653	1.6
1999	750,000–950,000	500,000–800,000	500,000–1,000,000	803,379	200,574	615,654	2.6
2000	600,000–850,000	500,000–800,000	500,000–1,000,000	624,578	230,983	420,777	1.5
2001	600,000–850,000	500,000–800,000	500,000–1,000,000	650,036	200,762	481,932	1.9
2002	750,000–950,000	500,000–800,000	500,000–1,000,000	957,924	225,917	744,884	3.1
2003	750,000–950,000	500,000–800,000	500,000–1,000,000	1,181,309	285,925	927,623	3.8
2004	850,000–1,100,000	500,000–800,000	500,000–1,000,000	1,385,981	294,038	1,131,210	5.0
2005	850,000–1,100,000	500,000–800,000	500,000–1,000,000	1,376,452	294,287	1,121,634	5.6
2006	750,000–950,000	500,000–800,000	500,000–1,000,000	1,499,692	173,425	1,327,054	2.5
2007	750,000–950,000	500,000–800,000	500,000–1,000,000	867,572	308,812	602,186	3.4
2008	600,000–850,000	500,000–800,000	500,000–1,000,000	623,120	230,030	415,292	2.3
2009	600,000–850,000	500,000–800,000	500,000–1,000,000	745,170	252,319	503,659	2.4
2010	750,000–950,000	500,000–800,000	500,000–1,000,000	970,662	304,635	713,443	3.3
2011[b]	1,100,000–1,350,000	700,000–1,200,000	700,000–1,400,000	1,599,217	384,840	1,257,080	6.1
2012[b]	1,000,000–1,200,000	700,000–1,200,000	700,000–1,400,000	1,581,555	455,418	1,212,837	4.7
2013[b, c]	1,000,000–1,200,000	700,000–1,200,000	700,000–1,400,000	1,359,893	*Not Available*	*Not Available*	3.5
Average (1986–1995)					162,255		4.7
Average (1996–2001)					193,380		2.5
Average (2002–2012)					291,786		3.8

[a] Since 1999, inriver goal is set one of three tiers depending on total run size.

[b] Sonar technology switched to DIDSON (2011–2013) from Bendix (1986–2010) which changed the goals and inseason fish counts.

[c] 2013 run size is preliminary until published.

ND = No Data

Table 157-5.–Upper Subdistrict set gillnet commercial salmon harvest, 1980–2013.

Year	King	Sockeye	Coho	Pink	Chum
1980	9,643	559,812	40,281	299,444	2,147
1981	8,358	496,003	36,024	15,654	2,386
1982	13,658	971,423	108,393	432,715	4,777
1983	15,042	1,508,511	37,694	18,309	2,822
1984	6,165	490,273	37,166	220,895	3,695
1985	17,723	1,561,200	70,657	17,715	4,133
1986	19,826	1,658,671	76,495	530,974	7,030
1987	21,159	3,457,724	74,981	47,243	16,733
1988	12,859	2,428,385	54,975	176,043	11,763
1989	10,914	4,543,492	82,333	37,982	12,326
1990	4,139	1,117,621	40,351	225,429	4,611
1991	4,893	844,603	30,436	2,670	2,387
1992	10,718	2,838,076	57,078	244,068	2,867
1993	14,079	1,941,798	43,098	41,690	2,977
1994	15,575	1,458,162	68,449	234,827	2,927
1995	12,068	961,227	44,751	53,420	3,711
1996	11,564	1,483,008	40,724	95,717	1,448
1997	11,325	1,832,856	19,668	32,055	1,222
1998	5,087	512,306	18,677	332,484	688
1999	9,463	1,092,946	11,923	9,357	373
2000	3,684	529,747	11,078	23,746	325
2001	6,009	870,019	4,246	32,998	248
2002	9,478	1,303,158	35,153	214,771	1,790
2003	14,810	1,746,841	10,171	16,474	1,933
2004	21,684	2,235,810	30,154	107,838	2,019
2005	21,597	2,534,345	19,543	13,619	710
2006	9,956	1,301,275	22,167	184,990	347
2007	12,292	1,353,407	23,610	69,918	521
2008	7,573	1,303,236	21,823	59,620	433
2009	5,588	905,853	11,435	55,845	319
2010	7,059	1,085,789	32,683	121,817	3,035
2011	7,697	1,877,939	15,560	15,527	1,612
2012	704	96,639	6,537	159,003	49
2013	2,988	921,533	2,266	14,671	102
Averages					
1980–2013	10,746	1,465,403	36,488	122,339	3,073
2004–2013	9,714	1,361,583	18,578	80,285	915

Table 157-6.–Central District drift gillnet commercial salmon harvest, 1980–2013.

Year	King	Sockeye	Coho	Pink	Chum
1980	889	770,247	89,510	964,526	339,970
1981	2,320	633,380	226,366	53,888	756,922
1982	1,293	2,103,429	416,274	270,380	1,348,510
1983	1,125	3,222,428	326,965	26,629	1,044,636
1984	1,377	1,235,337	213,423	273,565	568,097
1985	2,048	2,032,957	357,388	34,228	700,848
1986	1,834	2,837,857	506,818	615,522	1,012,669
1987	4,552	5,638,916	202,506	38,714	211,745
1988	2,237	4,139,358	278,828	227,885	582,699
1990	621	2,305,742	247,453	323,955	289,521
1991	246	1,118,138	176,245	5,791	215,476
1992	615	6,069,495	267,300	423,738	232,955
1993	765	2,558,732	121,829	46,463	88,826
1994	464	1,901,475	310,114	256,248	249,748
1995	594	1,773,873	241,473	64,632	468,224
1996	389	2,205,067	171,434	122,728	140,987
1997	627	2,197,961	78,666	29,920	92,163
1998	335	599,396	83,338	200,382	88,080
1999	575	1,413,995	64,814	3,552	166,612
2000	270	656,427	131,478	90,508	118,074
2001	619	846,275	39,418	31,219	75,599
2002	415	1,367,251	125,831	224,229	224,587
2003	1,240	1,593,638	52,432	30,376	106,468
2004	1,104	2,529,642	199,587	235,524	137,041
2005	1,958	2,520,327	144,753	31,230	65,671
2006	2,782	784,771	98,473	212,808	59,965
2007	912	1,823,481	108,703	67,398	74,836
2008	653	983,303	89,428	103,867	46,010
2009	859	968,075	82,096	139,676	77,073
2010	538	1,587,657	110,275	164,005	216,977
2011	593	3,201,035	40,858	15,333	111,082
2012	218	2,924,144	74,678	303,216	264,513
2013	493	1,662,561	184,771	30,605	132,172
Averages					
1980–2013[a]	1,096	1,657,771	146,912	212,269	393,218
2004–2013	1,011	1,898,500	113,362	130,366	118,534

[a] 1989 was not included in the average, because the drift gillnet fleet did not fish due to the *Exxon Valdez* oil spill.

PROPOSAL 158 – 5 AAC 21.360. Kenai River Late-Run Sockeye Salmon Management Plan.

PROPOSED BY: Central Peninsula Fish and Game Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would amend the preamble to the management plan by removing references to Northern District coho salmon, late-run Kenai River king, and Kenai River coho salmon stocks, and adding language that states the Alaska Department of Fish and Game (department) shall manage common property fisheries for a reasonable opportunity to harvest salmon resources.

WHAT ARE THE CURRENT REGULATIONS? The preamble to the *Kenai River Late-Run Sockeye Salmon Management Plan* (a) currently reads: "The department shall manage the Kenai River late-run sockeye salmon stocks primarily for commercial uses based on abundance. The department shall also manage the commercial fisheries to minimize the harvest of Northern District coho, late-run Kenai River king, and Kenai River coho salmon stocks in order to provide personal use, sport, and guided sport fishermen with a reasonable opportunity to harvest salmon resources."

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Removing references to Northern District coho salmon, and late-run Kenai River king and coho salmon stocks, would not likely affect current management. Directions on to how to minimize harvest of Northern District coho and late-run Kenai River king and coho salmon stocks are in other sections of this and other management plans. Therefore, amendments to the plan's preamble would likely not affect management of the fishery, but future board action would no longer be guided by the principles contained in the plan that describe elements the board will consider. Statewide guidance, such as found in the *Policy for the management of sustainable salmon fisheries* (5 AAC 39.222), would continue to apply.

BACKGROUND: The *Kenai River Sockeye Salmon Management Plan* (5 AAC 21.360) was first adopted in 1980. The purpose of this management plan was to ensure an adequate escapement, as determined by the department, of sockeye salmon into the Kenai River system and to provide management guidelines to the department in an effort to preclude allocation conflicts between various users of this resource. In 1996, the name of the plan was changed to the *Kenai River Late-Run Sockeye Salmon Management Plan* and the plan stated that its purpose is to achieve the biological escapement goal, as determined by the department, of late-run sockeye salmon into the Kenai River system and to provide management guidelines to the department. In 1999, the purpose statement was changed and it now stated that the department shall manage the Kenai River late-run sockeye salmon stocks primarily for commercial uses in order to provide commercial fishermen with an economic yield from the harvest of these salmon resources based on abundance. It also stated the department shall also manage commercial fisheries to minimize harvest of Northern District coho salmon, and late-run Kenai River king and coho salmon stocks, in order to provide personal use, sport, and guided sport fishermen with a reasonable opportunity to harvest salmon resources. Since 1999, the purpose statement has changed slightly over the years as the board has deliberated extensively to balance the allocation needs and desires of the various user groups.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal, since it would not likely affect current management.

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 159 – 5 AAC 21.368. Kenai River Late-Run Sockeye Salmon Management Plan.

PROPOSED BY: United Cook Inlet Drift Association.

WHAT WOULD THE PROPOSAL DO? This proposal would modify the management plan to change the optimum escapement goal (OEG), inriver goals, and run-strength trigger points for late-run Kenai River sockeye salmon (Table 159-1); and modify restrictions on the sport fishery when the run strength is below 2,000,000 sockeye salmon.

WHAT ARE THE CURRENT REGULATIONS? The preamble to the *Kenai River Late-Run Sockeye Salmon Management Plan* (a) currently reads: "The department shall manage the Kenai River late-run sockeye salmon stocks primarily for commercial uses based on abundance. The department shall also manage the commercial fisheries to minimize the harvest of Northern District coho, late-run Kenai River king, and Kenai River coho salmon stocks in order to provide personal use, sport, and guided sport fishermen with a reasonable opportunity to harvest salmon resources."

The department manages commercial, sport, and personal use fisheries in the Kenai River to: 1) meet an OEG range of 700,000–1,400,000 late-run sockeye salmon, 2) achieve inriver goals as established by the Alaska Board of Fisheries (board) and measured at the Kenai River sonar counter located at river mile 19, and 3) to distribute escapement of sockeye salmon evenly within the OEG range, in proportion to the size of the run. The current sustainable escapement goal (SEG) is 700,000–1,200,000 sockeye salmon.

Based on preseason forecasts and inseason projections of the Kenai River late-run sockeye salmon return, the run will be managed as follows: at run strengths of less than 2,300,000 sockeye salmon, the department shall manage for an inriver goal range of 900,000–1,100,000 sockeye salmon past the sonar counter at river mile 19, and will fish regular weekly fishing periods, and allow additional fishing of no more than 24 hours per week.

At run strengths of 2,300,000–4,600,000, the department shall manage for an inriver goal range of 1,000,000–1,100,000 sockeye salmon past the sonar counter and allow additional fishing of no more than 51 hours per week. The set gillnet fishery will be closed for one 36-hour period per week beginning between 7:00 p.m. Thursday and 7:00 a.m. Friday, and for a 24-hour closure on Tuesday from 12:00 a.m. until 11:59 p.m.

At run strengths greater than 4,600,000, the department shall manage for an inriver goal range of 1,100,000–1,350,000 sockeye salmon past the sonar counter and allow additional fishing of no more than 84 hours per week. The set gillnet fishery will be closed for one 36-hour period per week, beginning between 7:00 p.m. Thursday and 7:00 a.m. Friday.

Subject to the requirement of achieving the lower end of the OEG, the department shall manage the sport fishery on the Kenai River, except that portion of the Kenai River from its confluence with the Russian River to an ADF&G regulatory marker located 1,800 yards downstream as follows: fishing will occur seven days per week, 24 hours per day; and the bag and possession limit for the sport fishery is three sockeye salmon, unless the department determines that the

abundance of late-run sockeye exceeds 2,300,000 salmon, at which time the commissioner may, by emergency order (EO), increase the bag and possession limit as the commissioner determines to be appropriate; if the projected inriver run of sockeye salmon above the Kenai River sonar counter located at river mile 19 is less than 900,000 fish and the inriver sport fishery harvest is projected to result in an escapement below the lower end of the OEG, the commissioner may, by EO, decrease the bag and possession limit, as the commissioner determines to be appropriate, for sockeye salmon in the sport fishery above the Kenai River sonar counter located at river mile 19.

Subject to the requirement of achieving the lower end of the OEG, the department shall provide for a personal use dip net fishery in the lower Kenai River. In the Kenai River, salmon may be taken by dip net from July 10 through July 31, seven days per week, from 6:00 a.m. to 11:00 p.m. The commissioner may extend, by EO, the personal use fishery to 24 hours per day if the department determines that the abundance of the Kenai River late-run sockeye salmon is greater than 2,300,000 fish. The annual limit for each personal use salmon fishing permit is 25 salmon for the head of a household and 10 salmon for each dependent of the permit holder.

The *Upper Cook Inlet Salmon Management Plan* states: "Notwithstanding any other provision of this chapter, it is the intent of the board that, while in most circumstances, the department will adhere to the management plans in this chapter; no provision within a specific management plan is intended to limit the commissioner's use of emergency order authority under AS 16.05.060 to achieve established escapement goals for the management plans as the primary management objective."

The *Policy for the management of sustainable salmon fisheries* (5 AAC 39.222) contains principles and criteria for the management of salmon fisheries by the state, and defines escapement goal terms. The *Policy for statewide salmon escapement goals* (5 AAC 39.223) recognizes the establishment of salmon escapement goals as a joint responsibility of the Alaska Department of Fish and Game (department) and the Alaska Board of Fisheries (board) and describes the concepts, criteria, and procedures for establishing and modifying salmon escapement goals. This policy describes the roles of the department and the board in developing, reviewing, and modifying escapement goals (see staff comments for proposal 157).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would lower the upper end of the current OEG to 1,050,000 fish, which is lower than the upper bound of the current SEG (1,200,000 fish). The inriver goals, which are the current management targets, would also be lowered. Lowering inriver goals and the upper end of the OEG would increase the commercial harvest of sockeye, king, and coho salmon by an unknown amount and decrease the number of sockeye salmon available for the inriver fisheries. This would also increase the likelihood of not exceeding the upper bound of the SEG. In addition, there are provisions within the proposal that would further limit the Kenai River sport fishery at smaller sockeye salmon runs, such as starting the sport fishery with a bag limit of two sockeye salmon instead of three until the inseason run projection is made around July 20 each year.

BACKGROUND: The *Kenai River Sockeye Salmon Management Plan* (5 AAC 21.360) was first adopted in 1980. The purpose of this management plan was to ensure an adequate escapement, as determined by the department, of sockeye salmon into the Kenai River system

and to provide management guidelines to the department in an effort to preclude allocation conflicts between various users of this resource. In 1996, the name of the plan was changed to the *Kenai River Late-Run Sockeye Salmon Management Plan* and the plan stated that its purpose is to achieve the biological escapement goal, as determined by the department, of late-run sockeye salmon into the Kenai River system and to provide management guidelines to the department. In 1999, the purpose statement was changed and it now stated that the department shall manage the Kenai River late-run sockeye salmon stocks primarily for commercial uses in order to provide commercial fishermen with an economic yield from the harvest of these salmon resources based on abundance. It also stated the department shall also manage commercial fisheries to minimize harvest of Northern District coho salmon and late-run Kenai River king and coho salmon stocks, in order to provide personal use, sport, and guided sport fishermen with a reasonable opportunity to harvest salmon resources. Since 1999, the purpose statement has changed slightly over the years as the board has deliberated extensively to balance the allocation needs and desires of the various user groups.

In 1999, the following management principles were also adopted: "The Kenai River late-run sockeye salmon commercial, sport, and personal use fisheries shall be managed to: meet an OEG range of 500,000–1,000,000 late-run sockeye salmon; achieve inriver goals as established by the Alaska Board of Fisheries (board) and measured at the Kenai River sonar counter located at river mile 19; and distribute the escapement of sockeye salmon evenly within the OEG range, in proportion to the size of the run." Finally, in 1999, the three-tiered abundance-based inriver goals for Kenai River sockeye salmon were adopted. The tiers were originally set at less than 2 million; 2 million to 4 million; and greater than 4 million fish.

In 2011, the abundance-based tiers were adjusted as the department transitioned from Bendix sonar to the new Dual-frequency Identification Sonar (DIDSON) technology. The transition was completed after three years of comparison counts between the two types of sonar. The tiers are now set at less than 2.3 million; 2.3 million to 4.6 million; and greater than 4.6 million fish.

The escapement and inriver goals for Kenai River sockeye salmon have undergone numerous changes through time. From 1978–1986, the escapement goal for Kenai River sockeye salmon was technically an inriver goal, since department escapement goal reports completed at the time referred to it as an escapement goal measured at the Kenai River sonar site. Since 1999, the inriver goal has been used to provide sockeye salmon to the inriver sport fishery and distribute escapements throughout the OEG range.

In 2011, the SEG for Kenai River sockeye salmon was changed from a range of 500,000–800,000 spawners to 700,000–1,200,000 spawners as part of the transition to DIDSON. In theory, the change in the SEG resulted in no change in the number of spawners in the system; it just reflected that the new sonar technology enumerated more fish passing the sonar than the Bendix system did. The range of 700,000–1,200,000 approximately represented the escapement that on average will produce 90–100% of maximum sustained yield (MSY). The change in the SEG range also led to a change in the OEG: it was modified from 500,000–1,000,000 fish to 700,000–1,400,000 million fish to reflect the change in the SEG range. The department's 2013 escapement goal review report did not recommend changes to the SEG for Kenai River late-run sockeye salmon.

In the last 15 years (1999–2013), the forecasted abundance of late-run Kenai River sockeye salmon has been in the same run tier as the actual inseason abundance in four years and has differed in 11 years. For the 11 years that differed, the actual run increased tier(s) eight times and decreased tier(s) three times.

Since 1986 (28 years), the final sonar estimate for Kenai River late-run sockeye salmon has been above the inriver goals in 17 years (61%) and within the inriver goals in 11 years (39%); it has never been below the inriver goals. From 1987–2012, the final spawning escapement (based on postseason analysis) was above the SEG/BEG goals in 15 years (58%), within the BEG/SEG goals in 8 years (31%), and below the BEG/SEG goals in 3 years (11%). Since converting to DIDSON-based goals in 2011, the final spawning escapement (based on postseason analysis) was within the OEG in 2011 and 2012.

Harvest levels of sockeye salmon in the Kenai River drainage by sport anglers have increased since 1981. Since 1986, the sockeye salmon bag limit has been liberalized 15 out of 28 years. The highest seven inriver sport harvests of sockeye salmon have occurred from 2002–present, when the daily bag limit started at three per day.

From 1980–2013, commercial harvest in the Upper Subdistrict set gillnet fishery (ESSN) averaged approximately 10,000 king, 1,500,000 sockeye, 36,000 coho, 122,000 pink, and 3,000 chum salmon. More recently (2004–2013), commercial harvest averaged approximately 10,000 king, 1,400,000 sockeye, 19,000 coho, 80,000 pink, and 1,000 chum salmon.

From 1980–2013, commercial harvest in the Central District drift gillnet fishery averaged approximately 1,100 king, 1,700,000 sockeye, 147,000 coho, 212,000 pink, and 393,000 chum salmon. More recently (2004–2013), commercial harvest averaged approximately 1,000 king, 1,900,000 sockeye, 113,000 coho, 130,000 pink, and 119,000 chum salmon.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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.

Table 159-1.–Current and proposed changes to abundance-based tiers, optimum escapement goal (OEG) and inriver goals.

Current:

Abundance-Based Tier	OEG	Inriver Goal
< 2,300,000	700,000–1,400,000	900,000–1,100,000
2,300,000–4,600,000	700,000–1,400,000	1,000,000–1,200,000
> 4,600,000	700,000–1,400,000	1,100,000–1,350,000

Proposed:

Abundance-Based Tier	OEG	Inriver Goal
< 2,000,000	750,000–1,050,000	750,000–1,050,000
2,000,000–4,000,000	750,000–1,050,000	850,000–1,050,000
> 4,000,000	750,000–1,050,000	850,000–1,100,000

PROPOSAL 160 – 5 AAC 21.360. Kenai River Late-Run Sockeye Salmon Management Plan.

PROPOSED BY: Kenai Peninsula Fishermen's Association.

WHAT WOULD THE PROPOSAL DO? This proposal would eliminate the "abundance-based tiers" in the management plan and the associated inriver goals tied to each tier, and replace them with a single spawning escapement goal range that is encompassed within an optimum escapement goal (OEG). The department would be directed to manage for this OEG.

WHAT ARE THE CURRENT REGULATIONS? The preamble to the *Kenai River Late-Run Sockeye Salmon Management Plan* (a) currently reads: "The department shall manage the Kenai River late-run sockeye salmon stocks primarily for commercial uses based on abundance. The department shall also manage the commercial fisheries to minimize the harvest of Northern District coho, late-run Kenai River king, and Kenai River coho salmon stocks in order to provide personal use, sport, and guided sport fishermen with a reasonable opportunity to harvest salmon resources."

The department manages commercial, sport, and personal use fisheries in the Kenai River to: 1) meet an OEG range of 700,000–1,400,000 late-run sockeye salmon, 2) achieve inriver goals as established by the Alaska Board of Fisheries (board) and measured at the Kenai River sonar counter located at river mile 19, and 3) to distribute escapement of sockeye salmon evenly within the OEG range, in proportion to the size of the run. The current sustainable escapement goal (SEG) is 700,000–1,200,000 sockeye salmon.

Based on preseason forecasts and inseason projections of the Kenai River late-run sockeye salmon return, the run will be managed as follows: at run strengths of less than 2,300,000 sockeye salmon, the department shall manage for an inriver goal range of 900,000–1,100,000 sockeye salmon past the sonar counter at river mile 19, and will fish regular weekly fishing periods and allow additional fishing of no more than 24 hours per week.

At run strengths of 2,300,000–4,600,000, the department shall manage for an inriver goal range of 1,000,000–1,100,000 sockeye salmon past the sonar counter and allow additional fishing of no more than 51 hours per week. The set gillnet fishery will be closed for one 36-hour period per week beginning between 7:00 p.m. Thursday and 7:00 a.m. Friday, and for a 24-hour closure on Tuesday from 12:00 a.m. until 11:59 p.m.

At run strengths greater than 4,600,000, the department shall manage for an inriver goal range of 1,100,000–1,350,000 sockeye salmon past the sonar counter and allow additional fishing of no more than 84 hours per week. The set gillnet fishery will be closed for one 36-hour period per week, beginning between 7:00 p.m. Thursday and 7:00 a.m. Friday.

Subject to the requirement of achieving the lower end of the OEG, the department shall manage the sport fishery on the Kenai River, except that portion of the Kenai River from its confluence with the Russian River to an ADF&G regulatory marker located 1,800 yards downstream, as follows: fishing will occur seven days per week, 24 hours per day; and the bag and possession limit for the sport fishery is three sockeye salmon unless the department determines that the

abundance of late-run sockeye exceeds 2,300,000 salmon, at which time the commissioner may, by emergency order (EO), increase the bag and possession limit as the commissioner determines to be appropriate; if the projected inriver run of sockeye salmon above the Kenai River sonar counter located at river mile 19 is less than 900,000 fish and the inriver sport fishery harvest is projected to result in an escapement below the lower end of the OEG, the commissioner may, by EO, decrease the bag and possession limit, as the commissioner determines to be appropriate, for sockeye salmon in the sport fishery above the Kenai River sonar counter located at river mile 19.

Subject to the requirement of achieving the lower end of the OEG, the department shall provide for a personal use dip net fishery in the lower Kenai River. In the Kenai River, salmon may be taken by dip net from July 10 through July 31, seven days per week, from 6:00 a.m. to 11:00 p.m. The commissioner may extend, by EO, the personal use fishery to 24 hours per day if the department determines that the abundance of the Kenai River late-run sockeye salmon is greater than 2,300,000 fish. The annual limit for each personal use salmon fishing permit is 25 salmon for the head of a household and 10 salmon for each dependent of the permit holder.

The *Upper Cook Inlet Salmon Management Plan* states: "Notwithstanding any other provision of this chapter, it is the intent of the board that, while in most circumstances, the department will adhere to the management plans in this chapter; no provision within a specific management plan is intended to limit the commissioner's use of emergency order authority under AS 16.05.060 to achieve established escapement goals for the management plans as the primary management objective."

The *Policy for the management of sustainable salmon fisheries* (5 AAC 39.222) contains principles and criteria for the management of salmon fisheries by the state, and defines escapement goal terms. The *Policy for statewide salmon escapement goals* (5 AAC 39.223) recognizes the establishment of salmon escapement goals as a joint responsibility of the Alaska Department of Fish and Game (department) and the Alaska Board of Fisheries (board) and describes the concepts, criteria, and procedures for establishing and modifying salmon escapement goals. This policy describes the roles of the department and the board in developing, reviewing, and modifying escapement goals (see staff comments for proposal 157).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It is unclear if this proposal would remove all emergency order (EO) hour restrictions and prescribed closed "windows." Management actions for the commercial fishery would depend on sockeye salmon run strength and run timing. Allocations would become incidental to management directed at achieving the established escapement goals for sockeye and king salmon. Elimination of inriver goals would remove the management approach that varies harvest opportunity for all users based on abundance and helps to ensure that escapements are distributed evenly within the OEG range. It would also remove the harvest allocation afforded to the inriver user.

BACKGROUND: The *Kenai River Sockeye Salmon Management Plan* (5 AAC 21.360) was first adopted in 1980. The purpose of this management plan was to ensure an adequate escapement, as determined by the department, of sockeye salmon into the Kenai River system and to provide management guidelines to the department in an effort to preclude allocation conflicts between various users of this resource. In 1996, the name of the plan was changed to the *Kenai River Late-Run Sockeye Salmon Management Plan* and the plan stated that its purpose

is to achieve the biological escapement goal, as determined by the department, of late-run sockeye salmon into the Kenai River system and to provide management guidelines to the department. In 1999, the purpose statement was changed and it now stated that the department shall manage the Kenai River late-run sockeye salmon stocks primarily for commercial uses in order to provide commercial fishermen with an economic yield from the harvest of these salmon resources based on abundance. It also stated the department shall also manage commercial fisheries to minimize harvest of Northern District coho salmon and late-run Kenai River king and coho salmon stocks, in order to provide personal use, sport, and guided sport fishermen with a reasonable opportunity to harvest salmon resources. Since 1999, the purpose statement has changed slightly over the years as the board has deliberated extensively to balance the allocation needs and desires of the various user groups.

In 1999, the following management principles were also adopted: "The Kenai River late-run sockeye salmon commercial, sport, and personal use fisheries shall be managed to: meet an OEG range of 500,000–1,000,000 late-run sockeye salmon; achieve inriver goals as established by the Alaska Board of Fisheries (board) and measured at the Kenai River sonar counter located at river mile 19; and distribute the escapement of sockeye salmon evenly within the OEG range, in proportion to the size of the run." Finally, in 1999, the three-tiered abundance-based inriver goals for Kenai River sockeye salmon were adopted. The tiers were originally set at less than 2 million; 2 million to 4 million; and greater than 4 million fish.

In 2011, the abundance-based tiers were adjusted as the department transitioned from Bendix sonar to the new Dual-frequency Identification Sonar (DIDSON) technology. The transition was completed after three years of comparison counts between the two types of sonar. The tiers are now set at less than 2.3 million; 2.3 million to 4.6 million; and greater than 4.6 million fish.

The escapement and inriver goals for Kenai River sockeye salmon have undergone numerous changes through time. From 1978–1986, the escapement goal for Kenai River sockeye salmon was technically an inriver goal, since department escapement goal reports completed at the time referred to it as an escapement goal measured at the Kenai River sonar site. Since 1999, the inriver goal has been used to provide sockeye salmon to the inriver sport fishery and distribute escapements throughout the OEG range.

In 2011, the SEG for Kenai River sockeye salmon was changed from a range of 500,000–800,000 spawners to 700,000–1,200,000 spawners as part of the transition to DIDSON. In theory, the change in the SEG resulted in no change in the number of spawners in the system; it just reflected that the new sonar technology enumerated more fish passing the sonar than the Bendix system did. The range of 700,000–1,200,000 approximately represented the escapement that on average will produce 90–100% of maximum sustained yield (MSY). The change in the SEG range also led to a change in the OEG: it was modified from 500,000–1,000,000 fish to 700,000–1,400,000 million fish to reflect the change in the SEG range. The department's 2013 escapement goal review report did not recommend changes to the SEG for Kenai River late-run sockeye salmon.

In the last 15 years (1999–2013), the forecasted abundance of late-run Kenai River sockeye salmon has been in the same run tier as the actual inseason abundance in four years and has

differed in 11 years. For the 11 years that differed, the actual run increased tier(s) eight times and decreased tier(s) three times.

Since 1986 (28 years), the final sonar estimate for Kenai River late-run sockeye salmon was above the inriver goals in 17 years (61%) and within the inriver goals in 11 years (39%); it has never been below the inriver goals. From 1987–2012, the final spawning escapement (based on postseason analysis) was above the BEG/SEG goals in 15 years (58%), within the BEG/SEG goals in 8 years (31%), and below the BEG/SEG goals in 3 years (11%). Since converting to DIDSON-based goals in 2011, the final spawning escapement (based on postseason analysis) was within the OEG in 2011 and 2012.

Harvest levels of sockeye salmon in the Kenai River drainage by sport anglers have increased since 1981. Since 1986, the sockeye salmon bag limit has been liberalized 15 out of 28 years. The highest seven inriver sport harvests of sockeye salmon have occurred from 2002–present, when the daily bag limit started at three per day.

From 1980–2013, commercial harvest in the Upper Subdistrict set gillnet fishery (ESSN) averaged approximately 10,000 king, 1,500,000 sockeye, 36,000 coho, 122,000 pink, and 3,000 chum salmon. More recently (2004–2013), commercial harvest averaged approximately 10,000 king, 1,400,000 sockeye, 19,000 coho, 80,000 pink, and 1,000 chum salmon.

From 1980–2013, commercial harvest in the Central District drift gillnet fishery averaged approximately 1,100 king, 1,700,000 sockeye, 147,000 coho, 212,000 pink, and 393,000 chum salmon. More recently (2004–2013), commercial harvest averaged approximately 1,000 king, 1,900,000 sockeye, 113,000 coho, 130,000 pink, and 119,000 chum salmon.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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 161 – 5 AAC 21.360. Kenai River Late-Run Sockeye Salmon Management Plan.

PROPOSED BY: Kenai River Sportfishing Association.

WHAT WOULD THE PROPOSAL DO? This proposal would amend the management plan to increase the upper end of the three inriver goals (tiers) for Kenai River late-run sockeye salmon to 1,500,000 fish (Table 161-1).

WHAT ARE THE CURRENT REGULATIONS? The preamble to the *Kenai River Late-Run Sockeye Salmon Management Plan* (a) currently reads: "The department shall manage the Kenai River late-run sockeye salmon stocks primarily for commercial uses based on abundance. The department shall also manage the commercial fisheries to minimize the harvest of Northern District coho, late-run Kenai River king, and Kenai River coho salmon stocks in order to provide personal use, sport, and guided sport fishermen with a reasonable opportunity to harvest salmon resources."

The department manages commercial, sport, and personal use fisheries in the Kenai River to: 1) meet an optimal escapement goal (OEG) range of 700,000–1,400,000 late-run sockeye salmon, 2) achieve inriver goals as established by the Alaska Board of Fisheries (board) and measured at the Kenai River sonar counter located at river mile 19, and 3) to distribute escapement of sockeye salmon evenly within the OEG range, in proportion to the size of the run. The current sustainable escapement goal (SEG) is 700,000–1,200,000 sockeye salmon.

Based on preseason forecasts and inseason projections of the Kenai River late-run sockeye salmon return, the run will be managed as follows: at run strengths of less than 2,300,000 sockeye salmon, the department shall manage for an inriver goal range of 900,000–1,100,000 sockeye salmon past the sonar counter at river mile 19, and will fish regular weekly fishing periods and allow additional fishing of no more than 24 hours per week.

At run strengths of 2,300,000–4,600,000, the department shall manage for an inriver goal range of 1,000,000–1,100,000 sockeye salmon past the sonar counter and allow additional fishing of no more than 51 hours per week. The set gillnet fishery will be closed for one 36-hour period per week beginning between 7:00 p.m. Thursday and 7:00 a.m. Friday, and for a 24-hour closure on Tuesday from 12:00 a.m. until 11:59 p.m.

At run strengths greater than 4,600,000, the department shall manage for an inriver goal range of 1,100,000–1,350,000 sockeye salmon past the sonar counter and allow additional fishing of no more than 84 hours per week. The set gillnet fishery will be closed for one 36-hour period per week, beginning between 7:00 p.m. Thursday and 7:00 a.m. Friday.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would likely result in escapements more often being near the upper bound of the OEG, rather than being distributed evenly within the OEG. This proposal would likely decrease the frequency of emergency order (EO) openings in the commercial fishery intended to control the rate of passage of sockeye to the Kenai River and decrease commercial harvest of Kenai River sockeye salmon, while making more fish available for inriver sport and personal use fisheries, depending on abundance.

BACKGROUND: The *Kenai River Sockeye Salmon Management Plan* (5 AAC 21.360) was first adopted in 1980. The purpose of this management plan was to ensure an adequate escapement, as determined by the department, of sockeye salmon into the Kenai River system and to provide management guidelines to the department in an effort to preclude allocation conflicts between various users of this resource. In 1996, the name of the plan was changed to the *Kenai River Late-Run Sockeye Salmon Management Plan* and the plan stated its purpose is to achieve the biological escapement goal, as determined by the department, of late-run sockeye salmon into the Kenai River system and to provide management guidelines to the department. In 1999, the purpose statement was changed and it now stated that the department shall manage the Kenai River late-run sockeye salmon stocks primarily for commercial uses in order to provide commercial fishermen with an economic yield from the harvest of these salmon resources based on abundance. It also stated the department shall also manage commercial fisheries to minimize harvest of Northern District coho salmon and late-run Kenai River king and coho salmon stocks in order to provide personal use, sport, and guided sport fishermen with a reasonable opportunity to harvest salmon resources. Since 1999, the purpose statement has changed slightly over the years as the board has deliberated extensively to balance the allocation needs and desires of the various user groups.

In 1999, the following management principles were also adopted: "The Kenai River late-run sockeye salmon commercial, sport, and personal use fisheries shall be managed to: meet an OEG range of 500,000–1,000,000 late-run sockeye salmon; achieve inriver goals as established by the Alaska Board of Fisheries (board) and measured at the Kenai River sonar counter located at river mile 19; and distribute the escapement of sockeye salmon evenly within the OEG range, in proportion to the size of the run." Finally, in 1999, the three-tiered abundance-based inriver goals for Kenai River sockeye salmon were adopted. The tiers were originally set at less than 2 million; 2 million to 4 million; and greater than 4 million fish.

In 2011, the abundance-based tiers were adjusted as the department transitioned from Bendix sonar to the new Dual-frequency Identification Sonar (DIDSON) technology. The transition was completed after three years of comparison counts between the two types of sonar. The tiers are now set at less than 2.3 million; 2.3 million to 4.6 million; and greater than 4.6 million fish.

The escapement and inriver goals for Kenai River sockeye salmon have undergone numerous changes through time. From 1978–1986, the escapement goal for Kenai River sockeye salmon was technically an inriver goal, since department escapement goal reports completed at the time referred to it as an escapement goal measured at the Kenai River sonar site. Since 1999, the inriver goal has been used to provide sockeye salmon to the inriver sport fishery and distribute escapements throughout the OEG range.

In 2011, the SEG for Kenai River sockeye salmon was changed from a range of 500,000–800,000 spawners to 700,000–1,200,000 spawners as part of the transition to DIDSON. In theory, the change in the SEG resulted in no change in the number of spawners in the system; it just reflected that the new sonar technology enumerated more fish passing the sonar than the Bendix system did. The range of 700,000–1,200,000 approximately represented the escapement that on average will produce 90–100% of maximum sustained yield (MSY). The change in the SEG range also led to a change in the OEG: it was modified from 500,000–1,000,000 fish to

700,000–1,400,000 million fish to reflect the change in the SEG range. The department's 2013 escapement goal review report did not recommend changes to the SEG for Kenai River late-run sockeye salmon.

In the last 15 years (1999–2013), the forecasted abundance of late-run Kenai River sockeye salmon has been in the same run tier as the actual inseason abundance in four years and has differed in 11 years. For the 11 years that differed, the actual run increased tier(s) eight times and decreased tier(s) three times.

Since 1986 (28 years), the final sonar estimate for Kenai River late-run sockeye salmon was above the inriver goals in 17 years (61%) and within the inriver goals in 11 years (39%); it has never been below the inriver goals. From 1987–2012, the final spawning escapement (based on postseason analysis) was above the BEG/SEG goals in 15 years (58%), within the BEG/SEG goals in 8 years (31%), and below the BEG/SEG goals in 3 years (11%). Since converting to DIDSON-based goals in 2011, the final spawning escapement (based on postseason analysis) was within the OEG in 2011 and 2012.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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.

Table 161-1.–Current sustainable escapement goal (SEG), optimum escapement goals (OEG); and current and proposed inriver goals for late-run sockeye salmon in the Kenai River.

	Run size	Current		Proposed	
Goal	(millions)	Lower	Upper	Lower	Upper
SEG	All runs	700,000	1,200,000	Same	
OEG	All runs	700,000	1,400,000	Same	
Inriver [a]	< 2.3	900,000	1,100,000	900,000	1,500,000[b]
	2.3–4.6	1,000,000	1,200,000	1,000,000	1,500,000[b]
	> 4.6	1,100,000	1,350,000	1,100,000	1,500,000[b]

[a] *Inriver goals are measured at the sonar counter.*

[b] *Proposed change.*

PROPOSAL 162 – 5 AAC 21.360. Kenai River Late-Run Sockeye Salmon Management Plan.

PROPOSED BY: John McCombs.

WHAT WOULD THE PROPOSAL DO? This proposal would amend the plan to direct the Alaska Department of Fish and Game (department) to manage Kenai River late-run sockeye salmon for an escapement goal of 550,000–750,000 fish.

WHAT ARE THE CURRENT REGULATIONS? The preamble to the *Kenai River Late-Run Sockeye Salmon Management Plan* (a) currently reads: "The department shall manage the Kenai River late-run sockeye salmon stocks primarily for commercial uses based on abundance. The department shall also manage the commercial fisheries to minimize the harvest of Northern District coho, late-run Kenai River king, and Kenai River coho salmon stocks in order to provide personal use, sport, and guided sport fishermen with a reasonable opportunity to harvest salmon resources."

The department manages commercial, sport, and personal use fisheries in the Kenai River to: 1) meet an optimal escapement goal (OEG) range of 700,000–1,400,000 late-run sockeye salmon, 2) achieve inriver goals as established by the Alaska Board of Fisheries (board) and measured at the Kenai River sonar counter located at river mile 19, and 3) to distribute escapement of sockeye salmon evenly within the OEG range, in proportion to the size of the run. The current sustainable escapement goal (SEG) is 700,000–1,200,000 sockeye salmon.

The *Policy for the management of sustainable salmon fisheries* (5 AAC 39.222) contains principles and criteria for the management of salmon fisheries by the state, and defines escapement goal terms. The *Policy for statewide salmon escapement goals* (5 AAC 39.223) recognizes the establishment of salmon escapement goals as a joint responsibility of the Alaska Department of Fish and Game (department) and the Alaska Board of Fisheries (board) and describes the concepts, criteria, and procedures for establishing and modifying salmon escapement goals. This policy describes the roles of the department and the board in developing, reviewing, and modifying escapement goals (see staff comments for proposal 157).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Reducing the escapement goal would increase the harvest of sockeye salmon in the commercial, sport, and personal use fisheries by an unknown amount, depending on abundance. Establishing an escapement goal lower than the current SEG would likely decrease productivity and future yields. This proposal would establish an escapement goal. However, it does not identify the type of escapement goal (BEG, SEG, OEG) that would be established.

BACKGROUND: The *Kenai River Sockeye Salmon Management Plan* (5 AAC 21.360) was first adopted in 1980. The purpose of this management plan was to ensure an adequate escapement, as determined by the department, of sockeye salmon into the Kenai River system and to provide management guidelines to the department in an effort to preclude allocation conflicts between various users of this resource. In 1996, the name of the plan was changed to the *Kenai River Late-Run Sockeye Salmon Management Plan* and the plan stated that its purpose is to achieve the BEG, as determined by the department, of late-run sockeye salmon into the Kenai River system and to provide management guidelines to the department. In 1999, the

purpose statement was changed and it now stated that the department shall manage the Kenai River late-run sockeye salmon stocks primarily for commercial uses in order to provide commercial fishermen with an economic yield from the harvest of these salmon resources, based on abundance. It also stated the department shall also manage commercial fisheries to minimize harvest of Northern District coho salmon and late-run Kenai River king and coho salmon stocks in order to provide personal use, sport, and guided sport fishermen with a reasonable opportunity to harvest salmon resources. Since 1999, the purpose statement has changed slightly over the years as the board has deliberated extensively to balance the allocation needs and desires of the various user groups.

In 1999, the following management principles were also adopted: "The Kenai River late-run sockeye salmon commercial, sport, and personal use fisheries shall be managed to: meet an OEG range of 500,000–1,000,000 late-run sockeye salmon; achieve inriver goals as established by the Alaska Board of Fisheries (board) and measured at the Kenai River sonar counter located at river mile 19; and distribute the escapement of sockeye salmon evenly within the OEG range, in proportion to the size of the run." Finally, in 1999, the three-tiered abundance-based inriver goals for Kenai River sockeye salmon were adopted. The tiers were originally set at less than 2 million; 2 million to 4 million; and greater than 4 million fish.

In 2011, the abundance-based tiers were adjusted as the department transitioned from Bendix sonar to the new Dual-frequency Identification Sonar (DIDSON) technology. The transition was completed after three years of comparison counts between the two types of sonar. The tiers are now set at less than 2.3 million; 2.3 million to 4.6 million; and greater than 4.6 million fish.

The escapement and inriver goals for Kenai River sockeye salmon have undergone numerous changes through time. From 1978–1986, the escapement goal for Kenai River sockeye salmon was technically an inriver goal, since department escapement goal reports completed at the time referred to it as an escapement goal measured at the Kenai River sonar site. Since 1999, the inriver goal has been used to provide sockeye salmon to the inriver sport fishery and distribute escapements throughout the OEG range.

In 2011, the SEG for Kenai River sockeye salmon was changed from a range of 500,000–800,000 spawners to 700,000–1,200,000 spawners as part of the transition to DIDSON. In theory, the change in the SEG resulted in no change in the number of spawners in the system; it just reflected that the new sonar technology enumerated more fish passing the sonar than the Bendix system did. The range of 700,000–1,200,000 approximately represented the escapement that on average will produce 90–100% of maximum sustained yield (MSY). The change in the SEG range also led to a change in the OEG: it was modified from 500,000–1,000,000 fish to 700,000–1,400,000 million fish to reflect the change in the SEG range. The department's 2013 escapement goal review report did not recommend changes to the SEG for Kenai River late-run sockeye salmon.

In the last 15 years (1999–2013), the forecasted abundance of late-run Kenai River sockeye salmon has been in the same run tier as the actual inseason abundance in four years and has differed in 11 years. For the 11 years that differed, the actual run increased tier(s) eight times and decreased tier(s) three times.

Since 1986 (28 years), the final sonar estimate for Kenai River late-run sockeye salmon was above the inriver goals in 17 years (61%) and within the inriver goals in 11 years (39%); it has never been below the inriver goals. From 1987–2012, the final spawning escapement (based on postseason analysis) was above the SEG/BEG goals in 15 years (58%), within the SEG/BEG goals in 8 years (31%), and below the SEG/BEG goals in 3 years (11%). Since converting to DIDSON-based goals in 2011, the final spawning escapement (based on postseason analysis) was within the OEG in 2011 and 2012.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. The department reviewed the SEG for Kenai River late-run sockeye salmon as part of its 2013 escapement goal review and recommended no change.

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 163 – 5 AAC 21.360. Kenai River Late-Run Sockeye Salmon Management Plan.

PROPOSED BY: Mark Ducker.

WHAT WOULD THE PROPOSAL DO? This proposal seeks to remove the current Kenai River sockeye salmon optimal escapement goal (OEG) of 700,000–1,400,000 fish and replace it with a sustainable escapement goal (SEG) of 700,000–1,200,000 fish. It would also replace the current three-tiered system with a single inriver goal of 800,000–1,200,000 fish. This proposal would also remove all emergency order (EO) hour limitations, closed fishing periods ("windows"), the definition of "week", and the commissioner's ability to depart from the provisions set forth in this plan. The sockeye salmon bag and possession limit in the sport fishery would not be increased until the department determined that the upper end of the escapement goal range would be exceeded. If the commercial fishery was closed or would be closed for more than one regular period to achieve the lower end of the inriver goal, the sport and personal use fisheries would be closed until the lower end of the goal was projected to be achieved.

WHAT ARE THE CURRENT REGULATIONS? The preamble to the *Kenai River Late-Run Sockeye Salmon Management Plan* (a) currently reads: "The department shall manage the Kenai River late-run sockeye salmon stocks primarily for commercial uses based on abundance. The department shall also manage the commercial fisheries to minimize the harvest of Northern District coho, late-run Kenai River king, and Kenai River coho salmon stocks in order to provide personal use, sport, and guided sport fishermen with a reasonable opportunity to harvest salmon resources."

The department manages commercial, sport, and personal use fisheries in the Kenai River to: 1) meet an OEG range of 700,000–1,400,000 late-run sockeye salmon, 2) achieve inriver goals as established by the Alaska Board of Fisheries (board) and measured at the Kenai River sonar counter located at river mile 19, and 3) to distribute escapement of sockeye salmon evenly within the OEG range, in proportion to the size of the run. The current SEG is 700,000–1,200,000 sockeye salmon.

Based on preseason forecasts and inseason projections of the Kenai River late-run sockeye salmon return, the run will be managed as follows: at run strengths of less than 2,300,000 sockeye salmon, the department shall manage for an inriver goal range of 900,000–1,100,000 sockeye salmon past the sonar counter at river mile 19, will fish regular weekly fishing periods, and will allow additional fishing of no more than 24-hours per week.

At run strengths of 2,300,000–4,600,000, the department shall manage for an inriver goal range of 1,000,000–1,100,000 sockeye salmon past the sonar counter and allow additional fishing of no more than 51 hours per week. The set gillnet fishery will be closed for one 36-hour period per week beginning between 7:00 p.m. Thursday and 7:00 a.m. Friday and for an additional 24-hour period during the same week.

At run strengths greater than 4,600,000, the department shall manage for an inriver goal range of 1,100,000–1,350,000 sockeye salmon past the sonar counter and allow additional fishing of no

more than 84 hours per week. The set gillnet fishery will be closed for one 36-hour period per week, beginning between 7:00 p.m. Thursday and 7:00 a.m. Friday.

Subject to the requirement of achieving the lower end of the OEG, the department shall manage the sport fishery on the Kenai River, except that portion of the Kenai River from its confluence with the Russian River to an ADF&G regulatory marker located 1,800 yards downstream, as follows: fishing will occur seven days per week, 24 hours per day; and the bag and possession limit for the sport fishery is three sockeye salmon unless the department determines that the abundance of late-run sockeye exceeds 2,300,000 salmon, at which time the commissioner may, by emergency order (EO), increase the bag and possession limit as the commissioner determines to be appropriate; if the projected inriver run of sockeye salmon above the Kenai River sonar counter located at river mile 19 is less than 900,000 fish and the inriver sport fishery harvest is projected to result in an escapement below the lower end of the OEG, the commissioner may, by EO, decrease the bag and possession limit, as the commissioner determines to be appropriate, for sockeye salmon in the sport fishery above the Kenai River sonar counter located at river mile 19.

Subject to the requirement of achieving the lower end of the OEG, the department shall provide for a personal use dip net fishery in the lower Kenai River. In the Kenai River, salmon may be taken by dip net from July 10 through July 31, seven days per week, from 6:00 a.m. to 11:00 p.m. The commissioner may extend, by EO, the personal use fishery to 24-hours per day if the department determines that the abundance of the Kenai River late-run sockeye salmon is greater than 2,300,000 fish. The annual limit for each personal use salmon fishing permit is 25 salmon for the head of a household and 10 salmon for each dependent of the permit holder.

Notwithstanding any other provision of this chapter, it is the intent of the board that, while in most circumstances, the department will adhere to the management plans in this chapter; no provision within a specific management plan is intended to limit the commissioner's use of EO authority under AS 16.05.060 to achieve established escapement goals for the management plans as the primary management objective.

The *Policy for the management of sustainable salmon fisheries* (5 AAC 39.222) contains principles and criteria for the management of salmon fisheries by the state, and defines escapement goal terms. The *Policy for statewide salmon escapement goals* (5 AAC 39.223) recognizes the establishment of salmon escapement goals as a joint responsibility of the Alaska Department of Fish and Game (department) and the Alaska Board of Fisheries (board) and describes the concepts, criteria, and procedures for establishing and modifying salmon escapement goals. This policy describes the roles of the department and the board in developing, reviewing, and modifying escapement goals (see staff comments for proposal 157).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It is very difficult to determine the effects of this proposal because the proposal makes so many changes to the *Kenai River Late-Run Sockeye Salmon Management Plan*. This proposal would increase the commercial harvest of sockeye, king, and coho salmon by an unknown amount, depending on abundance. It would also decrease the harvest of sockeye salmon in the sport and personal use fisheries and reduce the frequency of inseason management actions that liberalized those fisheries. Commercial fishery management actions taken inseason would be dependent on run strength and run timing of the sockeye salmon runs. Allocations would become incidental to

management directed at achieving the various goals. Deleting windows and regulatory limitations on EO authority may aid in harvesting larger pulses of sockeye salmon. Elimination of inriver goals would remove the management approach that varies harvest opportunity for all users based on abundance and helps to ensure that escapements are distributed evenly within the OEG range.

BACKGROUND: The *Kenai River Sockeye Salmon Management Plan* (5 AAC 21.360) was first adopted in 1980. The purpose of this management plan was to ensure an adequate escapement, as determined by the department, of sockeye salmon into the Kenai River system and to provide management guidelines to the department in an effort to preclude allocation conflicts between various users of this resource. In 1996, the name of the plan was changed to the *Kenai River Late-Run Sockeye Salmon Management Plan* and the plan stated that its purpose is to achieve the BEG, as determined by the department, of late-run sockeye salmon into the Kenai River system and to provide management guidelines to the department. In 1999, the purpose statement was changed and it now stated that the department shall manage the Kenai River late-run sockeye salmon stocks primarily for commercial uses in order to provide commercial fishermen with an economic yield from the harvest of these salmon resources based on abundance. It also stated the department shall also manage commercial fisheries to minimize harvest of Northern District coho salmon and late-run Kenai River king and coho salmon stocks in order to provide personal use, sport, and guided sport fishermen with a reasonable opportunity to harvest salmon resources. Since 1999, the purpose statement has changed slightly over the years as the board has deliberated extensively to balance the allocation needs and desires of the various user groups.

In 1999, the following management principles were also adopted: "The Kenai River late-run sockeye salmon commercial, sport, and personal use fisheries shall be managed to: meet an OEG range of 500,000–1,000,000 late-run sockeye salmon; achieve inriver goals as established by the Alaska Board of Fisheries (board) and measured at the Kenai River sonar counter located at river mile 19; and distribute the escapement of sockeye salmon evenly within the OEG range, in proportion to the size of the run." Finally, in 1999, the three-tiered abundance-based inriver goals for Kenai River sockeye salmon were adopted. The tiers were originally set at less than 2 million; 2 million to 4 million; and greater than 4 million fish.

In 2011, the abundance-based tiers were adjusted as the department transitioned from Bendix sonar to the new Dual-frequency Identification Sonar (DIDSON) technology. The transition was completed after three years of comparison counts between the two types of sonar. The tiers are now set at less than 2.3 million; 2.3 million to 4.6 million; and greater than 4.6 million fish.

The escapement and inriver goals for Kenai River sockeye salmon have undergone numerous changes through time. From 1978–1986, the escapement goal for Kenai River sockeye salmon was technically an inriver goal, since department escapement goal reports completed at the time referred to it as an escapement goal measured at the Kenai River sonar site. Since 1999, the inriver goal has been used to provide sockeye salmon to the inriver sport fishery and distribute escapements throughout the OEG range.

In 2011, the SEG for Kenai River sockeye salmon was changed from a range of 500,000–800,000 spawners to 700,000–1,200,000 spawners as part of the transition to DIDSON. In theory, the change in the SEG resulted in no change in the number of spawners in the system; it just reflected that the new sonar technology enumerated more fish passing the sonar than the Bendix system did. The range of 700,000–1,200,000 approximately represented the escapement that on average will produce 90–100% of maximum sustained yield (MSY). The change in the SEG range also led to a change in the OEG: it was modified from 500,000–1,000,000 fish to 700,000–1,400,000 million fish to reflect the change in the SEG range. The department's 2013 escapement goal review report did not recommend changes to the SEG for Kenai River late-run sockeye salmon.

In the last 15 years (1999–2013), the forecasted abundance of late-run Kenai River sockeye salmon has been in the same run tier as the actual inseason abundance in four years and has differed in 11 years. For the 11 years that differed, the actual run increased tier(s) eight times and decreased tier(s) three times.

Since 1986 (28 years), the final sonar estimate for Kenai River late-run sockeye salmon was above the inriver goals in 17 years (61%) and within the inriver goals in 11 years (39%); it has never been below the inriver goals. From 1987–2012, the final spawning escapement (based on postseason analysis) was above the SEG/BEG goals in 15 years (58%), within the BEG/SEG goals in 8 years (31%), and below the BEG/SEG goals in 3 years (11%). Since converting to DIDSON-based goals in 2011, the final spawning escapement (based on postseason analysis) was within the OEG in 2011 and 2012.

Harvest levels of sockeye salmon in the Kenai River drainage by sport anglers have increased since 1981. Since 1986, the sockeye salmon bag limit has been liberalized 15 out of 28 years. The highest seven inriver sport harvests of sockeye salmon have occurred from 2002–present, when the daily bag limit started at three per day.

From 1980–2013, commercial harvest in the Upper Subdistrict set gillnet fishery (ESSN) averaged approximately 10,000 king, 1,500,000 sockeye, 36,000 coho, 122,000 pink, and 3,000 chum salmon. More recently (2004–2013), commercial harvest averaged approximately 10,000 king, 1,400,000 sockeye, 19,000 coho, 80,000 pink, and 1,000 chum salmon.

From 1980–2013, commercial harvest in the Central District drift gillnet fishery averaged approximately 1,100 king, 1,700,000 sockeye, 147,000 coho, 212,000 pink, and 393,000 chum salmon. More recently (2004–2013), commercial harvest averaged approximately 1,000 king, 1,900,000 sockeye, 113,000 coho, 130,000 pink, and 119,000 chum salmon.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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 164 – 5 AAC 21.360. Kenai River Late-Run Sockeye Salmon Management Plan.

PROPOSED BY: John McCombs.

WHAT WOULD THE PROPOSAL DO? This proposal would re-establish a commercial priority for sockeye salmon in Upper Cook Inlet.

WHAT ARE THE CURRENT REGULATIONS? The preamble to the *Kenai River Late-Run Sockeye Salmon Management Plan* (a) currently reads: "The department shall manage the Kenai River late-run sockeye salmon stocks primarily for commercial uses based on abundance. The department shall also manage the commercial fisheries to minimize the harvest of Northern District coho, late-run Kenai River king, and Kenai River coho salmon stocks in order to provide personal use, sport, and guided sport fishermen with a reasonable opportunity to harvest salmon resources."

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It is unclear what this proposal is seeking to change. The preamble to the plan currently states that Kenai River late-run sockeye salmon are to be managed primarily for commercial uses based on abundance. Effects are unknown without proposed regulatory changes to how fisheries would be managed.

BACKGROUND: The *Kenai River Sockeye Salmon Management Plan* (5 AAC 21.360) was first adopted in 1980. The purpose of this management plan was to ensure an adequate escapement, as determined by the department, of sockeye salmon into the Kenai River system and to provide management guidelines to the department in an effort to preclude allocation conflicts between various users of this resource. In 1996, the name of the plan was changed to the *Kenai River Late-Run Sockeye Salmon Management Plan* and the plan stated that its purpose is to achieve the biological escapement goal, as determined by the department, of late-run sockeye salmon into the Kenai River system and to provide management guidelines to the department. In 1999, there were substantial changes made to the plan. It now stated that the department shall manage the Kenai River late-run sockeye salmon stocks primarily for commercial uses in order to provide commercial fishermen with an economic yield from the harvest of these salmon resources, based on abundance. It also stated the department shall also manage commercial fisheries to minimize harvest of Northern District coho salmon and late-run Kenai River king and coho salmon stocks in order to provide personal use, sport, and guided sport fishermen with a reasonable opportunity to harvest salmon resources.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. The proposal does not ask for a regulatory change. Reference to a commercial priority is already contained within the 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 this fishery.

PROPOSAL 165 – 5 AAC 21.360. Kenai River Late-Run Sockeye Salmon Management Plan.

PROPOSED BY: Kenai Peninsula Fishermen's Association.

WHAT WOULD THE PROPOSAL DO? This proposal would amend the management plan to allow the 24-hour "fixed" closure period (or "window") on Tuesday to be scheduled any time during the week, change the 36-hour closure period ("Friday window") to 24 hours, and allow the Friday window to be scheduled between 7:00 p.m. Thursday and 11:59 p.m. Sunday.

WHAT ARE THE CURRENT REGULATIONS? The preamble to the *Kenai River Late-Run Sockeye Salmon Management Plan* (a) currently reads: "The department shall manage the Kenai River late-run sockeye salmon stocks primarily for commercial uses based on abundance. The department shall also manage the commercial fisheries to minimize the harvest of Northern District coho, late-run Kenai River king, and Kenai River coho salmon stocks in order to provide personal use, sport, and guided sport fishermen with a reasonable opportunity to harvest salmon resources."

The department manages commercial, sport, and personal use fisheries to meet an optimal escapement goal (OEG) range of 700,000–1,400,000 late-run sockeye salmon, achieve inriver goals as established by the Alaska Board of Fisheries (board) and measured at the Kenai River sonar counter located at river mile 19, and to distribute escapement of sockeye salmon evenly within the OEG range, in proportion to the size of the run. The current sustainable escapement goal (SEG) is 700,000–1,200,000 sockeye salmon.

Based on preseason forecasts and inseason projections of the Kenai River late-run sockeye salmon return, the run will be managed as follows: at run strengths of less than 2,300,000 sockeye salmon, the department shall manage for an inriver goal range of 900,000–1,100,000 sockeye salmon past the sonar counter at river mile 19 and will fish regular weekly fishing periods, and allow additional fishing of no more than 24-hours per week.

At run strengths of 2,300,000–4,600,000, the department shall manage for an inriver goal range of 1,000,000–1,100,000 sockeye salmon past the sonar counter and allow additional fishing of no more than 51 hours per week. The set gillnet fishery will be closed for one 36-hour period per week beginning between 7:00 p.m. Thursday and 7:00 a.m. Friday and for a 24-hour closure on Tuesday from 12:00 a.m. until 11:59 p.m.

At run strengths greater than 4,600,000, the department shall manage for an inriver goal range of 1,100,000–1,350,000 sockeye salmon past the sonar counter and allow additional fishing of no more than 84 hours per week. The set gillnet fishery will be closed for one 36-hour period per week, beginning between 7:00 p.m. Thursday and 7:00 a.m. Friday.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal could reduce the number of hours that the Upper Subdistrict set gillnet fishery is required to remain closed each management week by 12 hours. Removing the prescribed days during which a window must be administered would increase the ability to manage sockeye salmon based on abundance. Decreasing the number of mandatory closed hours and increasing flexibility with the Tuesday and weekend windows would likely increase the commercial harvest

of sockeye salmon by an unknown amount, depending on abundance. However, it is unclear how much it would affect commercial harvest of king and coho salmon and harvest of salmon in the Kenai River sport and personal use fisheries because the department would continue to manage the commercial fishery to achieve established inriver and escapement goals for both sockeye and king salmon.

BACKGROUND: Mandatory no-fishing periods ("windows") were first adopted in the *Kenai River Late-Run Sockeye Salmon Management Plan* in 1999 (Table 165-1). From 1999–2004, only one window per week was in the plan and only for runs greater than 2 million sockeye salmon. Beginning in 2005, a second weekly window was adopted, but the department was provided flexibility when to implement it. In 2011, the board fixed the 24-hour window in time to Tuesdays.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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.

Table 165-1.–History of tiers, windows, and limitations on use of emergency order (EO) extra fishing hours in the *Kenai River Late-Run Sockeye Salmon Management Plan*.

Year	Tier	Window	EO Limitation
1999	< 2 million	None	none
	2 to 4 million	after July 20, 24 hours beginning at 12 noon Friday in Kenai/E. Foreland sections	none
	> 4 million	None; extra time for Kenai sockeye only in Kenai/E. Foreland sections	none
2002	< 2 million	None	24 hours/week in July
	2 to 4 million	In July, Upper Subdistrict Set Gillnet Fishery closed for one 48-hour period/week	36 hours/week in July
	> 4 million	In July, Upper Subdistrict Set Gillnet Fishery closed for one 36-hour period/week	60 hours/week in July
2005	< 2 million	None	24 hours/week
	2 to 4 million	One 36-hour period beginning between 7pm Thursday and 7am Friday One additional 24-hour period/week	51 hours/week
	> 4 million	One 36-hour period beginning between 7pm Thursday and 7am Friday	84 hours/week
2008	< 2 million	None	24 hours/week
	2 to 4 million	One 36-hour period beginning between 7pm Thursday and 7am Friday One additional 24-hour period/week	51 hours/week
	> 4 million	One 36-hour period beginning between 7pm Thursday and 7am Friday	84 hours/week
2011	< 2.3 million	None	24 hours/week
	2.3 to 4.6 million	One 36-hour period beginning between 7pm Thursday and 7am Friday One 24-hour period/week on Tuesday	51 hours/week
	> 4.6 million	One 36-hour period beginning between 7pm Thursday and 7am Friday	84 hours/week

PROPOSAL 166 – 5 AAC 21.360. Kenai River Late-Run Sockeye Salmon Management Plan.

PROPOSED BY: Greg Johnson and Gary L. Hollier.

WHAT WOULD THE PROPOSAL DO? This proposal would amend the management plan to allow the 24-hour no-fishing period (or "window") required in the Upper Subdistrict set gillnet fishery to be scheduled sometime between the regular Monday and Thursday fishing periods.

WHAT ARE THE CURRENT REGULATIONS? The preamble to the *Kenai River Late-Run Sockeye Salmon Management Plan* (a) currently reads: "The department shall manage the Kenai River late-run sockeye salmon stocks primarily for commercial uses based on abundance. The department shall also manage the commercial fisheries to minimize the harvest of Northern District coho, late-run Kenai River king, and Kenai River coho salmon stocks in order to provide personal use, sport, and guided sport fishermen with a reasonable opportunity to harvest salmon resources."

The department manages commercial, sport, and personal use fisheries in the Kenai River to: 1) meet an optimal escapement goal (OEG) range of 700,000–1,400,000 late-run sockeye salmon, 2) achieve inriver goals as established by the Alaska Board of Fisheries (board) and measured at the Kenai River sonar counter located at river mile 19, and 3) to distribute escapement of sockeye salmon evenly within the OEG range, in proportion to the size of the run. The current sustainable escapement goal (SEG) is 700,000–1,200,000 sockeye salmon.

Based on preseason forecasts and inseason projections of the Kenai River late-run sockeye salmon return, the run will be managed as follows: at run strengths of less than 2,300,000 sockeye salmon, the department shall manage for an inriver goal range of 900,000–1,100,000 sockeye salmon past the sonar counter at river mile 19 and will fish regular weekly fishing periods, and allow additional fishing of no more than 24-hours per week.

At run strengths of 2,300,000–4,600,000, the department shall manage for an inriver goal range of 1,000,000–1,100,000 sockeye salmon past the sonar counter and allow additional fishing of no more than 51 hours per week. The set gillnet fishery will be closed for one 36-hour period per week beginning between 7:00 p.m. Thursday and 7:00 a.m. Friday and for a 24-hour closure on Tuesday from 12:00 a.m. until 11:59 p.m.

At run strengths greater than 4,600,000, the department shall manage for an inriver goal range of 1,100,000–1,350,000 sockeye salmon past the sonar counter and allow additional fishing of no more than 84 hours per week. The set gillnet fishery will be closed for one 36-hour period per week, beginning between 7:00 p.m. Thursday and 7:00 a.m. Friday.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would change implementation of the Tuesday 24-hour "fixed" no-fishing window to either a Tuesday or Wednesday 24-hour fixed no-fishing window. It would have no effect on the current 36-hour "Friday window" prescribed for Kenai River sockeye salmon runs greater than 2.3 million fish. The effects of this proposal would be to increase the department's ability to manage based on the abundance of sockeye salmon and it would likely increase the commercial harvest of sockeye salmon by an unknown amount. However, it is unclear how much it would

affect commercial harvest of king and coho salmon, and harvest of salmon in the Kenai River sport and personal use fisheries because the department would continue to manage the commercial fishery to achieve established inriver and escapement goals for both sockeye and king salmon.

BACKGROUND: Mandatory no-fishing periods (windows) were first adopted in the *Kenai River Late-Run Sockeye Salmon Management Plan* in 1999. From 1999–2004, only one window per week was in the plan and only for runs greater than 2 million sockeye salmon. Beginning in 2005, a second weekly window was adopted, but the department had flexibility when in the week to implement it. In 2011, the board fixed the 24-hour window in time to Tuesdays.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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 167 – 5 AAC 21.360. Kenai River Late-Run Sockeye Salmon Management Plan.

PROPOSED BY: South K-Beach Independent Fishermen's Association (SOKI).

WHAT WOULD THE PROPOSAL DO? This proposal would remove the 24- and 36-hour closure periods ("windows") in the Upper Subdistrict set gillnet fishery after July 31.

WHAT ARE THE CURRENT REGULATIONS? The preamble to the *Kenai River Late-Run Sockeye Salmon Management Plan* (a) currently reads: "The department shall manage the Kenai River late-run sockeye salmon stocks primarily for commercial uses based on abundance. The department shall also manage the commercial fisheries to minimize the harvest of Northern District coho, late-run Kenai River king, and Kenai River coho salmon stocks in order to provide personal use, sport, and guided sport fishermen with a reasonable opportunity to harvest salmon resources."

The department manages commercial, sport, and personal use fisheries to meet an optimal escapement goal (OEG) range of 700,000–1,400,000 late-run sockeye salmon, achieve inriver goals as established by the Alaska Board of Fisheries (board) and measured at the Kenai River sonar counter located at river mile 19, and to distribute escapement of sockeye salmon evenly within the OEG range, in proportion to the size of the run. The current sustainable escapement goal (SEG) is 700,000–1,200,000 sockeye salmon.

Based on preseason forecasts and inseason projections of the Kenai River late-run sockeye salmon return, the run will be managed as follows: at run strengths of less than 2,300,000 sockeye salmon, the department shall manage for an inriver goal range of 900,000–1,100,000 sockeye salmon past the sonar counter at river mile 19 and will fish regular weekly fishing periods, and allow additional fishing of no more than 24-hours per week.

At run strengths of 2,300,000–4,600,000, the department shall manage for an inriver goal range of 1,000,000–1,100,000 sockeye salmon past the sonar counter and allow additional fishing of no more than 51 hours per week. The set gillnet fishery will be closed for one 36-hour period per week beginning between 7:00 p.m. Thursday and 7:00 a.m. Friday and for a 24-hour closure on Tuesday from 12:00 a.m. until 11:59 p.m.

At run strengths greater than 4,600,000, the department shall manage for an inriver goal range of 1,100,000–1,350,000 sockeye salmon past the sonar counter and allow additional fishing of no more than 84 hours per week. The set gillnet fishery will be closed for one 36-hour period per week, beginning between 7:00 p.m. Thursday and 7:00 a.m. Friday.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would remove the requirement of weekly no-fishing windows from the management plan after July 31. This would increase the department's ability to manage based on the abundance of sockeye salmon and likely increase the commercial harvest of sockeye salmon by an unknown amount. However, it is unclear how much it would affect commercial harvest of king and coho salmon, and harvest of salmon in the Kenai River sport and personal use fisheries because the department would continue to manage the commercial fishery to achieve established inriver and escapement goals for both sockeye and king salmon.

BACKGROUND: Mandatory no-fishing periods (windows) were first adopted in the *Kenai River Late-Run Sockeye Salmon Management Plan* in 1999. From 1999–2004, only one window per week was in the plan and only for runs greater than 2 million sockeye salmon. Beginning in 2005, a second weekly window was adopted, but the department had flexibility when in the week to implement it. In 2011, the board fixed the 24-hour window in time to Tuesdays.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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 168 – 5 AAC 21.360. Kenai River Late-Run Sockeye Salmon Management Plan.

PROPOSED BY: Kenai River Sportfishing Association.

WHAT WOULD THE PROPOSAL DO? This proposal would require the department to liberalize the Kenai River sockeye salmon bag and possession limit from three sockeye salmon to six or twelve sockeye salmon when the run is forecasted or determined to exceed 2.3 million fish.

WHAT ARE THE CURRENT REGULATIONS? Subject to the requirement of achieving the lower end of the optimal escapement goal (OEG), the department shall provide for an inriver sockeye salmon sport fishery in the Kenai River seven days per week, 24 hours per day, with a bag and possession limit of three sockeye salmon. The commissioner may increase, by emergency order, the sockeye salmon bag and possession limit, as the commissioner determines to be appropriate, if the department determines that the abundance of the Kenai River late-run sockeye salmon is greater than 2.3 million and the OEG of 700,000–1,400,000 will be achieved.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The sockeye salmon bag and possession limit would increase earlier (e.g., by January 1 downstream of Skilak Lake and by June 11 upstream of Skilak Lake), if based upon the forecast, because the forecast is completed over the winter. Sockeye salmon harvest and effort by inriver sport anglers would likely increase by an undetermined amount in years that sockeye salmon are forecasted to exceed 2.3 million fish. This proposal could make management of early-run sockeye salmon bound mainly for the Upper Kenai-Russian River area, as well as late-run sockeye salmon destined for the same area, more difficult. This may increase the likelihood of restrictive actions in the sport fishery upstream of Skilak Lake to achieve the Russian River sockeye salmon escapement goals (Table 168-1). This proposal may result in a decrease in the harvest of sockeye salmon in other fisheries, primarily the commercial fishery, depending on abundance.

BACKGROUND: The *Kenai River Late-run Sockeye Salmon Management Plan* provides direction to the department for liberalizing and restricting the inriver sockeye salmon sport fishery based upon inseason evaluation of sockeye salmon abundance. Since 1986, the sockeye salmon bag limit has been liberalized 15 out of 28 years (Table 168-2). From 1999 to 2010, when the OEG was raised to 500,000–1,000,000 sockeye salmon (as measured in Bendix units), the OEG had been exceeded in three years (2004–2006).

The current OEG of 700,000–1,400,000 sockeye salmon has been achieved since converting to DIDSON-based goals in 2011. Harvest levels of sockeye salmon in the Kenai River drainage by sport anglers have increased since 1981 (Table 168-3). The highest seven inriver sport harvests of sockeye salmon have occurred from 2002–present when the daily bag limit started at three fish per day.

In the last 15 years, the forecasted abundance of late-run Kenai River sockeye salmon has been in the same run tier as the actual inseason abundance in four years and has differed 11 years. For the 11 years that differed, the actual run increased tier(s) eight times and decreased tier(s) three

times, indicating a tendency to under-forecast run strength relative to the management tiers (Table 168-2).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. However, the department has concerns that, if adopted, the proposal may result in reduced management precision in achieving the OEG and unnecessary inseason management actions in the sport fishery. The present management system provides stability to the entire Kenai River drainage sockeye salmon sport fishery because it allows the department to assess inseason run strength prior to liberalizing or restricting inriver fisheries.

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 168-1.–Angler effort, harvest, and escapement, Russian River early-run (ER) and late-run (LR) sockeye salmon, 1990–2013.

	Effort[a]	Sport Harvest[b]		Subsistence Harvest[c]		Spawning Escapement[d]		Local Run[e]	
Year		ER	LR	ER	LR	ER	LR	ER	LR
1990	84,710	30,215	56,180	[c]	[c]	25,575	84,575	56,931	140,755
1991	85,741	65,390	31,450	[c]	[c]	30,316	79,982	97,779	111,432
1992	60,499	30,512	26,101	[c]	[c]	36,330	63,091	66,842	89,192
1993	58,093	37,261	26,772	[c]	[c]	38,735	100,381	75,996	127,153
1994	64,134	48,923	26,375	[c]	[c]	39,678	125,821	88,601	152,196
1995	48,185	23,572	11,986	[c]	[c]	27,883	62,502	51,455	74,488
1996	69,032	75,203	20,142	[c]	[c]	52,255	35,263	127,458	55,405
1997	60,923	36,788	12,910	[c]	[c]	33,742	67,474	70,530	80,384
1998	56,121	42,711	25,110	[c]	[c]	33,852	113,353	76,563	138,463
1999	64,536	34,283	32,335	[c]	[c]	33,916	142,164	68,199	174,499
2000	69,864	40,732	30,229	[c]	[c]	31,300	57,813	72,032	88,042
2001	55,972	35,400	18,550	[c]	[c]	77,576	75,478	112,976	94,028
2002	68,263	52,139	31,999	[c]	[c]	85,943	62,115	138,082	94,114
2003	50,448	22,986	28,085	[c]	[c]	23,650	157,469	46,636	185,554
2004	60,784	32,727	22,417	[c]	[c]	56,582	110,244	89,309	132,661
2005	55,801	37,139	18,503	[c]	[c]	52,903	59,473	90,042	77,976
2006	70,804	51,167	29,694	[c]	[c]	80,524	89,160	131,691	118,854
2007	57,755	36,805	16,863	380	298	27,298	52,949	64,483	70,110
2008	55,444	42,492	23,680	928	478	30,989	46,635	74,409	70,793
2009	64,518	59,097	33,935	543	431	52,178	80,088	111,818	114,454
2010	39,873	23,412	9,333	615	246	27,074	38,848	51,101	48,427
2011	47,264	22,697	14,412	642	311	29,129	41,529	52,468	56,252
2012	41,152	15,231	15,074	867	461	24,115	54,911	40,213	70,446
2013	*Data Not Available*			698	372	35,776	31,364	*Data Not Available*	
Average									
1990–2012	60,431	38,995	24,441	663	371	41,371	78,318	80,679	102,856
2003–2012	54,384	34,375	21,200	663	371	40,444	73,131	75,217	94,553

Source: Mills 1990–1994, Howe et al. 1995, 1996, 2001a-d, Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b, 2011, In Prepa-b; Pappas and Marsh 2004; Subsistence data, USFWS.

[a] Effort is angler days of effort in the fishery. 1990–1996 estimated from an inseason creel survey and only measures effort primarily for sockeye from June 11 to August 20. 1997–2011 estimated from the SWHS and includes effort for the whole year and for other species.

[b] Harvest from 1990–1996 estimated from an inseason creel survey. Harvest from 1997–2011 estimated from the annual SWHS.

[c] Subsistence fishery started in 2007.

[d] Escapement for the early run are the number of fish counted passing the weir from its installation in June thru July 14. Escapement for the late-run are the number of fish counted passing the weir from July 15 through when the weir is shut off after reaching three days of 1% of fish passage prior to September 10, or whichever is later.

[e] Escapement above weir plus harvest; includes 1,572 fish in 1990 and 729 fish in 1991 used as brood source for stocking in Resurrection Bay.

Table 168-2.–Late-run Kenai River sockeye salmon sport fishery emergency order dates and corresponding goals from 1986–2013.

Year	Sonar Estimate When Liberalized [a]	Date Liberalized [b]	Sonar Estimate When Restricted [a]	Date Restricted [c]	Sonar Estimate When Closed [a]	Date Closed	Inriver Sonar Enumeration Goal	Optimum Escapement Goal	Final Sonar Count	Daily Sport Bag Limit	Inriver Sport Harvest [d]	Final Escapement	Preseason Forecast (millions)	Actual Run Size (millions)
1986	NA	NA	NA	NA	NA	NA	350,000–500,000		501,157	3	72,398	402,123	2.4	2.7
1987	NA	NA	NA	NA	NA	NA	400,000–700,000	330,000–600,000	1,596,871	3	240,819	1,334,064	3.5	8.7
1988	NA	NA	NA	NA	NA	NA	400,000–700,000	330,000–600,000	1,021,469	3	152,751	839,240	5.0	5.9
1989	589,000	21-Jul	NA	NA	NA	NA	400,000–700,000	330,000–600,000	1,599,959	3	277,906	1,331,020	ND	ND
1990	NA	NA	NA	NA	NA	NA	400,000–700,000	330,000–600,000	659,520	3	118,287	442,318	4.7	2.9
1991	NA	NA	NA	NA	NA	NA	400,000–700,000	330,000–600,000	647,597	3	161,678	389,099	ND	ND
1992	532,000	27-Jul	NA	NA	NA	NA	400,000–700,000	330,000–600,000	994,798	3	242,491	753,468	4.2	7.8
1993	688,000	4-Aug	NA	1-Jul	NA	NA	400,000–700,000	330,000–600,000	813,617	2 [e]	137,179	670,791	1.9	3.9
1994	526,000	3-Aug	NA	NA	NA	NA	400,000–700,000	330,000–600,000	1,003,446	3	93,616	898,839	1.5	3.4
1995	NA	NA	NA	NA	NA	NA	400,000–700,000	330,000–600,000	630,447	3	125,428	517,460	2.3	2.3
1996	NA	NA	NA	NA	NA	NA	550,000–800,000	330,000–600,000	797,847	6	186,291	584,817	2.5	3.4
1997	NA	NA	NA	NA	NA	NA	550,000–825,000	330,000–600,000	1,064,818	6	177,133	878,287	4.0	4.0
1998	588,000	3-Aug	208,000	24-Jul	NA	NA	550,000–850,000	330,000–600,000	767,558	6	164,536	560,270	1.7	1.6
1999	NA	NA	NA	NA	NA	NA	750,000–950,000	500,000–1,000,000	803,379	6	200,574	583,010	1.6	2.6
2000	NA	NA	NA	NA	570,000	5-Aug	650,000–850,000	500,000–1,000,000	624,578	6	230,983	393,284	2.5	1.5
2001	NA	NA	NA	NA	500,000	2-Aug	650,000–850,000	500,000–1,000,000	650,036	6	200,762	457,904	2.4	1.9
2002	571,000	23-Jul	NA	NA	NA	NA	750,000–950,000	500,000–1,000,000	957,924	3	225,917	700,803	1.7	3.1
2003	520,000	19-Jul	NA	NA	NA	NA	750,000–950,000	500,000–1,000,000	1,181,309	3	285,925	921,259	2.0	3.8
2004	492,000	21-Jul	NA	NA	NA	NA	850,000–1,100,000	500,000–1,000,000	1,385,981	3	294,038	1,120,404	3.2	5.0
2005	428,000	20-Jul	NA	NA	NA	NA	850,000–1,100,000	500,000–1,000,000	1,376,452	3	294,287	1,114,654	3.3	5.6
2006	749,000	3-Aug	82,000	22-Jul	144,000	25-Jul	750,000–950,000	500,000–1,000,000	1,499,692	3	173,425	1,311,144	1.8	2.5
2007	300,000	26-Jul	NA	NA	NA	NA	750,000–950,000	500,000–1,000,000	867,572	3	308,812	595,057	2.4	3.4
2008	NA	NA	400,000 & 499,000	1-Aug & 6-Aug	NA	NA	650,000–850,000	500,000–1,000,000	614,946	3	230,030	401,786	3.1	2.3
2009	NA	NA	NA	NA	NA	NA	650,000–850,000	500,000–1,000,000	745,170	3	252,319	498,370	2.4	2.4
2010	550,000	24-Jul	NA	NA	NA	NA	750,000–950,000	500,000–1,000,000	970,662	3	304,635	690,883	1.7	3.3
2011 [f]	587,000	21-Jul	NA	NA	NA	NA	1,100,000–1,350,000	700,000–1,400,000	1,599,217	3	384,840	1,247,963	3.9	6.1
2012 [f]	557,000	21-Jul	NA	NA	NA	NA	1,100,000–1,350,000	700,000–1,400,000	1,581,555	3	455,418	1,197,518	4.0	4.7
2013 [f,g]	822,000	20-Jul	NA	NA	NA	NA	1,000,000–1,200,000	700,000–1,400,000	1,359,893	3	*Not Available*	*Not Available*	4.4	3.3

NA = Not applicable.

[a] Cumulative sonar estimate used for inseason management actions is usually two days before actual management action becomes effective.

[b] Liberalization dates in this column only refer to increasing the daily bag limit to 6 fish per day.

[c] Restrictions in this column include reductions of daily bag limits, and closures of sockeye fishing below the sockeye sonar.

[d] Inriver harvest in this table is germain to only Kenai River mainstem sections (mouth to bridge, bridge to Moose River, Moose River to Skilak Lake, Skilak Lake to Kenai Lake).

[e] In 1993, the deaprtment reduced the daily bag limit to 2 fish per day and reduced fishing time during the day for sockeye salmon to 6:00 a.m. to 11:00 p.m. daily preseason to help achieve the guideline harvest level of 10% of the total sonar count within the inriver goal range of 400k–700k.

[f] Sonar technology switched to DIDSON from Bendix which changed the goals and inseason fish counts. 1986–2010 sonar data are based on Bendix counting units as that was what the goals and trigger points were based on at the time.

[g] 2013 run size is preliminary until published.

Table 168-3.–Kenai River drainage sockeye salmon escapement and inriver harvest, 1981–2013.

Year	Personal Use Dipnet, and Educational Harvest[a]	Sport Harvest Below Sonar[b]	Kenai River Sonar Count[c]	Total Inriver Run	Harvests above Sonar: Kenai R Sonar to Soldotna Bridge	Kenai R Above Soldotna Bridge	Kenai R Reach Not Specified[d]	Skilak Lake and Kenai River Tributaries[e]	Late Run Russian River	Hidden Lake[f]	Inriver Federal Subsistence[g]	Total Harvest Above Sonar	Hidden Creek Escapement	Kenai River Spawning Escapement[h]
1981	ND	3,116	575,848	578,965	2,154	14,451	ND	ND	23,720	0	[g]	40,325	7,970	527,554
1982	Insignificant	6,922	809,173	816,095	4,784	38,397	ND	ND	10,320	ND	[g]	53,501	259	755,413
1983	7,562	13,577	866,455	887,594	9,384	48,306	ND	0	16,000	0	[g]	73,690	0	792,765
1984	ND	2,613	481,473	484,086	1,806	11,283	ND	0	21,970	17	[g]	35,076	0	446,397
1985	ND	8,835	680,897	689,732	6,106	42,272	124	0	58,410	149	[g]	107,061	0	573,836
1986	ND	12,522	645,906	658,428	8,655	51,221	ND	13	30,810	0	[g]	90,699	8,335	546,872
1987	24,090	50,274	2,245,615	2,319,979	34,746	155,799	ND	2,029	40,580	689	[g]	233,843	28,964	1,982,808
1988	16,880	29,345	1,356,958	1,403,183	20,282	103,124	ND	382	19,540	583	[g]	143,911	38,318	1,174,729
1989	51,192	66,162	2,295,576	2,412,931	45,727	165,336	681	1,654	55,210	331	[g]	268,939	0	2,026,638
1990	3,477	19,640	950,358	973,474	13,573	85,074	0	670	56,180	107	[g]	155,604	61,598	733,155
1991	13,433	31,536	954,843	999,812	21,795	108,271	76	2,411	31,450	63,681	[g]	227,684	30,814	696,345
1992	30,454	47,622	1,429,864	1,507,940	32,913	161,956	ND	1,044	26,101	468	[g]	222,482	18,848	1,188,534
1993	35,592	27,717	1,134,922	1,198,231	19,156	90,306	0	825	26,772	133	[g]	137,192	5,634	992,096
1994	15,804	17,954	1,412,047	1,445,805	12,409	63,253	ND	213	26,375	102	[g]	102,352	2,255	1,307,440
1995	15,720	29,451	884,922	930,094	20,355	75,622	ND	177	11,805	83	[g]	108,042	4,945	771,936
1996	104,110	39,810	1,129,274	1,273,194	27,514	118,967	ND	307	19,136	225	[g]	166,149	46,881	916,244
1997	116,107	43,642	1,512,733	1,672,482	30,163	103,328	ND	312	12,910	274	[g]	146,987	39,544	1,326,202
1998	105,497	33,980	1,084,996	1,224,472	23,484	107,072	ND	158	25,110	81	[g]	155,905	51,383	877,707
1999	150,993	46,043	1,137,001	1,334,037	31,822	122,709	ND	0	32,335	859	[g]	187,725	32,644	916,632
2000	99,571	57,978	900,700	1,058,249	40,070	132,935	ND	377	30,229	190	[g]	203,801	27,493	669,406
2001	152,580	51,374	906,333	1,110,287	35,506	113,882	ND	24	18,550	142	[g]	168,104	24,028	714,201
2002	182,229	46,693	1,339,682	1,568,604	32,271	143,211	3,742	1,509	31,999	308	[g]	213,040	44,081	1,082,561
2003	227,207	60,722	1,656,026	1,943,955	41,967	173,068	10,168	96	28,085	302	[g]	253,686	6,364	1,395,976
2004	266,937	62,397	1,945,383	2,274,717	43,124	182,722	5,795	276	22,417	502	[g]	254,836	10,741	1,679,806
2005	300,105	58,017	1,908,821	2,266,943	40,097	182,704	13,469	45	18,503	0	[g]	254,818	6,980	1,647,023
2006	130,486	30,964	2,064,728	2,226,178	21,400	113,972	7,089	98	29,694	385	[g]	172,638	15,910	1,876,180
2007	295,866	60,623	1,229,945	1,586,434	41,898	199,415	6,876	94	16,863	240	298	265,684	6,831	957,430
2008	239,075	46,053	917,139	1,202,267	31,829	144,325	7,823	171	23,680	0	478	208,306	4,854	703,979
2009	346,773	45,868	1,090,055	1,482,696	31,700	167,746	7,005	102	33,935	1,019	431	241,938	4,862	843,255
2010	395,586	59,651	1,294,885	1,750,122	41,227	194,934	8,823	255	9,333	1,744	903	257,219	22,560	1,015,106
2011	543,043	85,720	1,599,217	2,227,980	59,244	234,159	5,717	13	14,412	97	1,089	314,731	9,117	1,275,369
2012	528,610	102,376	1,581,555	2,212,541	70,756	278,675	3,611	20	15,072	37	547	368,718	15,319	1,197,518
2013	350,302	ND	1,359,893	ND	ND	ND	ND	ND	ND	ND	ND	ND	21,056	ND
Average														
2008–2012	410,620	67,930	1,296,570	1,775,120	46,950	203,970	6,600	110	19,290	580	690	278,180	11,340	1,007,050
1981–2012	162,930	40,600	1,250,730	1,428,800	28,060	122,770	5,060	440	26,170	2,350	620	182,330	18,050	1,050,350

Source: Statewide Harvest Surveys from Mills 1982–1994; Howe et al. 1995, 1996, 2001a-d; Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b, 2011, In Prepa-b; Brannian and Fox 1996; Reimer and Sigurdsson 2004, Dunker and Lafferty 2007, Dunker 2010, K. J. Dunker, Sport Fish biologist, Anchorage, personal communication; King 1995, 1996; Pappas and Marsh 2004; Shields and Dupois 2013, P. Shields, Comm Fish Biologist, ADF&G, Soldotna, personal communication; Educational harvest data, Kenaitze Indian Tribe; 2007–2012 Subsistence data, USFWS.

Note: ND = No data available.

[a] Personal use harvest not known in 1982; personal use (1981–1995), subsistence dip net harvest (1991–1995), and Kenaitze educational harvest (1989–1995) from Brannian and Fox,1996. From 1994 to present, the educational harvest is the total late-run harvest.

[b] In 1994 and 1995 a creel survey was conducted to estimate harvest below the sonar. In 1994, 49.7% of the below Soldotna Bridge harvest was taken below the sonar. In 1995, 68.6 % was taken below the sonar. The average of these two percentages is applied to all other year's below-bridge harvest to estimate the harvest below the sonar.

[c] Data revised in 2011 when all Bendix data was converted to DIDSON-equivalent estimates.

[d] SWHS began reporting this data consistently in 2002.

[e] Tributaries include Soldotna Crk., Funny R., Moose R., Cooper Crk., Quartz Crk., and Ptarmigan Crk.

[f] Sport harvest and 1991 Hidden Lake personal use from SWHS.

[g] Federal subsistence started in 2007 and occurs in the Russian River, the Upper Kenai River, and the Lower Kenai River with both dip nets and rod and reel. This includes harvest from late-run sockeye salmon only.

[h] Kenai River sustainable escapement goal 700,000–1,200,000, and optimum escapement goal 700,000-1,400,000; implemented in 2011.

PROPOSAL 169 – 5 AAC 21.360. Kenai River Late-Run Sockeye Salmon Management Plan.

PROPOSED BY: Randy J. Berg.

WHAT WOULD THE PROPOSAL DO? This proposal would increase the Kenai River sockeye salmon bag and possession limit to six fish when commercial fishing is opened by emergency order (EO) after July 1.

WHAT ARE THE CURRENT REGULATIONS? Subject to the requirement of achieving the lower end of the optimal escapement goal (OEG), the department shall provide for an inriver sockeye salmon sport fishery in the Kenai River seven days per week, 24 hours per day, with a bag and possession limit of three sockeye salmon. The commissioner may increase, by EO, the sockeye salmon bag and possession limit, as the commissioner determines to be appropriate, if the department determines that the abundance of the Kenai River late-run sockeye salmon is greater than 2.3 million and the OEG of 700,000–1,400,000 will be achieved.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, the sockeye salmon bag and possession limit would likely increase earlier than previous years and would likely be increased annually, regardless of run size. Sockeye salmon harvest and effort by inriver sport anglers would likely increase by an undetermined amount in proportion to run size. This proposal could make management of early-run sockeye salmon bound mainly for the Upper Kenai-Russian River area, as well as late-run sockeye salmon destined for the same area, more difficult. This may increase the likelihood of restrictive actions in the sport fishery upstream of Skilak Lake to achieve the Russian River sockeye salmon escapement goals. This proposal may result in a decrease in the harvest of sockeye salmon in other fisheries, primarily the commercial fishery, depending on abundance.

BACKGROUND: The *Kenai River Late-run Sockeye Salmon Management Plan* provides direction to the department for liberalizing and restricting the inriver sockeye salmon sport fishery based upon the inseason evaluation of sockeye salmon abundance. Since 1986, the sockeye salmon bag limit has been liberalized 15 out of 28 years (Table 169-1). Since 1999, when the OEG was raised to 500,000–1,000,000 sockeye salmon (as measured in Bendix units), the goal has been exceeded in three years (2004–2006). Emergency order dates germane to Upper Cook Inlet commercial salmon fisheries can be found on Table 169-2.

The OEG of 700,000–1,400,000 sockeye salmon has been achieved each year since converting to DIDSON-based goals in 2011. Harvest levels of sockeye salmon in the Kenai River drainage by sport anglers have increased since 1981 (Table 169-3). The highest seven inriver sport harvests of sockeye salmon have occurred from 2002–present, when the daily bag limit started at three per day.

In the last 15 years, the forecasted abundance of late-run Kenai River sockeye salmon has been in the same run tier as the actual inseason abundance in four years and has differed 11 years. For the 11 years that differed, the actual run increased tier(s) eight times and decreased tier(s) three times, indicating a tendency to under-forecast run strength relative to the management tiers (Table 169-2).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. However, the department has concerns that, if adopted, the proposal may result in reduced management precision in achieving the OEG and unnecessary inseason management actions in the sport fishery. The present management system provides stability to the entire Kenai River drainage sockeye salmon sport fishery because it allows the department to assess inseason run strength prior to liberalizing or restricting inriver fisheries.

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 169-1.–Late-run Kenai River sockeye salmon sport fishery emergency order dates and corresponding goals from 1986–2013.

Year	Sonar Estimate When Liberalized [a]	Date Liberalized [b]	Sonar Estimate When Restricted [a]	Date Restricted [c]	Sonar Estimate When Closed [a]	Date Closed	Inriver Sonar Enumeration Goal	Optimum Escapement Goal	Final Sonar Count	Daily Sport Bag Limit	Inriver Sport Harvest [d]	Final Escapement	Preseason Forecast (millions)	Actual Run Size (millions)
1986	NA	NA	NA	NA	NA	NA	350,000–500,000		501,157	3	72,398	402,123	2.4	2.7
1987	NA	NA	NA	NA	NA	NA	400,000–700,000	330,000–600,000	1,596,871	3	240,819	1,334,064	3.5	8.7
1988	NA	NA	NA	NA	NA	NA	400,000–700,000	330,000–600,000	1,021,469	3	152,751	839,240	5.0	5.9
1989	589,000	21-Jul	NA	NA	NA	NA	400,000–700,000	330,000–600,000	1,599,959	3	277,906	1,331,020	ND	ND
1990	NA	NA	NA	NA	NA	NA	400,000–700,000	330,000–600,000	659,520	3	118,287	442,318	4.7	2.9
1991	NA	NA	NA	NA	NA	NA	400,000–700,000	330,000–600,000	647,597	3	161,678	389,099	ND	ND
1992	532,000	27-Jul	NA	NA	NA	NA	400,000–700,000	330,000–600,000	994,798	3	242,491	753,468	4.2	7.8
1993	688,000	4-Aug	NA	1-Jul	NA	NA	400,000–700,000	330,000–600,000	813,617	2 [e]	137,179	670,791	1.9	3.9
1994	526,000	3-Aug	NA	NA	NA	NA	400,000–700,000	330,000–600,000	1,003,446	3	93,616	898,839	1.5	3.4
1995	NA	NA	NA	NA	NA	NA	400,000–700,000	330,000–600,000	630,447	3	125,428	517,460	2.3	2.3
1996	NA	NA	NA	NA	NA	NA	550,000–800,000	330,000–600,000	797,847	6	186,291	584,817	2.5	3.4
1997	NA	NA	NA	NA	NA	NA	550,000–825,000	330,000–600,000	1,064,818	6	177,133	878,287	4.0	4.0
1998	588,000	3-Aug	208,000	24-Jul	NA	NA	550,000–850,000	330,000–600,000	767,558	6	164,536	560,270	1.7	1.6
1999	NA	NA	NA	NA	NA	NA	750,000–950,000	500,000–1,000,000	803,379	6	200,574	583,010	1.6	2.6
2000	NA	NA	NA	NA	570,000	5-Aug	650,000–850,000	500,000–1,000,000	624,578	6	230,983	393,284	2.5	1.5
2001	NA	NA	NA	NA	500,000	2-Aug	650,000–850,000	500,000–1,000,000	650,036	6	200,762	457,904	2.4	1.9
2002	571,000	23-Jul	NA	NA	NA	NA	750,000–950,000	500,000–1,000,000	957,924	3	225,917	700,803	1.7	3.1
2003	520,000	19-Jul	NA	NA	NA	NA	750,000–950,000	500,000–1,000,000	1,181,309	3	285,925	921,259	2.0	3.8
2004	492,000	21-Jul	NA	NA	NA	NA	850,000–1,100,000	500,000–1,000,000	1,385,981	3	294,038	1,120,404	3.2	5.0
2005	428,000	20-Jul	NA	NA	NA	NA	850,000–1,100,000	500,000–1,000,000	1,376,452	3	294,287	1,114,654	3.3	5.6
2006	749,000	3-Aug	82,000	22-Jul	144,000	25-Jul	750,000–950,000	500,000–1,000,000	1,499,692	3	173,425	1,311,144	1.8	2.5
2007	300,000	26-Jul	NA	NA	NA	NA	750,000–950,000	500,000–1,000,000	867,572	3	308,812	595,057	2.4	3.4
2008	NA	NA	400,000 & 499,000	1-Aug & 6-Aug	NA	NA	650,000–850,000	500,000–1,000,000	614,946	3	230,030	401,786	3.1	2.3
2009	NA	NA	NA	NA	NA	NA	650,000–850,000	500,000–1,000,000	745,170	3	252,319	498,370	2.4	2.4
2010	550,000	24-Jul	NA	NA	NA	NA	750,000–950,000	500,000–1,000,000	970,662	3	304,635	690,883	1.7	3.3
2011 [f]	587,000	21-Jul	NA	NA	NA	NA	1,100,000–1,350,000	700,000–1,400,000	1,599,217	3	384,840	1,247,963	3.9	6.1
2012 [f]	557,000	21-Jul	NA	NA	NA	NA	1,100,000–1,350,000	700,000–1,400,000	1,581,555	3	455,418	1,197,518	4.0	4.7
2013 [f,g]	822,000	20-Jul	NA	NA	NA	NA	1,000,000–1,200,000	700,000–1,400,000	1,359,893	3	*Not Available*	*Not Available*	4.4	3.3

NA = Not applicable.

[a] Cumulative sonar estimate used for inseason management actions is usually two days before actual management action becomes effective.

[b] Liberalization dates in this column only refer to increasing the daily bag limit to 6 fish per day.

[c] Restrictions in this column include reductions of daily bag limits, and closures of sockeye fishing below the sockeye sonar.

[d] Inriver harvest in this table is germain to only Kenai River mainstem sections (mouth to bridge, bridge to Moose River, Moose River to Skilak Lake, Skilak Lake to Kenai Lake).

[e] In 1993, the deaprtment reduced the daily bag limit to 2 fish per day and reduced fishing time during the day for sockeye salmon to 6:00 a.m. to 11:00 p.m. daily preseason to help achieve the guideline harvest level of 10% of the total sonar count within the inriver goal range of 400k–700k.

[f] Sonar technology switched to DIDSON from Bendix which changed the goals and inseason fish counts. 1986–2010 sonar data are based on Bendix counting units as that was what the goals and trigger points were based on at the time.

[g] 2013 run size is preliminary until published.

Table 169-2.–Late-run Kenai River sockeye salmon commercial fishery emergency order dates and corresponding goals from 1986–2013.

Year	Inriver Sonar Enumeration Goal	Biological/ Sustainable Escapement Goal	Optimum Escapement Goal	Final Sonar Count	Daily Sport Bag Limit	Inriver Sport Harvest [a]	Final Escapement	Kasilof Section 1st EO	Kenai Section 1st EO	UCI Drift 1st EO	Preseason Forecast (millions)	Actual Run Size (Millions)
1986	350,000–500,000			501,157	3	72,398	410,458	13-Jul	25-Jul	14-Jul	2.4	2.7
1987	400,000–700,000	330,000–600,000	330,000–600,000	1,596,871	3	240,819	1,363,028	12-Jul	21-Jul	18-Jul	3.5	8.7
1988	400,000–700,000	330,000–600,000	330,000–600,000	1,021,469	3	152,751	877,558	9-Jul	12-Jul	9-Jul	5.0	5.9
1989	400,000–700,000	330,000–600,000	330,000–600,000	1,599,959	3	277,906	1,331,701	11-Jul	13-Jul	None	ND	ND
1990	400,000–700,000	330,000–600,000	330,000–600,000	659,520	3	118,287	503,916	18-Jul	18-Jul	18-Jul	4.7	2.9
1991	400,000–700,000	330,000–600,000	330,000–600,000	647,597	3	161,678	419,989	5-Jul	31-Jul	5-Jul	ND	ND
1992	400,000–700,000	330,000–600,000	330,000–600,000	994,798	3	242,491	772,316	13-Jul	13-Jul	13-Jul	4.2	7.8
1993	400,000–700,000	330,000–600,000	330,000–600,000	813,617	2 [b]	137,179	676,425	8-Jul	13-Jul	8-Jul	1.9	3.9
1994	400,000–700,000	330,000–600,000	330,000–600,000	1,003,446	3	93,616	901,094	10-Jul	24-Jul	10-Jul	1.5	3.4
1995	400,000–700,000	330,000–600,000	330,000–600,000	630,447	3	125,428	522,405	17-Jul	24-Jul	24-Jul	2.3	2.3
1996	550,000–800,000	330,000–600,000	330,000–600,000	797,847	6	186,291	631,698	1-Jul	16-Jul	1-Jul	2.5	3.4
1997	550,000–825,000	330,000–600,000	330,000–600,000	1,064,818	6	177,133	917,831	2-Jul	13-Jul	2-Jul	4.0	4.0
1998	550,000–850,000	330,000–600,000	330,000–600,000	767,558	6	164,536	611,653	11-Jul	1-Aug	11-Jul	1.7	1.6
1999	750,000–950,000	500,000–800,000	500,000–1,000,000	803,379	6	200,574	615,654	2-Jul	26-Jul	2-Jul	1.6	2.6
2000	600,000–850,000	500,000–800,000	500,000–1,000,000	624,578	6	230,983	420,777	12-Jul	13-Jul	12-Jul	2.5	1.5
2001	600,000–850,000	500,000–800,000	500,000–1,000,000	650,036	6	200,762	481,932	4-Jul	None	4-Jul	2.4	1.9
2002	750,000–950,000	500,000–800,000	500,000–1,000,000	957,924	3	225,917	744,884	1-Jul	13-Jul	1-Jul	1.7	3.1
2003	750,000–950,000	500,000–800,000	500,000–1,000,000	1,181,309	3	285,925	927,623	3-Jul	14-Jul	3-Jul	2.0	3.8
2004	850,000–1,100,000	500,000–800,000	500,000–1,000,000	1,385,981	3	294,038	1,131,210	4-Jul	8-Jul	2-Jul	3.2	5.0
2005	850,000–1,100,000	500,000–800,000	500,000–1,000,000	1,376,452	3	294,287	1,121,634	2-Jul	11-Jul	2-Jul	3.3	5.6
2006	750,000–950,000	500,000–800,000	500,000–1,000,000	1,499,692	3	173,425	1,327,054	2-Jul	13-Jul	2-Jul	1.8	2.5
2007	750,000–950,000	500,000–800,000	500,000–1,000,000	867,572	3	308,812	602,186	2-Jul	16-Jul	2-Jul	2.4	3.4
2008	600,000–850,000	500,000–800,000	500,000–1,000,000	623,120	3	230,030	415,292	1-Jul	14-Jul	1-Jul	3.1	2.3
2009	600,000–850,000	500,000–800,000	500,000–1,000,000	745,170	3	252,319	503,659	1-Jul	9-Jul	1-Jul	2.4	2.4
2010	750,000–950,000	500,000–800,000	500,000–1,000,000	970,662	3	304,635	713,443	1-Jul	12-Jul	1-Jul	1.7	3.3
2011 [c]	1,100,000–1,350,000	700,000–1,200,000	700,000–1,400,000	1,599,217	3	384,840	1,257,080	2-Jul	11-Jul	2-Jul	3.9	6.1
2012 [c]	1,000,000–1,200,000	700,000–1,200,000	700,000–1,400,000	1,581,555	3	455,418	1,212,837	3-Jul	14-Jul	3-Jul	4.0	4.7
2013 [c, d]	1,000,000–1,200,000	700,000–1,200,000	700,000–1,400,000	1,359,893	3	*Not Available*	*Not Available*	5-Jul	15-Jul	5-Jul	4.4	3.5
Average (1986–1995)						162,255					3.2	4.7
Average (1996–2001)						193,380					2.5	2.5
Average (2002–2012)						291,786					2.7	3.8

[a] Inriver harvest in this table is germane to only Kenai River mainstem sections (mouth to bridge, bridge to Moose R., Moose R. to Skilak Lake, Skilak Lake to Kenai Lake).

[b] In 1993, the deaprtment reduced the daily bag limit to 2 fish per day and reduced fishing time during the day for sockeye salmon to 6:00 a.m. to 11:00 p.m. daily preseason to help achieve the GHL (guideline harvest level of 10% of the total sonar count within the inriver goal range of 400k–700k).

[c] Sonar technology switched to DIDSON (2011–2013) from Bendix (1986–2010) which changed the goals and inseason fish counts.

[d] 2013 run size is preliminary until published.

Table 169-3.–Kenai River drainage sockeye salmon escapement and inriver harvest, 1981–2013.

Year	Personal Use Dipnet, and Educational Harvest[a]	Sport Harvest Below Sonar[b]	Kenai River Sonar Count[c]	Total Inriver Run	Harvests above Sonar: Kenai R Sonar to Soldotna Bridge	Kenai R Above Soldotna Bridge	Kenai R Reach Not Specified[d]	Skilak Lake and Kenai River Tributaries[e]	Late Run Russian River	Hidden Lake[f]	Inriver Federal Subsistence[g]	Total Harvest Above Sonar	Hidden Creek Escapement	Kenai River Spawning Escapement[h]
1981	ND	3,116	575,848	578,965	2,154	14,451	ND	ND	23,720	0	[g]	40,325	7,970	527,554
1982	Insignificant	6,922	809,173	816,095	4,784	38,397	ND	ND	10,320	ND	[g]	53,501	259	755,413
1983	7,562	13,577	866,455	887,594	9,384	48,306	ND	0	16,000	0	[g]	73,690	0	792,765
1984	ND	2,613	481,473	484,086	1,806	11,283	ND	0	21,970	17	[g]	35,076	0	446,397
1985	ND	8,835	680,897	689,732	6,106	42,272	124	0	58,410	149	[g]	107,061	0	573,836
1986	ND	12,522	645,906	658,428	8,655	51,221	ND	13	30,810	0	[g]	90,699	8,335	546,872
1987	24,090	50,274	2,245,615	2,319,979	34,746	155,799	ND	2,029	40,580	689	[g]	233,843	28,964	1,982,808
1988	16,880	29,345	1,356,958	1,403,183	20,282	103,124	ND	382	19,540	583	[g]	143,911	38,318	1,174,729
1989	51,192	66,162	2,295,576	2,412,931	45,727	165,336	681	1,654	55,210	331	[g]	268,939	0	2,026,638
1990	3,477	19,640	950,358	973,474	13,573	85,074	0	670	56,180	107	[g]	155,604	61,598	733,155
1991	13,433	31,536	954,843	999,812	21,795	108,271	76	2,411	31,450	63,681	[g]	227,684	30,814	696,345
1992	30,454	47,622	1,429,864	1,507,940	32,913	161,956	ND	1,044	26,101	468	[g]	222,482	18,848	1,188,534
1993	35,592	27,717	1,134,922	1,198,231	19,156	90,306	0	825	26,772	133	[g]	137,192	5,634	992,096
1994	15,804	17,954	1,412,047	1,445,805	12,409	63,253	ND	213	26,375	102	[g]	102,352	2,255	1,307,440
1995	15,720	29,451	884,922	930,094	20,355	75,622	ND	177	11,805	83	[g]	108,042	4,945	771,936
1996	104,110	39,810	1,129,274	1,273,194	27,514	118,967	ND	307	19,136	225	[g]	166,149	46,881	916,244
1997	116,107	43,642	1,512,733	1,672,482	30,163	103,328	ND	312	12,910	274	[g]	146,987	39,544	1,326,202
1998	105,497	33,980	1,084,996	1,224,472	23,484	107,072	ND	158	25,110	81	[g]	155,905	51,383	877,707
1999	150,993	46,043	1,137,001	1,334,037	31,822	122,709	ND	0	32,335	859	[g]	187,725	32,644	916,632
2000	99,571	57,978	900,700	1,058,249	40,070	132,935	ND	377	30,229	190	[g]	203,801	27,493	669,406
2001	152,580	51,374	906,333	1,110,287	35,506	113,882	ND	24	18,550	142	[g]	168,104	24,028	714,201
2002	182,229	46,693	1,339,682	1,568,604	32,271	143,211	3,742	1,509	31,999	308	[g]	213,040	44,081	1,082,561
2003	227,207	60,722	1,656,026	1,943,955	41,967	173,068	10,168	96	28,085	302	[g]	253,686	6,364	1,395,976
2004	266,937	62,397	1,945,383	2,274,717	43,124	182,722	5,795	276	22,417	502	[g]	254,836	10,741	1,679,806
2005	300,105	58,017	1,908,821	2,266,943	40,097	182,704	13,469	45	18,503	0	[g]	254,818	6,980	1,647,023
2006	130,486	30,964	2,064,728	2,226,178	21,400	113,972	7,089	98	29,694	385	[g]	172,638	15,910	1,876,180
2007	295,866	60,623	1,229,945	1,586,434	41,898	199,415	6,876	94	16,863	240	298	265,684	6,831	957,430
2008	239,075	46,053	917,139	1,202,267	31,829	144,325	7,823	171	23,680	0	478	208,306	4,854	703,979
2009	346,773	45,868	1,090,055	1,482,696	31,700	167,746	7,005	102	33,935	1,019	431	241,938	4,862	843,255
2010	395,586	59,651	1,294,885	1,750,122	41,227	194,934	8,823	255	9,333	1,744	903	257,219	22,560	1,015,106
2011	543,043	85,720	1,599,217	2,227,980	59,244	234,159	5,717	13	14,412	97	1,089	314,731	9,117	1,275,369
2012	528,610	102,376	1,581,555	2,212,541	70,756	278,675	3,611	20	15,072	37	547	368,718	15,319	1,197,518
2013	350,302	ND	1,359,893	ND	ND	ND	ND	ND	ND	ND	ND	ND	21,056	ND
Average														
2008–2012	410,620	67,930	1,296,570	1,775,120	46,950	203,970	6,600	110	19,290	580	690	278,180	11,340	1,007,050
1981–2012	162,930	40,600	1,250,730	1,428,800	28,060	122,770	5,060	440	26,170	2,350	620	182,330	18,050	1,050,350

Source: Statewide Harvest Surveys from Mills 1982–1994; Howe et al. 1995, 1996, 2001a-d; Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b, 2011, In Prepa-b; Brannian and Fox 1996; Reimer and Sigurdsson 2004, Dunker and Lafferty 2007, Dunker 2010, K. J. Dunker, Sport Fish biologist, Anchorage, personal communication; King 1995, 1996; Pappas and Marsh 2004; Shields and Dupois 2013, P. Shields, Comm Fish Biologist, ADF&G, Soldotna, personal communication; Educational harvest data, Kenaitze Indian Tribe; 2007–2012 Subsistence data, USFWS.

Note: ND = No data available.

[a] Personal use harvest not known in 1982; personal use (1981–1995), subsistence dip net harvest (1991–1995), and Kenaitze educational harvest (1989–1995) from Brannian and Fox,1996. From 1994 to present, the educational harvest is the total late-run harvest.

[b] In 1994 and 1995 a creel survey was conducted to estimate harvest below the sonar. In 1994, 49.7% of the below Soldotna Bridge harvest was taken below the sonar. In 1995, 68.6 % was taken below the sonar. The average of these two percentages is applied to all other year's below-bridge harvest to estimate the harvest below the sonar.

[c] Data revised in 2011 when all Bendix data was converted to DIDSON-equivalent estimates.

[d] SWHS began reporting this data consistently in 2002.

[e] Tributaries include Soldotna Crk., Funny R., Moose R., Cooper Crk., Quartz Crk., and Ptarmigan Crk.

[f] Sport harvest and 1991 Hidden Lake personal use from SWHS.

[g] Federal subsistence started in 2007 and occurs in the Russian River, the Upper Kenai River, and the Lower Kenai River with both dip nets and rod and reel. This includes harvest from late-run sockeye salmon only.

[h] Kenai River sustainable escapement goal 700,000–1,200,000, and optimum escapement goal 700,000-1,400,000; implemented in 2011.

PROPOSAL 170 – 5 AAC 21.360. Kenai River Late-Run Sockeye Salmon Management Plan and 5 AAC 57.120. General provisions for seasons, bag, possession, and size limits, and methods and means for the Kenai River Drainage Area.

PROPOSED BY: George Matz.

WHAT WOULD THE PROPOSAL DO? This proposal would increase the possession limit for Kenai River sockeye salmon from three to six fish.

WHAT ARE THE CURRENT REGULATIONS? The bag and possession limit for sockeye salmon is three fish. The possession limit is the maximum number of unpreserved fish a person may have in possession. Preserved fish are fish prepared in such a manner, and in an existing state of preservation, as to be fit for human consumption after a 15-day period, and does not include unfrozen fish temporarily stored in coolers that contain ice, or dry ice, or fish that are lightly salted.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, sockeye salmon harvest by inriver sport anglers could increase by an unknown amount. Increased possession limits may result in anglers not having to process fish during a multiple-day fishing trip. Increasing the possession limit benefits weekend anglers without access to a fish preservation facility. For example, at Russian River, where anglers commonly camp overnight, this proposed change is likely to result in a greater number of unpreserved fish taken from river-based campground facilities in the area.

BACKGROUND: The *Kenai River Late-run Sockeye Salmon Management Plan* provides direction to the department for liberalizing and restricting the inriver sockeye salmon sport fishery based upon the inseason evaluation of sockeye salmon abundance. Since 1986, the sockeye salmon bag limit has been liberalized 15 out of 28 years (Table 170-1). Since 1999, when the optimal escapement goal (OEG) was raised to 500,000–1,000,000 sockeye salmon (as measured in Bendix units), the goal has been exceeded in three years (2004–2006).

The OEG of 700,000–1,400,000 sockeye salmon has been achieved each year since converting to DIDSON-based goals in 2011. Harvest levels of sockeye salmon in the Kenai River drainage by sport anglers have increased since 1981 (Table 170-2). The highest seven inriver sport harvests of sockeye salmon have occurred from 2002–present when the daily bag limit started at three per day.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. It is not known how many of the anglers participating the Kenai River drainage sockeye salmon sport fisheries fish multiple days or how many are able to preserve fish between fishing days. In recent years when the Kenai River or Russian River sockeye salmon sport fisheries have been liberalized by increasing the bag limit, the department has also increased the possession limit to double the daily bag limit for the liberalized fishery (e.g., 6 per day, 12 in possession). This is done to provide additional opportunity, increase the sockeye salmon harvest, and reduce the likelihood of exceeding the OEG.

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 170-1.–Late-run Kenai River sockeye salmon sport fishery emergency order dates and corresponding goals from 1986–2013.

Year	Sonar Estimate When Liberalized [a]	Date Liberalized [b]	Sonar Estimate When Restricted [a]	Date Restricted [c]	Sonar Estimate When Closed [a]	Date Closed	Inriver Sonar Enumeration Goal	Optimum Escapement Goal	Final Sonar Count	Daily Sport Bag Limit	Inriver Sport Harvest [d]	Final Escapement	Preseason Forecast (millions)	Actual Run Size (millions)
1986	NA	NA	NA	NA	NA	NA	350,000–500,000		501,157	3	72,398	402,123	2.4	2.7
1987	NA	NA	NA	NA	NA	NA	400,000–700,000	330,000–600,000	1,596,871	3	240,819	1,334,064	3.5	8.7
1988	NA	NA	NA	NA	NA	NA	400,000–700,000	330,000–600,000	1,021,469	3	152,751	839,240	5.0	5.9
1989	589,000	21-Jul	NA	NA	NA	NA	400,000–700,000	330,000–600,000	1,599,959	3	277,906	1,331,020	ND	ND
1990	NA	NA	NA	NA	NA	NA	400,000–700,000	330,000–600,000	659,520	3	118,287	442,318	4.7	2.9
1991	NA	NA	NA	NA	NA	NA	400,000–700,000	330,000–600,000	647,597	3	161,678	389,099	ND	ND
1992	532,000	27-Jul	NA	NA	NA	NA	400,000–700,000	330,000–600,000	994,798	3	242,491	753,468	4.2	7.8
1993	688,000	4-Aug	NA	1-Jul	NA	NA	400,000–700,000	330,000–600,000	813,617	2 [e]	137,179	670,791	1.9	3.9
1994	526,000	3-Aug	NA	NA	NA	NA	400,000–700,000	330,000–600,000	1,003,446	3	93,616	898,839	1.5	3.4
1995	NA	NA	NA	NA	NA	NA	400,000–700,000	330,000–600,000	630,447	3	125,428	517,460	2.3	2.3
1996	NA	NA	NA	NA	NA	NA	550,000–800,000	330,000–600,000	797,847	6	186,291	584,817	2.5	3.4
1997	NA	NA	NA	NA	NA	NA	550,000–825,000	330,000–600,000	1,064,818	6	177,133	878,287	4.0	4.0
1998	588,000	3-Aug	208,000	24-Jul	NA	NA	550,000–850,000	330,000–600,000	767,558	6	164,536	560,270	1.7	1.6
1999	NA	NA	NA	NA	NA	NA	750,000–950,000	500,000–1,000,000	803,379	6	200,574	583,010	1.6	2.6
2000	NA	NA	NA	NA	570,000	5-Aug	650,000–850,000	500,000–1,000,000	624,578	6	230,983	393,284	2.5	1.5
2001	NA	NA	NA	NA	500,000	2-Aug	650,000–850,000	500,000–1,000,000	650,036	6	200,762	457,904	2.4	1.9
2002	571,000	23-Jul	NA	NA	NA	NA	750,000–950,000	500,000–1,000,000	957,924	3	225,917	700,803	1.7	3.1
2003	520,000	19-Jul	NA	NA	NA	NA	750,000–950,000	500,000–1,000,000	1,181,309	3	285,925	921,259	2.0	3.8
2004	492,000	21-Jul	NA	NA	NA	NA	850,000–1,100,000	500,000–1,000,000	1,385,981	3	294,038	1,120,404	3.2	5.0
2005	428,000	20-Jul	NA	NA	NA	NA	850,000–1,100,000	500,000–1,000,000	1,376,452	3	294,287	1,114,654	3.3	5.6
2006	749,000	3-Aug	82,000	22-Jul	144,000	25-Jul	750,000–950,000	500,000–1,000,000	1,499,692	3	173,425	1,311,144	1.8	2.5
2007	300,000	26-Jul	NA	NA	NA	NA	750,000–950,000	500,000–1,000,000	867,572	3	308,812	595,057	2.4	3.4
2008	NA	NA	400,000 & 499,000	1-Aug & 6-Aug	NA	NA	650,000–850,000	500,000–1,000,000	614,946	3	230,030	401,786	3.1	2.3
2009	NA	NA	NA	NA	NA	NA	650,000–850,000	500,000–1,000,000	745,170	3	252,319	498,370	2.4	2.4
2010	550,000	24-Jul	NA	NA	NA	NA	750,000–950,000	500,000–1,000,000	970,662	3	304,635	690,883	1.7	3.3
2011 [f]	587,000	21-Jul	NA	NA	NA	NA	1,100,000–1,350,000	700,000–1,400,000	1,599,217	3	384,840	1,247,963	3.9	6.1
2012 [f]	557,000	21-Jul	NA	NA	NA	NA	1,100,000–1,350,000	700,000–1,400,000	1,581,555	3	455,418	1,197,518	4.0	4.7
2013 [f,g]	822,000	20-Jul	NA	NA	NA	NA	1,000,000–1,200,000	700,000–1,400,000	1,359,893	3	*Not Available*	*Not Available*	4.4	3.3

NA = Not applicable.

[a] Cumulative sonar estimate used for inseason management actions is usually two days before actual management action becomes effective.

[b] Liberalization dates in this column only refer to increasing the daily bag limit to 6 fish per day.

[c] Restrictions in this column include reductions of daily bag limits, and closures of sockeye fishing below the sockeye sonar.

[d] Inriver harvest in this table is germain to only Kenai River mainstem sections (mouth to bridge, bridge to Moose River, Moose River to Skilak Lake, Skilak Lake to Kenai Lake).

[e] In 1993, the deaprtment reduced the daily bag limit to 2 fish per day and reduced fishing time during the day for sockeye salmon to 6:00 a.m. to 11:00 p.m. daily preseason to help achieve the guideline harvest level of 10% of the total sonar count within the inriver goal range of 400k–700k.

[f] Sonar technology switched to DIDSON from Bendix which changed the goals and inseason fish counts. 1986–2010 sonar data are based on Bendix counting units as that was what the goals and trigger points were based on at the time.

[g] 2013 run size is preliminary until published.

Table 170-2.–Kenai River drainage sockeye salmon escapement and inriver harvest, 1981–2013.

Year	Personal Use Dipnet, and Educational Harvest[a]	Sport Harvest Below Sonar[b]	Kenai River Sonar Count[c]	Total Inriver Run	Harvests above Sonar: Kenai R Sonar to Soldotna Bridge	Kenai R Above Soldotna Bridge	Kenai R Reach Not Specified[d]	Skilak Lake and Kenai River Tributaries[e]	Late Run Russian River	Hidden Lake[f]	Inriver Federal Subsistence[g]	Total Harvest Above Sonar	Hidden Creek Escapement	Kenai River Spawning Escapement[h]
1981	ND	3,116	575,848	578,965	2,154	14,451	ND	ND	23,720	0	[g]	40,325	7,970	527,554
1982	Insignificant	6,922	809,173	816,095	4,784	38,397	ND	ND	10,320	ND	[g]	53,501	259	755,413
1983	7,562	13,577	866,455	887,594	9,384	48,306	ND	0	16,000	0	[g]	73,690	0	792,765
1984	ND	2,613	481,473	484,086	1,806	11,283	ND	0	21,970	17	[g]	35,076	0	446,397
1985	ND	8,835	680,897	689,732	6,106	42,272	124	0	58,410	149	[g]	107,061	0	573,836
1986	ND	12,522	645,906	658,428	8,655	51,221	ND	13	30,810	0	[g]	90,699	8,335	546,872
1987	24,090	50,274	2,245,615	2,319,979	34,746	155,799	ND	2,029	40,580	689	[g]	233,843	28,964	1,982,808
1988	16,880	29,345	1,356,958	1,403,183	20,282	103,124	ND	382	19,540	583	[g]	143,911	38,318	1,174,729
1989	51,192	66,162	2,295,576	2,412,931	45,727	165,336	681	1,654	55,210	331	[g]	268,939	0	2,026,638
1990	3,477	19,640	950,358	973,474	13,573	85,074	0	670	56,180	107	[g]	155,604	61,598	733,155
1991	13,433	31,536	954,843	999,812	21,795	108,271	76	2,411	31,450	63,681	[g]	227,684	30,814	696,345
1992	30,454	47,622	1,429,864	1,507,940	32,913	161,956	ND	1,044	26,101	468	[g]	222,482	18,848	1,188,534
1993	35,592	27,717	1,134,922	1,198,231	19,156	90,306	0	825	26,772	133	[g]	137,192	5,634	992,096
1994	15,804	17,954	1,412,047	1,445,805	12,409	63,253	ND	213	26,375	102	[g]	102,352	2,255	1,307,440
1995	15,720	29,451	884,922	930,094	20,355	75,622	ND	177	11,805	83	[g]	108,042	4,945	771,936
1996	104,110	39,810	1,129,274	1,273,194	27,514	118,967	ND	307	19,136	225	[g]	166,149	46,881	916,244
1997	116,107	43,642	1,512,733	1,672,482	30,163	103,328	ND	312	12,910	274	[g]	146,987	39,544	1,326,202
1998	105,497	33,980	1,084,996	1,224,472	23,484	107,072	ND	158	25,110	81	[g]	155,905	51,383	877,707
1999	150,993	46,043	1,137,001	1,334,037	31,822	122,709	ND	0	32,335	859	[g]	187,725	32,644	916,632
2000	99,571	57,978	900,700	1,058,249	40,070	132,935	ND	377	30,229	190	[g]	203,801	27,493	669,406
2001	152,580	51,374	906,333	1,110,287	35,506	113,882	ND	24	18,550	142	[g]	168,104	24,028	714,201
2002	182,229	46,693	1,339,682	1,568,604	32,271	143,211	3,742	1,509	31,999	308	[g]	213,040	44,081	1,082,561
2003	227,207	60,722	1,656,026	1,943,955	41,967	173,068	10,168	96	28,085	302	[g]	253,686	6,364	1,395,976
2004	266,937	62,397	1,945,383	2,274,717	43,124	182,722	5,795	276	22,417	502	[g]	254,836	10,741	1,679,806
2005	300,105	58,017	1,908,821	2,266,943	40,097	182,704	13,469	45	18,503	0	[g]	254,818	6,980	1,647,023
2006	130,486	30,964	2,064,728	2,226,178	21,400	113,972	7,089	98	29,694	385	[g]	172,638	15,910	1,876,180
2007	295,866	60,623	1,229,945	1,586,434	41,898	199,415	6,876	94	16,863	240	298	265,684	6,831	957,430
2008	239,075	46,053	917,139	1,202,267	31,829	144,325	7,823	171	23,680	0	478	208,306	4,854	703,979
2009	346,773	45,868	1,090,055	1,482,696	31,700	167,746	7,005	102	33,935	1,019	431	241,938	4,862	843,255
2010	395,586	59,651	1,294,885	1,750,122	41,227	194,934	8,823	255	9,333	1,744	903	257,219	22,560	1,015,106
2011	543,043	85,720	1,599,217	2,227,980	59,244	234,159	5,717	13	14,412	97	1,089	314,731	9,117	1,275,369
2012	528,610	102,376	1,581,555	2,212,541	70,756	278,675	3,611	20	15,072	37	547	368,718	15,319	1,197,518
2013	350,302	ND	1,359,893	ND	ND	ND	ND	ND	ND	ND	ND	ND	21,056	ND
Average														
2008–2012	410,620	67,930	1,296,570	1,775,120	46,950	203,970	6,600	110	19,290	580	690	278,180	11,340	1,007,050
1981–2012	162,930	40,600	1,250,730	1,428,800	28,060	122,770	5,060	440	26,170	2,350	620	182,330	18,050	1,050,350

Source: Statewide Harvest Surveys from Mills 1982–1994; Howe et al. 1995, 1996, 2001a-d; Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b, 2011, In Prepa-b; Brannian and Fox 1996; Reimer and Sigurdsson 2004, Dunker and Lafferty 2007, Dunker 2010, K. J. Dunker, Sport Fish biologist, Anchorage, personal communication; King 1995, 1996; Pappas and Marsh 2004; Shields and Dupois 2013, P. Shields, Comm Fish Biologist, ADF&G, Soldotna, personal communication; Educational harvest data, Kenaitze Indian Tribe; 2007–2012 Subsistence data, USFWS.

Note: ND = No data available.

[a] Personal use harvest not known in 1982; personal use (1981–1995), subsistence dip net harvest (1991–1995), and Kenaitze educational harvest (1989–1995) from Brannian and Fox,1996. From 1994 to present, the educational harvest is the total late-run harvest.

[b] In 1994 and 1995 a creel survey was conducted to estimate harvest below the sonar. In 1994, 49.7% of the below Soldotna Bridge harvest was taken below the sonar. In 1995, 68.6 % was taken below the sonar. The average of these two percentages is applied to all other year's below-bridge harvest to estimate the harvest below the sonar.

[c] Data revised in 2011 when all Bendix data was converted to DIDSON-equivalent estimates.

[d] SWHS began reporting this data consistently in 2002.

[e] Tributaries include Soldotna Crk., Funny R., Moose R., Cooper Crk., Quartz Crk., and Ptarmigan Crk.

[f] Sport harvest and 1991 Hidden Lake personal use from SWHS.

[g] Federal subsistence started in 2007 and occurs in the Russian River, the Upper Kenai River, and the Lower Kenai River with both dip nets and rod and reel. This includes harvest from late-run sockeye salmon only.

[h] Kenai River sustainable escapement goal 700,000–1,200,000, and optimum escapement goal 700,000-1,400,000; implemented in 2011.

PROPOSAL 171 – 5 AAC 21.360. Kenai River Late-Run Sockeye Salmon Management Plan.

PROPOSED BY: John McCombs.

WHAT WOULD THE PROPOSAL DO? This proposal would require fishing closures ("windows") to Kenai River inriver sport and personal use fisheries when there are window closure periods for the Upper Subdistrict set gillnet fishery. When the Kenai River late-run sockeye salmon projection is 2.3–4.6 million, the inriver sport and personal use fisheries would close for 24 hours every Tuesday, and for one 36-hour period per week, between 7:00 p.m. Thursday and 7:00 a.m. Friday. If the run is projected to be greater than 4.6 million fish, the inriver sport and personal use fisheries would close for one 36-hour period per week, between 7:00 p.m. Thursday and 7:00 a.m. Friday.

WHAT ARE THE CURRENT REGULATIONS? Kenai River sockeye salmon will be managed, based on preseason forecasts and inseason projections, as follows: at run strengths of less than 2,300,000 sockeye salmon, the department shall manage for an inriver goal range of 900,000–1,100,000 sockeye salmon past the sonar counter at river mile 19, and the Upper Subdistrict set gillnet fishery will fish regular weekly fishing periods. The department may allow additional fishing of no more than 24 hours per week in the set gillnet fishery.

At run strengths of 2,300,000–4,600,000, the department shall manage for an inriver goal range of 1,000,000–1,200,000 sockeye salmon past the sonar counter and allow additional fishing in the set gillnet fishery of no more than 51 hours per week. The fishery will be closed for one 36-hour period per week beginning between 7:00 p.m. Thursday and 7:00 a.m. Friday and for an additional 24-hour period during the same week.

At run strengths greater than 4,600,000, the department shall manage for an inriver goal range of 1,100,000–1,350,000 sockeye salmon past the sonar counter and allow additional fishing of no more than 84 hours per week in the set gillnet fishery. The set gillnet fishery will be closed for one 36-hour period per week, beginning between 7:00 p.m. Thursday and 7:00 a.m. Friday.

Subject to the requirement of achieving the lower end of the optimal escapement goal (OEG), the department shall provide for an inriver sockeye salmon sport fishery in the Kenai River seven days per week, 24-hours per day, with a bag and possession limit of three sockeye salmon. The commissioner may increase, by emergency order, the sockeye salmon bag and possession limit as the commissioner determines to be appropriate if the department determines that the abundance of the Kenai River late-run sockeye salmon is greater than 2.3 million and the OEG of 700,000–1,400,000 will be achieved.

Subject to the requirement of achieving the lower end of the OEG of 700,000–1,400,000 late-run sockeye salmon, the department shall provide for a personal use dip net fishery in the lower Kenai River. In the Kenai River, salmon may be taken by dip net from July 10 through July 31, seven days per week, from 6:00 a.m. to 11:00 p.m. The commissioner may extend, by emergency order (EO), the personal use fishery to 24 hours per day if the department determines that the abundance of the Kenai River late-run sockeye salmon is greater than 2.3 million.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would disrupt the sport and personal use fisheries in the Kenai River with multiple closures each week. Multiple start and stop times would greatly increase the complexity of managing those fisheries and strain enforcement resources to enforce those times. Notification of closures, especially closures that may be decided within hours of the effective time, would be impractical to effectively relay to thousands of inriver users. An unstable personal use fishing schedule would affect City of Kenai contracts and operations that support personal use fishing activities. This proposal would likely decrease participation in, and the number of sockeye salmon harvested in, the sport and personal use fisheries by an unknown amount overall, and would likely increase crowding on the river during periods the river is open. This proposal may increase participation and harvest in other Kenai Peninsula freshwater fisheries during the hours or days the Kenai River inriver fisheries are closed.

BACKGROUND: Currently, there are no commensurate inriver closures to sport or personal use fisheries when the commercial fisheries in Upper Cook Inlet (UCI) are not open under standard regulations. The first restrictions on additional time in the Upper Subdistrict set gillnet fishery were put in place in 1999. At that time there was a mandatory 24-hour closed period on Fridays, often called a "window". At every UCI Alaska Board of Fisheries meeting since 2002, window closures in the Upper Subdistrict set gillnet fishery have been modified. Since 2011, for runs of less than 2,300,000, two weekly 12-hour regular fishing periods are allowed and the number of additional hours is limited to no more than 24 hours per week. Because of the limited amount of additional fishing time, there are no mandatory windows.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. However, the department **OPPOSES** the proposal on a practical basis. Opening and closing a sport fishery as proposed would be impractical to implement and unnecessarily disruptive to the fishery. A Kenai River late-run sockeye salmon inriver goal provides for an allocation to the inriver sport fishery above the river mile 19 sockeye salmon sonar. The department has EO authority to modify seasons, areas, and bag and possession limits in order provide opportunity to harvest this allocation and to achieve the OEG. The personal use fishery season is 22 days long (July 10–31) and the department has EO authority to limit the fishery in order to achieve the OEG.

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.

Kasilof River Late-Run Sockeye Salmon Management Plan (9 Proposals): 148–156

PROPOSAL 148 – 5 AAC 21.365. Kasilof River Salmon Management Plan.

PROPOSED BY: Kenai Peninsula Fishermen's Association.

WHAT WOULD THE PROPOSAL DO? This proposal would amend the management plan to include a biological escapement goal (BEG) of 160,000–340,000 sockeye salmon. This proposal also seeks to clarify Alaska Board of Fisheries (board) intent that the BEG is the primary management target and the optimal escapement goal (OEG) of 160,000–390,000 fish is the primary management target only when achieving the minimum end of the Kenai River escapement goal is in doubt.

WHAT ARE THE CURRENT REGULATIONS? The *Kasilof River Salmon Management Plan* governs the harvest of Kasilof River salmon excess to spawning escapement needs. It is the intent of the board that Kasilof River salmon be harvested in the fisheries that have historically harvested them, including the methods, means, times, and locations of those fisheries. Openings in the areas historically fished must be consistent with escapement objectives for Upper Cook Inlet (UCI) salmon and with the *Upper Cook Inlet Salmon Management Plan*. Achieving the lower end of the Kenai River sockeye salmon escapement goal takes priority over not exceeding the upper end of the Kasilof River OEG of 160,000–390,000 sockeye salmon. The Kasilof River BEG is not mentioned in the plan.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It is unclear if the proposed changes would have any effect on fisheries management. The Alaska Department of Fish and Game's (department's) primary management objective is the achievement of established escapement goals. It is unclear to the department which escapement goal has priority in the Kasilof River, once the Kenai River minimum escapement goal has been met or is projected to be met. The difference between the upper end of the Kasilof River BEG (340,000) and OEG (390,000) is 50,000 sockeye salmon. If the BEG were the primary management target, it could result in additional fishing time for setnetters, especially Kasilof Section setnetters, in years when the Kasilof River sockeye salmon run was strong, in order to keep escapements in the BEG range. However, the department also manages the commercial setnet fisheries to meet king salmon escapement goals, so a change to the sockeye salmon primary escapement goal would be balanced with achieving escapement goals for sockeye and king salmon.

BACKGROUND: A management plan specific to the Kasilof River was first adopted in 1986 and was titled 5 AAC 21.365, *Kasilof River Sockeye Salmon Special Harvest Area Management Plan.* The preamble stated that it was the intent of the board that Kasilof River sockeye salmon be harvested in the traditional fisheries, including, but not limited to, the methods, means, times, and locations of those fisheries. Openings in the traditional areas must be consistent with escapement objectives for UCI salmon and with the *Upper Cook Inlet Salmon Management Plan*. From 1986 until 2002, the primary function of this management plan was to regulate the Kasilof River Special Harvest Area. From 1978–1986, the BEG for Kasilof River sockeye salmon was 75,000–150,000 fish and in 1987, the BEG was increased to 150,000–250,000 fish (Table 148-1).

In 2002, the board made numerous changes to the plan. A major change to the plan was creation of an OEG of 150,000–300,000 fish. The OEG was set primarily in response to poor sockeye salmon runs to the Kenai River in 2000 and 2001, when the department struggled to achieve the minimum Kenai River inriver goal. At the same time, the Kasilof River experienced strong runs both years. In this case, the department was challenged with how to reduce Kasilof River sockeye salmon escapement through additional set gillnet harvest, while minimizing harvest of Kenai River sockeye salmon. The board responded by setting the upper end of the Kasilof River OEG 50,000 fish above the upper end of the BEG range of 150,000–250,000 fish, with the rationale for setting an OEG being to provide 50,000 additional fish above the Kasilof River BEG during years when the Kenai River sockeye salmon run was weak. The exact wording of the plan (5 AAC 21.365(b) from 2002–2005 regulations) stated: "Achieving the lower end of the Kenai River sockeye salmon escapement goal shall take priority over not exceeding the upper end of the Kasilof River OEG of 150,000–300,000 sockeye salmon." Additional changes to the plan in 2002 included: renaming the plan the *Kasilof River Sockeye Salmon Management Plan*; creation of a 48-hour floating no-fishing "window" each week from June 25–July 7; limiting use of additional fishing hours beyond the two regular periods during this timeframe to no more than 48 hours per week; and creating specific times that the one-half mile fishery could be used. In 2008, the board also clarified that achieving established escapement goals was the primary management objective.

In 2011, the department transitioned the Kasilof sockeye sonar program from Bendix sonar to Dual-frequency Identification Sonar (DIDSON). Although the difference in the number of fish detected by the two sonars was small, the department's escapement goal analysis suggested a modification of the Kasilof River BEG from 150,000–250,000 fish to 160,000–340,000 fish; based on this change, the board also modified the Kasilof River OEG to 160,000–390,000 fish. Because there was very little difference in enumeration estimates between the two sonar technologies in the Kasilof River, the change in the escapement goals represented an increase in the actual number of spawners in the system. A reassessment of that goal in 2013 did not suggest any changes to the BEG for this stock.

Since 1978, the Kasilof River sockeye salmon escapement has been above the BEG in 23 years (64%), within the BEG in 11 years (31%), and under the BEG in two years (6%; Table 148-2). More recently (2002–2013), Kasilof River sockeye salmon escapement has been within or above the BEG and OEG in every year; with escapement above the BEG in ten of 12 years (83%) and above the OEG in seven of 12 years (58%).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal, but supports clarity in board intent regarding management priorities when the department is managing to achieve multiple escapement objectives.

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 148-1.–History of sockeye salmon escapement goals in the Kasilof River.

Year[a]	BEG/SEG[b]	OEG[bc]
1978	75,000–150,000	None
1987	150,000–250,000	None
2002	150,000–250,000	150,000–300,000
2011	160,000–340,000	160,000–390,000

[a] Only years where escapement goal changes were made are listed.
[b] BEG = biological escapement goal; SEG = sustainable escapement goal, and OEG = optimal escapement goal.
[c] OEG set to aid in achieving lower end of Kenai River escapement goal.

Table 148-2.–Escapement, biological escapement goals (BEGs), and optimum escapement goals (OEGs) for sockeye salmon in the Kasilof River, 1978–2013. Included is a comparison of the number of years the escapement was above, within, and below the escapement goals (BEG, OEG).

Year	Escapement	Biological Escapement Goal		Optimal Escapement Goal	
1978	116,600	75,000-150,000	Within		
1979	152,179	75,000-150,000	Above		
1980	184,260	75,000-150,000	Above		
1981	256,625	75,000-150,000	Above		
1982	180,239	75,000-150,000	Above		
1983	210,271	75,000-150,000	Above		
1984	231,685	75,000-150,000	Above		
1985	505,049	75,000-150,000	Above		
1986	275,963	75,000-150,000	Above		
1987	249,250	150,000-250,000	Within		
1988	204,000	150,000-250,000	Within		
1989	158,206	150,000-250,000	Within		
1990	144,289	150,000-250,000	Below		
1991	238,269	150,000-250,000	Within		
1992	184,178	150,000-250,000	Within		
1993	149,939	150,000-250,000	Below		
1994	205,117	150,000-250,000	Within		
1995	204,935	150,000-250,000	Within		
1996	249,944	150,000-250,000	Within		
1997	266,025	150,000-250,000	Above		
1998	273,213	150,000-250,000	Above		
1999	312,587	150,000-250,000	Above		
2000	256,053	150,000-250,000	Above		
2001	307,570	150,000-250,000	Above		
2002	226,682	150,000-250,000	Within	150,000-300,000	Within
2003	359,633	150,000-250,000	Above	150,000-300,000	Above
2004	577,581	150,000-250,000	Above	150,000-300,000	Above
2005	348,012	150,000-250,000	Above	150,000-300,000	Above
2006	368,092	150,000-250,000	Above	150,000-300,000	Above
2007	336,866	150,000-250,000	Above	150,000-300,000	Above
2008	301,469	150,000-250,000	Above	150,000-300,000	Above
2009	297,125	150,000-250,000	Above	150,000-300,000	Within
2010	267,013	150,000-250,000	Above	150,000-300,000	Within
2011	245,721	160,000-340,000	Within	160,000-390,000	Within
2012	374,523	160,000-340,000	Above	160,000-390,000	Within
2013	489,654	160,000-340,000	Above	160,000-390,000	Above
Averages					
1978-2013	269,689				
2004-2013	360,606				

Comparison of Escapement to Escapement Goals

	Years	%	Years	%
Above Goal	23	64%	7	58%
Within Goal	11	31%	5	42%
Below Goal	2	6%	0	0%
Total	36		12	

PROPOSAL 149 – 5 AAC 21.365. Kasilof River Salmon Management Plan.

PROPOSED BY: Mark Ducker.

WHAT WOULD THE PROPOSAL DO? This proposal would direct the Alaska Department of Fish and Game (department) to manage late-run Kasilof River sockeye salmon to achieve the biological escapement goal (BEG) of 160,000–340,000 fish; remove the optimum escapement goal (OEG) of 160,000–390,000; and change or delete provisions in the plan, including: removing language that states making the lower end of the Kenai River sockeye salmon escapement goal will take priority over exceeding the upper end of the Kasilof River sockeye salmon goal; remove emergency order (EO) hour limitations and the 36-hour closed period from the season opening through July 7; only allow the Kasilof River Special Harvest Area (KRSHA) to be used when it is projected that Kasilof River sockeye salmon escapement will exceed 340,000 fish and state that it should only be opened for conservation reasons if Kenai River sockeye or king salmon goals are in jeopardy; remove language that allows the department to depart from provisions of this management plan as provided in 5 AAC 21.363(e); and remove the definition of "week" from the plan.

WHAT ARE THE CURRENT REGULATIONS? The *Kasilof River Management Plan* governs the harvest of Kasilof River salmon excess to spawning escapement needs. It is the intent of the Alaska Board of Fisheries (board) that Kasilof River salmon be harvested in the fisheries that have historically harvested them, including the methods, means, times, and locations of those fisheries. Openings in the areas historically fished must be consistent with escapement objectives for Upper Cook Inlet (UCI) salmon and with the *Upper Cook Inlet Salmon Management Plan.* Achieving the lower end of the Kenai River sockeye salmon escapement goal takes priority over not exceeding the upper end of the Kasilof River OEG range of 160,000–390,000 sockeye salmon. The Kasilof River biological BEG of 160,000–340,000 fish is currently not mentioned in the plan.

This plan provides instruction for management of commercial fisheries that primarily targets Kasilof River sockeye salmon from the beginning of the season through July 7. During this time, there are two restrictive weekly provisions in the Kasilof Section set gillnet fishery. First, there is a limit of no more than 48 hours of additional time beyond the Monday and Thursday 12-hour regular periods. Secondly, there is a mandatory 36-hour no-fishing window each week that must begin sometime between 7:00 p.m. on Thursday and 7:00 a.m. on Friday.

Beginning on July 8, the set gillnet fishery in the Kasilof Section is to be managed as specified in the *Kenai River Late Run Sockeye Salmon Management Plan* (5 AAC 21.360). However, the Kasilof Plan identifies specific provisions unique to the Kasilof Section that apply after July 8. These provisions identify times when the Kasilof Section set gillnet fishery may be limited to fishing within one-half mile of shore or within 600 feet of high tide.

After July 8, if the Kasilof Section set gillnet fishery is restricted to fishing within the first one-half mile of shore, the KRSHA may be opened to both set and drift gillnet fishing for fishing periods not to exceed 48 hours in duration, without one period of 24 consecutive hours of closure. The KRSHA may also be opened without any restrictions when it is projected that

Kasilof River sockeye salmon escapement will exceed 365,000 fish. However, it is the intent of the board that the KRSHA should rarely, if ever, be opened under this subsection and only for conservation reasons. Before the department opens the KRSHA, fishing time should be allowed in the remainder of the Kasilof Section first, and secondly, that the mandatory closures specified in regulation be reduced in duration, if necessary, to meet the escapement goals contained within this and other management plans.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It is difficult to assess all the effects of this proposal because of the large number of proposed changes to the plan. The department would manage the Kasilof Section set gillnet fishery to primarily meet the sockeye salmon BEG in the Kasilof River. This proposal may increase commercial harvest of sockeye and king salmon by an unknown amount, depending on abundance. However, any change in salmon harvest would be dependent on management actions taken inseason to achieve sockeye and king salmon escapement goals in the Kasilof and Kenai rivers.

BACKGROUND: A management plan specific to the Kasilof River was first adopted in 1986 and was titled 5 AAC 21.365, *Kasilof River Sockeye Salmon Special Harvest Area Management Plan.* The preamble stated that it was the intent of the board that Kasilof River sockeye salmon be harvested in the traditional fisheries, including, but not limited to, the methods, means, times, and locations of those fisheries. Openings in the traditional areas must be consistent with escapement objectives for UCI salmon and with the *Upper Cook Inlet Salmon Management Plan*. From 1986–2002, the primary function of this management plan was to regulate the Kasilof River Special Harvest Area (KRSHA). From 1978–1986, the BEG for Kasilof River sockeye salmon was 75,000–150,000 fish and in 1987, the BEG was increased 150,000–250,000 fish (Table 149-1).

In 2002, the board made numerous changes to the plan. A major change to the plan was creation of an OEG of 150,000–300,000 fish. The OEG was set primarily in response to the poor sockeye salmon runs to the Kenai River in 2000 and 2001, when the department struggled to achieve the minimum Kenai River inriver goal, while the Kasilof River experienced strong runs both years. In this case, the department was challenged with how to reduce Kasilof River sockeye salmon escapement through additional set gillnet harvest, while minimizing harvest of Kenai River sockeye salmon. The upper end of the OEG was 50,000 fish more than the upper end of the BEG range of 150,000–250,000 fish. The rationale for setting an OEG was to provide 50,000 additional fish above the Kasilof River BEG during years when the Kenai River sockeye salmon run was weak. The exact wording of the plan (5 AAC 21.365(b) from 2002–2005 regulations) stated, "Achieving the lower end of the Kenai River sockeye salmon escapement goal shall take priority over not exceeding the upper end of the Kasilof River OEG of 150,000 to 300,000 sockeye salmon." Additional changes to the plan in 2002 included: renaming the plan the *Kasilof River Sockeye Salmon Management Plan*; creating a 48-hour floating no-fishing window each week from June 25–July 7; limiting use of additional fishing hours beyond the two regular periods during this timeframe to no more than 48 hours per week; and creating specific times that the one-half mile fishery could be used.

In 2008, the floating closed window of 48 hours was reduced to a window closure of 36 hours to begin between Thursday at 7:00 p.m. and Friday at 7:00 a.m. The board also clarified that achieving established escapement goals was the primary management objective.

From 1986–2007, one of the provisions for use of the KRSHA was that the department may open the KRSHA to the taking of salmon by gillnets when it is projected that the Kasilof River sockeye salmon escapement will exceed 275,000 fish. In 2008, after extensive use of the KRSHA from 2004–2007, the board added the following criteria for use of the KRSHA: "It is the intent of the Board of Fisheries (board) that the KRSHA should rarely, if ever, be opened under this subsection and only for conservation reasons. Before the department opens the KRSHA, it is the board's intent that additional fishing time be allowed in the remainder of the Kasilof Section first, and secondly that the mandatory closures specified in regulation be reduced in duration, if necessary, to meet the escapement goals contained within this and other management plans."

At the 2011 meeting, the board again modified the *Kasilof River Salmon Management Plan* to include provisions beginning and after July 8. Beginning July 8, the set gillnet fishery in the Kasilof Section will be managed as specified in 5 AAC 21.360(c). In addition to provisions of 5 AAC 21.360(c), the department may limit fishing during the regular weekly periods and any extra fishing periods to those waters within one-half mile of shore, if the set gillnet fishery in the Kenai and East Forelands sections is not open for the fishing period. If the department determines that further restrictions are necessary to aid in achieving the lower end of the Kenai River escapement goal, the department may further restrict fishing to within 600 feet of the high-tide mark in the Kasilof Section. After July 8, if the Kasilof Section set gillnet fishery is restricted to fishing within the first one-half mile of shore, the department may open the KRSHA described in (f) of this section to both set and drift gillnet fishing using only one gillnet, for fishing periods not to exceed 48 hours in duration without one period of 24 consecutive hours of closure. The provisions in (f)(1–8) of this section apply during these openings.

In 2011, the department transitioned the Kasilof sockeye sonar program from Bendix sonar to Dual-frequency Identification Sonar (DIDSON). Although the difference in the number of fish detected by the two sonars was small, the department's escapement goal analysis suggested a modification of the Kasilof River BEG from 150,000–250,000 fish to 160,000–340,000 fish; based on this change, the board also modified the Kasilof River OEG to 160,000–390,000 fish. Because there was very little difference in enumeration estimates between the two sonar technologies in the Kasilof River, the change in the escapement goals represented an increase in the actual number of spawners in the system. A reassessment of that goal in 2013 did not suggest any changes to the BEG for this stock.

Finally, at the 2011 meeting, the board increased the escapement trigger for unlimited use of the KRSHA to times when it is projected that Kasilof River sockeye salmon escapement will exceed 365,000 fish. The 90,000 fish increase in the escapement trigger was commensurate with a 90,000 fish increase in the upper end of the BEG that was recommended by the department and adopted by the board at this meeting.

Since 1978, the Kasilof River sockeye salmon escapement has been above the BEG in 23 years (64%), within the BEG in 11 years (31%), and under the BEG in two years (6%). More recently (2002–2013), Kasilof River sockeye salmon escapement has been within or above the BEG and OEG in every year; with escapement above the BEG in ten of 12 years (83%) and above the OEG in seven of 12 years (58%).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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.

Table 149-1.–History of no-fishing windows, emergency order (EO) hour limitations, and biological, sustainable and optimum escapement goals (BEG, SEG, and OEG) for sockeye salmon in the *Kasilof River Salmon Management Plan*.

Year	Dates	Window	EO Limitation	BEG/SEG	OEG
1999	July 1─July 7	None	None	150,000–250,000	None
	July 8─Aug 15	None, extra fishing time after July 20 on Kenai runs > 4 million limited to Kenai/E. Foreland Section	None		
2002	June 25─July 7	48-hour floating	48 hours	150,000–250,000	150,000–300,000
	July 8–August 15	per the Kenai plan, based on tiers	per Kenai plan		
	after July 15	per the Kenai plan, based on tiers	24-hour (1/2-mile)[a]		
2005	June 25–July 7	48-hour floating	48 hours	150,000–250,000	150,000–300,000
	July 8–August 15	per the Kenai plan, based on tiers	per Kenai plan		
	after July 15	per the Kenai plan, based on tiers	24-hour (1/2-mile)[a]		
2008	June 25–July 7	36-hour fixed (Friday window)	48 hours	150,000–250,000	150,000–300,000
	July 8–August 15	per the Kenai plan, based on tiers	per Kenai plan		
	after July 15	per the Kenai plan, based on tiers	24-hour (1/2-mile)[a]		
2011	June 25–July 7	36-hour fixed (Friday window)	48 hours	160,000–340,000	160,000–390,000
	July 8–August 15	per the Kenai plan, based on tiers	per Kenai plan		
	after July 15	per the Kenai plan, based on tiers	24-hour (1/2-mile)[a]		

[a] After July 15, for Kenai runs <2.0 million (2002–2010) or <2.3 million (2011–2013), if Kasilof OEG projected to be exceeded, 24 additional hours may be used in Kasilof Section 1/2-mile fishery.

PROPOSAL 150 – 5 AAC 21.365. Kasilof River Salmon Management Plan.

PROPOSED BY: South K-Beach Independent Fishermen.

WHAT WOULD THE PROPOSAL DO? This proposal would modify the management plan by deleting or changing numerous provisions in the management plan including: removing the Kasilof River sockeye salmon optimum escapement goal (OEG) and the language that states making the lower end of the Kenai River sockeye salmon escapement goal will take priority over exceeding the upper end of the Kasilof River sockeye salmon goal; replacing the OEG with a biological escapement goal (BEG) as the primary management objective; changing the time period that much of the plan addresses, from the beginning of the season through July 15 instead of July 7; limiting use of additional weekly fishing hours; removing the 36-hour weekly no-fishing window; removing restrictions on use of an additional 24 hours of fishing time for runs less than 2.3 million Kenai River sockeye salmon; and removing section (f), which is the part of the plan that details use of the Kasilof River Special Harvest Area (KRSHA).

WHAT ARE THE CURRENT REGULATIONS? The *Kasilof River Salmon Management Plan* states that achieving the lower end of the Kenai River sockeye salmon escapement goal shall take priority over not exceeding the upper end of the Kasilof River OEG of 160,000–390,000 sockeye salmon. The Kasilof River BEG of 160,000–340,000 fish is not mentioned in the plan.

This plan provides instruction for management of commercial fisheries that primarily targets Kasilof River sockeye salmon from the beginning of the season through July 7. During this time, there are two restrictive weekly provisions in the Kasilof Section set gillnet fishery. First, there is a limit of no more than 48 hours of additional time beyond the Monday and Thursday 12-hour regular periods. Secondly, there is a mandatory 36-hour no-fishing window each week that must begin sometime between 7:00 p.m. on Thursday and 7:00 a.m. on Friday.

According to the plan, beginning on July 8, the set gillnet fishery in the Kasilof Section is to be managed as specified in the *Kenai River Late Run Sockeye Salmon Management Plan* (5 AAC 21.360). However, the Kasilof Plan still identifies specific provisions unique to the Kasilof Section that apply after July 8. These provisions identify times when the Kasilof Section set gillnet fishery may be limited to fishing within one-half mile of shore or within 600 feet of high tide.

Finally, the *Kasilof River Salmon Management Plan* contains provisions for use of the KRSHA.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It is difficult to assess all the effects of this proposal because of the large number of proposed changes to the plan. The department would manage the Kasilof Section set gillnet fishery to primarily meet the sockeye salmon BEG in the Kasilof River. This proposal may increase commercial harvest of sockeye and king salmon by an unknown amount, depending on abundance. However, any change in salmon harvest would be dependent on management actions taken inseason to achieve sockeye and king salmon escapement goals in the Kasilof and Kenai rivers.

BACKGROUND: A management plan specific to the Kasilof River was first adopted in 1986 and was titled 5 AAC 21.365, *Kasilof River Sockeye Salmon Special Harvest Area Management Plan.* The preamble stated that it was the intent of the Alaska Board of Fisheries (board) that Kasilof River sockeye salmon be harvested in the traditional fisheries, including, but not limited to, the methods, means, times, and locations of those fisheries. Openings in traditional areas must be consistent with escapement objectives for Upper Cook Inlet salmon and with the *Upper Cook Inlet Salmon Management Plan*. From 1986 until 2002, the primary function of this management plan was to regulate the KRSHA. From 1978–1986, the BEG for Kasilof River sockeye salmon was 75,000–150,000 fish and in 1987, the BEG was increased 150,000–250,000 fish.

In 2002, the board made numerous changes to the plan. A major change to the plan was creation of an OEG of 150,000–300,000 fish. The OEG was set primarily in response to the poor sockeye salmon runs to the Kenai River in 2000 and 2001, when the department struggled to achieve the minimum Kenai River inriver goal, while the Kasilof River experienced strong runs both years. In this case, the department was challenged with how to reduce Kasilof River sockeye salmon escapement through additional set gillnet harvest, while minimizing harvest of Kenai River sockeye salmon. The upper end of the OEG was 50,000 fish more than the upper end of the BEG range of 150,000–250,000 fish. The rationale for setting an OEG was to provide 50,000 additional fish above the Kasilof River BEG during years when the Kenai River sockeye salmon run was weak. The exact wording of the plan (5 AAC 21.365(b) from 2002–2005 regulations) stated, "Achieving the lower end of the Kenai River sockeye salmon escapement goal shall take priority over not exceeding the upper end of the Kasilof River OEG of 150,000 to 300,000 sockeye salmon." Additional changes to the plan in 2002 included: renaming the plan the *Kasilof River Sockeye Salmon Management Plan*, creation of a 48-hour floating no-fishing window each week from June 25–July 7, limiting use of additional fishing hours beyond the two regular periods during this timeframe to no more than 48 hours per week, and creating specific times that the one-half mile fishery could be used.

In 2008, the floating closed window of 48 hours was reduced to a window closure of 36 hours to begin between Thursday at 7:00 p.m. and Friday at 7:00 a.m. The board also clarified that achieving established escapement goals was the primary management objective.

From 1986–2007, provisions for use of the KRSHA were as follows: the department may, by emergency order, open the KRSHA to the taking of salmon by gillnets when it is projected that the Kasilof River sockeye salmon escapement will exceed 275,000 fish. In 2008, after extensive use of the KRSHA from 2004–2007, the board added the following criteria for use of the KRSHA: "It is the intent of the Board of Fisheries (board) that the KRSHA should rarely, if ever, be opened under this subsection and only for conservation reasons. Before the department opens the KRSHA, it is the board's intent that additional fishing time be allowed in the remainder of the Kasilof Section first, and secondly that the mandatory closures specified in regulation be reduced in duration, if necessary, to meet the escapement goals contained within this and other management plans."

At the 2011 meeting, the board again modified the *Kasilof River Salmon Management Plan* to include provisions beginning and after July 8. Beginning July 8, the set gillnet fishery in the Kasilof Section will be managed as specified in 5 AAC 21.360(c). In addition to provisions of 5

AAC 21.360(c), the department may limit fishing during the regular weekly periods and any extra fishing periods to those waters within one-half mile of shore, if the set gillnet fishery in the Kenai and East Forelands sections is not open for the fishing period. If the department determines that further restrictions are necessary to aid in achieving the lower end of the Kenai River escapement goal, the department may further restrict fishing to within 600 feet of the high-tide mark in the Kasilof Section. After July 8, if the Kasilof Section set gillnet fishery is restricted to fishing within the first one-half mile of shore, the department may open the KRSHA to both set and drift gillnet fishing, for fishing periods not to exceed 48 hours in duration without one period of 24 consecutive hours of closure.

In 2011, the department transitioned the Kasilof sockeye sonar program from Bendix sonar to Dual-frequency Identification Sonar (DIDSON). Although the difference in the number of fish detected by the two sonars was small, the department's escapement goal analysis suggested a modification of the Kasilof River BEG from 150,000–250,000 fish to 160,000–340,000 fish; based on this change, the board also modified the Kasilof River OEG to 160,000–390,000 fish. Because there was very little difference in enumeration estimates between the two sonar technologies in the Kasilof River, the change in the escapement goals represented an increase in the actual number of spawners in the system. A reassessment of that goal in 2013 did not suggest any changes to the BEG for this stock.

Finally, at the 2011 meeting, the board increased the escapement trigger for unlimited use of the KRSHA to times when it is projected that the Kasilof River sockeye salmon escapement will exceed 365,000 fish. The 90,000 fish increase in the escapement trigger was commensurate with a 90,000 fish increase in the upper end of the BEG that was recommended by the department and adopted by the board at this meeting.

Since 1978, the Kasilof River sockeye salmon escapement has been above the BEG in 23 years (64%), within the BEG in 11 years (31%), and under the BEG in two years (6%). More recently (2002–2013), Kasilof River sockeye salmon escapement has been within or above the BEG and OEG in every year; with escapement above the BEG in ten of 12 years (83%) and above the OEG in seven of 12 years (58%).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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 151 – 5 AAC 21.365. Kasilof River Salmon Management Plan.

PROPOSED BY: United Cook Inlet Drift Association.

WHAT WOULD THE PROPOSAL DO? This proposal seeks to modify the management plan after July 15, such that the trigger point (that allows fishing in the Kasilof Section within one-half mile of shore) for the Kenai River late-run sockeye salmon run strength is changed from 2.3 million to 2.0 million. This proposal would remove several provisions from the management plan, as follows: 1) remove the 24-hour restriction on additional fishing time in the Kasilof Section within one-half mile of shore; 2) remove the weekly limit of no more than 48 hours of additional fishing time; 3) remove the 36-hour weekly no fishing window; 4) remove the limitation on how much gear a drift gillnet or set gillnet vessel may have on board when fishing in the Kasilof River Special Harvest Area (KRSHA); and 5) remove the Kasilof River sockeye salmon OEG.

WHAT ARE THE CURRENT REGULATIONS? The *Kasilof River Salmon Management Plan* identifies an optimum escapement goal (OEG) of 160,000–390,000 fish, found in subsection (b), which reads, "achieving the lower end of the Kenai River sockeye salmon escapement goal shall take priority over not exceeding the upper end of the Kasilof River optimal escapement goal of 160,000 to 390,000 sockeye salmon." From the beginning of the fishing season through July 7, the set gillnet fishery in the Kasilof Section may be opened to a maximum of 48 hours of additional fishing time per week and shall also remain closed for at least one continuous 36-hour period per week to begin between 7:00 p.m. Thursday and 7:00 a.m. Friday. After July 15, if the department determines that the Kenai River late-run sockeye salmon run strength is projected to be less than 2,300,000 fish and the 390,000 OEG for Kasilof River sockeye salmon may be exceeded, the department may open fishing for an additional 24 hours per week in the Kasilof Section within one-half mile of shore and as specified in 5 AAC 21.360(c). Finally, there is a limit of 150 fathoms of gear that a drift gillnet vessel may have on board and a limit of 105 fathoms of gear that a set gillnet vessel may have on board while fishing in the KRSHA.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It is difficult to assess all the effects of this proposal because of the large number of proposed changes to the plan. The department would manage the Kasilof Section set gillnet fishery to primarily meet the sockeye salmon biological escapement goal (BEG) in the Kasilof River. This proposal may increase commercial harvest of sockeye and king salmon by an unknown amount, depending on abundance. However, any change in salmon harvest would be dependent on management actions taken inseason to achieve sockeye and king salmon escapement goals in the Kasilof and Kenai rivers.

BACKGROUND: A management plan specific to the Kasilof River was first adopted in 1986 and was titled 5 AAC 21.365, *Kasilof River Sockeye Salmon Special Harvest Area Management Plan.* The preamble stated that it was the intent of the Alaska Board of Fisheries (board) that Kasilof River sockeye salmon be harvested in the traditional fisheries, including, but not limited to, the methods, means, times, and locations of those fisheries. Openings in traditional areas must be consistent with escapement objectives for Upper Cook Inlet salmon and with the *Upper Cook*

Inlet Salmon Management Plan. From 1986–2002, the primary function of this management plan was to regulate the Kasilof River Special Harvest Area (KRSHA). From 1978–1986, the BEG for Kasilof River sockeye salmon was 75,000–150,000 fish and in 1987, the BEG was increased to 150,000–250,000 fish.

In 2002, the board made numerous changes to the plan. A major change to the plan was creation of an OEG of 150,000–300,000 fish. The OEG was set primarily in response to the poor sockeye salmon runs to the Kenai River in 2000 and 2001, when the department struggled to achieve the minimum Kenai River inriver goal, while the Kasilof River experienced strong runs both years. In this case, the department was challenged with how to reduce Kasilof River sockeye salmon escapement through additional set gillnet harvest, while minimizing harvest of Kenai River sockeye salmon. The upper end of the OEG was 50,000 fish more than the upper end of the BEG range of 150,000–250,000 fish. The rationale for setting an OEG was to provide 50,000 additional fish above the Kasilof River BEG during years when the Kenai River sockeye salmon run was weak. The exact wording of the plan (5 AAC 21.365(b) from 2002–2005 regulations) stated, "Achieving the lower end of the Kenai River sockeye salmon escapement goal shall take priority over not exceeding the upper end of the Kasilof River OEG of 150,000 to 300,000 sockeye salmon." Additional changes to the plan in 2002 included: renaming the plan the *Kasilof River Sockeye Salmon Management Plan*; creation of a 48-hour floating no-fishing window each week from June 25–July 7; limiting use of additional fishing hours beyond the two regular periods during this timeframe to no more than 48 hours per week; and creating specific times that the one-half mile fishery could be used.

In 2008, the "floating" closed window of 48 hours was reduced to a "fixed" window closure of 36 hours to begin between Thursday at 7:00 p.m. and Friday at 7:00 a.m. The board also clarified that achieving established escapement goals was the primary management objective.

From 1986–2007, provisions for use of the KRSHA were as follows: the department may open the KRSHA to the taking of salmon by gillnets when it is projected that Kasilof River sockeye salmon escapement will exceed 275,000 fish. In 2008, after extensive use of the KRSHA from 2004–2007, the board added the following criteria for use of the KRSHA: "It is the intent of the Board of Fisheries (board) that the KRSHA should rarely, if ever, be opened under this subsection and only for conservation reasons. Before the department opens the KRSHA, it is the board's intent that additional fishing time be allowed in the remainder of the Kasilof Section first, and secondly that the mandatory closures specified in regulation be reduced in duration, if necessary, to meet the escapement goals contained within this and other management plans."

At the 2011 meeting, the board again modified the management plan. Beginning July 8, the set gillnet fishery in the Kasilof Section will be managed as specified in 5 AAC 21.360(c). In addition, the department may limit fishing during the regular weekly periods and any extra fishing periods to those waters within one-half mile of shore, if the set gillnet fishery in the Kenai and East Forelands sections is not open for the fishing period. If the department determines that further restrictions are necessary to aid in achieving the lower end of the Kenai River escapement goal, the department may further restrict fishing to within 600 feet of the high-tide mark in the Kasilof Section. After July 8, if the Kasilof Section set gillnet fishery is restricted to fishing within the first one-half mile of shore, the department may open the KRSHA

to both set and drift gillnet fishing using only one gillnet, for fishing periods not to exceed 48 hours in duration without one period of 24 consecutive hours of closure.

In 2011, the department transitioned the Kasilof sockeye sonar program from Bendix sonar to Dual-frequency Identification Sonar (DIDSON). Although the difference in the number of fish detected by the two sonars was small, the department's escapement goal analysis suggested a modification of the Kasilof River BEG from 150,000–250,000 fish to 160,000–340,000 fish; based on this change, the board also modified the Kasilof River OEG to 160,000–390,000 fish. Because there was very little difference in enumeration estimates between the two sonar technologies in the Kasilof River, the change in the escapement goals represented an increase in the actual number of spawners in the system. A reassessment of that goal in 2013 did not suggest any changes to the BEG for this stock.

Finally, at the 2011 meeting, the board increased the escapement trigger for unlimited use of the KRSHA to times when it is projected that the Kasilof River sockeye salmon escapement will exceed 365,000 fish. The 90,000 fish increase in the escapement trigger was commensurate with a 90,000 fish increase in the upper end of the BEG that was recommended by the department and adopted by the board at this meeting.

Since 1978, the Kasilof River sockeye salmon escapement has been above the BEG in 23 years (64%), within the BEG in 11 years (31%), and under the BEG in two years (6%). More recently (2002–2013), Kasilof River sockeye salmon escapement has been within or above the BEG and OEG in every year; with escapement above the BEG in ten of 12 years (83%) and above the OEG in seven of 12 years (58%).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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 152 – 5 AAC 21.365. Kasilof River Salmon Management Plan.

PROPOSED BY: Central Peninsula Fish and Game Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would amend the management plan so the Alaska Department of Fish and Game (department) would manage Kasilof River sockeye salmon primarily for commercial uses based on abundance and meet a spawning escapement goal of 150,000–250,000 sockeye salmon.

WHAT ARE THE CURRENT REGULATIONS? The *Kasilof River Salmon Management Plan* governs the harvest of Kasilof River salmon excess to spawning escapement needs. It is the intent of the Alaska Board of Fisheries (board) that Kasilof River salmon be harvested in the fisheries that have historically harvested them, including the methods, means, times, and locations of those fisheries. Openings in the areas historically fished must be consistent with escapement objectives for Upper Cook Inlet salmon and with the *Upper Cook Inlet Salmon Management Plan* (5 AAC 21.363). Achieving the lower end of the Kenai River sockeye salmon escapement goal shall take priority over not exceeding the upper end of the Kasilof River optimal escapement goal (OEG) of 160,000–390,000 sockeye salmon.

The *Policy for the management of sustainable salmon fisheries* (5 AAC 39.222) contains principles and criteria for the management of salmon fisheries by the state, and defines escapement goal terms. The *Policy for statewide salmon escapement goals* (5 AAC 39.223) recognizes the establishment of salmon escapement goals as a joint responsibility of the Alaska Department of Fish and Game (department) and the Alaska Board of Fisheries (board) and describes the concepts, criteria, and procedures for establishing and modifying salmon escapement goals. This policy describes the roles of the department and the board in developing, reviewing, and modifying escapement goals (see staff comments for proposal 157).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would likely increase commercial harvest of sockeye and king salmon by an unknown amount, depending on abundance. The proposal would also make the primary management objective a spawning escapement goal range of 150,000–250,000 which may reduce future yields at lower levels of escapement. It should be noted that the terminology "spawning escapement goal" is not defined in regulation. It is assumed provisions in sections (c) through (f) are not affected because these provisions are not discussed in the proposal.

BACKGROUND: A management plan specific to the Kasilof River was first adopted in 1986 and was titled 5 AAC 21.365*, Kasilof River Sockeye Salmon Special Harvest Area Management Plan.* The preamble stated that it was the intent of the Alaska Board of Fisheries (board) that Kasilof River sockeye salmon be harvested in the traditional fisheries, including, but not limited to, the methods, means, times, and locations of those fisheries. Openings in the traditional areas must be consistent with escapement objectives for Upper Cook Inlet salmon and with the *Upper Cook Inlet Salmon Management Plan*. From 1986–2002, the primary function of this management plan was to regulate the Kasilof River Special Harvest Area. From 1978–1986, the BEG for Kasilof River sockeye salmon was 75,000–150,000 fish and in 1987, the BEG was increased to 150,000–250,000 fish.

In 2002, the board made numerous changes to the plan. A major change to the plan was creation an OEG of 150,000–300,000 fish. The OEG was set primarily in response to the poor sockeye salmon runs to the Kenai River in 2000 and 2001, when the department struggled to achieve the minimum Kenai River inriver goal, while the Kasilof River experienced strong runs both years. In this case, the department was challenged with how to reduce Kasilof River sockeye salmon escapement through additional set gillnet harvest, while minimizing harvest of Kenai River sockeye salmon. The upper end of the OEG was 50,000 fish more than the upper end of the BEG range of 150,000–250,000 fish. The rationale for setting an OEG was to provide 50,000 additional fish above the Kasilof River BEG during years when the Kenai River sockeye salmon run was weak. The exact wording of the plan (5 AAC 21.365(b) from 2002–2005 regulations) stated, "Achieving the lower end of the Kenai River sockeye salmon escapement goal shall take priority over not exceeding the upper end of the Kasilof River OEG of 150,000–300,000 sockeye salmon." Additional changes to the plan in 2002 included: renaming the plan the *Kasilof River Sockeye Salmon Management Plan*; creation of a 48-hour floating no-fishing window each week from June 25–July 7; limiting use of additional fishing hours beyond the two regular periods during this timeframe to no more than 48 hours per week; and creating specific times that the one-half mile fishery could be used.

In 2008, the floating closed window of 48 hours was reduced to a window closure of 36 hours to begin between Thursday at 7:00 p.m. and Friday at 7:00 a.m. The board also clarified that achieving established escapement goals was the primary management objective.

In 2011, the department transitioned the Kasilof sockeye sonar program from Bendix sonar to Dual-frequency Identification Sonar (DIDSON). Although the difference in the number of fish detected by the two sonars was small, the department's escapement goal analysis suggested a modification of the Kasilof River BEG from 150,000–250,000 fish to 160,000–340,000 fish; based on this change, the board also modified the Kasilof River OEG to 160,000–390,000 fish. Because there was very little difference in enumeration estimates between the two sonar technologies in the Kasilof River, the change in the escapement goals represented an increase in the actual number of spawners in the system. A reassessment of that goal in 2013 did not suggest any changes to the BEG for this stock.

Since 1978, the Kasilof River sockeye salmon escapement has been above the BEG in 23 years (64%), within the BEG in 11 years (31%), and under the BEG in two years (6%). More recently (2002–2013), Kasilof River sockeye salmon escapement has been within or above the BEG and OEG in every year; with escapement above the BEG in ten of 12 years (83%) and above the OEG in seven of 12 years (58%).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal.

The department reviewed the BEG for Kasilof River sockeye salmon as part of its 2013 escapement goal review and recommended no change. The department is concerned about setting an escapement goal lower than the current escapement goal, which may reduce future yields at lower levels of escapement.

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 153 – 5 AAC 21.365. Kasilof River Salmon Management Plan.

PROPOSED BY: Kenai Peninsula Fishermen's Association.

WHAT WOULD THE PROPOSAL DO? This proposal would increase the area allowed for set gillnets to be operated from 600 feet to within 1,200 feet of the mean high-tide mark in the Kasilof River Special Harvest Area (KRSHA) and therefore restrict drift gillnetting to fishing no closer than 1,200 feet of the mean high-tide mark in this area.

WHAT ARE THE CURRENT REGULATIONS? The *Kasilof River Salmon Management Plan* states that within the KRSHA, set gillnets may be operated only within 600 feet of the mean high-tide mark and drift gillnets may not be operated in waters within 600 feet of the mean high-tide mark (Figure 153-1).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would likely increase set gillnet harvest of salmon in the KRSHA and perhaps reduce drift gillnet harvest in the KRSHA, both by unknown amounts.

BACKGROUND: From 1986–2007, one of the provisions for use of the KRSHA was that the department may open the KRSHA to the taking of salmon by gillnets when it is projected that the Kasilof River sockeye salmon escapement will exceed 275,000 fish. In 2008, after extensive use of the KRSHA from 2004–2007, the board added the following criteria for use of the KRSHA: "It is the intent of the Board of Fisheries (board) that the KRSHA should rarely, if ever, be opened under this subsection and only for conservation reasons. Before the department opens the KRSHA, it is the board's intent that additional fishing time be allowed in the remainder of the Kasilof Section first, and secondly that the mandatory closures specified in regulation be reduced in duration, if necessary, to meet the escapement goals contained within this and other management plans."

At the 2011 meeting, the board again modified the *Kasilof River Salmon Management Plan*. Beginning July 8, the set gillnet fishery in the Kasilof Section will be managed as specified in 5 AAC 21.360(c). In addition, the department may limit fishing during the regular weekly periods and any extra fishing periods to those waters within one-half mile of shore, if the set gillnet fishery in the Kenai and East Foreland sections is not open for the fishing period. If the department determines that further restrictions are necessary to aid in achieving the lower end of the Kenai River escapement goal, the department may further restrict fishing to within 600 feet of the high-tide mark in the Kasilof Section. After July 8, if the Kasilof Section set gillnet fishery is restricted to fishing within the first one-half mile of shore, the department may open the KRSHA to both set and drift gillnet fishing using only one gillnet, for fishing periods not to exceed 48 hours in duration without one period of 24 consecutive hours of closure.

Finally, at the 2011 meeting, the board increased the escapement trigger for unlimited use of the KRSHA to times when it is projected that Kasilof River sockeye salmon escapement will exceed 365,000 fish. The 90,000 fish increase in the escapement trigger was commensurate with a 90,000 fish increase in the upper end of the BEG that was recommended by the department and adopted by the board at this meeting.

The KRSHA has been opened for five different years since the 2005 season (Table 153-1). During this time the average harvest by setnetters was 716 king and 111,268 sockeye salmon per year, while drifters caught 447 king and 78,747 sockeye salmon per year.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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**.**

Table 153-1.–Commercial salmon harvest in the Kasilof River Special Harvest Area, 2005-2013.

	Set Gillnet					Drift Gillnet				
Year	King	Sockeye	Coho	Pink	Chum	King	Sockeye	Coho	Pink	Chum
2005	629	77,907	58	405	2	119	19,292	11	145	54
2006	1,265	338,155	675	362	7	1,731	349,417	1,826	1,643	750
2007	164	15,631	452	104		16	4,659	54	24	2
2008	1,164	60,499	5,202	23,441	5	358	17,370	1,071	6,123	55
2013	358	64,150	633	2,426	2	11	2,995	49	182	20
Averages	716	111,268	1,404	5,348	4	447	78,747	602	1,623	176

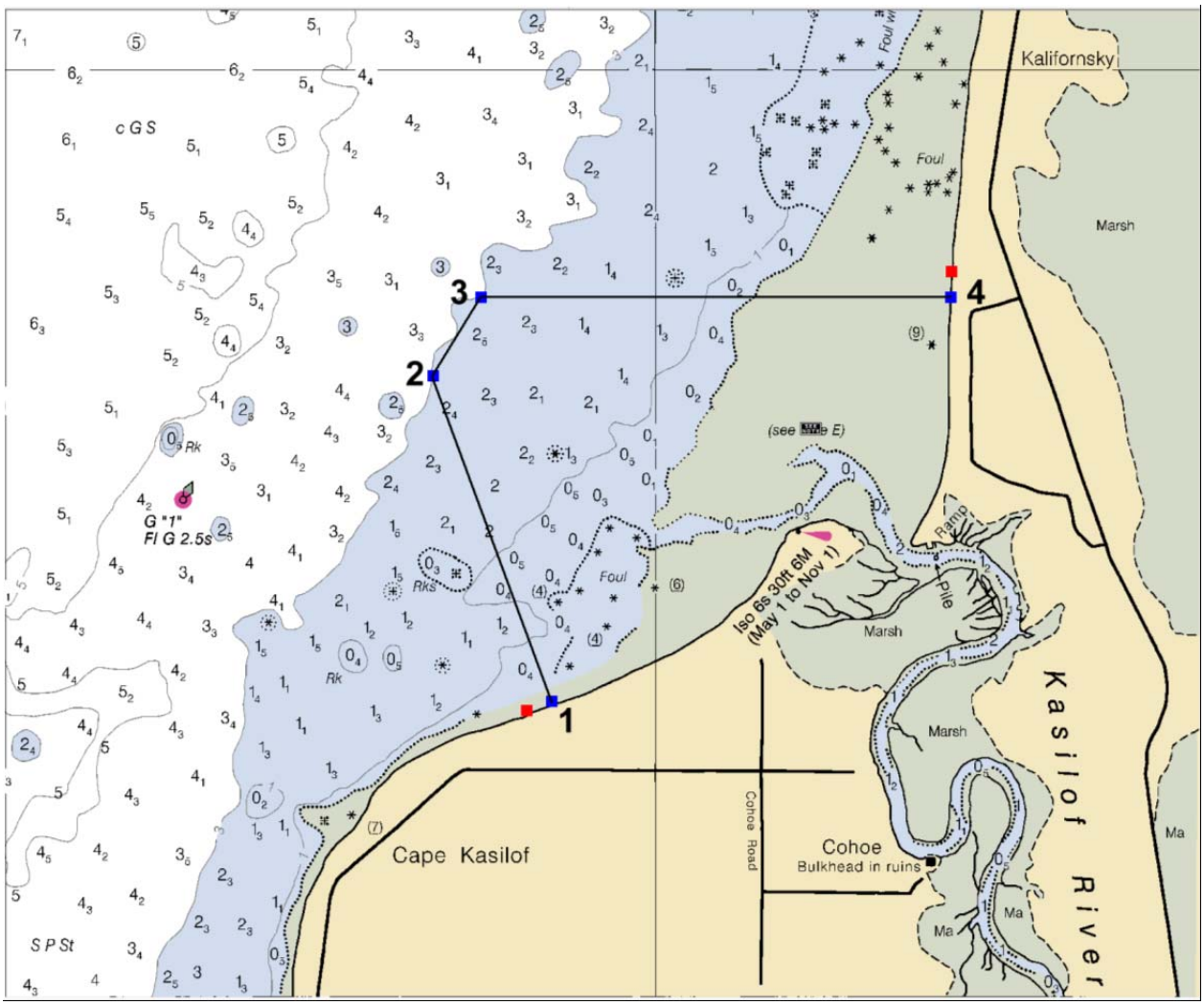

Figure 153-1.–Map of the Kasilof River Special Harvest Area (KRSHA). The red boxes are the commercial ADF&G regulatory markers. The KRSHA boundaries are 600 feet north of the south marker and 600 feet south of the north marker.

PROPOSAL 154 – 5 AAC 21.365. Kasilof River Salmon Management Plan.

PROPOSED BY: South K-Beach Independent Fishermen (SOK-I).

WHAT WOULD THE PROPOSAL DO? This proposal would amend the management plan to open the set gillnet fishery in the South K-Beach statistical area any time the Kasilof River Special Harvest Area (KRSHA) is opened. The proposal would create a new statistical area, numbered 244-10, to identify harvest in this area as being part of the KRSHA.

WHAT ARE THE CURRENT REGULATIONS? The KRSHA is defined as those waters within one and one-half miles of the navigational light located on the south bank of the Kasilof River, excluding waters of the Kasilof River upstream of ADF&G regulatory markers located near the terminus of the river and waters open to set gillnetting under 5 AAC 21.330(b)(3)(C)(ii) and (iii) (Figure 154-1).

The area that is proposed to be opened any time the KRSHA is opened is currently identified by the department as statistical area 244-31, South K-Beach. It is that area of beach from the regulatory marker located approximately one mile north of the Kasilof River to the Blanchard Line, which is approximately 2.9 miles of beach. Commercial fishing in the South K-Beach statistical area is regulated by provisions in 5 AAC 21.365, *Kasilof River Salmon Management Plan,* and 5 AAC 21.360*, Kenai River Late-Run Sockeye Salmon Management Plan*.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Opening up additional 2.9 miles of beach north of the Kasilof River when fishing in the KRSHA would increase harvest of sockeye and king salmon bound for both the Kenai and Kasilof rivers by an unknown amount and reduce the department's ability to direct commercial harvest toward Kasilof River sockeye salmon while conserving sockeye or king salmon bound for the Kenai River.

BACKGROUND: From 1986–2007, one of the provisions for use of the KRSHA was that the department may open the KRSHA to the taking of salmon by gillnets when it is projected that Kasilof River sockeye salmon escapement will exceed 275,000 fish. In 2008, after extensive use of the KRSHA from 2004–2007, the board added the following criteria for use of the KRSHA: "It is the intent of the Board of Fisheries (board) that the KRSHA should rarely, if ever, be opened under this subsection and only for conservation reasons. Before the department opens the KRSHA, it is the board's intent that additional fishing time be allowed in the remainder of the Kasilof Section first, and secondly that the mandatory closures specified in regulation be reduced in duration, if necessary, to meet the escapement goals contained within this and other management plans."

At the 2011 meeting, the board again modified the *Kasilof River Salmon Management Plan*. Beginning July 8, the set gillnet fishery in the Kasilof Section will be managed as specified in 5 AAC 21.360(c). In addition, the department may limit fishing during regular weekly periods and any extra fishing periods to those waters within one-half mile of shore, if the set gillnet fishery in the Kenai and East Foreland sections is not open for the fishing period; if the department determines that further restrictions are necessary to aid in achieving the lower end of

the Kenai River escapement goal, the department may, by emergency order, further restrict fishing to within 600 feet of the high-tide mark in the Kasilof Section. After July 8, if the Kasilof Section set gillnet fishery is restricted to fishing within the first one-half mile of shore, the department may open the KRSHA to both set and drift gillnet fishing using only one gillnet, for fishing periods not to exceed 48 hours in duration without one period of 24 consecutive hours of closure.

Finally, at the 2011 meeting, the board increased the escapement trigger for unlimited use of the KRSHA to times when it is projected that the Kasilof River sockeye salmon escapement will exceed 365,000 fish.

The KRSHA has been traditionally fished when Kasilof River sockeye salmon returns are strong and Kenai River late-run sockeye salmon returns are weak.

The KRSHA has been opened for five different years since the 2005 season (Table 154-1). Genetic stock identification (GSI) analyses were conducted on king salmon harvested in the KRSHA in 2013, with stock estimates showing approximately 76% of the king salmon harvest was Kasilof River stocks and 24% were Kenai River late-run (mainstem) stocks (Table 154-2).

GSI analyses have also been conducted on commercial sockeye salmon harvested in the Upper Subdistrict set gillnet fisheries since 2005 (tables 154-3 and 154-4). In the Kasilof Section, the harvest of Kenai and Kasilof river sockeye salmon stocks varied through the season. In the Kenai and East Foreland sections, Kenai River sockeye salmon stocks comprised the majority of the harvest.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. However, opening up additional area when fishing in the KRSHA would increase harvest of sockeye and king salmon bound for both the Kenai and Kasilof rivers by an unknown amount and reduce the department's ability to direct commercial harvest toward Kasilof River sockeye salmon while conserving sockeye or king salmon bound for the Kenai River, if necessary.

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 154-1.–Commercial salmon harvest in the Kasilof River Special Harvest Area, 2005-2013.

	Set Gillnet					Drift Gillnet				
Year	Chinook	Sockeye	Coho	Pink	Chum	Chinook	Sockeye	Coho	Pink	Chum
2005	629	77,907	58	405	2	119	19,292	11	145	54
2006	1,265	338,155	675	362	7	1,731	349,417	1,826	1,643	750
2007	164	15,631	452	104		16	4,659	54	24	2
2008	1,164	60,499	5,202	23,441	5	358	17,370	1,071	6,123	55
2013	358	64,150	633	2,426	2	11	2,995	49	182	20

Table 154-2.–Genetic stock identification estimates of king salmon harvested in the Kasilof River Special Harvest Area in 2013.

Kasilof River Special Harvest Area, July 17 - August 2					
N=58	Mean		Credibility Interval		Harvest
	Proportion	SD	5%	95%	Est.
Kenai Trib	0.1%	0.009	0.000	0.001	0.4
Kenai Main	24%	0.088	0.105	0.393	84
Kasilof Main	76%	0.087	0.606	0.893	273
Cook Inlet Other	0.03%	0.003	0.000	0.000	0.1
					358

Table 154-3.–Genetic stock composition estimates (Prop=Proportion) and standard deviation (SD) by time period for mixtures of sockeye salmon harvested in the Kasilof Section set gillnet fishery, 2005–2012.

			Reporting Groups[a]															
			Crescent		West		JCL		SusYen		Fish		KTNE		Kenai		Kasilof	
Year	Time period	Harvest	Prop	SD	Prop	SD	Prop	SD	Prop	SD	Prop	SD	Prop	SD	Prop	SD	Prop	SD
2005	20 June-9 July	480,046	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.04	0.81	0.04
	10-15 July	114,146	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.49	0.03	0.50	0.03
	16-21 July	124,382	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.04	0.62	0.04
	20-23 July	26,391	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.04	0.66	0.04
	23 July-10 Aug	394,168	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.76	0.04	0.23	0.03
	Season total	1,139,133	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.44	0.02	0.55	0.02
2006	26 June-1 July	114,768	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.02	0.86	0.02
	2-8 July	102,511	0.00	0.00	0.01	0.02	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.09	0.02	0.88	0.02
	10-13 July	36,094	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.02	0.85	0.02
	15-16 July	189,406	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.02	0.82	0.02
	17-22 July	135,193	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.13	0.02	0.85	0.02
	30 July-9 Aug	77,320	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.01	0.28	0.03	0.69	0.03
	Season total	655,292	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.15	0.01	0.83	0.01
2007	25 June-5 July	115,315	0.01	0.01	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.03	0.77	0.03
	9-14 July	137,641	0.00	0.00	0.04	0.02	0.00	0.01	0.01	0.01	0.00	0.01	0.00	0.01	0.45	0.04	0.50	0.04
	16-21 July	245,818	0.00	0.00	0.02	0.02	0.03	0.01	0.01	0.01	0.00	0.00	0.04	0.02	0.59	0.04	0.31	0.03
	22-28 July	122,454	0.01	0.01	0.01	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.43	0.03	0.53	0.03
	30 July-9 Aug	97,647	0.00	0.00	0.07	0.02	0.01	0.01	0.03	0.02	0.01	0.01	0.00	0.00	0.45	0.03	0.43	0.03
	Season total	718,875	0.00	0.00	0.04	0.01	0.02	0.00	0.01	0.01	0.00	0.00	0.02	0.01	0.44	0.02	0.47	0.02
2008	26 June-5 July	286,707	0.00	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.02	0.01	0.05	0.02	0.89	0.02
	7-12 July	114,051	0.02	0.01	0.03	0.02	0.02	0.01	0.00	0.01	0.01	0.01	0.02	0.01	0.18	0.03	0.71	0.03
	13-19 July	331,947	0.01	0.01	0.00	0.01	0.04	0.01	0.00	0.00	0.00	0.00	0.03	0.01	0.16	0.03	0.76	0.03
	20-27 July	149,071	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.25	0.03	0.73	0.03
	Season total	881,776	0.01	0.00	0.01	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.14	0.01	0.79	0.01
2009	25 June-4 July	262,952	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.01	0.10	0.02	0.87	0.02
	6-12 July	141,852	0.00	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.03	0.01	0.23	0.03	0.69	0.03
	13-19 July	134,651	0.00	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.01	0.29	0.03	0.66	0.03
	20-23 July	71,164	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.52	0.03	0.46	0.03
	27 July	16,913	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.03	0.26	0.03
	1-10 August	13,755	0.00	0.00	0.12	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.44	0.03	0.44	0.03
	Season total	641,287	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.24	0.01	0.72	0.01
2010	27 June-3 July	110,819	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.01	0.12	0.02	0.83	0.02
	5-10 July	69,365	0.01	0.01	0.03	0.01	0.00	0.00	0.00	0.00	0.02	0.01	0.01	0.01	0.26	0.02	0.67	0.03
	12-17 July	143,953	0.00	0.00	0.05	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.44	0.03	0.50	0.03
	18-24 July	95,016	0.00	0.00	0.11	0.02	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.01	0.53	0.03	0.32	0.02
	25-31 July	62,449	0.00	0.00	0.03	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.77	0.02	0.18	0.02
	2-12 August	35,987	0.00	0.00	0.04	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.02	0.01	0.71	0.02	0.21	0.02
	Season total	517,589	0.00	0.00	0.05	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.42	0.01	0.50	0.01
2011	25 June-2 July	92,456	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.02	0.88	0.02
	4-9 July	66,020	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.01	0.01	0.01	0.03	0.01	0.33	0.03	0.60	0.03
	11-16 July	378,995	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.70	0.02	0.24	0.02
	18-24 July	417,923	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83	0.02	0.16	0.02
	25 July-7 August	61,593	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.72	0.02	0.24	0.02
	Season total	1,016,987	0.00	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.68	0.01	0.29	0.01
2012	3 July-13 August	28,968	0.00	0.00	0.03	0.01	0.01	0.00	0.01	0.01	0.00	0.00	0.01	0.01	0.37	0.03	0.57	0.03
	Season total	28,968	0.00	0.00	0.03	0.01	0.01	0.00	0.01	0.01	0.00	0.00	0.01	0.01	0.37	0.03	0.57	0.03

Note: Data are reported as a percentage by stock of the total harvest for each year.

[a]Reporting Groups: 1) Crescent: The largest producer of sockeye salmon on the west side (Crescent River); 2) West: the remaining West Cook Inlet producers; 3) JCL: the lakes monitored by weirs in the Susitna/Yentna rivers (Judd/Chelatna/Larson lakes); 4) Sus/Yen: the remaining producers in the Susitna/Yentna rivers; 5) Fish: the only major creek monitored with a weir in the Knik/Turnagain/Northeast Cook Inlet area; 6) KTNE: the remaining Knik/Turnagain/Northeast Cook Inlet producers; 7) Kenai: the composite of all populations within the Kenai River; and 8) Kasilof: the composite of all populations within the Kasilof River.

Table 154-4.–Genetic stock composition estimates (Prop=Proportion) and standard deviation (SD) by time period for mixtures of sockeye salmon harvested in the Kenai and East Foreland sections set gillnet fishery, 2005–2012.

			Reporting Groups[a]															
			Crescent		West		JCL		SusYen		Fish		KTNE		Kenai		Kasilof	
Year	Time period	Harvest	Prop	SD	Prop	SD	Prop	SD	Prop	SD	Prop	SD	Prop	SD	Prop	SD	Prop	SD
2005	11-12 July	140,483	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68	0.04	0.32	0.04
	13-15 July	41,849	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.03	0.22	0.03
	16-19 July	222,476	0.00	0.00	0.00	0.00	0.02	0.01	0.01	0.02	0.00	0.00	0.02	0.01	0.71	0.04	0.25	0.04
	21-26 July	219,866	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.03	0.43	0.03
	27 July-10 Aug	692,126	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.02	0.10	0.02
	Season total	1,316,800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.02	0.21	0.02
2006	10-13 July	16,826	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.01	0.43	0.03	0.55	0.03
	17 July	29,729	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.03	0.25	0.03
	31 July-9 Aug	261,276	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80	0.03	0.19	0.03
	Season total	307,831	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.02	0.22	0.02
2007	9-12 July	10,626	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.03	0.01	0.84	0.03	0.10	0.03
	16-19 July	51,623	0.00	0.01	0.00	0.01	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.90	0.03	0.08	0.03
	21-28 July	338,984	0.00	0.00	0.04	0.02	0.05	0.01	0.04	0.03	0.00	0.00	0.04	0.01	0.70	0.03	0.12	0.02
	30 July-9 Aug	217,670	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.00	0.89	0.02	0.08	0.02
	Season total	618,903	0.00	0.00	0.02	0.01	0.03	0.01	0.03	0.02	0.00	0.00	0.02	0.01	0.79	0.02	0.11	0.01
2008	10-17 July	252,011	0.00	0.00	0.00	0.00	0.03	0.01	0.01	0.01	0.00	0.00	0.02	0.01	0.77	0.03	0.17	0.03
	21-24 July	108,945	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.02	0.13	0.02
	Season total	360,956	0.00	0.00	0.00	0.00	0.02	0.01	0.00	0.01	0.00	0.00	0.01	0.01	0.80	0.02	0.16	0.02
2009	9-16 July	148,521	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.02	0.01	0.72	0.03	0.23	0.03
	20-23 July	94,733	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.01	0.03	0.01	0.04	0.01	0.80	0.03	0.10	0.02
	1-10 August	21,310	0.01	0.01	0.02	0.01	0.04	0.01	0.03	0.02	0.01	0.01	0.13	0.02	0.63	0.03	0.12	0.02
	Season total	264,564	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.01	0.04	0.01	0.74	0.02	0.18	0.02
2010	8-15 July	174,495	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.01	0.01	0.86	0.02	0.11	0.02
	19-24 July	217,475	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.06	0.01	0.04	0.01	0.83	0.02	0.05	0.01
	25-31 July	99,772	0.00	0.00	0.05	0.01	0.02	0.01	0.02	0.01	0.01	0.01	0.05	0.01	0.81	0.02	0.03	0.01
	2-12 August	76,457	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.00	0.06	0.01	0.82	0.02	0.07	0.01
	Season total	568,199	0.00	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.03	0.01	0.04	0.00	0.83	0.01	0.07	0.01
2011	11-24 July	618,813	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.96	0.01	0.02	0.01
	25-31 July	166,094	0.00	0.00	0.01	0.01	0.01	0.00	0.03	0.01	0.01	0.00	0.05	0.01	0.88	0.02	0.02	0.01
	1-7 August	75,768	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.94	0.01	0.04	0.01
	Season total	860,675	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.02	0.00	0.94	0.01	0.02	0.01
2012	11-24 July	65,666	0.00	0.00	0.01	0.01	0.02	0.01	0.06	0.02	0.02	0.01	0.06	0.02	0.70	0.03	0.13	0.02
	Season total	65,666	0.00	0.00	0.01	0.01	0.02	0.01	0.06	0.02	0.02	0.01	0.06	0.02	0.70	0.03	0.13	0.02

Note: Data are reported as a percentage by stock of the total harvest for each year.

[a]Reporting Groups: 1) Crescent: The largest producer of sockeye salmon on the west side (Crescent River); 2) West: the remaining West Cook Inlet producers; 3) JCL: the lakes monitored by weirs in the Susitna/Yentna rivers (Judd/Chelatna/Larson lakes); 4) Sus/Yen: the remaining producers in the Susitna/Yentna rivers; 5) Fish: the only major creek monitored with a weir in the Knik/Turnagain/Northeast Cook Inlet area; 6) KTNE: the remaining Knik/Turnagain/Northeast Cook Inlet producers; 7) Kenai: the composite of all populations within the Kenai River; and 8) Kasilof: the composite of all populations within the Kasilof River.

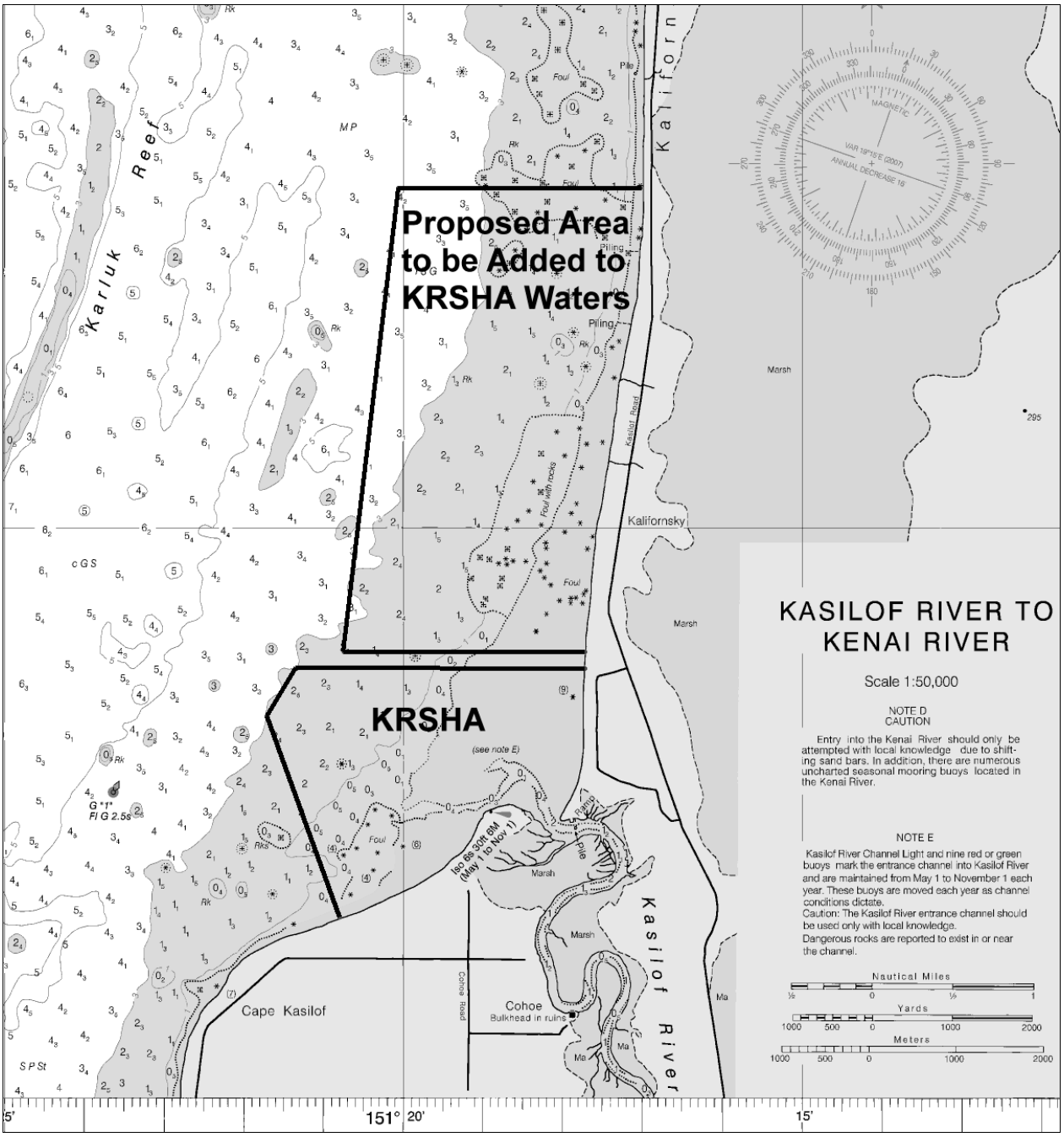

Figure 154-1.–Map of the Kasilof River Special Harvest Area.

PROPOSAL 155 – 5 AAC 21.365. Kasilof River Salmon Management Plan.

PROPOSED BY: South K-Beach Independent Fishermen's Association (SOKI).

WHAT WOULD THE PROPOSAL DO? This proposal would modify the management plan to change effective dates where restrictive actions are identified in the plan. Specifically, this proposal would delay the 36-hour no-fishing window until after July 1. It would also change the time period in the plan where the 48-hour weekly limit on additional hours and the 36-hour weekly window are in effect. The dates in many provisions in the plan would be changed to July 18.

WHAT ARE THE CURRENT REGULATIONS? The Kasilof Section set gillnet fishery opens on June 25, but may open as early as June 20, if 50,000 sockeye salmon are estimated to be in the Kasilof River. The *Kasilof River Salmon Management Plan* provides instruction for management of commercial fisheries that primarily targets Kasilof River sockeye salmon from the beginning of the season through July 7. During this time, there are two restrictive weekly provisions in the Kasilof Section set gillnet fishery. First, there is a limit of no more than 48 hours of additional time beyond the Monday and Thursday 12-hour regular periods. Secondly, there is a mandatory 36-hour no-fishing window each week that must begin sometime between 7:00 p.m. on Thursday and 7:00 a.m. on Friday.

Beginning on July 8, the set gillnet fishery in the Kasilof Section is to be managed as specified in the *Kenai River Late Run Sockeye Salmon Management Plan* (5 AAC 21.360). However, the Kasilof Plan identifies specific provisions unique to the Kasilof Section that apply after July 8. These provisions identify times when the Kasilof Section set gillnet fishery may be limited to fishing within one-half mile of shore or within 600 feet of high tide.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The effects of this proposal are difficult to assess. From the beginning of the season through June 30, it would remove the 36-hour mandatory no-fishing window, which could increase king and sockeye salmon harvest in the Kasilof Section set gillnet fishery by an unknown amount. From July 1 through July 7, there would be no change to the existing plan. From July 8 through July 18, however, this proposal would make management of the Kasilof Section set gillnet fishery unsynchronized with the Kenai/East Foreland sections. This means that emergency order (EO) hours and window closures could be on completely different schedules in each section of the Upper Subdistrict, potentially causing confusion between users and the Department of Public Safety. Regardless of changes to the management plan, the department would manage the Kasilof Section set gillnet fishery to meet the sockeye salmon escapement objectives in both the Kenai and Kasilof rivers. This proposal would likely increase commercial harvest of sockeye and king salmon by an unknown amount, depending on abundance.

BACKGROUND: A management plan specific to the Kasilof River was first adopted in 1986 and was titled 5 AAC 21.365, *Kasilof River Sockeye Salmon Special Harvest Area Management Plan.* The preamble stated that it was the intent of the Alaska Board of Fisheries (board) that Kasilof River sockeye salmon be harvested in the traditional fisheries, including, but not limited to, the methods, means, times, and locations of those fisheries. Openings in traditional areas must be consistent with escapement objectives for Upper Cook Inlet salmon and with the *Upper Cook*

Inlet Salmon Management Plan. From 1986 until 2002, the primary function of this management plan was to regulate the Kasilof River Special Harvest Area. From 1978–1986, the biological escapement goal (BEG) for Kasilof River sockeye salmon was 75,000–150,000 fish and in 1987, the BEG was increased to 150,000–250,000 fish.

In 2002, the board made numerous changes to the plan. A major change to the plan was creation an optimal escapement goal (OEG) of 150,000–300,000 fish (Table 155-1). The OEG was set primarily in response to poor sockeye salmon runs to the Kenai River in 2000 and 2001, when the department struggled to achieve the minimum Kenai River inriver goal, while the Kasilof River experienced strong runs both years. In this case, the department was challenged with how to reduce Kasilof River sockeye salmon escapement through additional set gillnet harvest, while minimizing harvest of Kenai River sockeye salmon. The upper end of the OEG was 50,000 fish more than the upper end of the BEG range of 150,000–250,000 fish. The rationale for setting an OEG was to provide 50,000 additional fish above the Kasilof River BEG during years when the Kenai River sockeye salmon run was weak. The exact wording of the plan (5 AAC 21.365(b) from 2002–2005 regulations) stated, "Achieving the lower end of the Kenai River sockeye salmon escapement goal shall take priority over not exceeding the upper end of the Kasilof River OEG of 150,000 to 300,000 sockeye salmon." Additional changes to the plan in 2002 included: renaming the plan the *Kasilof River Sockeye Salmon Management Plan*; creation of a 48-hour floating no-fishing window each week from June 25–July 7; limiting use of additional fishing hours beyond the two regular periods during this timeframe to no more than 48 hours per week; and creating specific times that the one-half mile fishery could be used.

In 2008, the floating closed window of 48 hours was reduced to a window closure of 36 hours to begin between Thursday at 7:00 p.m. and Friday at 7:00 a.m. The board also clarified that achieving established escapement goals was the primary management objective.

In 2011, the department transitioned the Kasilof sockeye sonar program from Bendix sonar to Dual-frequency Identification Sonar (DIDSON). Although the difference in the number of fish detected by the two sonars was small, the department's escapement goal analysis suggested a modification of the Kasilof River BEG from 150,000–250,000 fish to 160,000–340,000 fish; based on this change, the board also modified the Kasilof River OEG to 160,000–390,000 fish. Because there was very little difference in enumeration estimates between the two sonar technologies in the Kasilof River, the change in the escapement goals represented an increase in the actual number of spawners in the system. A reassessment of that goal in 2013 did not suggest any changes to the BEG for this stock.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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**.**

Table 155-1.–History of no-fishing windows, emergency order (EO) hour limitations, and biological, sustainable, and optimum escapement goals (BEG, SEG, and OEG) for sockeye salmon in the *Kasilof River Salmon Management Plan*.

Year	Dates	Window	EO Limitation	BEG/SEG	OEG
1999	July 1–July 7	None	None	150,000–250,000	None
	July 8–Aug 15	None, extra fishing time after July 20 on Kenai runs > 4 million limited to Kenai/E. Foreland Section	None		
2002	June 25–July 7	48-hour floating	48 hours	150,000–250,000	150,000–300,000
	July 8–August 15	per the Kenai plan, based on tiers	per Kenai plan		
	after July 15	per the Kenai plan, based on tiers	24-hour (1/2-mile)[a]		
2005	June 25–July 7	48-hour floating	48 hours	150,000–250,000	150,000–300,000
	July 8–August 15	per the Kenai plan, based on tiers	per Kenai plan		
	after July 15	per the Kenai plan, based on tiers	24-hour (1/2-mile)[a]		
2008	June 25–July 7	36-hour fixed (Friday window)	48 hours	150,000–250,000	150,000–300,000
	July 8–August 15	per the Kenai plan, based on tiers	per Kenai plan		
	after July 15	per the Kenai plan, based on tiers	24-hour (1/2-mile)[a]		
2011	June 25–July 7	36-hour fixed (Friday window)	48 hours	160,000–340,000	160,000–390,000
	July 8–August 15	per the Kenai plan, based on tiers	per Kenai plan		
	after July 15	per the Kenai plan, based on tiers	24-hour (1/2-mile)[a]		

[a] After July 15, for Kenai runs <2.0 million (2002─2010) or <2.3 million (2011─2013), if Kasilof OEG projected to be exceeded, 24 additional hours may be used in Kasilof Section ½-mile fishery.

PROPOSAL 156 – 5 AAC 21.365. Kasilof River Salmon Management Plan.

PROPOSED BY: Kenai River Sportfishing Association.

WHAT WOULD THE PROPOSAL DO? This proposal would establish an additional 24-hour window in the Kasilof Section prior to July 8, limit extra fishing periods in the Kasilof Section after July 8 when the Kenai and East Foreland sections are closed, and limit use of the Kasilof River Special Harvest Area (KRSHA). Currently, the KRSHA may be opened after July 8, before a projection of exceeding 365,000 fish in escapement, for up to 48 hours, followed by at least one 24-hour closure. This proposal would reduce that opening to no more than 24 hours without a 24-hour closure.

WHAT ARE THE CURRENT REGULATIONS? The Kasilof Section set gillnet fishery opens June 25, or as early as June 20, if 50,000 sockeye salmon are in the Kasilof River. From the beginning of the season through July 7, the Alaska Department of Fish and Game (department) may open additional fishing periods or extend regular weekly fishing periods to a maximum of 48 hours of additional fishing time per week. In addition, the fishery shall remain closed for at least one continuous 36-hour period per week to begin between 7:00 p.m. Thursday and 7:00 a.m. Friday.

Beginning July 8, the set gillnet fishery in the Kasilof Section will be managed as specified in provision (c) of 5 AAC 21.360, *Kenai River Late-Run Sockeye Salmon Management Plan*. The department may limit fishing during the regular weekly periods and any extra fishing periods to those waters within one-half mile of shore, if the set gillnet fishery in the Kenai and East Foreland sections is not open for the fishing period. If the department determines that further restrictions are necessary to aid in achieving the lower end of the Kenai River escapement goal, the department may further restrict fishing to within 600 feet of the high-tide mark in the Kasilof Section.

After July 8, if the Kasilof Section set gillnet fishery is restricted to fishing within the first one-half mile of shore, the department may open the KRSHA to both set and drift gillnet fishing using only one gillnet, for fishing periods not to exceed 48 hours in duration without one period of 24 consecutive hours of closure.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would add additional restrictions to the management plan and likely decrease the harvest of sockeye and king salmon by an unknown amount, depending on abundance. Adding additional mandatory closure periods would limit the department's management flexibility and increase the likelihood of exceeding the Kasilof sockeye salmon escapement goal. This proposal would add an additional mandatory no-fishing window of 24 hours on Tuesday in the Kasilof Section prior to July 8, which could result in decreased harvest of Kasilof and Kenai River king and sockeye salmon. If adopted, this proposal would make it less clear as to when the department could open the Kasilof Section within one-half mile of shore after July 8, potentially resulting in decreased harvest of king and sockeye salmon. Finally, use of the KRSHA after July 8 would be limited to 24-hour openings, again possibly resulting in decreased harvest of the target stock, sockeye salmon, when this area is being utilized.

BACKGROUND: A management plan specific to the Kasilof River was first adopted in 1986 and was titled 5 AAC 21.365*, Kasilof River Sockeye Salmon Special Harvest Area Management Plan.* The preamble stated that it was the intent of the Alaska Board of Fisheries (board) that Kasilof River sockeye salmon be harvested in the traditional fisheries, including, but not limited to, the methods, means, times, and locations of those fisheries. Openings in traditional areas must be consistent with escapement objectives for Upper Cook Inlet salmon and with the *Upper Cook Inlet Salmon Management Plan*. From 1986 until 2002, the primary function of this management plan was to regulate the KRSHA. From 1978–1986, the BEG for Kasilof River sockeye salmon was 75,000–150,000 fish and in 1987, the BEG was increased 150,000–250,000 fish.

In 2002, the board made numerous changes to the plan. A major change to the plan was creation of an optimum escapement goal (OEG) of 150,000–300,000 fish. The OEG was set primarily in response to poor sockeye salmon runs to the Kenai River in 2000 and 2001, when the department struggled to achieve the minimum Kenai River inriver goal, while the Kasilof River experienced strong runs both years. In this case, the department was challenged with how to reduce Kasilof River sockeye salmon escapement through additional set gillnet harvest, while minimizing harvest of Kenai River sockeye salmon. The upper end of the OEG was 50,000 fish more than the upper end of the BEG range of 150,000–250,000 fish. The rationale for setting an OEG was to provide 50,000 additional fish above the Kasilof River BEG during years when the Kenai River sockeye salmon run was weak. The exact wording of the plan (5 AAC 21.365(b) from 2002–2005 regulations) stated, "Achieving the lower end of the Kenai River sockeye salmon escapement goal shall take priority over not exceeding the upper end of the Kasilof River OEG of 150,000 to 300,000 sockeye salmon." Additional changes to the plan in 2002 included: 1) renaming the plan the *Kasilof River Sockeye Salmon Management Plan*, 2) creation of a 48-hour floating no-fishing window each week from June 25–July 7, 3) limiting use of additional fishing hours beyond the two regular periods during this timeframe to no more than 48 hours per week, and 4) creating specific times that the one-half mile fishery could be used.

In 2008, the floating closed window of 48 hours was reduced to a window closure of 36 hours to begin between Thursday at 7:00 p.m. and Friday at 7:00 a.m. The board also clarified that achieving established escapement goals was the primary management objective.

From 1986–2007, provisions for use of the KRSHA were as follows: the department may, by emergency order, open the KRSHA to the taking of salmon by gillnets when it is projected that the Kasilof River sockeye salmon escapement will exceed 275,000 fish. In 2008, after extensive use of the KRSHA from 2004–2007, the board added the following criteria for use of the KRSHA: "It is the intent of the Board of Fisheries (board) that the KRSHA should rarely, if ever, be opened under this subsection and only for conservation reasons. Before the department opens the KRSHA, it is the board's intent that additional fishing time be allowed in the remainder of the Kasilof Section first, and secondly that the mandatory closures specified in regulation be reduced in duration, if necessary, to meet the escapement goals contained within this and other management plans."

In 2011, the department transitioned the Kasilof sockeye sonar program from Bendix sonar to Dual-frequency Identification Sonar (DIDSON). Although the difference in the number of fish detected by the two sonars was small, the department's escapement goal analysis suggested a

modification of the Kasilof River BEG from 150,000–250,000 fish to 160,000–340,000 fish; based on this change, the board also modified the Kasilof River OEG to 160,000–390,000 fish. Because there was very little difference in enumeration estimates between the two sonar technologies in the Kasilof River, the change in the escapement goals represented an increase in the actual number of spawners in the system. A reassessment of that goal in 2013 did not suggest any changes to the BEG for this stock.

Finally, at the 2011 meeting, the board increased the escapement trigger for unlimited use of the KRSHA to times when it is projected that the Kasilof River sockeye salmon escapement will exceed 365,000 fish.

Since 1978, the Kasilof River sockeye salmon escapement has been above the BEG in 23 years (64%), within the BEG in 11 years (31%), and under the BEG in two years (6%). More recently (2002–2013), Kasilof River sockeye salmon escapement has been within or above the BEG and OEG in every year; with escapement above the BEG in ten of 12 years (83%) and above the OEG in seven of 12 years (58%).

The Kasilof River supports both early-and late-run king salmon. King salmon returning to the Kasilof River prior to July 1 originate primarily from Crooked Creek, a Kasilof River tributary, and are managed as early-run fish. Late-run king salmon return from July through early September and originate primarily from the mainstem and, to a lesser extent, Crooked Creek. Late-run king salmon are thought to spawn from mid-August through September. There is no escapement goal for Kasilof River late-run king salmon. In 2005, the department began a late-run king salmon assessment program to estimate run-timing and spawning distribution. Results indicate that spawning king salmon aggregations occur during August throughout the Kasilof River upstream of the Sterling Highway bridge crossing. The estimated abundance of late-run king salmon ranged from 8,276 to 12,097 fish from 2005–2008 (Table 156-1).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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**.**

Table 156-1.–Estimated inriver abundance of late-run king salmon, Kasilof River, 2005–2008.

Year	Inriver King Salmon Abundance
2005	12,097
2006	8,611
2007	8,522
2008	8,276
Min	8,276
Max	12,097
Average	9,377

Permit Stacking, Fishing Seasons and Periods (6 Proposals): 126, 111–115, 118

PROPOSAL 126 – 5 AAC 21.331. Gillnet specifications and operations and 5 AAC 21.333. Requirements and specifications for use of 200 fathoms of drift gillnet in the Cook Inlet Area.

PROPOSED BY: Kenai River Sportfishing Association.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit permit stacking in the commercial set and drift gillnet fisheries in Upper Cook Inlet (UCI).

WHAT ARE THE CURRENT REGULATIONS? Current regulations allow one individual to own and operate two limited entry set gillnet permits (S04H) in Cook Inlet. When fishing two complements of legal gear, in order to identify the gillnet as a dual permit set gillnet, the permit holder shall mark the buoys with both of the permit holder's five-digit Commercial Fisheries Entry Commission (CFEC) permit serial numbers followed by the letter "D" on the identification buoy (5 AAC 21.331(i)). When registering to fish in one of the three set gillnet registration areas in UCI, a dual permit owner must register both set gillnet permits in the same registration area.

In the drift gillnet fishery (S03H), current regulations state that when two permit holders are onboard a single vessel (D-boat fishing), an additional 50 fathoms of drift gillnet gear may be fished, for a total complement of gear not to exceed 200 fathoms. The length of a drift gillnet when only one permit holder is on board is limited to no more than 150 fathoms. When two Cook Inlet drift gillnet CFEC permit holders fish from the same vessel and jointly operate additional drift gillnet gear, the vessel must display its ADF&G permanent license plate number followed by the letter "D" to identify the vessel as a dual permit vessel. The remaining provisions for D-boat fishing may be found in 5 AAC 21.333, *Requirements and Specifications for use of 200 Fathoms of Drift Gillnet in the Cook Inlet Area*.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Adoption of this proposal would prohibit a set gillnet permit holder from operating two legal complements of set gillnet fishing gear in UCI. In addition, this proposal would also prohibit a drift gillnet permit holder from operating any additional gear when a second permit holder is on board a vessel in UCI. It is unclear if stacking permits would have an effect on the harvest potential of a gear group. The proposal could initially reduce the amount of set gillnet gear fished and number of fish harvested; as some set gillnet permits could not be fished until permit holders adapted to the new regulation and transferred the permits to another person who fishes at that site. However, if D-boat fishing is prohibited, some of the drifters who operate as a second permit holder could get their own boat, and thus increase fishing gear from 50 fathoms to 150 fathoms. It is not known to what extent this would occur.

BACKGROUND: House Bill 286 was passed into law in 2002, allowing an individual to own two commercial salmon permits in the same fishery. In 2006, House Bill 251 was passed allowing the Alaska Board of Fisheries (board) to authorize additional gear with ownership of a second permit.

In 2008, the board adopted 5 AAC 21.333, *Requirements and Specifications for Use of 200 Fathoms of Drift Gillnet in the Cook Inlet Area*. This provided drift gillnetters in UCI with the option of having a second permit holder on board a vessel. When this occurs, a "D-boat" vessel may fish one additional shackle (50 fathoms) of fishing gear, increasing the legal complement of gear from three shackles, or 150 fathoms, to four shackles, or 200 fathoms.

In 2011, the board allowed a single person to operate two legal complements of set gillnet fishing gear in UCI if he or she owned two S04H permits. Prior to 2011, a person could own two set gillnet fishing permits, but could only fish one of them.

The Commercial Fisheries Entry Commission (CFEC) has prepared a written report titled *Overview of Permit Holdings, Harvests, and Estimates of Gross Earnings in the Cook Inlet Salmon Set Gillnet Fishery, 1975-2012* (CFEC Report Number 13-2N) for this meeting. The report was prepared to provide an overview of limited entry permit holdings, fishery harvests, and estimated gross earnings of limited entry permit holders in the Cook Inlet salmon set gillnet fishery.

In 1973 the Alaska State Legislature enacted the Limited Entry Act (AS 16.43), giving the CFEC the responsibility of administering the program. Permit fisheries are defined by CFEC as a specific gear type for a targeted species within a defined geographic area. In Cook Inlet, salmon permits were issued in the seine, drift, and set gillnet fisheries starting in 1975. For the Cook Inlet area, approximately 580 drift gillnet permits and 750 set gillnet permits were issued (Table 126-1, 126-2, and 126-3).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. It is unclear if stacking permits would have an effect on the harvest potential of a gear group.

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 126-1.–Registered units of gillnet fishing effort by gear type in Cook Inlet, 1974–2012.

	Drift Gillnet		Set Gillnet		
Year	Active permits	Permits recorded fishing	Active permits	Permits recorded fishing	Total active permits
1970	757		772		1,529
1971	710		731		1,441
1972	571		707		1,278
1973	662		675		1,337
1974	585		752		1,337
1975	784	438	758	530	1,542
1976	596	472	719	521	1,315
1977	575	501	733	524	1,308
1978	591	537	747	581	1,338
1979	599	556	749	581	1,348
1980	597	513	747	571	1,344
1981	598		747		1,345
1982	591		748		1,339
1983	587		745		1,332
1984	588		744		1,332
1985	591	590	745	457	1,336
1986	588	585	743	485	1,331
1987	586	587	743	507	1,329
1988	585	587	743	549	1,328
1989	585	8	743	547	1,328
1990	585	582	743	565	1,328
1991	584	580	745	544	1,329
1992	583	582	745	549	1,328
1993	583	581	745	534	1,328
1994	582	571	745	522	1,327
1995	582	578	745	516	1,327
1996	582	562	745	497	1,327
1997	581	577	745	505	1,326
1998	579	529	745	459	1,324
1999	575	488	745	448	1,320
2000	576	514	745	435	1,321
2001	574	469	744	410	1,318
2002	572	410	743	412	1,315
2003	572	421	742	394	1,314
2004	571	442	739	408	1,310
2005	571	473	737	424	1,308
2006	570	397	738	403	1,308
2007	571	418	738	404	1,309
2008	571	427	738	391	1,309
2009	570	406	738	384	1,308
2010	569	379	736	398	1,305
2011	569	463	736	453	1,305
2012	569	497	736	379	1,305

Note: Blank cells indicate no data.

Table 126-2.–Number of Cook Inlet (S03H) drift gillnet permits issued by the Commercial Fisheries Entry Commission, 1974–2013.

Year	Original Permanent Permits Issued	Interim-Entry Permits Issued[ab]	Interim-Use Permits Issued[ab]	Total Permits Issued	Permanent Permits Cancelled	Active Permanent and Interim Permits[ab]	Permanent Renewed and Interim Issued[ab]	Permanent Permits NOT Renewed	Active Resident Permits[ab]	Active Nonresident Permits[ab]	No. of Permanent Transfers	No. of Emergency Transfers
1974	.	.	585	585	.	585	585	.	436	149	.	10
1975	453	331	0	784	0	784	784	0	539	245	30	23
1976	514	82	0	596	0	596	596	0	410	186	76	30
1977	539	36	0	575	0	575	575	0	387	188	87	13
1978	549	42	0	591	0	591	591	0	401	190	87	30
1979	554	45	0	599	0	599	599	0	410	189	86	25
1980	554	43	0	597	0	597	597	0	407	190	76	29
1981	554	44	0	598	0	598	598	0	412	186	76	25
1982	555	37	0	592	1	591	591	0	413	178	64	26
1983	557	32	0	589	2	587	587	0	415	172	72	30
1984	558	32	0	590	2	588	588	0	423	165	48	30
1985	559	34	0	593	2	591	591	0	418	173	62	36
1986	561	29	0	590	2	588	588	0	412	176	71	30
1987	562	26	0	588	2	586	586	0	415	171	44	34
1988	563	24	0	587	2	585	585	0	421	164	35	25
1989	563	24	0	587	2	585	585	0	415	170	53	23
1990	563	24	0	587	2	585	585	0	412	173	54	29
1991	564	22	0	586	2	584	584	0	412	172	43	28
1992	564	21	0	585	2	583	583	0	404	179	45	35
1993	565	20	0	585	2	583	583	0	398	185	38	44
1994	566	18	0	584	2	582	582	0	395	187	39	45
1995	566	18	0	584	2	582	582	0	393	189	57	54
1996	567	17	0	584	2	582	582	0	392	190	53	42
1997	568	15	0	583	2	581	581	0	392	189	55	42

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Table 126-2.–Page 2 of 2.

Year	Original Permanent Permits Issued	Interim-Entry Permits Issued[ab]	Interim-Use Permits Issued[a,b]	Total Permits Issued	Permanent Permits Cancelled	Active Permanent and Interim Permit[a,b]s	Permanent Renewed and Interim Issued[a,b]	Permanent Permits NOT Renewed	Active Resident Permits[a,b]	Active Nonresident Permits[a,b]	No. of Permanent Transfers	No. of Emergency Transfers
1998	570	11	0	581	2	579	579	0	393	186	42	51
1999	571	7	0	578	3	575	575	0	390	185	34	42
2000	572	7	0	579	3	576	576	0	394	182	44	46
2001	572	4	0	576	2	574	574	0	395	179	38	43
2002	572	2	0	574	2	572	572	0	396	176	31	30
2003	572	2	0	574	2	572	572	0	399	173	41	25
2004	572	2	0	574	3	571	571	0	402	169	67	29
2005	572	1	0	573	2	571	571	0	404	167	60	38
2006	572	0	0	572	2	570	570	0	400	170	37	21
2007	573	0	0	573	2	571	570	1	399	172	42	20
2008	573	0	0	573	2	571	569	2	405	166	54	33
2009	573	0	0	573	3	570	569	1	401	169	38	33
2010	573	0	0	573	4	569	569	0	407	162	61	30
2011	573	0	0	573	4	569	560	9	409	160	69	45
2012	573	0	0	573	4	569	562	7	409	160	66	55
2013	573	0	0	573	4	569	564	5	410	159	54	49

Footnotes:

[a] In this report, Active permits are defined as follows: all permanent permits, regardless of whether they have been renewed, and interim-use and interim-entry permits that have been issued. Excluded from Active Permits are any permits that have been cancelled and interim permits that have not been issued (renewed) for the given year.

[b] The term Interim-entry permits is used in this table for interim-use permits issued in a fishery that is under limitation. They are issued to qualified applicants who are awaiting the final determination of their application for a permanent limited entry permit.

- All counts for limited fisheries include cancelled permanent permits except where 'Active Permits' is specified

- A missing value ('.') is used to indicate that this is a fishery to which the column does not apply. For example, only interim-use permits are issued in unlimited fisheries, therefore columns for permanent permits an interim-entry permits will be missing ('.').

- The counts of transfers above represent the number of transfers, not the number of permits. There can be multiple emergency and permanent transfers of a single permit in a year.

- Residency is based on the declared residency (either Alaska resident or nonresident) of the year-end permit holder in prior years' tables or the declared residency of the current permit holder (or emergency transferor) in the current years' table. If residency is not declared, the address of the year-end permit holder in prior years' tables or the address of the current permit holder (or emergency transferor) in the current year's table determines residency. The declared residency or the address of the emergency transfer recipient (transferee) is not used to determine residency. Residency does not apply to vessel permits. Because of this, the total number of permits for all fisheries will not equal the sum of resident and nonresident permits.

Table 126-3.–Number of Cook Inlet (S04H) set gillnet permits issued by the Commercial Fisheries Entry Commission, 1974–2013.

Year	Original Permanent Permits Issued	Interim-Entry Permits Issued[a,b]	Interim-Use Permits Issued[a,b]	Total Permits Issued	Permanent Permits Cancelled	Active Permanent and Interim Permits[a,b]	Permanent Renewed & Interim Issued[a,b]	Permanent Permits NOT Renewed	Active Resident Permits[a,b]	Active Nonresident Permits[a,b]	No. of Permanent Transfers	No. of Emergency Transfers
1974	.	.	783	783	.	783	783	.	744	39	.	1
1975	652	376	0	1028	0	1028	1028	0	965	63	47	29
1976	712	7	0	719	0	719	719	0	675	44	77	19
1977	731	2	0	733	0	733	733	0	690	43	93	19
1978	742	5	0	747	0	747	747	0	701	46	129	16
1979	744	5	0	749	0	749	749	0	705	44	99	18
1980	744	3	0	747	0	747	747	0	699	48	89	23
1981	744	3	0	747	0	747	746	1	687	60	110	12
1982	744	4	0	748	0	748	747	1	695	53	90	15
1983	744	2	0	746	1	745	745	0	684	61	103	10
1984	744	1	0	745	1	744	744	0	670	74	89	14
1985	745	1	0	746	1	745	745	0	669	76	92	13
1986	745	0	0	745	2	743	743	0	665	78	102	19
1987	745	0	0	745	2	743	743	0	662	81	101	25
1988	745	0	0	745	2	743	743	0	660	83	79	14
1989	745	0	0	745	2	743	743	0	645	98	91	29
1990	745	0	0	745	2	743	743	0	644	99	83	33
1991	746	0	0	746	1	745	745	0	642	103	63	31
1992	746	0	0	746	1	745	745	0	636	109	79	25
1993	746	0	0	746	1	745	745	0	633	112	72	18
1994	746	0	0	746	1	745	745	0	628	117	53	14
1995	746	0	0	746	1	745	745	0	622	123	53	20
1996	746	0	0	746	1	745	745	0	621	124	52	28
1997	746	0	0	746	1	745	745	0	621	124	70	25

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Table 126-3.–Page 2 of 2.

Year	Original Permanent Permits Issued	Interim-Entry Permits Issued[a,b]	Interim-Use Permits Issued[a,b]	Total Permits Issued	Permanent Permits Cancelled	Active Permanent and Interim Permits[a,b]	Permanent Renewed & Interim Issued[a,b]	Permanent Permits NOT Renewed	Active Resident Permits[a,b]	Active Nonresident Permits[a,b]	No. of Permanent Transfers	No. of Emergency Transfers
1998	746	0	0	746	1	745	744	1	621	124	47	16
1999	746	0	0	746	1	745	744	1	621	124	61	19
2000	746	0	0	746	1	745	742	3	621	124	47	22
2001	746	0	0	746	2	744	740	4	625	119	55	30
2002	746	0	0	746	3	743	739	4	620	123	34	24
2003	746	0	0	746	4	742	738	4	618	124	44	22
2004	746	0	0	746	7	739	738	1	616	123	67	17
2005	746	0	0	746	9	737	737	0	609	128	78	18
2006	746	0	0	746	8	738	738	0	614	124	54	18
2007	746	0	0	746	8	738	738	0	609	129	64	28
2008	746	0	0	746	8	738	736	2	612	126	75	19
2009	746	0	0	746	8	738	736	2	608	130	55	19
2010	746	0	0	746	10	736	736	0	604	132	61	22
2011	746	0	0	746	10	736	732	4	609	127	88	22
2012	746	0	0	746	10	736	720	16	619	117	54	18
2013	746	0	0	746	10	736	713	23	624	112	41	16

Footnotes:

[a] In this report, Active permits are defined as follows: all permanent permits, regardless of whether they have been renewed, and interim-use and interim-entry permits that have been issued. Excluded from Active Permits are any permits that have been cancelled and interim permits that have not been issued (renewed) for the given year.

[b] The term Interim-entry permits is used in this table for interim-use permits issued in a fishery that is under limitation. They are issued to qualified applicants who are awaiting the final determination of their application for a permanent limited entry permit.

- All counts for limited fisheries include cancelled permanent permits except where 'Active Permits' is specified

- A missing value ('.') is used to indicate that this is a fishery to which the column does not apply. For example, only interim-use permits are issued in unlimited fisheries, therefore columns for permanent permits an interim-entry permits will be missing ('.').

- The counts of transfers above represent the number of transfers, not the number of permits. There can be multiple emergency and permanent transfers of a single permit in a year.

- Residency is based on the declared residency (either Alaska resident or nonresident) of the year-end permit holder in prior years' tables or the declared residency of the current permit holder (or emergency transferor) in the current years' table. If residency is not declared, the address of the year-end permit holder in prior years' tables or the address of the current permit holder (or emergency transferor) in the current year's table determines residency. The declared residency or the address of the emergency transfer recipient (transferee) is not used to determine residency. Residency does not apply to vessel permits. Because of this, the total number of permits for all fisheries will not equal the sum of resident and nonresident permits.

PROPOSAL 111 – 5 AAC 21.310. Fishing seasons.

PROPOSED BY: Mark Ducker.

WHAT WOULD THE PROPOSAL DO? This proposal would modify the season opening and closing dates for the Upper Subdistrict set gillnet fishery, and would remove restrictions to drift gillnet fishery found in 5 AAC 21.353(a)(2)(D). Specifically, this proposal would 1) remove the Alaska Department of Fish and Game's (department) ability to open commercial fishing with set gillnets in the Kasilof Section from June 20–24, if 50,000 sockeye salmon are estimated to be in the Kasilof River at that point in time; 2) remove the restriction to fish only regular periods from August 11–15 in the Kenai, Kasilof, and East Foreland sections; and 3) move the season opening date for the Kenai and East Foreland sections set gillnet fishery to June 25, instead of the current opening date of July 8. Removing subparagraph (iii) would eliminate the one-percent rule, which would also negate the mandatory restriction of the drift gillnet fleet to Drift Gillnet areas 3 and 4 from August 11–15.

WHAT ARE THE CURRENT REGULATIONS? In the Upper Subdistrict set gillnet fishery, the season closes no later than August 15; however, any time after July 31, the season will close by emergency order (EO) if the department determines that less than one percent of the season's total sockeye salmon harvest has been taken per fishing period for two consecutive fishing periods (often referred to as the "one-percent" rule). Here, a "fishing period" means a time period open to commercial fishing as measured by a 24-hour calendar day from 12:01 a.m. until 11:59 p.m. If the Upper Subdistrict set gillnet fishery is closed under the one-percent rule, the Central District drift gillnet fishery regular fishing periods will be restricted to Drift Gillnet areas 3 and 4.

The Kasilof Section set gillnet fishery is open from June 25 through August 15, with an option for an earlier opening any time after June 20, if the department estimates that 50,000 sockeye salmon are in the Kasilof River prior to June 25. The Kenai and East Forelands sections set gillnet fishery is open from July 8 through August 15. From August 11–15, the Upper Subdistrict set gillnet fishery may fish regular periods only.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would reduce the harvest of sockeye salmon bound for the Kasilof River during years when the department estimates that 50,000 sockeye salmon are in the Kasilof River prior to June 25. The proposal would also allow fishing to occur earlier in the Kenai and East Forelands sections, which would likely increase the harvest of sockeye salmon bound for the Kenai and Kasilof rivers. This would also result in an increase the harvest of king salmon bound for Kenai River by an unknown amount. By removing the one-percent rule, this proposal could increase sockeye, king, and coho salmon harvests, on or after July 31, by an unknown amount. However, removal of the one-percent rule would remove restrictions and increase the department's flexibility in managing to achieve sockeye salmon escapement goals in the Kenai and Kasilof rivers.

BACKGROUND: In 2005, 5 AAC 21.320(b)(2)(C)(iii) was amended to include, for the first time, what is commonly referred to as the "one-percent" rule. This provision states that any time after July 31, if less than one percent of the season's total sockeye salmon harvest has been taken per fishing period for two consecutive fishing periods in the Kenai, Kasilof, and East Foreland sections set gillnet fishery, the season will close. In 2008, the Alaska Board of Fisheries (board) extended the Upper Subdistrict set gillnet and Central District drift gillnet fishing season in all of the Central District from August 10 to August 15, but added the caveat that from August 11 through August 15, there are no mandatory area restrictions to regular periods, except that if the Upper Subdistrict set gillnet fishery is closed per the one-percent rule, regular fishing periods will be restricted to Drift Gillnet areas 3 and 4. The extension of the fishing season to August 15 was adopted largely in response to data that showed a less than 1% exploitation of Kenai River coho salmon per additional day of fishing by Upper Subdistrict set gillnets and Central District drift gillnets prior to August 15 (tables 111-1 and 111-2). Since 2005, when one-percent rule was adopted, it has closed the Upper Subdistrict set gillnet fishing season twice, in 2009 and 2011 (Table 111-3).

From 2005–2010, a "fishing period" was defined as a time period open to commercial fishing without closure. In 2011, the Alaska Board of Fisheries (board) modified the definition of a fishing period as a time period open to commercial fishing as measured by a 24-hour calendar day from 12:01 a.m. until 11:59 p.m.

From 1985–1998, the season opening date, in what is now referred to as the Kenai and East Foreland sections, occurred on the first Monday or Friday in July, unless the department estimated that 100,000 sockeye salmon were in the Kasilof River before that date, at which time the department could open the fishery as early as June 25. Since 1999, the set gillnet fishery in the Kenai and East Foreland sections of the Upper Subdistrict has had a season opening date of on or after July 8. From 1985–1998, the season opening date, in what is now referred to as the Kenai and East Foreland sections, occurred on the first Monday or Friday in July, unless the department estimated that 100,000 sockeye salmon were in the Kasilof River before that date, at which time the department could open the fishery as early as June 25. Since 1999, the set gillnet fishery in the Kenai and East Foreland sections of the Upper Subdistrict has had a season opening date of on or after July 8.

The Kenai River sockeye salmon optimum escapement goal (OEG) of 500,000–1,000,000 fish was first established in 1999. The biological escapement goal (BEG) at this time was 500,000–800,000 fish. In 2011, the department recommended a new sustainable escapement goal (SEG) for Kenai River sockeye salmon of 700,000–1,200,000 fish and the board adopted a new OEG of 700,000–1,400,000 fish.

Since 1986 (28 years), the final sonar count for Kenai River late-run sockeye salmon was above the inriver goals in 17 years (61%), within the inriver goals in 11 years (39%), and never below the inriver goals (Table 111-4). From 1987–2012, the final spawning escapement (based on postseason analysis) was above the BEG/SEG goals in 15 years (58%), within the BEG/SEG goals in 8 years (31%), and below the BEG/SEG goals in 3

years (11%). Since converting to DIDSON-based goals in 2011, the final spawning escapement (based on postseason analysis) was within the OEG in 2011 and 2012.

In March of 2013, the department published Fishery Manuscript Series No. 13-02, *Run Reconstruction, Spawner-Recruit Analysis, and Escapement Goal Recommendation for Late-Run Chinook Salmon in the Kenai River*. This analysis suggested a new interim sustainable escapement goal (SEG) range for late-run king salmon of 15,000–30,000 fish, which the Alaska Board of Fisheries subsequently adopted. The average annual harvest rate of this stock by all users is estimated to be 38%.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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.

Table 111-1.–Estimated harvest, total return, and harvest rate of Kenai River coho salmon (1999–2004).

Year	Escapement[a,b]	Harvest			Research Mortality	Total Run	Total Harvest[e]	Harvest Rate[f]
		Sport[c]	Personal Use	Commercial[d]				
1999	7,889	35,361	1,009	3,894	193	48,346	40,457	0.837
2000	72,742	52,489	1,449	2,965	555	130,200	56,903	0.437
2001	75,122	55,004	1,555	1,934	540	134,155	58,493	0.436
2002	133,612	66,104	1,721	6,115	968	208,520	73,940	0.355
2003	79,915	51,944	1,332	2,578	209	135,978	55,854	0.411
2004	95,394	72,565	2,661	11,149	2,106	183,875	86,375	0.470
Average 1999–2004	77,446	55,578	1,621	4,773	762	140,179	62,004	0.491
2000–2004	91,357	59,621	1,744	4,948	876	158,546	66,313	0.422

Note: 1991–1993 and 1998 Kenai River coho salmon creel data was used to calculate the effect of increasing the bag limit from 2 to 3 fish, only boat angler interviews/data were selected for use for 1991–1993 due to the lack of data from shore anglers.

[a] Kenai River coho salmon total runs were estimated only during 1999–2004.

[b] Sources: Carlon and Evans 2007, Massengill and Evans 2007.

[c] Source: Statewide Harvest Survey.

[d] Sources: Massengill and Carlon 2004 a,b; Massengill and Carlon 2007 a,b; Massengill 2007.

[e] Aggregate of all harvest estimates (sport, commercial, and personal-use/subsistence).

[f] Total Harvest divided by Total Run.

ND = No Data

Table 111-2.Estimated harvest of Kenai River coho salmon during commercial season extensions, based on 1985–1999 seasons.

Fishery	11-Aug	12-Aug	13-Aug	14-Aug	15-Aug	Total	Daily Avg.
Upper Subdistrict Setnet (ESSN)	1,954	1,767	1,913	2,278	1,968	9,880	1,976
Regular Drift	81	72	85	34	77	349	70
Corridor-Only Drift	51	51	51	51	51	256	51
Reg. Drift and Setnet	2,035	1,839	1,998	2,312	2,045	10,229	2,046
Corridor and Setnet	2,005	1,818	1,964	2,329	2,019	10,136	2,027

Table 111-3.–Coho salmon harvest, number of days fished, and number of regular fishing periods in the Upper Subdistrict set gillnet fishery from August 11–15, 2008–2013.

Year	Coho Harvest	Number of Days Fished	Number of Regular Periods August 11-15
2008	no fishing	0	2
2009	no fishing	0	1
2010	2,019	1	1
2011	no fishing	0	2
2012	1,803	1	1
2013	no fishing	0	2

Table 111-4.–Late-run Kenai River sockeye salmon inriver sonar goals, escapement goals, sonar counts, and escapements, 1986–2013.

Year	Inriver Sonar Enumeration Goal[a]	Biological/ Sustainable Escapement Goal	Optimum Escapement Goal	Final Sonar Count	Inriver Sport Harvest	Final Escapement	Actual Run Size (Millions)
1986	350,000–500,000			501,157	72,398	410,458	2.7
1987	400,000–700,000	330,000–600,000	330,000–600,000	1,596,871	240,819	1,363,028	8.7
1988	400,000–700,000	330,000–600,000	330,000–600,000	1,021,469	152,751	877,558	5.9
1989	400,000–700,000	330,000–600,000	330,000–600,000	1,599,959	277,906	1,331,701	ND
1990	400,000–700,000	330,000–600,000	330,000–600,000	659,520	118,287	503,916	2.9
1991	400,000–700,000	330,000–600,000	330,000–600,000	647,597	161,678	419,989	ND
1992	400,000–700,000	330,000–600,000	330,000–600,000	994,798	242,491	772,316	7.8
1993	400,000–700,000	330,000–600,000	330,000–600,000	813,617	137,179	676,425	3.9
1994	400,000–700,000	330,000–600,000	330,000–600,000	1,003,446	93,616	901,094	3.4
1995	400,000–700,000	330,000–600,000	330,000–600,000	630,447	125,428	522,405	2.3
1996	550,000–800,000	330,000–600,000	330,000–600,000	797,847	186,291	631,698	3.4
1997	550,000–825,000	330,000–600,000	330,000–600,000	1,064,818	177,133	917,831	4.0
1998	550,000–850,000	330,000–600,000	330,000–600,000	767,558	164,536	611,653	1.6
1999	750,000–950,000	500,000–800,000	500,000–1,000,000	803,379	200,574	615,654	2.6
2000	600,000–850,000	500,000–800,000	500,000–1,000,000	624,578	230,983	420,777	1.5
2001	600,000–850,000	500,000–800,000	500,000–1,000,000	650,036	200,762	481,932	1.9
2002	750,000–950,000	500,000–800,000	500,000–1,000,000	957,924	225,917	744,884	3.1
2003	750,000–950,000	500,000–800,000	500,000–1,000,000	1,181,309	285,925	927,623	3.8
2004	850,000–1,100,000	500,000–800,000	500,000–1,000,000	1,385,981	294,038	1,131,210	5.0
2005	850,000–1,100,000	500,000–800,000	500,000–1,000,000	1,376,452	294,287	1,121,634	5.6
2006	750,000–950,000	500,000–800,000	500,000–1,000,000	1,499,692	173,425	1,327,054	2.5
2007	750,000–950,000	500,000–800,000	500,000–1,000,000	867,572	308,812	602,186	3.4
2008	600,000–850,000	500,000–800,000	500,000–1,000,000	623,120	230,030	415,292	2.3
2009	600,000–850,000	500,000–800,000	500,000–1,000,000	745,170	252,319	503,659	2.4
2010	750,000–950,000	500,000–800,000	500,000–1,000,000	970,662	304,635	713,443	3.3
2011[b]	1,100,000–1,350,000	700,000–1,200,000	700,000–1,400,000	1,599,217	384,840	1,257,080	6.1
2012[b]	1,000,000–1,200,000	700,000–1,200,000	700,000–1,400,000	1,581,555	455,418	1,212,837	4.7
2013[b, c]	1,000,000–1,200,000	700,000–1,200,000	700,000–1,400,000	1,359,893	*Not Available*	*Not Available*	3.5
Average (1986–1995)					162,255		4.7
Average (1996–2001)					193,380		2.5
Average (2002–2012)					291,786		3.8

[a] Since 1999, inriver goal is set one of three tiers depending on total run size.

[b] Sonar technology switched to DIDSON (2011–2013) from Bendix (1986–2010) which changed the goals and inseason fish counts.

[c] 2013 run size is preliminary until published.

ND = No Data

Table 111-5.–Late-run Kenai River king salmon population data, 1986–2013.

Year	Marine Sport Harvest[a]	Eastside Setnet Harvest[b]	Drift Gillnet Harvest[b]	Commercial Personal Use[c]	Kenaitze Educational	Subsistence[d]	Personal Use Dipnet[e]	Sport Harvest Below Sonar[fg]	Inriver Run Estimate[h]	Sport Harvest Above Sonar[fg]	Catch-and-Release Mortality[f]	Spawning Escapement	Total Run	Harvest Rate
1986	378	13,619	1,100	ND	ND	ND	ND	ND	62,740	9,872	316	52,552	77,837	0.32
1987	731	14,536	2,731	ND	ND	ND	235	ND	63,550	13,100	123	50,327	81,783	0.38
1988	892	8,834	1,330	ND	ND	ND	0	ND	61,760	19,695	176	41,889	72,816	0.42
1989	821	7,498	0	ND	ND	22	0	ND	36,370	9,691	88	26,591	44,711	0.41
1990	963	2,843	373	91	ND	13	ND	ND	34,200	6,897	69	27,234	38,483	0.29
1991	1,023	3,361	145	130	ND	288	ND	ND	38,940	7,903	16	31,021	43,887	0.29
1992	1,269	7,363	326	50	ND	402	0	ND	42,290	7,556	234	34,500	51,700	0.33
1993	1,700	9,672	451	81	ND	27	0	ND	50,210	17,775	478	31,957	62,142	0.49
1994	1,121	10,700	276	9	1	392	ND	ND	47,440	17,837	572	29,031	59,939	0.52
1995	1,241	8,291	314	25	3	ND	712	ND	44,770	12,609	472	31,689	55,355	0.43
1996	1,223	7,944	219	31	1	ND	295	ND	42,790	8,112	337	34,341	52,503	0.35
1997	1,759	7,780	293	30	20	ND	364	ND	41,120	12,755	570	27,795	51,367	0.46
1998	1,070	3,495	199	35	2	ND	254	ND	47,110	7,515	595	39,000	52,165	0.25
1999	602	6,501	345	59	4	ND	488	1,170	43,670	12,425	682	30,563	52,839	0.42
2000	631	2,531	162	27	6	ND	410	831	47,440	14,391	499	32,550	52,038	0.37
2001	552	4,128	371	80	8	ND	638	1,336	53,610	15,144	825	37,641	60,724	0.38
2002	256	6,511	249	15	6	ND	606	1,929	56,800	10,678	665	45,457	66,372	0.32
2003	120	10,174	744	53	11	ND	1,016	823	85,110	16,120	1,803	67,187	98,052	0.31
2004	996	14,897	916	218	10	ND	792	2,386	79,690	14,988	1,019	63,683	99,905	0.36
2005	624	15,183 [i]	1,103	639	11	ND	997	2,287	77,440	15,927	1,267	60,246	98,284	0.39
2006	563	6,840 [i]	631	61	11	ND	1,034	3,322	62,270	12,490	830	48,950	74,732	0.34
2007	478	8,445 [i]	547	38	6	0	1,509	1,750	47,370	9,690	670	37,010	60,143	0.38
2008	310	5,203 [i]	392	23	15	0	1,362	1,011	42,840	10,128	370	32,342	51,156	0.37
2009	154	3,839	515	64	4	0	1,189	1,132	29,940	7,904	626	21,410	36,837	0.42
2010	335	4,567	323	32	21	0	865	445	23,250	6,762	264	16,224	29,839	0.46
2011	528	5,596	356	88	5	0	1,243	458	27,090	6,894	479	19,717	35,363	0.44
2012	30	484	115	41	0	0	40	2	27,910	101	95	27,714	28,622	0.03
2013[j]	ND	2,289	267	117	8	0	11	37	17,015	1,541	79	15,395	19,744	0.22
Average														
1986–2002	955	7,389	523	51	6	191	308	1,317	47,930	11,997	395	35,538	57,451	0.38
2003–2013	414	7,047	537	125	9	0	914	1,241	47,266	9,322	682	37,262	57,516	0.34
1986–2013	754	7,255	528	85	8	88	586	1,261	47,669	10,946	508	36,215	57,476	0.36

Source: Statewide Harvest Surveys (SWHS) from Mills 1987–1994, Howe et al. 1995, 1996, 2001a-d, Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b, 2011, *In Prep* a-b; Hammarstrom and Timmons 2001b; Brannian and Fox 1996; Ruesch and Fox 1996; Reimer and Sigurdsson 2004; Dunker and Lafferty 2007, Dunker, K.J. 2010, K. J. Dunker, Sport Fish Biologist, ADF&G, Anchorage, personal communication; Shields and Dupois 2013, P. Shields, Comm Fish Biologist, ADF&G, Soldotna, personal communication; Fleischman and McKinley 2013, FMS 13-02; Tim McKinley personal communication; Robert Begich personal communication.

Note: ND = No data available

[a] From Fleischman and McKinley 2013, FMS 13-02.

[b] Eastside setnet and drift gillnet commercial harvest data using genetic stock allocation from Fleischman and McKinley 2013, FMS 13-02; Tony Eskelin personal communication.

[c] Eastside setnet and drift gillnet personal use data using genetic stock allocation from Fleischman and McKinley 2013, FMS 13-02; Tony Eskelin personal communication..

[d] Total includes fish harvested from Cohoe, Salamatof, and Kalifornsky Beaches, and the Kenai River.

[e] 1986–1994 from SWHS; 1995 (Ruesch and Fox 1996); 1996–2012 are estimates from returned permits.

[f] Some harvest is below sonar and not counted against escapement.

[g] Sport harvest includes Creel survey estimates for the area from Cook Inlet to the Soldotna Bridge and estimates from the SWHS for Soldotna Bridge to outlet of Skilak Lake.

[h] Inriver run estimates thru 2012 are median values inTable 6 of Fleischman and McKinley 2013, FMS 13-02.

[i] Harvest estimate does not include Kasilof River terminal fishery which occurred 2005–2008.

[j] 2013 estimates are preliminary until biometrically reviewed and published.

PROPOSALS 112 and 113 – 5 AAC 21.310. Fishing seasons.

PROPOSED BY: Kenai River Sportfishing Association and Kenai River Professional Guide Association.

WHAT WOULD THE PROPOSALS DO? These proposals would increase the number of sockeye salmon needed in the Kasilof River to allow for an early opening of the Kasilof Section set gillnet fishery from 50,000 sockeye salmon to either 60,000 (Proposal 113) or 70,000 (Proposal 112) sockeye salmon.

WHAT ARE THE CURRENT REGULATIONS? The Kasilof Section set gillnet fishery is open from June 25 through August 15, with an option for an earlier opening any time after June 20, if the department estimates that 50,000 sockeye salmon are in the Kasilof River prior to June 25. The Kenai and East Forelands sections set gillnet fishery is open from July 8 through August 15. From August 11–15, the Upper Subdistrict set gillnet fishery may fish regular periods only.

WHAT WOULD BE THE EFFECT IF THE PROPOSALS WERE ADOPTED? These proposals would decrease the likelihood of an early opening in the Kasilof Section set gillnet fishery, decrease the harvest of king and sockeye salmon bound for the Kasilof River, and increase the likelihood of exceeding the Kasilof River sockeye salmon optimum escapement goal (OEG) of 160,000–390,000 fish.

BACKGROUND: From 1981–1983, the set gillnet fisheries in all of the Upper Subdistrict opened on June 25, with no provision for an earlier opening; in 1984, the season opened in the Kasilof Section on July 5, with a 75,000 escapement trigger for an early (June 25) opening; from 1985–2001, the season opened on the first regular period in July, with an escapement trigger of 50,000 fish for a June 25 opening; from 2002–2004, the Kasilof Section opened on June 25, with no early season trigger; and from 2005 to present, the season has opened on June 25 with a 50,000 fish trigger for an opening as early as June 20. Since 2005, the Kasilof Section could have opened in three years based on the 50,000 trigger. The Kasilof section was actually opened in two of three years (2005 and 2011) but was not opened based on the 50,000 trigger in 2013 because of concerns for king salmon.

In 2002, the biological escapement goal (BEG) for Kasilof River sockeye salmon was 150,000–250,000 fish. The Kasilof River sockeye salmon OEG of 150,000–300,000 fish was first established after poor sockeye salmon runs to the Kenai River in 2000 and 2001 (Table 112-1). In these two years, the management strategy employed in the Upper Subdistrict set gillnet fishery was to utilize the Kasilof Section one-half mile fishery to reduce the harvest of Kenai River sockeye salmon, while at the same time slowing the rate of passage to the Kasilof River (the minimum SEG was not achieved either year in the Kenai River, while the BEG was exceeded both years in the Kasilof River). At the 2002 meeting, the board adopted a Kasilof River OEG that was 50,000 fish higher than the BEG. The rationale for the OEG was to allow a 50,000 fish escapement buffer in the Kasilof River during years when the department was struggling to meet the minimum Kenai River escapement goal. The wording in the management plan stated that "Achieving the lower end of the Kenai River sockeye salmon escapement goal shall take priority over not exceeding the upper end of the Kasilof River optimal escapement goal."

In 2011, the department recommended a new BEG for Kasilof River sockeye salmon of 160,000–340,000 fish and the Alaska Board of Fisheries (board) adopted a new OEG of 160,000–390,000 fish. The 50,000 fish trigger for an early opening in the Kasilof Section set gillnet fishery was left at 50,000 sockeye salmon.

Since 1978, the Kasilof River sockeye salmon escapement has been above the BEG in 23 years (64%), within the BEG in 11 years (31%), and under the BEG in two years (6%; Table 112-1). More recently (2002–2013), Kasilof River sockeye salmon escapement has been within or above the BEG and OEG in every year; with escapement above the BEG in ten of 12 years (83%) and above the OEG in seven of 12 years (58%).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on these allocative proposals.

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

Table 112-1.–Escapement, biological escapement goals (BEGs), and optimum escapement goals (OEGs) for sockeye salmon in the Kasilof River, 1978–2013. Included is a comparison of the number of years the escapement was above, within, and below the escapement goals (BEG, OEG).

Year	Escapement	Biological Escapement Goal		Optimum Escapement Goal	
1978	116,600	75,000-150,000	Within		
1979	152,179	75,000-150,000	Above		
1980	184,260	75,000-150,000	Above		
1981	256,625	75,000-150,000	Above		
1982	180,239	75,000-150,000	Above		
1983	210,271	75,000-150,000	Above		
1984	231,685	75,000-150,000	Above		
1985	505,049	75,000-150,000	Above		
1986	275,963	75,000-150,000	Above		
1987	249,250	150,000-250,000	Within		
1988	204,000	150,000-250,000	Within		
1989	158,206	150,000-250,000	Within		
1990	144,289	150,000-250,000	Below		
1991	238,269	150,000-250,000	Within		
1992	184,178	150,000-250,000	Within		
1993	149,939	150,000-250,000	Below		
1994	205,117	150,000-250,000	Within		
1995	204,935	150,000-250,000	Within		
1996	249,944	150,000-250,000	Within		
1997	266,025	150,000-250,000	Above		
1998	273,213	150,000-250,000	Above		
1999	312,587	150,000-250,000	Above		
2000	256,053	150,000-250,000	Above		
2001	307,570	150,000-250,000	Above		
2002	226,682	150,000-250,000	Within	150,000-300,000	Within
2003	359,633	150,000-250,000	Above	150,000-300,000	Above
2004	577,581	150,000-250,000	Above	150,000-300,000	Above
2005	348,012	150,000-250,000	Above	150,000-300,000	Above
2006	368,092	150,000-250,000	Above	150,000-300,000	Above
2007	336,866	150,000-250,000	Above	150,000-300,000	Above
2008	301,469	150,000-250,000	Above	150,000-300,000	Above
2009	297,125	150,000-250,000	Above	150,000-300,000	Within
2010	267,013	150,000-250,000	Above	150,000-300,000	Within
2011	245,721	160,000-340,000	Within	160,000-390,000	Within
2012	374,523	160,000-340,000	Above	160,000-390,000	Within
2013	489,654	160,000-340,000	Above	160,000-390,000	Above
Averages					
1978-2013	269,689				
2004-2013	360,606				

Comparison of Escapement to Escapement Goals				
	Years	%	Years	%
Above Goal	23	64%	7	58%
Within Goal	11	31%	5	42%
Below Goal	2	6%	0	0%
Total	36		12	

PROPOSAL 114 – **5 AAC 21.310. Fishing seasons.**

PROPOSED BY: South K-Beach Independent Fishermen.

WHAT WOULD THE PROPOSAL DO? This proposal would change weekly fishing times for Monday/Thursday regular periods in the Upper Subdistrict set gillnet fishery. Specifically, this proposal would add three hours to each regularly scheduled fishing period in the Upper Subdistrict set gillnet fishery by modifying weekly fishing period times from 7:00 a.m. until 7:00 p.m. to 7:00 a.m. to 10:00 p.m.

WHAT ARE THE CURRENT REGULATIONS? Regularly scheduled fishing periods occur on Mondays and Thursdays from 7:00 a.m. until 7:00 p.m. Any additional fishing time is allowed only by emergency order.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would increase fishing time from 12 hours to 15 hours for regularly scheduled fishing periods. This would be a 25% increase in fishing time during regular periods and likely increase the harvest of salmon during regular periods. However, it is unclear what the effects of this change would be on total fishing time allowed and total harvest of salmon in the Upper Subdistrict set gillnet fishery. It is common practice for the Alaska Department of Fish and Game (department) to extend regular fishing periods for an average of four hours per period to harvest surplus sockeye salmon and to allow users to safely remove their gear from the water (Table 114-1). It is likely that total hours fished would be similar in a given year, since an increase in fishing time during regular periods would likely result in some decrease in the number of additional hours fished. However, it is unknown if the board will decrease the amount of additional fishing time available each week if this proposal is adopted and fishing time during regular periods is increased. The department's primary management objective would still be to achieve established escapement goals.

BACKGROUND: Regular fishing periods in Upper Cook Inlet (UCI) have been 12 hours in duration since at least 1972. Prior to 1984, regular fishing periods in UCI occurred from 6:00 a.m. until 6:00 p.m. on Mondays and Fridays. From 1985 through 1998, regular periods were from 7:00 a.m. until 7:00 p.m. on Mondays and Fridays. Since 1999, regular periods have occurred on Mondays and Thursdays from 7:00 a.m. until 7:00 p.m.

From 2002–2011, regular fishing periods in the Upper Subdistrict were extended 51% of the time by an average of four hours per extension (Table 114-1).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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.

Table 114-1.–Number of regular fishing periods (Monday/Thursday) in the Upper Subdistrict set gillnet fishery extended via emergency order, 2002–2013.

Year	No. Regular Periods	Days With Extension	% of Time Regular Period Extended	Average Extension (hours)
2002	12	5	42%	5
2003	13	9	69%	4
2004	12	4	33%	4
2005	15	9	60%	4
2006	11	4	36%	4
2007	14	7	50%	4
2008	9	6	67%	3
2009	13	7	54%	3
2010	14	8	57%	3
2011	12	5	42%	3
2012	5	1	20%	2
2013	8	3	38%	3
2002–2011	125	64	51%	4

PROPOSAL 115 – **5 AAC 21.310. Fishing seasons.**

PROPOSED BY: Kenai Peninsula Fishermen's Association.

WHAT WOULD THE PROPOSAL DO? This proposal would move the opening date of the Kenai and East Foreland sections set gillnet fishery from on or after July 8 to on or after July 1; remove the restriction to fish regular periods only from August 11–15 in the Kenai and East Foreland Sections; and remove the "one-percent" provision that closes the season in the Kenai and East Foreland sections any time after July 31, if less than one-percent of the total sockeye salmon harvest has been taken per fishing period for two consecutive fishing periods.

WHAT ARE THE CURRENT REGULATIONS? Salmon may be commercially harvested in the Kenai and East Foreland sections set gillnet fishery from July 8 through August 15, unless closed by emergency order (EO) after July 31, if the Alaska Department of Fish and Game (department) determines that less than one-percent of the season's total sockeye salmon harvest has been taken per fishing period for two consecutive fishing periods (referred to as the "one-percent rule"); from August 11 through August 15, the fishery is open for regular fishing periods only.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would allow the set gillnet fishery to open up to seven days earlier in the Kenai and East Foreland sections, and allow additional fishing time beyond regular periods during August 11–15 in the set gillnet fishery in these areas and the fishery would not close based on the harvest of sockeye salmon after July 31. This proposal would likely increase the harvest of sockeye and king salmon early in the season (prior to July 8) and sockeye, king, coho, pink, and chum salmon later in the season (after July 31), by an unknown amount.

BACKGROUND: From 1973–1983, all of the Upper Subdistrict set gillnet fishery opened on June 25. In 1984, the area of beach north of the Kasilof River opened on July 10, with an earlier opening based on an escapement trigger. From 1985–1996, the Kenai and East Foreland sections opened on or after July 1, with an escapement trigger for an opening as early as June 25. From 1997–2013, the Kenai and East Foreland sections set gillnet fishery has opened on or after July 8.

In 2005, 5 AAC 21.320(b)(2)(C)(iii) was amended to include, for the first time, what is commonly referred to as the "one-percent" rule. This provision states that any time after July 31, if less than one percent of the season's total sockeye salmon harvest has been taken per fishing period for two consecutive fishing periods in the Kenai, Kasilof, and East Foreland sections set gillnet fishery, the season will close. In 2008, the Alaska Board of Fisheries (board) extended the Upper Subdistrict set gillnet and Central District drift gillnet fishing season in all of the Central District from August 10 to August 15, but added the caveat that from August 11 through August 15, there are no mandatory area restrictions to regular periods, except that if the Upper Subdistrict set gillnet fishery is closed per the one-percent rule, regular fishing periods will be restricted to Drift Gillnet areas 3 and 4. The extension of the fishing season to August 15 was adopted largely in response to data that showed a less than 1% exploitation of Kenai River coho salmon per additional day of fishing by Upper Subdistrict set gillnets and Central District drift

gillnets prior to August 15 (tables 115-1 and 115-2). Since the one-percent rule was adopted, it has closed the Upper Subdistrict set gillnet fishing season twice, in 2009 and 2011 (Table 115-3).

From 1985–1998, the season opening date in what is now referred to as the Kenai and East Foreland sections occurred on the first Monday or Friday in July, unless the department estimated that 100,000 sockeye salmon were in the Kasilof River before that date, at which time the department could open the fishery as early as June 25. Since 1999, the set gillnet fishery in the Kenai and East Foreland sections of the Upper Subdistrict has had a season opening date of on or after July 8.

In 1999, the department changed the statistical area designation of that area of beach between the Kasilof and Kenai rivers (Figure 115-1). The area south of the Blanchard Line to the Kasilof River is now defined as statistical area 244-31. The area north of the Blanchard Line to the Kenai River is statistical area 244-32. Prior to 1999, this area was all one statistical designation, that being 244-30. These statistical area designations are not in regulation, but they are defined and used by the department for discrete harvest data recording on fish tickets.

From 1980–1998, from July 1 through July 7, the entire statistical area of 244-30 (now designated as 244-31 and 244-32) was fished, on average, 2.2 times per year, with an average total harvest of 395 king salmon and approximately 13,000 sockeye salmon (Table 115-4). Since 1999, the area south of the Blanchard Line (statistical area 244-31), which is part of the Kasilof Section, has been fished an average of 3.7 days per year during the July 1 to July 7 timeframe, with an average total harvest of 223 king salmon and 25,000 sockeye salmon. From 1980–1998, for the dates between July 1 and July 7, statistical area of 244-40 (that area of beach north of the Kenai River) was open during 16 of these 19 years, for an average of 2.4 periods per year (Table 115-4). The average total harvest of king salmon during this time frame was 232, while approximately 5,300 sockeye salmon per year were harvested.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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.

Table 115-1.–Estimated harvest, total return, and harvest rate of Kenai River coho salmon (1999–2004).

Year	Escapement[a,b]	Harvest			Research Mortality	Total Run	Total Harvest[e]	Harvest Rate[f]
		Sport[c]	Personal Use	Commercial[d]				
1999	7,889	35,361	1,009	3,894	193	48,346	40,457	0.837
2000	72,742	52,489	1,449	2,965	555	130,200	56,903	0.437
2001	75,122	55,004	1,555	1,934	540	134,155	58,493	0.436
2002	133,612	66,104	1,721	6,115	968	208,520	73,940	0.355
2003	79,915	51,944	1,332	2,578	209	135,978	55,854	0.411
2004	95,394	72,565	2,661	11,149	2,106	183,875	86,375	0.470
Average 1999–2004	77,446	55,578	1,621	4,773	762	140,179	62,004	0.491
2000–2004	91,357	59,621	1,744	4,948	876	158,546	66,313	0.422

Note: 1991–1993 and 1998 Kenai River coho salmon creel data was used to calculate the effect of increasing the bag limit from 2 to 3 fish, only boat angler interviews/data were selected for use for 1991–1993 due to the lack of data from shore anglers.

[a] Kenai River coho salmon total runs were estimated only during 1999–2004.

[b] Sources: Carlon and Evans 2007, Massengill and Evans 2007.

[c] Source: Statewide Harvest Survey.

[d] Sources: Massengill and Carlon 2004 a,b; Massengill and Carlon 2007 a,b; Massengill 2007.

[e] Aggregate of all harvest estimates (sport, commercial, and personal-use/subsistence).

[f] Total Harvest divided by Total Run.

ND = No Data

Table 115-2.–Estimated harvest of Kenai River coho salmon during commercial season extensions, based on 1985–1999 seasons.

Fishery	11-Aug	12-Aug	13-Aug	14-Aug	15-Aug	Total	Daily Avg.
Upper Subdistrict Setnet (ESSN)	1,954	1,767	1,913	2,278	1,968	9,880	1,976
Regular Drift	81	72	85	34	77	349	70
Corridor-Only Drift	51	51	51	51	51	256	51
Reg. Drift and Setnet	2,035	1,839	1,998	2,312	2,045	10,229	2,046
Corridor and Setnet	2,005	1,818	1,964	2,329	2,019	10,136	2,027

Table 115-3.–Season closing date and reason for closure by year in the Upper Subdistrict set gillnet fishery, 2005–2013.

Year	Last day of fishing	Closing date in regulation	1% rule (yes/no)	Reason for closing
2005	10-Aug	10-Aug	No	End of season
2006	9-Aug	10-Aug	No	End of season
2007	9-Aug	10-Aug	No	End of season
2008	7-Aug	15-Aug	No	Poor sockeye salmon run to Kenai River
2009	10-Aug	15-Aug	Yes	1% Rule
2010	12-Aug	15-Aug	No	End of season
2011	7-Aug	15-Aug	Yes	1% Rule
2012	13-Aug	15-Aug	No	End of season
2013	23-Jul	15-Aug	No	Poor late-run king salmon run to Kenai River

Table 115-4.–Commercial salmon harvest in statistical areas 244-30 (that area of beach between the Kasilof and Kenai rivers), 244-31 (that area of beach north of the Kasilof River to the Blanchard Line) and 244-40 (north of Kenai River) from July 1 through July 7.

Summary of Statistical Area 244-30 (July 1-7)

Year	King	Sockeye	Days Open
1980	234	4,942	2
1981	369	8,547	4
1982	306	951	2
1983	1,097	11,410	3
1984	342	6,806	2
1985	317	15,599	2
1986	268	2,969	2
1987	398	14,168	2
1988	211	17,739	2
1989	332	19,563	2
1990	174	9,299	2
1991	248	19,357	3
1992	307	11,531	2
1993	484	10,596	2
1994	461	9,408	2
1995	726	9,252	2
1996	358	26,924	2
1997	197	15,495	2
1998	228	16,431	2
Avg.	395	13,205	2.2

Summary of Statistical Area 244-31 (July 1-7)

Year	King	Sockeye	Days Open
1999	140	13,938	3
2000	148	13,468	2
2001	179	17821	3
2002	208	58,000	4
2003	691	47,703	4
2004	366	22,497	3
2005	499	45,484	5
2006	213	36,573	5
2007	85	6,748	3
2008	151	24,332	5
2009	190	42,129	5
2010	179	23,472	5
2011	208	18,900	4
2012	21	3,867	2
2013	64	5,695	3
Avg.	223	25,375	3.7

Summary of Statistical Area 244-40 (July 1-7)

Year	King	Sockeye	Days Open
1980	127	1,757	2
1981	352	2,955	2
1982	169	435	2
1983	344	5,900	3
1984	0	0	0
1985	357	5,712	3
1986	240	937	2
1987	147	3,740	2
1988	289	7,263	3
1989	209	7,429	2
1990	95	11,230	2
1991	136	7,052	3
1992	188	4,002	2
1993	136	3,013	2
1994	266	6,273	3
1995	266	4,113	2
1996	312	14,254	3
1997	0	0	0
1998	0	0	0
Avg.	232	5,293	2.4

Note: average does not include years where no fishing occurred from July 1-7.

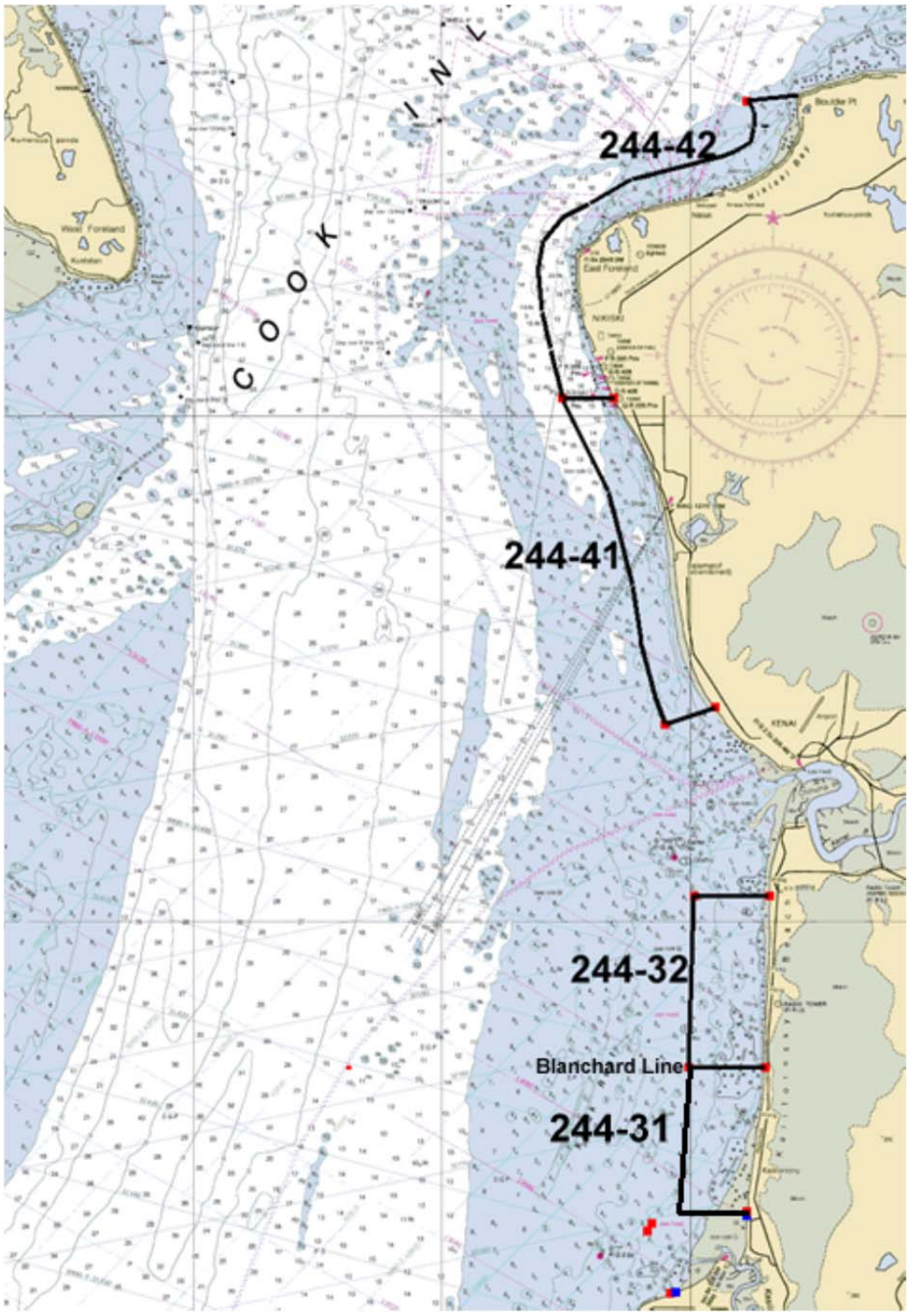

Figure 115-1.–Map of commercial fishing statistical areas 244-31, 244-32, 244-41, and 244-42.

PROPOSAL 118 – **5 AAC 21.310. Fishing seasons; 5 AAC 21.320. Weekly fishing periods; 5 AAC 21.331. Gillnet specifications and operations; and 5 AAC 21.360. Kenai River Late-Run Sockeye Salmon Management Plan.**

PROPOSED BY: Gary Hollier.

WHAT WOULD THE PROPOSAL DO? This proposal would open the North Kalifornsky Beach statistical area (244-32) from July 1–7 for regularly scheduled eight-hour fishing periods that encompass ebb tides, with 29-mesh nets.

WHAT ARE THE CURRENT REGULATIONS? The Kenai and East Foreland sections' set gillnet fishery currently opens on or after July 8. A set gillnet operating in Cook Inlet may not be longer than 35 fathoms in length and 45 meshes in depth. The maximum mesh size for gillnets is six inches. Weekly fishing periods occur on Mondays and Thursdays from 7:00 a.m. until 7:00 p.m. The Alaska Department of Fish and Game (department) does not have emergency order authority (EO) to modify gear in Upper Cook Inlet (UCI), unless explicitly provided by the Alaska Board of Fisheries (board).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Adoption of this proposal would result in additional sockeye and king salmon being harvested, by an unknown amount.

BACKGROUND: Statistical area 244-32 is one of two stat areas of the Kenai Section of the Upper Subdistrict (Figure 118-1). This stat area begins at the Blanchard Line and extends north to the Kenai River.

From 1973–1983, all of the Upper Subdistrict set gillnet fishery opened on June 25. In 1984, that area of beach north of Kasilof River opened on July 10, with an earlier opening based on an escapement trigger. From 1985–1996, the Kenai and East Foreland sections (Figure 118-1) opened on or after July 1, with an escapement trigger for an opening as early as June 25. From 1997–2013, the Kenai and East Foreland sections set gillnet fishery has opened on or after July 8.

King and sockeye salmon harvests from July 1–7 in statistical area 244-30 (all of the beach between the Kasilof and Kenai rivers) versus harvests from just statistical area 244-31 (Kasilof River north to the Blanchard Line) can be found in Table 118-1. Note that the harvest statistics are from different years because the department did not divide statistical area 244-30 into 244-31 and 244-32 until 1999. These statistical area designations are not in regulation, but are defined and used by the department for discrete harvest data recording on fish tickets. The department does not have catch statistics for 29-mesh gear and does not keep catch statistics by the stage of tide fished.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. The board would need to specify the amount of gear or give the department authority to specify the amount of gear that can be fished in any given area.

COST ANALYSIS: Approval of this proposal would result in additional direct costs for a private person to participate in this fishery. Those permit holders currently fishing a net greater than 29-meshes deep would have to modify their nets or purchase replacement nets that meet the new mesh requirement prior to fishing during the proposed timeframe.

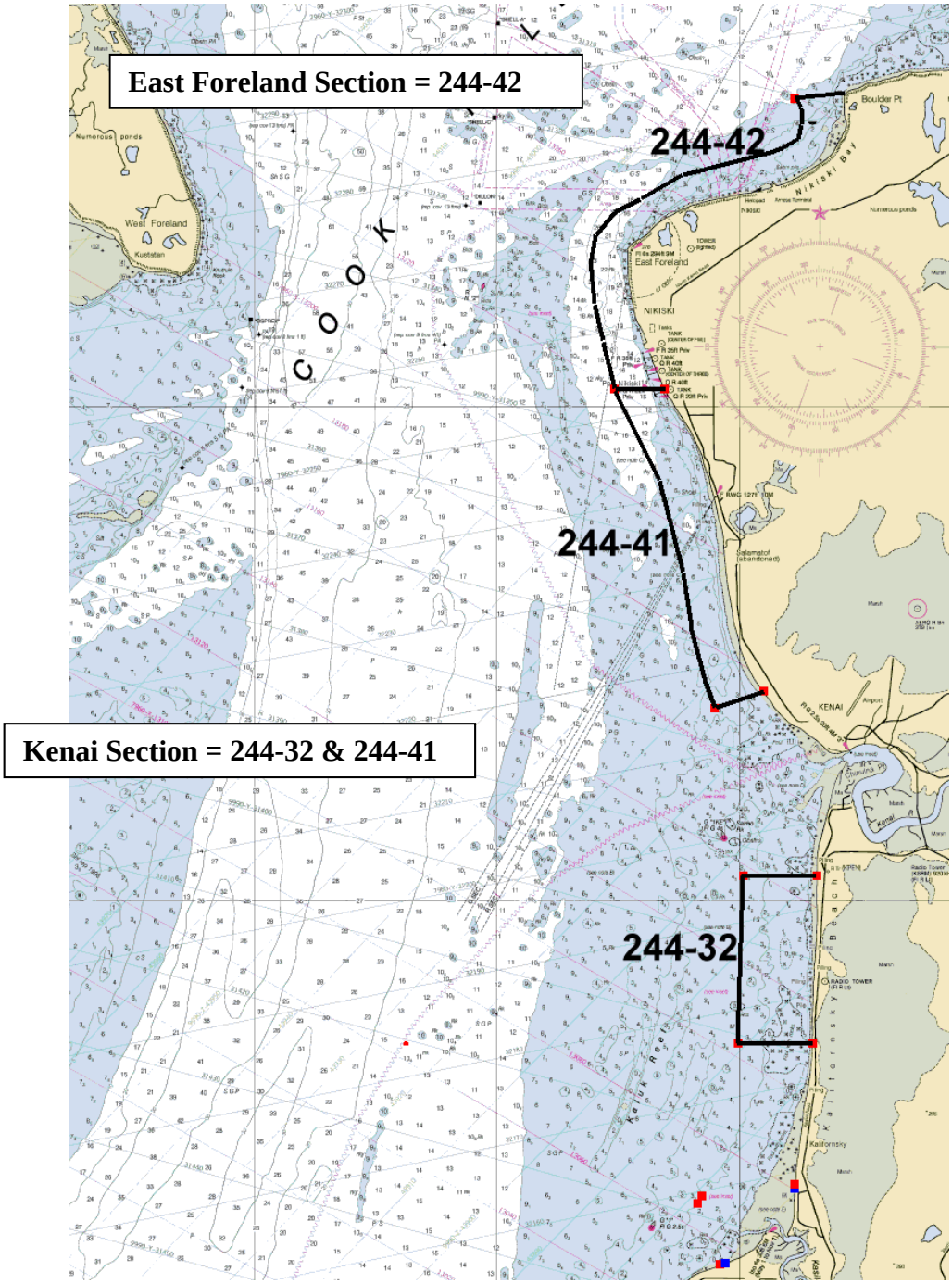

Figure 118-1.–Map of Kenai and East Foreland sections set gillnet statistical areas.

Table 118-1.–Commercial salmon harvest in statistical area 244-30 (that area of beach between the Kasilof and Kenai rivers) and in statistical area 244-31 (that area of beach north of the Kasilof River to the Blanchard Line) from July 1 through July 7.

Summary of Statistical Area 244-30 (July 1–7)

Year	King	Sockeye	Days Open
1980	234	4,942	2
1981	369	8,547	4
1982	306	951	2
1983	1,097	11,410	3
1984	342	6,806	2
1985	317	15,599	2
1986	268	2,969	2
1987	398	14,168	2
1988	211	17,739	2
1989	332	19,563	2
1990	174	9,299	2
1991	248	19,357	3
1992	307	11,531	2
1993	484	10,596	2
1994	461	9,408	2
1995	726	9,252	2
1996	358	26,924	2
1997	197	15,495	2
1998	228	16,431	2
Average	395	13,205	2.2

Summary of Statistical Area 244-31 (July 1–7)

Year	King	Sockeye	Days Open
1999	140	13,938	3
2000	148	13,468	2
2001	179	17821	3
2002	208	58,000	4
2003	691	47,703	4
2004	366	22,497	3
2005	499	45,484	5
2006	213	36,573	5
2007	85	6,748	3
2008	151	24,332	5
2009	190	42,129	5
2010	179	23,472	5
2011	208	18,900	4
2012	21	3,867	2
2013	41	5,786	3
Average	221	25,381	3.7

COMMITTEE OF THE WHOLE – GROUP 6: Central District Drift Salmon Management Plan, Pink Salmon Management Plan, and Coho Salmon Commercial and Sport Fisheries (39 Proposals)

Central District Drift Gillnet Fishery Management Plan (13 Proposals): 135–147
Fishing Periods and Permit Stacking (2 Proposals): 122, 127
Cook Inlet Pink Salmon Management Plan (8 Proposals): 173–180
Coho Salmon – Commercial and Sport Fisheries (16 Proposals): 107, 108, 109, 110, 120, 116, 117, 119, 131, 132, 248, 263, 264, 265, 319, 320

Central District Drift Gillnet Fishery Management Plan (13 Proposals): 135–147

PROPOSAL 135 – 5 AAC 21.353. Central District Drift Gillnet Fishery Management Plan.

PROPOSED BY: United Cook Inlet Drift Association.

WHAT WOULD THE PROPOSAL DO? This proposal would modify or remove specific provisions within the *Central District Drift Gillnet Fishery Management Plan* (CDDGFMP). First, this proposal would set the closing date for drift gillnetting in all of the Central District as September 1 instead of the current date of August 15. It is unclear what happens to the drift fishery after September 1, since the proposal states that fishing may be closed by emergency order (EO) after September 1, but had already set the season closing date as September 1. Next, this proposal seeks to remove time and area restrictions based upon the size of the Kenai River sockeye salmon run. These restrictions primarily fall under two timeframes: July 9–15 and July 16–31. Finally, this proposal seeks to move the descriptions of two fishing areas, the Expanded Kenai and Expanded Kasilof sections, from 5 AAC 21.200, *Fishing Districts, Subdistricts, and Sections,* and place these descriptions in a new subsection of the drift gillnet management plan. The description of the Expanded Kasilof Section would be changed by moving the southwest corner of the Expanded Kasilof Section westward approximately 1.2 nautical miles, which would result in the Blanchard Line intersection with the new north–south line being moved westward approximately 2,700 feet (Figure 135-1).

WHAT ARE THE CURRENT REGULATIONS? The purpose of the CDDGFMP is to ensure adequate escapement of salmon into Northern District drainages and to provide management guidelines to the Alaska Department of Fish and Game (department). The department manages the commercial drift gillnet fishery to minimize harvest of Northern District and Kenai River coho salmon in order to provide sport and guided sport fishermen a reasonable opportunity to harvest these salmon stocks over the entire run, as measured by the frequency of inriver restrictions. The commissioner may depart from the provisions of the management plan under this section as provided in 5 AAC 21.363(e).

Drift gillnet fishing begins on the third Monday in June or June 19, whichever is later. Fishing periods are Mondays and Thursdays from 7:00 a.m. to 7:00 p.m.

From July 9–15, fishing during the first regular fishing period is restricted to the Expanded Kenai and Expanded Kasilof sections, additional fishing time is allowed only in the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict, and fishing during the second regular

fishing period is restricted to the Kenai and Kasilof sections of the Upper Subdistrict and Drift Gillnet Area 1 (figures 135-2 and 135-3). At run strengths greater than 2.3 million sockeye salmon to the Kenai River, the commissioner may open one additional 12-hour fishing period in the Kenai and Kasilof sections of the Upper Subdistrict and Drift Gillnet Area 1.

From July 16–31, at run strengths of less than 2.3 million sockeye salmon to the Kenai River, fishing during one regular 12-hour fishing period per week will be restricted to the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict. At run strengths of 2.3 million to 4.6 million sockeye salmon to the Kenai River, fishing during one regular 12-hour fishing period per week will be restricted to either the Expanded Kenai and/or Expanded Kasilof sections of the Upper Subdistrict or Drift Gillnet Area 1, but not both areas together. At run strengths greater than 4.6 million sockeye salmon to the Kenai River, there will be no mandatory restrictions during regular fishing periods.

From August 11–15, there are no mandatory area restrictions to regular periods, except that if the Upper Subdistrict set gillnet fishery is closed because of the one-percent rule, regular fishing periods will be restricted to Drift Gillnet areas 3 and 4 (Figure 135-4). From August 16 until closed by EO, Drift Gillnet areas 3 and 4 are open for fishing during regular fishing periods.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It is difficult to determine all the effects of this proposal because the proposal makes significant changes to the management plan. All of the proposed changes would increase commercial harvest of salmon by an unknown amount depending on the abundance, migration or run timing, and migratory patterns of salmon returning throughout Upper Cook Inlet (UCI), including the Kenai, Kasilof, and Susitna rivers. The department would continue to manage the drift fishery with the primary management objective of achieving established escapement goals.

BACKGROUND: In 1996, the *Northern District Coho Salmon Management Plan* (5 AAC 21.358) was first adopted to minimize the harvest of Susitna River coho salmon and further to limit the commercial harvest of coho salmon bound for freshwater streams and rivers of the Northern District. It included a restriction to the Central District drift gillnet fishery where the first regularly scheduled drift gillnet fishing period after July 25 was restricted to the Kenai and Kasilof sections, and the fishery closed on August 9.

In 1999, the plan was renamed to the *Northern District Salmon Management Plan* and included new restrictions to the drift gillnet fishery. One regular fishing period (designated by the department), from July 9–15, was restricted to the Kenai and Kasilof sections. In addition, for the first regular fishing period immediately before or on July 25 and the first regular period after July 25, fishing was restricted to either or both the Kenai and Kasilof sections and/or that portion of the Central District south of Kalgin Island (now referred to as Drift Gillnet Area 1). If the Kenai River sockeye salmon run was projected to be more than four million fish, there were no mandatory restrictions during regular fishing periods. The August 9 season closure remained unchanged.

In 2002, additional changes were made to the *Northern District Salmon Management Plan*. The one regular period restriction to the Kenai and Kasilof sections, from July 9–15, designated by

the department, remained unchanged. From July 16–31, however, drift fishing was now to be restricted for two consecutive regular fishing periods to either or both of the Kenai and Kasilof sections of the Upper Subdistrict, or that portion of the Central District south of Kalgin Island (Drift Gillnet Area 1). However, if the Kenai River sockeye salmon run was greater than three million fish, the plan provided options to the department to liberalize the restrictions to include Drift Gillnet Area 2 during the July 16–31 timeframe. If the Kenai run was greater than four million fish, the plan provided for an option to fish the drift fleet districtwide for the periods on or before July 25 and the first period after July 25. Drift gillnet fishing was only authorized in this additional area if the department determined that 1) sockeye salmon escapement goals were being met in the Kenai, Kasilof, and Yentna rivers; 2) abundance of pink salmon and chum salmon stocks were sufficient to withstand commercial harvest; and 3) coho salmon stocks were sufficient enough to withstand commercial harvest and that additional harvest would not lead to restrictions in the coho salmon sport fisheries. The August 9 season closure remained unchanged.

In 2005, the Alaska Board of Fisheries (board) eliminated all specific references to the drift gillnet fishery in the *Northern District Salmon Management Plan* and established a new management plan for the drift gillnet fishery, the CDDGFMP (5 AAC 21.353). In this plan, the board provided for an earlier opening date (the third Monday in June or June 19, whichever is later); this was done largely in response to strong Kasilof River sockeye salmon runs during the previous nine years. Restrictions to the drift fleet now required both fishing periods between July 9–15 to be limited to the Kenai and Kasilof sections and Drift Gillnet Area 1. The restrictions during this time period were put in place because of the problem of achieving the minimum sockeye salmon escapement goal in the Yentna River. From July 16–31, restrictions were based upon the size of the Kenai River sockeye salmon run. At run strengths of less than two million sockeye salmon to the Kenai River, fishing during any two regular 12-hour fishing periods was restricted to the Kenai and Kasilof sections of the Upper Subdistrict and Drift Gillnet Area 1; at run strengths of two million to four million sockeye salmon to the Kenai River, fishing during two regular 12-hour fishing periods was restricted to the Kenai and Kasilof sections and Drift Gillnet areas 1 and 2; at run strengths greater than four million sockeye salmon to the Kenai River, there were no mandatory restrictions during regular fishing periods. The fishery remained open until closed by EO, except that beginning August 11 drift gillnetting was limited to the newly described Drift Gillnet Areas 3 and 4 (Figure 135-4). Finally, in 2005, the board established an optimal escapement goal (OEG) for Yentna River sockeye salmon of 75,000–180,000 fish when Kenai River sockeye salmon runs exceeded 4 million fish. The OEG was 15,000 fish below the Yentna River SEG of 90,000–160,000 fish on the bottom end and 20,000 fish above the SEG on the upper end. Specifically, the *Northern District Salmon Management Plan* stated, "Achievement of the lower end of the Yentna River optimal escapement goal shall take priority over not exceeding the upper end of the Kenai River escapement goal."

In 2008, there were no significant changes to the CDDGFMP, but the *Pink Salmon Management Plan* was repealed and the drift gillnet fishery was extended for regularly scheduled fishing periods only between August 11–15 in Drift Gillnet areas 1 and 2. Previously, drift gillnet fishermen were restricted to Drift Gillnet areas 3 and 4 after August 10.

In 2011, a number of changes were made to the drift fishery management plan. The changes made to the drift plan were threefold: 1) fishing during the second regular fishing period from

July 9–15 was restricted to the Kenai and Kasilof sections (not the Expanded Kenai and Kasilof sections) of the Upper Subdistrict and Drift Gillnet Area 1; 2) at run strengths greater than 2.3 million sockeye salmon to the Kenai River, the department may, by EO, open one additional 12-hour fishing period in the Kenai and Kasilof sections (not the Expanded Kenai and Kasilof sections) of the Upper Subdistrict and Drift Gillnet Area 1; and 3) at run strengths of 2.3 million to 4.6 million sockeye salmon to the Kenai River, fishing during one regular 12-hour fishing period per week was to be restricted to either the Expanded Kenai or Expanded Kasilof sections (or both together) of the Upper Subdistrict or to Drift Gillnet Area 1, but not to both areas concurrently.

In 2009, the department determined the Yentna River sockeye salmon escapement estimates and the escapement goal were inappropriate given the uncertainties associated with the species allocation of daily sonar estimates of passage. Because of the apparent declining productivity of the Susitna River sockeye salmon stock, the board designated this stock as a stock of yield concern at the 2008 UCI board meeting. Because of the considerable uncertainty in estimating sockeye salmon escapement at the Yentna River, the sockeye salmon sustainable escapement goal (SEG) of 90,000–160,000 fish was eliminated by the department and replaced by three weir-based lake goals at Chelatna, Judd, and Larson lakes. Three SEGs for these systems were established in 2008: Chelatna (20,000–65,000), Judd (25,000–55,000), and Larson Lake (15,000–50,000). Since the new goals were implemented (2008–2013), Chelatna Lake met or exceeded its SEG in five out of six years, Judd Lake met or exceeded its SEG in three out of six years, and Larson Lake met or exceeded its SEG in five out of six years (Table 135-1).

The sustainable escapement goal for Little Susitna River coho salmon is 10,100–17,700 fish. The average annual sport harvest since 2002 is approximately 11,000 coho salmon and average escapement for the same period is 20,000 coho salmon (Table 135-2). Since 2002, the SEG has been achieved in seven of the past twelve years. Poor runs were observed in 2011 and 2012, and the SEG was not achieved in each of those two years despite actions taken to reduce sport harvest inseason. The Little Susitna River coho Salmon SEG was achieved in 2013.

The sustainable escapement goal for Jim Creek (based upon a foot survey of an index area on McRoberts Creek) is 450–700 coho salmon. The average annual sport harvest since 2002 is approximately 10,500 coho salmon and average index escapement for the same period is 1,500 coho salmon (Table 135-2).

Since 1986 (28 years), the final sonar count for Kenai River late-run sockeye salmon was above the inriver goals in 17 years (61%), within the inriver goals in 11 years (39%), and never below the inriver goals (Table 135-3). From 1987–2012, the final spawning escapement (based on postseason analysis) was above the BEG/SEG goals in 15 years (58%), within the BEG/SEG goals in 8 years (31%), and below the BEG/SEG goals in 3 years (11%). Since converting to DIDSON-based goals in 2011, the final spawning escapement (based on postseason analysis) was within the OEG in 2011 and 2012.

Since 1978, the Kasilof River sockeye salmon escapement has been above the BEG in 23 years (64%), within the BEG in 11 years (31%), and under the BEG in two years (6%; Table 135-4). More recently (2002–2013), Kasilof River sockeye salmon escapement has been within or above

the BEG and OEG in every year; with escapement above the BEG in ten of 12 years (83%) and above the OEG in seven of 12 years (58%).

Northern Cook Inlet coho salmon stocks are also harvested in Central District drift and setnet fisheries, although quantifiable estimates of contribution to individual commercial fisheries are unknown. Harvest rates by commercial fisheries in Upper Cook Inlet (UCI) ranged from 10%–15%, based on a marine tagging study (using telemetry and pit tags) in 2002. Harvest rates by commercial fisheries of Upper Cook Inlet of hatchery stocks in Anchorage and Knik Arm fisheries ranged from 6% on Ship Creek in 1993 to 93% in Wasilla Creek in 1997 and averaged 47% from 1993 to 1998 across all hatchery stocks (Bird, Campbell, Ship, and Wasilla creeks and Little Susitna River).

Genetic stock identification (GSI) analyses have been conducted on sockeye salmon captured during the Anchor Point offshore test fishery since 2006 (Table 135-5). Estimates of the major stocks entering UCI by four or five temporal strata each year are reported. In addition, GSI stock specific estimates of the drift gillnet sockeye salmon harvest have also been made since 2006 (Table 135-6). Based on non-corridor fishing periods, the harvest rate of Susitna River sockeye salmon by the drift gillnet fleet have ranged from 8% to 44% and averaged 27%.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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.

Table 135-1.–Sockeye salmon sustainable escapement goals (SEG) and escapement in the Susitna River drainage, monitored at weirs on Chelatna, Judd, and Larson lakes, 2006–2013.

Lake	SEG	2006	2007	2008	2009	2010	2011	2012	2013
Chelatna	20,000–65,000	18,433	41,290	73,469	17,721	37,784	70,353	36,577	70,555
Judd	25,000–55,000	40,633	58,134	54,304	44,616	18,361	39,997	18,303	14,088
Larson	15,000–50,000	57,411	47,736	35,040	40,933	20,324	12,413	16,708	21,821

Table 135-2.–Coho salmon sport harvest and escapement on select streams within Northern Cook Inlet, 2002–2013.

	Little Susitna		Fish Creek		McRoberts Creek (Jim Creek)		Deshka River	
Year	Harvest	Escapement	Harvest	Escapement	Harvest	Escapement	Harvest	Escapement
2002	19,278	47,938	1,233	14,651	14,707	2,473	3,616	24,612 [a]
2003	13,672	10,877	112	1,231	6,415	1,421	4,946	17,305
2004	15,307	40,199	774	1,415 [b]	11,766	4,652	4,440	62,940
2005	10,203	16,839 [a]	535	3,011 [b]	10,114	1,464	3,616	47,887
2006	12,399	8,786 [a]	281	4,967 [b]	19,259	2,389	6,042	59,419 [a]
2007	11,089	17,573	120	6,868 [b]	11,848	725	2,550	10,575
2008	13,498	18,485	993	4,868 [b]	17,545	1,890	3,426	12,724
2009	8,346	9,523	1,178	8,214	11,573	1,331	4,060	27,348
2010	10,662	9,214	805	6,977	8,442	242	5,690	10,393
2011	2,452	4,826	414	1,428 [b]	3,132	261	2,282	7,508 [a]
2012	1,681	6,779 [a]	274	1,237	1,858	213	1,358	6,825
2013	NA	13,583 [a]	NA	7,593 [a]	NA	663	NA	22,141 [a]
Average								
2002–2012[c]	10,781	19,829 [c]	611	4,988 [c]	10,605	1,477	3,821	24,500 [c]
SEG		10,100-17,700[d]		1,200-4,400[d]		450-700[e]		No goal

[a] Incomplete or partial count due to weir submersion.

[b] Weir was removed on August 15, before the majority of the coho run, 2004–2008 and 2011.

[c] Includes complete count years only.

[d] Weir counts

[e] Foot Survey

NA = Data not available.

Table 135-3.–Late-run Kenai River sockeye salmon inriver sonar goals, escapement goals, sonar counts, and escapements, 1986–2013.

Year	Inriver Sonar Enumeration Goal[a]	Biological/ Sustainable Escapement Goal	Optimum Escapement Goal	Final Sonar Count	Inriver Sport Harvest	Final Escapement	Actual Run Size (Millions)
1986	350,000–500,000			501,157	72,398	410,458	2.7
1987	400,000–700,000	330,000–600,000	330,000–600,000	1,596,871	240,819	1,363,028	8.7
1988	400,000–700,000	330,000–600,000	330,000–600,000	1,021,469	152,751	877,558	5.9
1989	400,000–700,000	330,000–600,000	330,000–600,000	1,599,959	277,906	1,331,701	ND
1990	400,000–700,000	330,000–600,000	330,000–600,000	659,520	118,287	503,916	2.9
1991	400,000–700,000	330,000–600,000	330,000–600,000	647,597	161,678	419,989	ND
1992	400,000–700,000	330,000–600,000	330,000–600,000	994,798	242,491	772,316	7.8
1993	400,000–700,000	330,000–600,000	330,000–600,000	813,617	137,179	676,425	3.9
1994	400,000–700,000	330,000–600,000	330,000–600,000	1,003,446	93,616	901,094	3.4
1995	400,000–700,000	330,000–600,000	330,000–600,000	630,447	125,428	522,405	2.3
1996	550,000–800,000	330,000–600,000	330,000–600,000	797,847	186,291	631,698	3.4
1997	550,000–825,000	330,000–600,000	330,000–600,000	1,064,818	177,133	917,831	4.0
1998	550,000–850,000	330,000–600,000	330,000–600,000	767,558	164,536	611,653	1.6
1999	750,000–950,000	500,000–800,000	500,000–1,000,000	803,379	200,574	615,654	2.6
2000	600,000–850,000	500,000–800,000	500,000–1,000,000	624,578	230,983	420,777	1.5
2001	600,000–850,000	500,000–800,000	500,000–1,000,000	650,036	200,762	481,932	1.9
2002	750,000–950,000	500,000–800,000	500,000–1,000,000	957,924	225,917	744,884	3.1
2003	750,000–950,000	500,000–800,000	500,000–1,000,000	1,181,309	285,925	927,623	3.8
2004	850,000–1,100,000	500,000–800,000	500,000–1,000,000	1,385,981	294,038	1,131,210	5.0
2005	850,000–1,100,000	500,000–800,000	500,000–1,000,000	1,376,452	294,287	1,121,634	5.6
2006	750,000–950,000	500,000–800,000	500,000–1,000,000	1,499,692	173,425	1,327,054	2.5
2007	750,000–950,000	500,000–800,000	500,000–1,000,000	867,572	308,812	602,186	3.4
2008	600,000–850,000	500,000–800,000	500,000–1,000,000	623,120	230,030	415,292	2.3
2009	600,000–850,000	500,000–800,000	500,000–1,000,000	745,170	252,319	503,659	2.4
2010	750,000–950,000	500,000–800,000	500,000–1,000,000	970,662	304,635	713,443	3.3
2011[b]	1,100,000–1,350,000	700,000–1,200,000	700,000–1,400,000	1,599,217	384,840	1,257,080	6.1
2012[b]	1,000,000–1,200,000	700,000–1,200,000	700,000–1,400,000	1,581,555	455,418	1,212,837	4.7
2013[b, c]	1,000,000–1,200,000	700,000–1,200,000	700,000–1,400,000	1,359,893	*Not Available*	*Not Available*	3.5
Average (1986–1995)					162,255		4.7
Average (1996–2001)					193,380		2.5
Average (2002–2012)					291,786		3.8

[a] Since 1999, inriver goal is set one of three tiers depending on total run size.

[b] Sonar technology switched to DIDSON (2011–2013) from Bendix (1986–2010) which changed the goals and inseason fish counts.

[c] 2013 run size is preliminary until published.

ND = No Data

Table 135-4.–Escapement, biological escapement goals (BEGs), and optimum escapement goals (OEGs) for sockeye salmon in the Kasilof River, 1978–2013. Included is a comparison of the number of years the escapement was above, within, and below the escapement goals (BEG, OEG).

Year	Escapement	Biological Escapement Goal		Optimum Escapement Goal	
1978	116,600	75,000–150,000	Within		
1979	152,179	75,000–150,000	Above		
1980	184,260	75,000–150,000	Above		
1981	256,625	75,000–150,000	Above		
1982	180,239	75,000–150,000	Above		
1983	210,271	75,000–150,000	Above		
1984	231,685	75,000–150,000	Above		
1985	505,049	75,000–150,000	Above		
1986	275,963	75,000–150,000	Above		
1987	249,250	150,000–250,000	Within		
1988	204,000	150,000–250,000	Within		
1989	158,206	150,000–250,000	Within		
1990	144,289	150,000–250,000	Below		
1991	238,269	150,000–250,000	Within		
1992	184,178	150,000–250,000	Within		
1993	149,939	150,000–250,000	Below		
1994	205,117	150,000–250,000	Within		
1995	204,935	150,000–250,000	Within		
1996	249,944	150,000–250,000	Within		
1997	266,025	150,000–250,000	Above		
1998	273,213	150,000–250,000	Above		
1999	312,587	150,000–250,000	Above		
2000	256,053	150,000–250,000	Above		
2001	307,570	150,000–250,000	Above		
2002	226,682	150,000–250,000	Within	150,000–300,000	Within
2003	359,633	150,000–250,000	Above	150,000–300,000	Above
2004	577,581	150,000–250,000	Above	150,000–300,000	Above
2005	348,012	150,000–250,000	Above	150,000–300,000	Above
2006	368,092	150,000–250,000	Above	150,000–300,000	Above
2007	336,866	150,000–250,000	Above	150,000–300,000	Above
2008	301,469	150,000–250,000	Above	150,000–300,000	Above
2009	297,125	150,000–250,000	Above	150,000–300,000	Within
2010	267,013	150,000–250,000	Above	150,000–300,000	Within
2011	245,721	160,000–340,000	Within	160,000–390,000	Within
2012	374,523	160,000–340,000	Above	160,000–390,000	Within
2013	489,654	160,000–340,000	Above	160,000–390,000	Above
Averages					
1978–2013	269,689				
2004–2013	360,606				

Comparison of Escapement to Escapement Goals

	Years	%	Years	%
Above Goal	23	64%	7	58%
Within Goal	11	31%	5	42%
Below Goal	2	6%	0	0%
Total	36		12	

Table 135-5.–Catch per unit effort (CPUE), genetic stock composition estimates (Prop=Proportion), and standard deviation (SD) by time period for mixtures of sockeye salmon captured in the during the Anchor Point offshore test fishery, 2006–2012.

			Reporting Groups[a]															
			Crescent		West		JCL		SusYen		Fish		KTNE		Kenai		Kasilof	
Year	Time period	CPUE	Prop	SD	Prop	SD	Prop	SD	Pro	SD	Prop	SD	Prop	SD	Prop	SD	Prop	SD
2006	1-9 July	264	0.04	0.01	0.06	0.02	0.01	0.01	0.05	0.02	0.00	0.00	0.03	0.01	0.30	0.04	0.51	0.04
	10-16 July	237	0.00	0.00	0.11	0.04	0.06	0.02	0.11	0.04	0.00	0.00	0.05	0.02	0.33	0.04	0.33	0.04
	17-23 July	403	0.02	0.01	0.07	0.02	0.05	0.02	0.07	0.02	0.00	0.00	0.02	0.01	0.60	0.03	0.17	0.03
	24 July-1 Aug	603	0.00	0.00	0.07	0.02	0.05	0.01	0.02	0.02	0.00	0.00	0.03	0.02	0.70	0.03	0.12	0.02
2007	1-9 July	293	0.08	0.02	0.16	0.03	0.03	0.01	0.03	0.01	0.02	0.01	0.05	0.02	0.39	0.03	0.23	0.03
	10-13 July	451	0.03	0.01	0.08	0.02	0.05	0.01	0.10	0.02	0.01	0.01	0.03	0.01	0.53	0.03	0.17	0.03
	14-18 July	680	0.04	0.01	0.02	0.01	0.07	0.02	0.11	0.03	0.00	0.00	0.03	0.01	0.61	0.03	0.12	0.02
	19-23 July	524	0.05	0.01	0.02	0.01	0.04	0.01	0.08	0.02	0.00	0.00	0.03	0.01	0.67	0.03	0.10	0.02
	24 July-2 Aug	636	0.05	0.02	0.04	0.01	0.05	0.01	0.06	0.02	0.00	0.00	0.02	0.01	0.69	0.03	0.09	0.02
2008	1-7 July	520	0.03	0.01	0.11	0.02	0.05	0.01	0.04	0.02	0.01	0.01	0.03	0.01	0.27	0.03	0.45	0.03
	8-12 July	387	0.04	0.01	0.12	0.02	0.07	0.01	0.10	0.02	0.00	0.00	0.01	0.01	0.43	0.03	0.22	0.02
	13-17 July	335	0.05	0.01	0.13	0.02	0.10	0.02	0.05	0.02	0.00	0.00	0.03	0.01	0.49	0.03	0.15	0.02
	18-31 July	352	0.03	0.01	0.13	0.02	0.06	0.01	0.04	0.01	0.00	0.00	0.02	0.01	0.58	0.03	0.14	0.02
2009	1-5 July	318	0.02	0.01	0.24	0.03	0.02	0.01	0.00	0.00	0.03	0.01	0.04	0.01	0.33	0.03	0.31	0.03
	6-9 July	433	0.04	0.01	0.18	0.03	0.03	0.02	0.09	0.03	0.01	0.01	0.04	0.01	0.33	0.03	0.28	0.03
	10-13 July	538	0.07	0.02	0.20	0.03	0.05	0.02	0.09	0.03	0.01	0.01	0.03	0.01	0.48	0.03	0.07	0.02
	14-16 July	440	0.07	0.02	0.13	0.02	0.03	0.01	0.06	0.02	0.01	0.01	0.02	0.01	0.63	0.03	0.05	0.02
	17-22 July	448	0.07	0.02	0.10	0.03	0.02	0.01	0.07	0.03	0.01	0.01	0.02	0.01	0.67	0.03	0.04	0.02
	23-30 July	309	0.05	0.02	0.12	0.02	0.04	0.01	0.02	0.01	0.00	0.00	0.03	0.01	0.72	0.03	0.01	0.02
2010	1-4 July	360	0.05	0.01	0.16	0.02	0.03	0.01	0.03	0.01	0.09	0.02	0.05	0.01	0.46	0.03	0.14	0.02
	5-10 July	396	0.02	0.01	0.17	0.02	0.04	0.01	0.05	0.01	0.06	0.01	0.05	0.01	0.50	0.02	0.12	0.02
	11-16 July	524	0.03	0.01	0.13	0.02	0.03	0.01	0.04	0.01	0.01	0.01	0.04	0.01	0.68	0.02	0.05	0.01
	17-23 July	410	0.04	0.01	0.12	0.02	0.05	0.01	0.03	0.01	0.00	0.00	0.03	0.01	0.71	0.02	0.02	0.01
	24-29 July	365	0.03	0.01	0.11	0.02	0.02	0.01	0.02	0.01	0.00	0.00	0.01	0.01	0.78	0.02	0.03	0.01
2011	1-13 July	1126	0.04	0.01	0.22	0.02	0.03	0.01	0.08	0.02	0.03	0.01	0.02	0.01	0.48	0.03	0.08	0.01
	14-18 July	1152	0.03	0.01	0.13	0.02	0.02	0.01	0.04	0.01	0.02	0.01	0.02	0.01	0.72	0.02	0.02	0.01
	19-24 July	803	0.02	0.01	0.15	0.02	0.00	0.00	0.04	0.01	0.00	0.00	0.01	0.01	0.76	0.02	0.02	0.01
	25-30 July	634	0.00	0.00	0.15	0.02	0.02	0.01	0.04	0.01	0.00	0.00	0.00	0.00	0.78	0.02	0.01	0.01
2012	1-6 July	306	0.03	0.01	0.19	0.02	0.04	0.01	0.03	0.01	0.01	0.00	0.01	0.00	0.62	0.03	0.09	0.02
	7-11 July	347	0.03	0.01	0.12	0.02	0.04	0.01	0.03	0.01	0.01	0.00	0.00	0.00	0.73	0.02	0.05	0.01
	12-16 July	526	0.01	0.01	0.08	0.01	0.05	0.01	0.03	0.01	0.00	0.00	0.01	0.00	0.79	0.02	0.03	0.01
	17-19 July	417	0.01	0.00	0.05	0.01	0.02	0.01	0.05	0.01	0.00	0.00	0.01	0.01	0.84	0.02	0.03	0.01
	20-30 July	455	0.01	0.00	0.06	0.01	0.03	0.01	0.02	0.01	0.00	0.00	0.01	0.01	0.87	0.02	0.00	0.00

Note: Data from 2011 & 2012 are preliminary.

[a] Reporting Groups: 1) Crescent: The largest producer of sockeye salmon on the west side (Crescent R.); 2) West: the remaining West Cook Inlet producers; 3) JCL: the lakes monitored by weirs in the Susitna River drainage (Judd/Chelatna/Larson lakes); 4) SusYen: the remaining producers in the Susitna/Yentna rivers; 5) Fish: the major creek monitored in the Knik/Turnagain/Northeast Cook Inlet area; 6) KTNE: the remaining Knik/Turnagain/Northeast Cook Inlet producers; 7) Kenai: the composite of all pops within the Kenai River; and 8) Kasilof: the composite of all pops within the Kasilof River.

Table 135-6.–Genetic stock specific estimates (Harv) and standard deviation (SD) of sockeye salmon harvested during drift gillnet non-corridor fishing periods, 2005–2012.

	Reporting Groups[a]																		
	Crescent		West		JCL		SusYen		Fish		KTNE		Kenai		Kasilof				
Year	Harv	SD	Harv	SD	Harv	SD	Harv	SD	Harv	SD	Harv	SD	Harv	SD	Harv	SD	Total	Susitna River	Harv Rate
2006	146	304	26,229	3,101	13,616	2,188	23,690	3,500	103	242	6,870	1,615	191,189	5,004	102,223	3,997	364,066	464,393	8%
2007	12,722	4,141	73,548	10,086	102,678	12,633	80,726	16,367	6,113	2,802	46,702	9,187	1,090,269	25,377	271,988	21,030	1,684,746	571,605	32%
2008	4,213	2,004	25,898	5,291	53,422	6,478	43,812	8,044	1,772	1,443	22,983	4,724	391,037	14,493	285,556	13,509	828,693	444,889	22%
2009	5,744	3,795	101,858	9,469	38,216	5,973	46,458	8,728	18,060	4,699	27,222	5,136	570,553	15,645	151,556	11,890	959,667	331,485	26%
2010	8,767	2,825	122,890	10,349	47,650	5,897	45,917	6,826	61,092	6,881	45,363	6,644	1,105,191	15,888	120,306	9,084	1,557,176	308,416	30%
2011	6,076	1,873	178,843	17,464	90,792	14,665	39,009	8,498	42,595	9,061	38,565	9,543	1,753,556	26,809	112,146	12,446	2,261,582	537,511	24%
2012	7,171	3,410	93,284	13,305	67,327	13,531	74,923	12,484	13,257	5,516	33,275	8,493	1,926,357	26,330	106,619	14,606	2,322,213	326,353	44%
Totals	44,839	7,667	622,549	28,603	413,702	25,980	354,534	26,376	142,992	13,854	220,980	18,522	7,028,151	52,804	1,150,395	35,112	9,978,143	2,984,652	26%

Note: data from 2011 and 2012 are preliminary.

[a] Reporting Groups: 1) Crescent: The largest producer of sockeye salmon on the west side of Cook Inlet (Crescent R.); 2) West: the remaining West Cook Inlet producers; 3) JCL: Judd/Chelatna/Larson lakes are the lakes monitored by weirs in the Susitna River drainage; 4) Sus/Yen: the remaining producers in the Susitna/Yentna rivers; 5) Fish: the major creek monitored in the Knik/Turnagain/Northeast Cook Inlet area; 6) KTNE: the remaining Knik/Turnagain/Northeast Cook Inlet producers; 7) Kenai: the composite of all populations within the Kenai River; and 8) Kasilof: the composite of all pops within the Kasilof River.

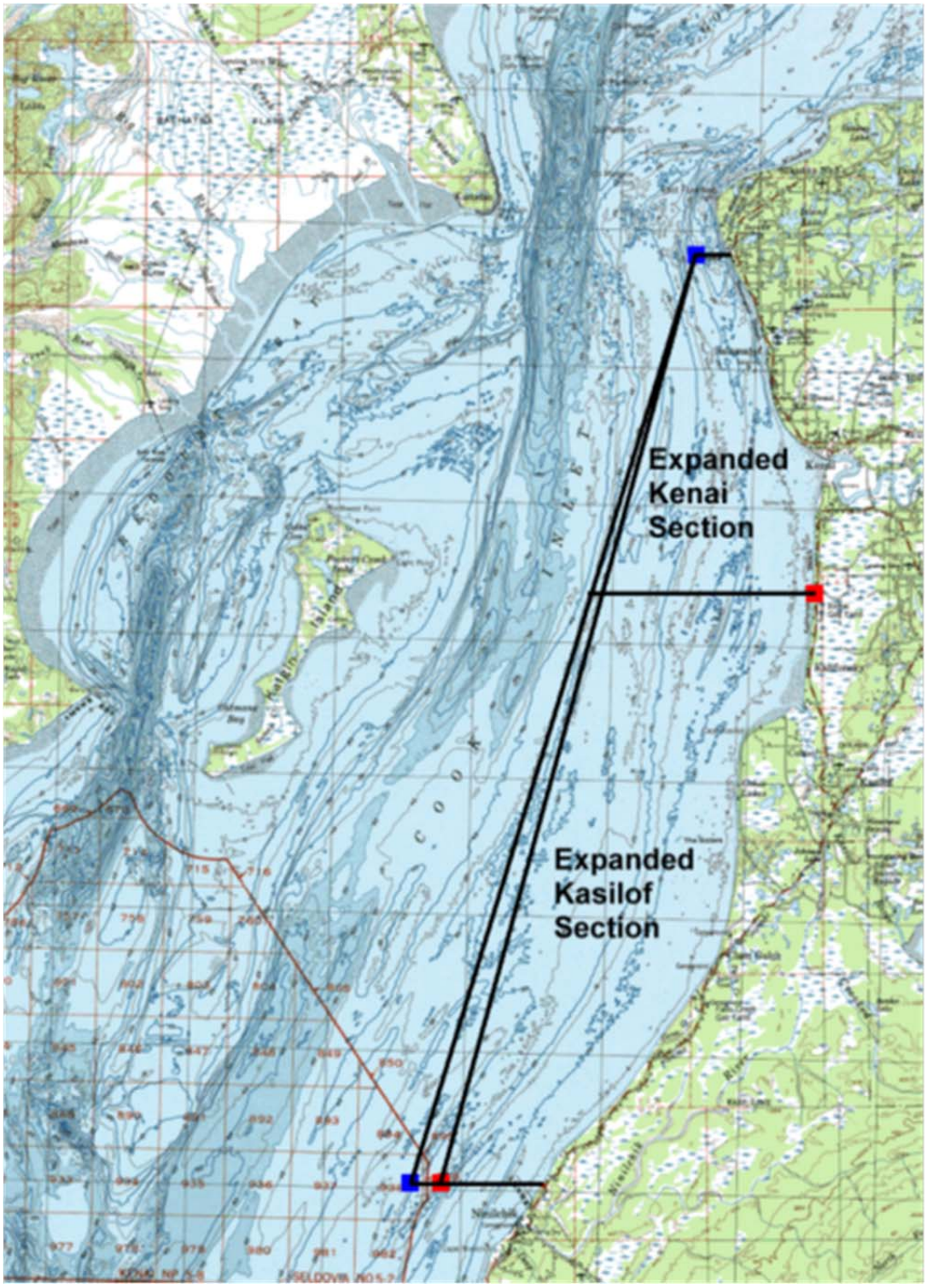

Figure 135-1.–Map of the Expanded Kenai and Kasilof sections showing the current southwest corner of the section (red) and the proposed new southwest corner of the section (blue).

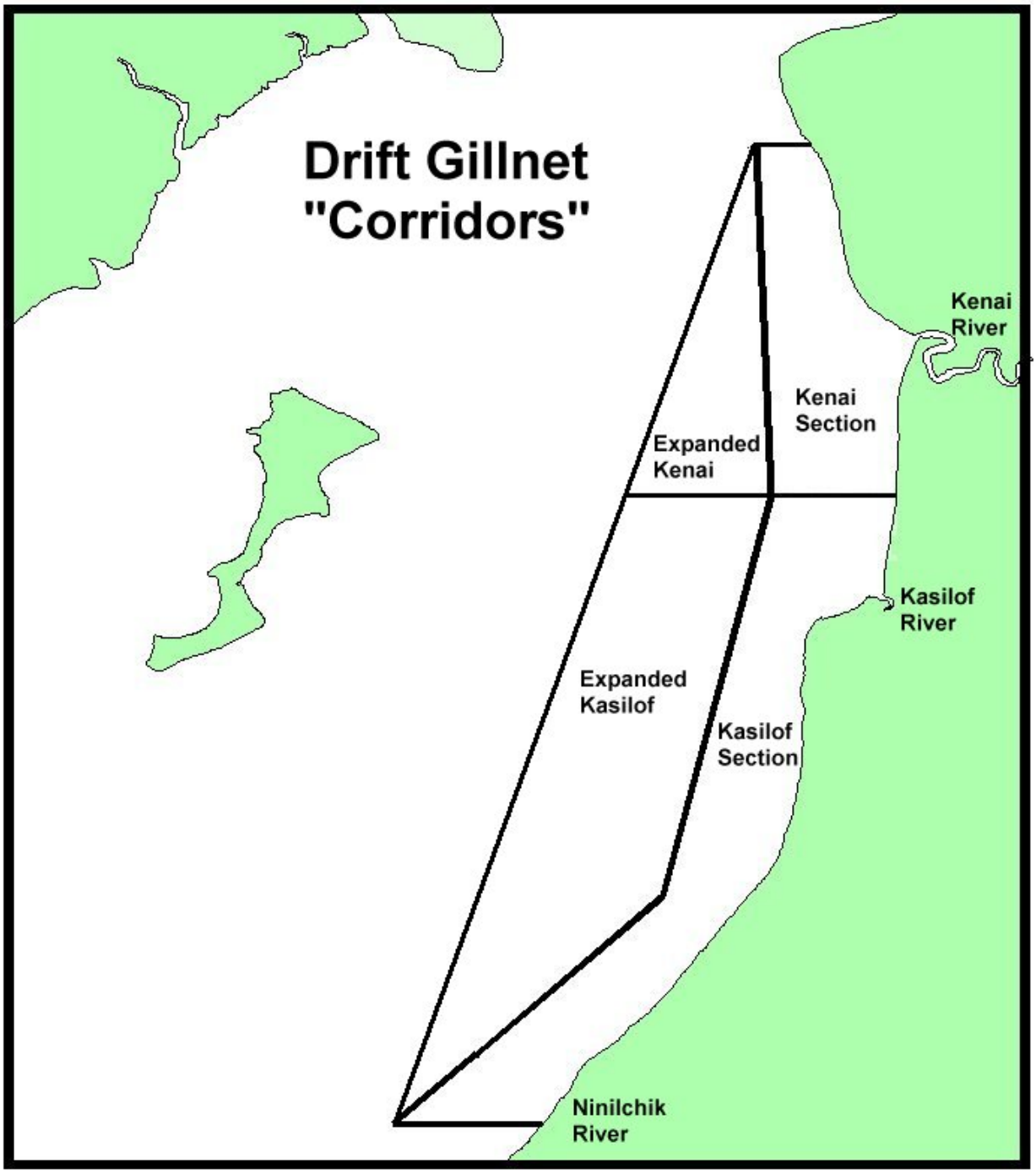

Figure 135-2.–Map of Kenai and Kasilof sections (Corridor) and Expanded Kenai and Expanded Kasilof sections (Expanded Corridor).

Drift Gillnet Area 1 & Area 2 Descriptions

AREA 2 DESCRIPTION	COORDINATES
1. Southwest Corner	60^0 20.43' N. lat., 151^0 54.83' W. long.
2. Northwest Corner	60^0 41.08' N. lat., 151^0 39.00' W. long.
3. Northeast Corner	60^0 41.08' N. lat., 151^0 24.00' W. long.
4. Blanchard Line Corridor Boundary	60^0 27.10' N. lat., 151^0 25.70' W. long.
5. Southeast Corner	60^0 20.43' N. lat., 151^0 28.55' W. long.

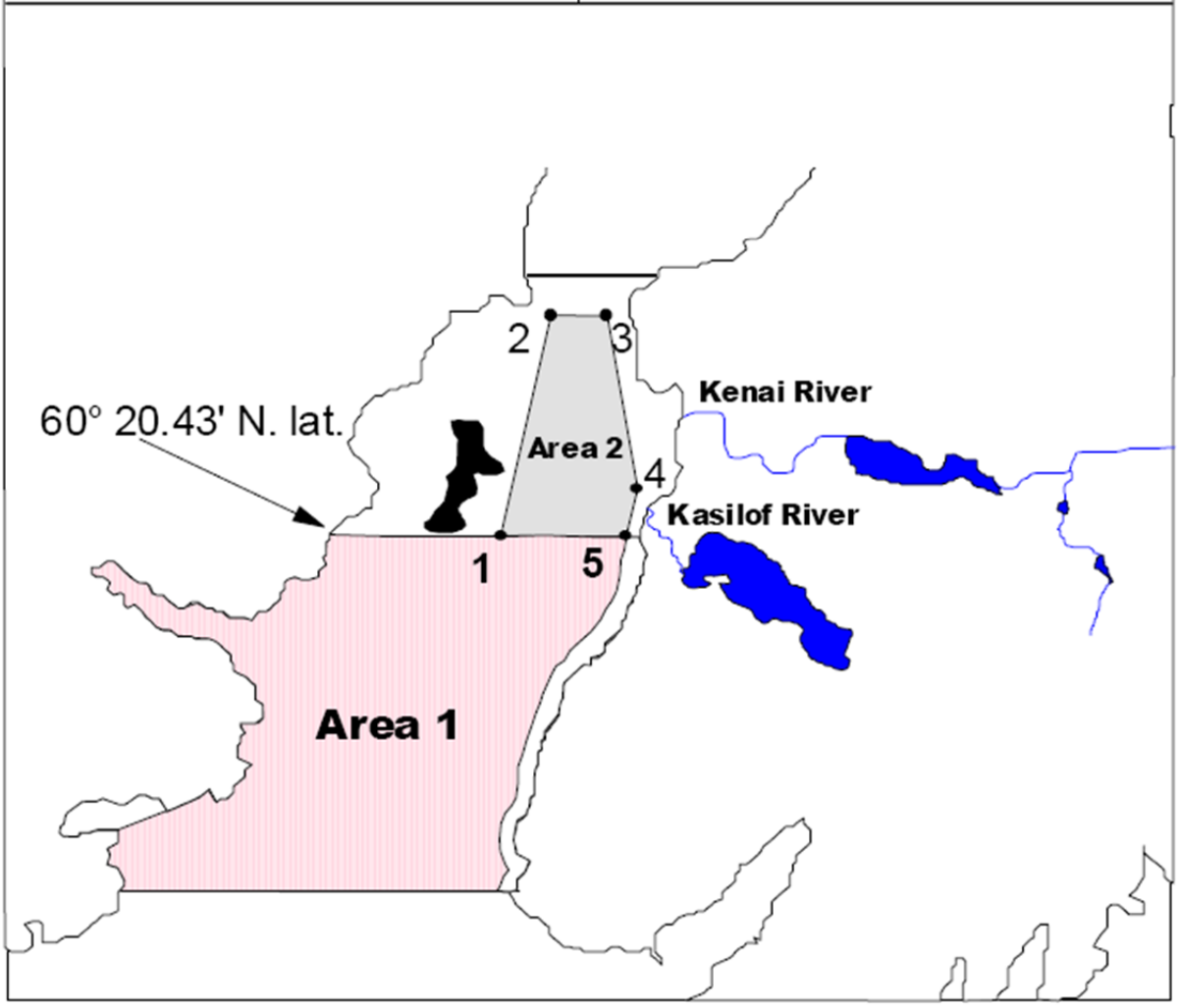

Figure 135-3.–Map and descriptions of Drift Area 1 and Area 2.

AREA 4 LOCATION	COORDINATES
A. Southwest Corner	59° 46.15' N. lat., 153° 00.20' W. long.
B. Northwest Corner	60° 04.70' N. lat., 152° 34.74' W. long.
C. Northeast Corner (Kalgin Buoy)	60° 04.70' N. lat., 152° 09.90' W. long.
D. Southeast Corner	59° 46.15' N. lat., 152° 18.62' W. long.

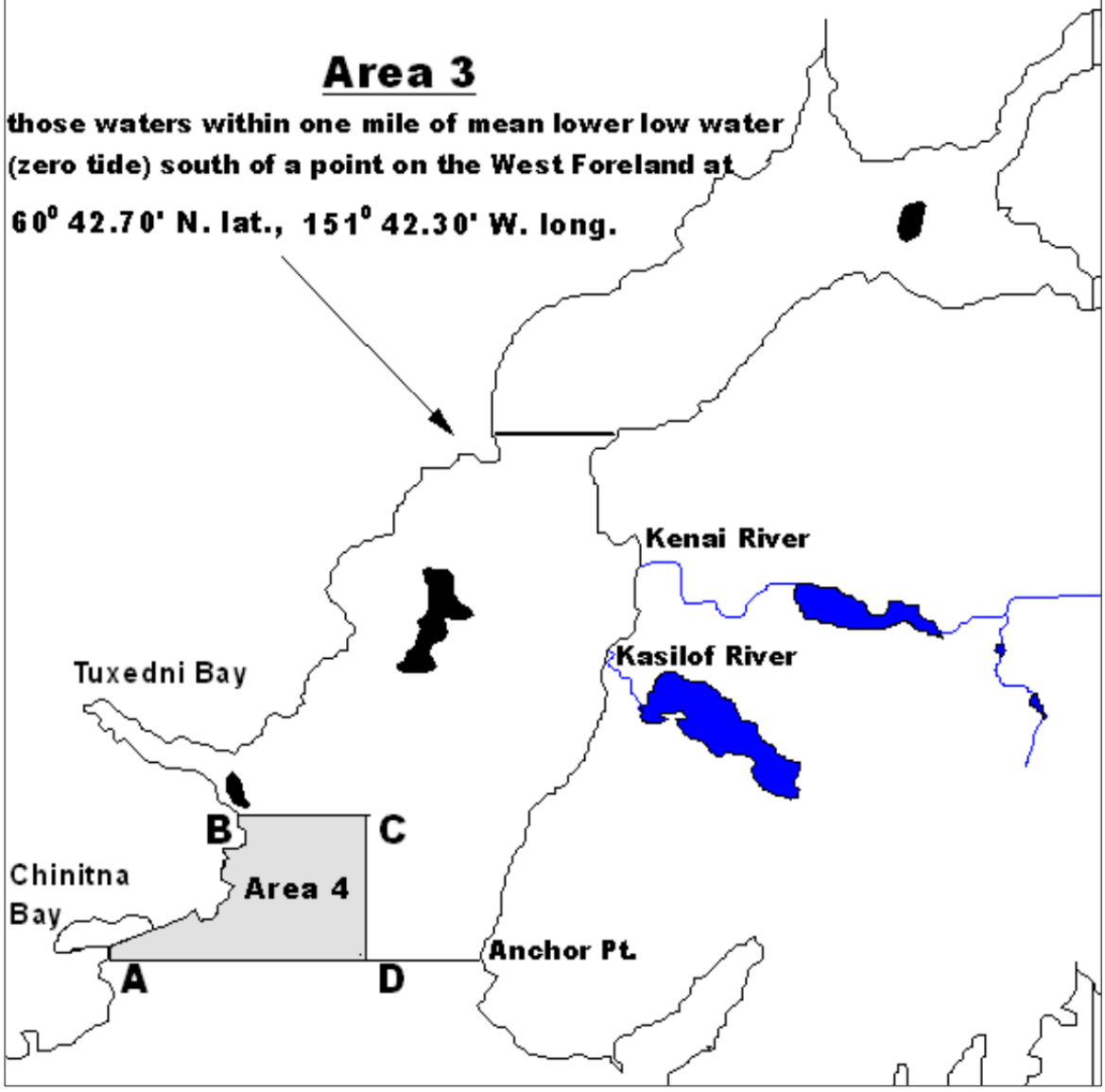

Figure 135-4.–Map of Drift Area 3 and Area 4.

PROPOSAL 136 – 5 AAC 21.353. Central District Drift Gillnet Fishery Management Plan.

PROPOSED BY: United Cook Inlet Drift Association.

WHAT WOULD THE PROPOSAL DO? This proposal would modify or remove specific provisions within the *Central District Drift Gillnet Fishery Management Plan* (CDDGFMP). More, specifically, the proposal would: delete the purpose statement (opening paragraph) of the management plan; remove the mandatory restrictions in the plan during July 9–15 and July 16–31 time periods; allow weekly fishing periods on Mondays and Thursdays, from June 19, or the third Monday in June, whichever is later, through September 1 (instead of August 15); modify the three abundance-based tiers for Kenai River sockeye salmon total runs to less than two million fish, two million to four million fish, and greater than four million fish; place mandatory time and area restrictions into "as needed" sections; and move the descriptions of the Expanded Kenai and Expanded Kasilof sections from 5 AAC 21.200, *Fishing Districts, Subdistricts, and Sections,* and place the descriptions in a new subsection of the drift gillnet management plan. The southwest corner of the Expanded Kasilof Section would be changed by moving it westward approximately 1.2 nautical miles. This would slightly enlarge the entire expanded corridor by moving the intersection of the Blanchard Line and the north–south corridor line westward approximately 2,700 feet.

WHAT ARE THE CURRENT REGULATIONS? The purpose of the CDDGFMP is to ensure adequate escapement of salmon into Northern District drainages and to provide management guidelines to the Alaska Department of Fish and Game (department). The department manages the commercial drift gillnet fishery to minimize harvest of Northern District and Kenai River coho salmon in order to provide sport and guided sport fishermen a reasonable opportunity to harvest these salmon stocks over the entire run, as measured by the frequency of inriver restrictions. The commissioner may depart from the provisions of the management plan under this section as provided in 5 AAC 21.363(e).

Drift gillnet fishing begins on the third Monday in June or June 19, whichever is later. Fishing periods are Mondays and Thursdays from 7:00 a.m. to 7:00 p.m.

From July 9–15, fishing during the first regular fishing period is restricted to the Expanded Kenai and Expanded Kasilof sections, additional fishing time is allowed only in the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict, and fishing during the second regular fishing period is restricted to the Kenai and Kasilof sections of the Upper Subdistrict and Drift Gillnet Area 1. At run strengths greater than 2.3 million sockeye salmon to the Kenai River, the commissioner may, by emergency order (EO), open one additional 12-hour fishing period in the Kenai and Kasilof sections of the Upper Subdistrict and Drift Gillnet Area 1.

From July 16–31, at run strengths of less than 2.3 million sockeye salmon to the Kenai River, fishing during one regular 12-hour fishing period will be restricted to the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict. At run strengths of 2.3 million to 4.6 million sockeye salmon to the Kenai River, fishing during one regular 12-hour fishing period per week will be restricted to either or both the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict or Drift Gillnet Area 1. At run strengths greater than 4.6 million sockeye

salmon to the Kenai River, there will be no mandatory restrictions during regular fishing periods.

From August 11–15, there are no mandatory area restrictions to regular periods, except that if the Upper Subdistrict set gillnet fishery is closed because of the one-percent rule, regular fishing periods will be restricted to Drift Gillnet areas 3 and 4. From August 16 until closed by EO, Drift Gillnet areas 3 and 4 are open for fishing during regular fishing periods.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It is difficult to determine all the effects of this proposal because the proposal makes significant changes to the management plan. Deleting the purpose statement would result in the board no longer needing to consider how proposed new regulations uphold or support the guiding principles of the plan. Changing the closing date to September 1 would increase commercial harvest of sockeye, coho, pink, and chum salmon after August 15 by an unknown amount. Removing time and area restrictions in July would likely increase commercial harvest of primarily sockeye and coho salmon by an unknown amount depending on the abundance, migration or run timing, and migratory patterns of salmon returning throughout Upper Cook Inlet (UCI), including the Kenai, Kasilof, and Susitna rivers. The department would continue to manage the drift fishery with the primary management objective of achieving established escapement goals.

BACKGROUND: In 1996, the *Northern District Coho Salmon Management Plan* (5 AAC 21.358) was first adopted. In 1999, the plan was renamed to the *Northern District Salmon Management Plan* and included new restrictions to the drift gillnet fishery. In 2002, additional changes were made to the *Northern District Salmon Management Plan*. In 2005, the Alaska Board of Fisheries eliminated all specific references to the drift gillnet fishery in the *Northern District Salmon Management Plan* and established a new management plan for the drift gillnet fishery, the CDDGFMP (5 AAC 21.353). In 2008, there were no significant changes to the CDDGFMP. In 2011, a number of changes were made to the plan and there were issues implementing the changes during the 2011 season. The 2012 and 2013 seasons were managed using the regulations currently in effect.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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 137 – 5 AAC 21.353. Central District Drift Gillnet Fishery Management Plan.

PROPOSED BY: United Cook Inlet Drift Association.

WHAT WOULD THE PROPOSAL DO? This proposal would modify the management plan to remove area restrictions and change the description of the Expanded Kenai and Expanded Kasilof sections. This proposal would place all mandatory area restrictions into a "menu" status to be used as necessary. However, as written, this proposal removes the descriptions of Drift Gillnet areas 1, 2, and 4 from section (b) of the management plan, but leaves Drift Gillnet Area 3 unmodified. While the descriptions of these areas are removed from section (b), the mandatory restrictions to these areas in section (a) are left intact. This proposal would also move the descriptions of the Expanded Kenai and Expanded Kasilof sections from 5 AAC 21.200, *Fishing Districts, Subdistricts, and Sections*, and place the descriptions in a new subsection of the drift gillnet management plan. The southwest corner of the Expanded Kasilof Section would be moved westward approximately 1.2 nautical miles.

WHAT ARE THE CURRENT REGULATIONS? The purpose of the *Central District Drift Gillnet Fishery Management Plan* (CDDGFMP) is to ensure adequate escapement of salmon into the Northern District drainages and to provide management guidelines to the Alaska Department of Fish and Game (department). The department manages the commercial drift gillnet fishery to minimize harvest of Northern District and Kenai River coho salmon in order to provide sport and guided sport fishermen a reasonable opportunity to harvest these salmon stocks over the entire run, as measured by the frequency of inriver restrictions. The commissioner may depart from the provisions of the management plan under this section as provided in 5 AAC 21.363(e).

Drift gillnet fishing begins on the third Monday in June or June 19, whichever is later. Fishing periods are Mondays and Thursdays from 7:00 a.m. to 7:00 p.m.

From July 9–15, fishing during the first regular fishing period is restricted to the Expanded Kenai and Expanded Kasilof sections, additional fishing time is allowed only in the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict, and fishing during the second regular fishing period is restricted to the Kenai and Kasilof sections of the Upper Subdistrict and Drift Gillnet Area 1. At run strengths greater than 2.3 million sockeye salmon to the Kenai River, the commissioner may, by emergency order (EO), open one additional 12-hour fishing period in the Kenai and Kasilof sections of the Upper Subdistrict and Drift Gillnet Area 1.

From July 16–31, at run strengths of less than 2.3 million sockeye salmon to the Kenai River, fishing during one regular 12-hour fishing period will be restricted to the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict. At run strengths of 2.3 million to 4.6 million sockeye salmon to the Kenai River, fishing during one regular 12-hour fishing period per week will be restricted to either or both the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict or Drift Gillnet Area 1. At run strengths greater than 4.6 million sockeye salmon to the Kenai River, there will be no mandatory restrictions during regular fishing periods.

From August 11–15, there are no mandatory area restrictions to regular periods, except that if the Upper Subdistrict set gillnet fishery is closed because of the one-percent rule, regular fishing

periods will be restricted to Drift Gillnet areas 3 and 4. From August 16 until closed by EO, Drift Gillnet areas 3 and 4 are open for fishing during regular fishing periods.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It is unclear what the effects of this proposal would be. The proposal would remove restricted area descriptions for Drift Gillnet areas 1, 2, and 4 from the management plan. The proposal says it would place these descriptions in a "menu" status to be used as necessary. However, as written, the proposal would remove the area descriptions, but would not remove actual time and area restrictions in the management plan. The restrictions would still be in place because only the descriptions were removed. Therefore, it is uncertain how this would affect management of the drift fishery. The proposal also would move the southwest corner of the Expanded Kasilof Section approximately 1.2 nautical miles westward. This would increase the area open to drift gillnet fishing by a small amount and likely increase harvest of sockeye and coho salmon by a small, but unknown amount. Any change in harvest would be dependent on the abundance, migration or run timing, and migratory patterns of salmon returning throughout Upper Cook Inlet, including the Kenai, Kasilof, and Susitna rivers. If mandatory restrictions to Drift areas 1, 2, and 4 were removed from the management plan, the department would still use its EO authority to restrict drift gillnetting by time and area to achieve established escapement objectives.

BACKGROUND: In 1996, the *Northern District Coho Salmon Management Plan* (5 AAC 21.358) was first adopted. In 1999, the plan was renamed to the *Northern District Salmon Management Plan* and included new restrictions to the drift gillnet fishery. In 2002, additional changes were made to the *Northern District Salmon Management Plan*. In 2005, the Alaska Board of Fisheries eliminated all specific references to the drift gillnet fishery in the *Northern District Salmon Management Plan* and established a new management plan for the drift gillnet fishery, the CDDGFMP (5 AAC 21.353). In 2008, there were no significant changes to the CDDGFMP. In 2011, a number of changes were made to the plan and there were issues implementing the changes during the 2011 season. The 2012 and 2013 seasons were managed using the regulations currently in effect.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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 138 – 5 AAC 21.353. Central District Drift Gillnet Fishery Management Plan.

PROPOSED BY: Matanuska Valley Fish and Game Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would restrict drift gillnetting to the Expanded Kenai and Expanded Kasilof sections from June 19–August 10.

WHAT ARE THE CURRENT REGULATIONS? The purpose of the *Central District Drift Gillnet Fishery Management Plan* (CDDGFMP) is to ensure adequate escapement of salmon into Northern District drainages and to provide management guidelines to the Alaska Department of Fish and Game (department). The department manages the commercial drift gillnet fishery to minimize harvest of Northern District and Kenai River coho salmon in order to provide sport and guided sport fishermen a reasonable opportunity to harvest these salmon stocks over the entire run, as measured by the frequency of inriver restrictions. The commissioner may depart from the provisions of the management plan under this section as provided in 5 AAC 21.363(e).

Drift gillnet fishing begins on the third Monday in June or June 19, whichever is later. Fishing periods are Mondays and Thursdays from 7:00 a.m. to 7:00 p.m.

From July 9–15, fishing during the first regular fishing period is restricted to the Expanded Kenai and Expanded Kasilof sections, additional fishing time is allowed only in the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict, and fishing during the second regular fishing period is restricted to the Kenai and Kasilof sections of the Upper Subdistrict and Drift Gillnet Area 1. At run strengths greater than 2.3 million sockeye salmon to the Kenai River, the commissioner may, by emergency order (EO), open one additional 12-hour fishing period in the Kenai and Kasilof sections of the Upper Subdistrict and Drift Gillnet Area 1.

From July 16–31, at run strengths of less than 2.3 million sockeye salmon to the Kenai River, fishing during one regular 12-hour fishing period will be restricted to the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict. At run strengths of 2.3 million to 4.6 million sockeye salmon to the Kenai River, fishing during one regular 12-hour fishing period per week will be restricted to either or both the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict or Drift Gillnet Area 1. At run strengths greater than 4.6 million sockeye salmon to the Kenai River, there will be no mandatory restrictions during regular fishing periods.

From August 11–15, there are no mandatory area restrictions to regular periods, except that if the Upper Subdistrict set gillnet fishery is closed because of the one-percent rule, regular fishing periods will be restricted to Drift Gillnet areas 3 and 4. From August 16 until closed by EO, Drift Gillnet areas 3 and 4 are open for fishing during regular fishing periods.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would decrease the commercial drift gillnet harvest of salmon and potentially increase passage of salmon migrating north and to the Kenai and Kasilof rivers by an unknown amount depending on the abundance, migration or run timing, and migratory patterns of salmon returning throughout Upper Cook Inlet (UCI), including the Kenai, Kasilof, and Susitna rivers.

If the drift gillnet fishery were limited to fishing in the Expanded Kasilof and Expanded Kenai sections, it is likely that harvest of all salmon by set gillnet fisheries in the Northern District and the Upper Subdistrict would increase. However, if the Upper Subdistrict set gillnet fishery was restricted or closed for king salmon conservation, limiting the drift fleet to corridor fishing only during this time would increase the likelihood of not achieving sockeye salmon goals in the Kenai and Kasilof rivers. The department would continue to manage the drift fishery with the primary management objective of achieving established escapement goals. However, restricting the drift gillnet fishery to only the Expanded Kenai and Expanded Kasilof sections may make it difficult to achieve sockeye salmon escapement objectives in the Kasilof and Kenai rivers.

BACKGROUND: In 1996, the *Northern District Coho Salmon Management Plan* (5 AAC 21.358) was first adopted. In 1999, the plan was renamed to the *Northern District Salmon Management Plan* and included new restrictions to the drift gillnet fishery. In 2002, additional changes were made to the *Northern District Salmon Management Plan*. In 2005, the Alaska Board of Fisheries (board) eliminated all specific references to the drift gillnet fishery in the *Northern District Salmon Management Plan* and established a new management plan for the drift gillnet fishery, the CDDGFMP (5 AAC 21.353). In 2008, there were no significant changes to the CDDGFMP. In 2011, a number of changes were made to the plan and there were issues implementing the changes during the 2011 season. The 2012 and 2013 seasons were managed using the regulations currently in effect.

From July 9–15 in years 2000–2013, the drift gillnet fishery has been open for 28 regular fishing periods (Table 138-1). Of the 28 periods, 18 were fished in either Drift Area 1 or in all of the Central District, for an average sockeye salmon harvest of 255,000 fish per period. Drifters were opened in the Kenai and Kasilof sections or Expanded Kenai and Expanded Kasilof sections 10 different days during this time period, for an average harvest of approximately 33,000 sockeye salmon per period.

Since 1986 (28 years), the final sonar count for Kenai River late-run sockeye salmon was above the inriver goals in 17 years (61%), within the inriver goals in 11 years (39%), and never below the inriver goals. From 1987–2012, the final spawning escapement (based on postseason analysis) was above the BEG/SEG goals in 15 years (58%), within the BEG/SEG goals in 8 years (31%), and below the BEG/SEG goals in 3 years (11%). Since converting to DIDSON-based goals in 2011, the final spawning escapement (based on postseason analysis) was within the OEG in 2011 and 2012.

Since 1978, the Kasilof River sockeye salmon escapement has been above the BEG in 23 years (64%), within the BEG in 11 years (31%), and under the BEG in two years (6%). More recently (2002–2013), Kasilof River sockeye salmon escapement has been within or above the BEG and OEG in every year; with escapement above the BEG in ten of 12 years (83%) and above the OEG in seven of 12 years (58%).

Genetic stock identification (GSI) analyses have been conducted on sockeye salmon captured during the Anchor Point offshore test fishery since 2006 (Table 138-2). Estimates of the major stocks entering UCI by four or five temporal strata each year are reported. In addition, GSI stock specific estimates of the drift gillnet sockeye salmon harvest have also been made since 2006

(Table 138-3). Based on non-corridor fishing periods, the harvest rate of Susitna River sockeye salmon by the drift gillnet fleet have ranged from 8% to 44% and averaged 26%.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal but has concerns with proposals that reduce the department's ability to achieve escapement goals.

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 138-1.–Drift gillnet sockeye salmon harvest during July 9–15 regular fishing periods.

Date	2000	2001	2002	2003	2004	2005	2006
9-Jul		**6,042**					
10-Jul	**8,606**			**135,718**			**1,650**
11-Jul			**18,723**			244,130	
12-Jul		206,005			222,717		
13-Jul	229,032						**1,544**
14-Jul				390,459		176,127	
15-Jul			214,932		273,799		

Date	2007	2008	2009	2010	2011	2012	2013
9-Jul	104,709		137,338			**3,584**	
10-Jul		**2,550**					
11-Jul					**105,866**		**50,139**
12-Jul	190,505			333,303		136,923	
13-Jul			143,674				
14-Jul		208,918			691,622		
15-Jul				246,973			438,274

	Area 1/DW	Corridor
Average	254,969 (n = 18)	33,442 (n = 10)

Table 238-2.–Catch per unit effort (CPUE), genetic stock composition estimates (Prop = Proportion), and standard deviation (SD) by time period for mixtures of sockeye salmon captured in the during the Anchor Point offshore test fishery, 2006–2012.

			Reporting Groups[a]															
			Crescent		West		JCL		SusYen		Fish		KTNE		Kenai		Kasilof	
Year	Time period	CPUE	Prop	SD	Prop	SD	Prop	SD	Pro	SD	Prop	SD	Prop	SD	Prop	SD	Prop	SD
2006	1-9 July	264	0.04	0.01	0.06	0.02	0.01	0.01	0.05	0.02	0.00	0.00	0.03	0.01	0.30	0.04	0.51	0.04
	10-16 July	237	0.00	0.00	0.11	0.04	0.06	0.02	0.11	0.04	0.00	0.00	0.05	0.02	0.33	0.04	0.33	0.04
	17-23 July	403	0.02	0.01	0.07	0.02	0.05	0.02	0.07	0.02	0.00	0.00	0.02	0.01	0.60	0.03	0.17	0.03
	24 July-1 Aug	603	0.00	0.00	0.07	0.02	0.05	0.01	0.02	0.02	0.00	0.00	0.03	0.02	0.70	0.03	0.12	0.02
2007	1-9 July	293	0.08	0.02	0.16	0.03	0.03	0.01	0.03	0.01	0.02	0.01	0.05	0.02	0.39	0.03	0.23	0.03
	10-13 July	451	0.03	0.01	0.08	0.02	0.05	0.01	0.10	0.02	0.01	0.01	0.03	0.01	0.53	0.03	0.17	0.03
	14-18 July	680	0.04	0.01	0.02	0.01	0.07	0.02	0.11	0.03	0.00	0.00	0.03	0.01	0.61	0.03	0.12	0.02
	19-23 July	524	0.05	0.01	0.02	0.01	0.04	0.01	0.08	0.02	0.00	0.00	0.03	0.01	0.67	0.03	0.10	0.02
	24 July-2 Aug	636	0.05	0.02	0.04	0.01	0.05	0.01	0.06	0.02	0.00	0.00	0.02	0.01	0.69	0.03	0.09	0.02
2008	1-7 July	520	0.03	0.01	0.11	0.02	0.05	0.01	0.04	0.02	0.01	0.01	0.03	0.01	0.27	0.03	0.45	0.03
	8-12 July	387	0.04	0.01	0.12	0.02	0.07	0.01	0.10	0.02	0.00	0.00	0.01	0.01	0.43	0.03	0.22	0.02
	13-17 July	335	0.05	0.01	0.13	0.02	0.10	0.02	0.05	0.02	0.00	0.00	0.03	0.01	0.49	0.03	0.15	0.02
	18-31 July	352	0.03	0.01	0.13	0.02	0.06	0.01	0.04	0.01	0.00	0.00	0.02	0.01	0.58	0.03	0.14	0.02
2009	1-5 July	318	0.02	0.01	0.24	0.03	0.02	0.01	0.00	0.00	0.03	0.01	0.04	0.01	0.33	0.03	0.31	0.03
	6-9 July	433	0.04	0.01	0.18	0.03	0.03	0.02	0.09	0.03	0.01	0.01	0.04	0.01	0.33	0.03	0.28	0.03
	10-13 July	538	0.07	0.02	0.20	0.03	0.05	0.02	0.09	0.03	0.01	0.01	0.03	0.01	0.48	0.03	0.07	0.02
	14-16 July	440	0.07	0.02	0.13	0.02	0.03	0.01	0.06	0.02	0.01	0.01	0.02	0.01	0.63	0.03	0.05	0.02
	17-22 July	448	0.07	0.02	0.10	0.03	0.02	0.01	0.07	0.03	0.01	0.01	0.02	0.01	0.67	0.03	0.04	0.02
	23-30 July	309	0.05	0.02	0.12	0.02	0.04	0.01	0.02	0.01	0.00	0.00	0.03	0.01	0.72	0.03	0.01	0.02
2010	1-4 July	360	0.05	0.01	0.16	0.02	0.03	0.01	0.03	0.01	0.09	0.02	0.05	0.01	0.46	0.03	0.14	0.02
	5-10 July	396	0.02	0.01	0.17	0.02	0.04	0.01	0.05	0.01	0.06	0.01	0.05	0.01	0.50	0.02	0.12	0.02
	11-16 July	524	0.03	0.01	0.13	0.02	0.03	0.01	0.04	0.01	0.01	0.01	0.04	0.01	0.68	0.02	0.05	0.01
	17-23 July	410	0.04	0.01	0.12	0.02	0.05	0.01	0.03	0.01	0.00	0.00	0.03	0.01	0.71	0.02	0.02	0.01
	24-29 July	365	0.03	0.01	0.11	0.02	0.02	0.01	0.02	0.01	0.00	0.00	0.01	0.01	0.78	0.02	0.03	0.01
2011	1-13 July	1126	0.04	0.01	0.22	0.02	0.03	0.01	0.08	0.02	0.03	0.01	0.02	0.01	0.48	0.03	0.08	0.01
	14-18 July	1152	0.03	0.01	0.13	0.02	0.02	0.01	0.04	0.01	0.02	0.01	0.02	0.01	0.72	0.02	0.02	0.01
	19-24 July	803	0.02	0.01	0.15	0.02	0.00	0.00	0.04	0.01	0.00	0.00	0.01	0.01	0.76	0.02	0.02	0.01
	25-30 July	634	0.00	0.00	0.15	0.02	0.02	0.01	0.04	0.01	0.00	0.00	0.00	0.00	0.78	0.02	0.01	0.01
2012	1-6 July	306	0.03	0.01	0.19	0.02	0.04	0.01	0.03	0.01	0.01	0.00	0.01	0.00	0.62	0.03	0.09	0.02
	7-11 July	347	0.03	0.01	0.12	0.02	0.04	0.01	0.03	0.01	0.01	0.00	0.00	0.00	0.73	0.02	0.05	0.01
	12-16 July	526	0.01	0.01	0.08	0.01	0.05	0.01	0.03	0.01	0.00	0.00	0.01	0.00	0.79	0.02	0.03	0.01
	17-19 July	417	0.01	0.00	0.05	0.01	0.02	0.01	0.05	0.01	0.00	0.00	0.01	0.01	0.84	0.02	0.03	0.01
	20-30 July	455	0.01	0.00	0.06	0.01	0.03	0.01	0.02	0.01	0.00	0.00	0.01	0.01	0.87	0.02	0.00	0.00

Note: Data from 2011 & 2012 are preliminary.

[a] Reporting Groups: 1) Crescent: The largest producer of sockeye salmon on the west side (Crescent R.); 2) West: the remaining West Cook Inlet producers; 3) JCL: the lakes monitored by weirs in the Susitna River drainage (Judd/Chelatna/Larson lakes); 4) SusYen: the remaining producers in the Susitna/Yentna rivers; 5) Fish: the major creek monitored in the Knik/Turnagain/Northeast Cook Inlet area; 6) KTNE: the remaining Knik/Turnagain/Northeast Cook Inlet producers; 7) Kenai: the composite of all pops within the Kenai River; and 8) Kasilof: the composite of all pops within the Kasilof River.

Table 138-3.–Genetic stock specific estimates (Harv) and standard deviation (SD) of sockeye salmon harvested during drift gillnet non-corridor fishing periods, 2005–2012.

	Reporting Groups[a]																		
	Crescent		West		JCL		SusYen		Fish		KTNE		Kenai		Kasilof				
Year	Harv	SD	Harv	SD	Harv	SD	Harv	SD	Harv	SD	Harv	SD	Harv	SD	Harv	SD	Total	Susitna River	Harvest Rate
2006	146	304	26,229	3,101	13,616	2,188	23,690	3,500	103	242	6,870	1,615	191,189	5,004	102,223	3,997	364,066	464,393	8%
2007	12,722	4,141	73,548	10,086	102,678	12,633	80,726	16,367	6,113	2,802	46,702	9,187	1,090,269	25,377	271,988	21,030	1,684,746	571,605	32%
2008	4,213	2,004	25,898	5,291	53,422	6,478	43,812	8,044	1,772	1,443	22,983	4,724	391,037	14,493	285,556	13,509	828,693	444,889	22%
2009	5,744	3,795	101,858	9,469	38,216	5,973	46,458	8,728	18,060	4,699	27,222	5,136	570,553	15,645	151,556	11,890	959,667	331,485	26%
2010	8,767	2,825	122,890	10,349	47,650	5,897	45,917	6,826	61,092	6,881	45,363	6,644	1,105,191	15,888	120,306	9,084	1,557,176	308,416	30%
2011	6,076	1,873	178,843	17,464	90,792	14,665	39,009	8,498	42,595	9,061	38,565	9,543	1,753,556	26,809	112,146	12,446	2,261,582	537,511	24%
2012	7,171	3,410	93,284	13,305	67,327	13,531	74,923	12,484	13,257	5,516	33,275	8,493	1,926,357	26,330	106,619	14,606	2,322,213	326,353	44%
Totals	44,839	7,667	622,549	28,603	413,702	25,980	354,534	26,376	142,992	13,854	220,980	18,522	7,028,151	52,804	1,150,395	35,112	9,978,143	2,984,652	26%

Note: data from 2011 and 2012 are preliminary.

[a] Reporting Groups: 1) Crescent: The largest producer of sockeye salmon on the west side of Cook Inlet (Crescent R.); 2) West: the remaining West Cook Inlet producers; 3) JCL: Judd/Chelatna/Larson lakes are the lakes monitored by weirs in the Susitna River drainage; 4) Sus/Yen: the remaining producers in the Susitna/Yentna rivers; 5) Fish: the major creek monitored in the Knik/Turnagain/Northeast Cook Inlet area; 6) KTNE: the remaining Knik/Turnagain/Northeast Cook Inlet producers; 7) Kenai: the composite of all populations within the Kenai River; and 8) Kasilof: the composite of all pops within the Kasilof River.

PROPOSAL 139 – 5 AAC 21.353. Central District Drift Gillnet Fishery Management Plan.

PROPOSED BY: Matanuska-Susitna Borough Fish and Wildlife Commission.

WHAT WOULD THE PROPOSAL DO? This proposal would increase the frequency of restrictions to the drift gillnet fleet to the Expanded Kenai and Expanded Kasilof sections from July 16–31. At run strengths less than 2.3 million sockeye salmon to the Kenai River, all fishing time (instead of one regular 12-hour fishing period) would be restricted to the Expanded Kenai and Expanded Kasilof sections. At run strengths of 2.3 million to 4.6 million sockeye salmon to the Kenai River, one regular period per week would continue to be restricted to either or both the Expanded Kenai and Expanded Kasilof sections or Drift Gillnet Area 1; however, all other regular fishing periods would be restricted to the Expanded Kenai and Expanded Kasilof sections. At run strengths greater than 4.6 million sockeye salmon to the Kenai River, instead of no mandatory restrictions, one regular fishing period per week would be restricted to the Expanded Kenai and Expanded Kasilof sections. All fishing time outside of regular fishing periods would be restricted to the Expanded Kenai and Expanded Kasilof sections.

WHAT ARE THE CURRENT REGULATIONS? From July 16–31, at run strengths of less than 2.3 million sockeye salmon to the Kenai River, commercial drift gillnet fishing during one regular 12-hour fishing period will be restricted to the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict; at run strengths of 2.3 million to 4.6 million sockeye salmon to the Kenai River, fishing during one regular 12-hour fishing period per week will be restricted to either or both the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict or Drift Gillnet Area 1; and at run strengths greater than 4.6 million sockeye salmon to the Kenai River, there will be no mandatory restrictions during regular fishing periods.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would decrease the commercial drift gillnet harvest of salmon and potentially increase passage of salmon to the Northern District by an unknown amount depending on the abundance, migration or run timing, and migratory patterns of salmon returning throughout Upper Cook Inlet (UCI), including the Kenai, Kasilof, and Susitna rivers. If the drift gillnet fishery were limited to fishing in the Expanded Kasilof and Expanded Kenai sections, it is likely that harvest of all salmon by set gillnet fisheries in the Northern District and the Upper Subdistrict would increase. The department would continue to manage the drift fishery with the primary management objective of achieving established escapement goals. However, placing additional restrictions on the drift gillnet fishery may make it more difficult to achieve sockeye salmon escapement objectives in the Kasilof and Kenai rivers.

BACKGROUND: In 1996, the *Northern District Coho Salmon Management Plan* (5 AAC 21.358) was first adopted. In 1999, the plan was renamed to the *Northern District Salmon Management Plan* and included new restrictions to the drift gillnet fishery. In 2002, additional changes were made to the *Northern District Salmon Management Plan*. In 2005, the Alaska Board of Fisheries eliminated all specific references to the drift gillnet fishery in the *Northern District Salmon Management Plan* and established a new management plan for the drift gillnet fishery, the *Central District Drift Gillnet Fishery Management Plan* (CDDGFMP; 5 AAC 21.353). In 2008, there were no significant changes to the CDDGFMP. In 2011, a

number of changes were made to the plan and there were issues implementing the changes during the 2011 season. The 2012 and 2013 seasons were managed using the regulations currently in effect.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal but has concerns with proposals that reduce the department's ability to achieve escapement goals.

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 140 – 5 AAC 21.353. Central District Drift Gillnet Fishery Management Plan.

PROPOSED BY: Howard Delo.

WHAT WOULD THE PROPOSAL DO? This proposal would restrict the drift gillnet fishery to the Expanded Kenai and Expanded Kasilof sections during the July 16–31 timeframe based on run strengths of sockeye salmon to the Kenai River. At run strengths less than 2.3 million sockeye salmon to the Kenai River, all fishing time (instead of one regular 12-hour fishing period) would be restricted to the Expanded Kenai and Expanded Kasilof sections; at run strengths of 2.3 million to 4.6 million sockeye salmon to the Kenai River, one regular period per week would continue to be restricted to either or both the Expanded Kenai and Expanded Kasilof sections or Drift Gillnet Area 1; all other regular fishing periods would be restricted to the Expanded Kenai and Expanded Kasilof sections. At run strengths greater than 4.6 million sockeye salmon to the Kenai River, instead of no mandatory restrictions, both regular fishing periods per week would be restricted to the Expanded Kenai and Expanded Kasilof sections and Drift Gillnet Area 1. All fishing time outside of regular fishing periods would be restricted to the Expanded Kenai and Expanded Kasilof sections.

WHAT ARE THE CURRENT REGULATIONS? From July 16–31, at run strengths of less than 2.3 million sockeye salmon to the Kenai River, fishing during one regular 12-hour fishing period will be restricted to the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict; at run strengths of 2.3 million to 4.6 million sockeye salmon to the Kenai River, fishing during one regular 12-hour fishing period per week will be restricted to either or both the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict or Drift Gillnet Area 1; and at run strengths greater than 4.6 million sockeye salmon to the Kenai River, there will be no mandatory restrictions during regular fishing periods.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would place additional restrictions on drift gillnet fishing from July 16–31. This would decrease commercial harvest of primarily sockeye and coho salmon by the drift gillnet fleet. Any change in commercial harvest in this area would be dependent on the abundance, migration or run timing, and migratory patterns of salmon returning throughout Upper Cook Inlet, including the Kenai, Kasilof, and Susitna rivers. The department would continue to manage the drift fishery with the primary management objective of achieving established escapement goals. However, placing additional restrictions on the drift gillnet fishery may make it more difficult to achieve sockeye salmon escapement objectives in the Kasilof and Kenai rivers.

BACKGROUND: In 1996, the *Northern District Coho Salmon Management Plan* (5 AAC 21.358) was first adopted. In 1999, the plan was renamed to the *Northern District Salmon Management Plan* and included new restrictions to the drift gillnet fishery. In 2002, additional changes were made to the *Northern District Salmon Management Plan*. In 2005, the Alaska Board of Fisheries eliminated all specific references to the drift gillnet fishery in the *Northern District Salmon Management Plan* and established a new management plan for the drift gillnet fishery, the *Central District Drift Gillnet Fishery Management Plan* (CDDGFMP ; 5 AAC 21.353). In 2008, there were no significant changes to the CDDGFMP. In 2011, a number of changes were made to the plan and there were issues implementing the changes

during the 2011 season. The 2012 and 2013 seasons were managed using the regulations currently in effect.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal but has concerns with proposals that reduce the department's ability to achieve escapement goals.

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 21.353. Central District Drift Gillnet Fishery Management Plan.

PROPOSED BY: Northern District Setnetters Association.

WHAT WOULD THE PROPOSAL DO? This proposal would modify the preamble to the management plan to provide reasonable opportunity for Northern District set gillnetters to harvest all salmon stocks.

WHAT ARE THE CURRENT REGULATIONS? The preamble to the *Central District Drift Gillnet Management Plan* (CDDGMP) currently reads: The purpose of this management plan is to ensure adequate escapement of salmon into the Northern District drainages and to provide management guidelines to the department. The department shall manage the commercial drift gillnet fishery to minimize the harvest of Northern District and Kenai River coho salmon in order to provide sport and guided sport fishermen a reasonable opportunity to harvest these salmon stocks over the entire run, as measured by the frequency of inriver restrictions.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It is unlikely that this proposal would affect management of the drift gillnet fishery because the department would continue to manage the drift gillnet fishery following the provisions of the management plan with the primary management objective of achieving established escapement goals. Adding to the purpose statement would result in the board needing to consider how proposed new regulations uphold or support the new guiding principle of the plan.

BACKGROUND: In 1996, the *Northern District Coho Salmon Management Plan* (5 AAC 21.358) was first adopted. In 1999, the plan was renamed to the *Northern District Salmon Management Plan* and included new restrictions to the drift gillnet fishery. In 2002, additional changes were made to the *Northern District Salmon Management Plan*. In 2005, the Alaska Board of Fisheries eliminated all specific references to the drift gillnet fishery in the *Northern District Salmon Management Plan* and established a new management plan for the drift gillnet fishery, the CDDGFMP (5 AAC 21.353). In 2008, there were no significant changes to the CDDGFMP. In 2011, a number of changes were made to the plan and there were issues implementing the changes during the 2011 season. The 2012 and 2013 seasons were managed using the regulations currently in effect.

Numerous restrictive management actions, both by management plan or discretionary, have been taken in the Northern District set gillnet and Central District drift gillnet commercial fisheries (Table 141-1). These actions have been primarily taken to reduce harvest rates of Northern Cook Inlet sockeye and coho salmon.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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.

Table 141-1.–Management actions in the Northern District (ND) set gillnet and Central District drift gillnet commercial fisheries to conserve Susitna sockeye and coho salmon.

Year	Action	Date	Management Plan or Discretionary
1990	Closed drifting in all Central District	13-Jul	discretionary
	Restricted drifting to S. end of Kalgin Island	23-Jul	discretionary
1991	Restricted drifting to full corridor	12-Jul	discretionary
	Closed ND	29-Jul	discretionary
1992	Closed ND; drifting restricted to 8-mile corridor	24-Jul	discretionary
	Closed ND; drifting restricted to 8-mile corridor	27-Jul	discretionary
1993	Restricted drifting to full corridor	9-Jul	discretionary
	Restricted drifting to S. of Clam Gulch Tower	16-Jul	discretionary
	Close ND; drifting restricted to S. of North tip of Kalgin Island	23-Jul	discretionary
1994	Restricted drift to full corridor	11-Jul	discretionary
	Restricted drift to S. of South tip of Kalgin Island	18-Aug	discretionary
	Closed ND; closed drifting in Central District	22-Jul	discretionary
1995	Restricted drifting to corridor	14-Jul	discretionary
	Closed ND; restricted drifting S. of Kalgin Island	24-Jul	discretionary
1996	Restricted drifting to corridor	12-Jul	discretionary
	Closed ND; restricted drifting to S. of 60^0 17'	22-Jul	discretionary
	Restricted drifting to corridor	26-Jul	management plan
1997	Restricted drifting to corridor	11-Jul	discretionary
	Closed ND; restricted drifting to corridor	18-Jul	discretionary
	Closed ND; restricted drifting to corridor	21-Jul	discretionary
	restricted drifting to corridor	28-Jul	management plan
1998	Restricted drifting to corridor	13-Jul	discretionary
	Closed ND; closed drifting	20-Jul	discretionary
	Closed ND; closed drifting	27-Jul	discretionary
	Closed ND; closed drifting	31-Jul	discretionary
1999	Closed drifting	12-Jul	discretionary
	Closed ND; closed drifting	22-Jul	discretionary
	Closed ND; drifting restricted North end of Kalgin Island	29-Jul	discretionary
2000	Restricted drifting to corridor	10-Jul	management plan
	Restricted drifting to South end of Kalgin Island	13-Jul	discretionary
2001	Restricted drifting to corridor	9-Jul	management plan
	Closed ND; closed drifting	23-Jul	discretionary
	Closed ND; closed drifting, except in the Ken/Kas corridor	26-Jul	discretionary
2002	Restricted drifting to corridor	11-Jul	management plan
	ND gear reduced to 1 net; drifting restricted to South of Colliers	22-Jul	discretionary
	ND closed; drifting restricted to South end of Kalgin Island	25-Jul	discretionary
	ND closed; drifting restricted to South end of Kalgin Island	29-Jul	discretionary
2003	Restricted drifting to corridor	10-Jul	management plan
	Restricted drifting to S. of Blanchard line	14-Jul	discretionary
	Restricted drifting to conserve ND coho	24-Jul	discretionary
	Restricted drifting to conserve ND coho	28-Jul	discretionary

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2004	Restricted drifting to S. of Kalgin Buoy	12-Jul	management plan
	Restricted drift to S. of North end of Kalgin Island	15-Jul	discretionary
	Restricted drift to S. of North end of Kalgin Island	21-Jul	discretionary
	Reduce ND to 2 nets; drifting restricted to S. of line from Colliers to Kalgin Island	26-Jul	discretionary
	Reduce ND to 1 net; drifting restricted to S. of line from Colliers to Kalgin Island	29-Jul	discretionary
	Closed ND	2-Aug	discretionary
2005	Restricted drifting to Area 1	11-Jul	management plan
	Restricted drifting to Area 1	14-Jul	management plan
	Restricted drifting to areas 1 & 2	18-Jul	management plan
	Restricted drifting to S. of Kalgin buoy	21-Jul	discretionary[a]
	ND closed	21-Jul	discretionary
	ND closed; restricted drifting to S. of Blanchard Line	25-Jul	discretionary
	ND closed; restricted drifting to S. of line from Colliers to Kalgin Island	28-Jul	discretionary
	ND closed; restricted drifting to S. of line from Colliers to Kalgin Island	1-Aug	discretionary
	ND closed	4-Aug	discretionary
2006	Restricted drifting to Kenai (Ken) and Kasilof (Kas) sections	10-Jul	discretionary[a]
	Closed ND to commercial fishing	10-Jul	discretionary
	Restricted drifting to Ken/Kas Sections; closed ND to commercial fishing	13-Jul	discretionary
	Restricted drifting to Ken/Kas Sections; closed ND to commercial fishing	17-Jul	discretionary[a]
	Closed drift gillnetting; closed ND to commercial fishing	20-Jul	discretionary[a]
	Closed drift gillnetting; closed ND to commercial fishing	24-Jul	discretionary
	Closed drift gillnetting; closed ND to commercial fishing	27-Jul	discretionary
	Restricted drifting to south of Blanchard Line and Ken/Kas Section; closed ND	31-Jul	discretionary
	Restricted drifting to south of NW point on Kalgin Island and Ken/Kas Section	2-Aug	discretionary
	Closed ND to commercial fishing	3-Aug	discretionary
2007	Restricted drifting to Area 1 and Ken/Kas sections	9-Jul	management plan
	Restricted drifting to Area 1 and Ken/Kas sections	12-Jul	management plan
	Restricted drifting to Area 1 and Ken/Kas sections	16-Jul	discretionary[a]
	Restricted drifting to Area 1 and Ken/Kas sections	19-Jul	discretionary[a]
	Restricted drifting south of Blanchard; ND reduced to 1 net	23-Jul	discretionary
	Restricted drifting south of Blanchard; ND closed	26-Jul	discretionary
	Restricted drifting south of N. Kalgin; ND closed	30-Jul	discretionary
	Restricted drifting south of Colliers dock to Kalgin Island; ND closed	2-Aug	discretionary
	Restricted drifting south of Colliers dock to Kalgin Island; ND closed	6-Aug	discretionary
2008	Restricted drifting to Ken/Kas sections	10-Jul	management plan/discretionary
	Restricted drifting to Area 1 and Ken/Kas sections	14-Jul	management plan
	Restricted drifting to areas 1 & 2 and Ken/Kas sections	17-Jul	management plan
	Restricted drifting to areas 1 & 2 and Ken/Kas sections	21-Jul	management plan
	ND restricted to 1 net	21-Jul	management plan
	Drifting closed	28-Jul	discretionary
	Drifting closed	31-Jul	discretionary
	Restricted drifting to western half of Central District	4-Aug	discretionary
	Restricted drifting to western half of Central District	7-Aug	discretionary
	Restricted drifting to western half of Central District	11-Aug	discretionary
	Restricted drifting to western half of Central District	14-Aug	discretionary

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2009	Restricted drifting to Area 1 and Ken/Kas sections	9-Jul	management plan
	Restricted drifting to Area 1 and Ken/Kas sections	13-Jul	management plan
	Restricted drifting to areas 1 & 2 and Ken/Kas sections	16-Jul	management plan
	ND restricted to 1 net	20-Jul	management plan
	Restricted drifting to areas 1 & 2 and Ken/Kas sections	20-Jul	management plan
	Drifting closed	27-Jul	discretionary
	Drifting closed	30-Jul	discretionary
2010	Restricted drifting to Area 1	12-Jul	management plan/discretionary
	Restricted drifting to Area 1	15-Jul	management plan/discretionary
	Restricted drifting to Area 1	19-Jul	management plan/discretionary
	ND restricted to 1 net	21-Jul	management plan
	Restricted drifting to areas 1 & 2	29-Jul	management plan/discretionary
2011	Restricted drifting to Expanded Kenai and Expanded Kasilof sections	11-Jul	management plan
	Restricted drifting to Area 1 and Expanded Corridor	14-Jul	management plan
	Restricted drifting to Area 1 and Expanded Corridor	21-Jul	management plan
	ND restricted to 1 net	21-Jul	management plan
2012	Restricted drifting to Expanded Kenai and Expanded Kasilof sections	9-Jul	management plan
	Restricted drifting to Area 1 and Narrow Corridor	12-Jul	management plan
	Restricted drifting to Area 1	16-Jul	management plan
	ND restricted to 1 net	23-Jul	management plan
	Restricted drifting to areas 1 & 2	26-Jul	discretionary
	Restricted drifting to areas 1 & 2 and Expanded Corridor	30-Jul	discretionary
	Restricted drifting to Area 1 and Expanded Corridor	2-Aug	discretionary
	Closed General Subdistrict of ND	9-Aug	discretionary
	Closed General Subdistrict of ND	13-Aug	discretionary
	Closed ND	16-Aug	discretionary
	Closed ND	20-Aug	discretionary
2013	Restricted drifting to Expanded Kenai and Expanded Kasilof sections	11-Jul	management plan
	Restricted drifting to Area 1 and Narrow Corridor	15-Jul	management plan
	Restricted drifting to Area 1 and Narrow Corridor	18-Jul	management plan
	ND restricted to 1 net	22-Jul	management plan
	Restricted drifting to Area 1	22-Jul	management plan
	Restricted drifting to Area 1 and Expanded Corridor	25-Jul	discretionary
	Restricted drifting to Area 1 and Expanded Corridor	29-Jul	management plan

PROPOSAL 142 – 5 AAC 21.353. Central District Drift Gillnet Fishery Management Plan.

PROPOSED BY: South Central Alaska Dipnetters Association.

WHAT WOULD THE PROPOSAL DO? This proposal would modify the preamble to the management plan to provide Northern Cook Inlet Management Area subsistence users and personal use dipnetters a reasonable opportunity to harvest the salmon resource. In addition, the proposal would restrict all drift fishing to the Expanded Kenai and Expanded Kasilof sections from June 19 through August 10.

WHAT ARE THE CURRENT REGULATIONS? The preamble to the *Central District Drift Gillnet Management Plan* (CDDGMP) currently reads: The purpose of this management plan is to ensure adequate escapement of salmon into the Northern District drainages and to provide management guidelines to the Alaska Department of Fish and Game (department). The department shall manage the commercial drift gillnet fishery to minimize the harvest of Northern District and Kenai River coho salmon in order to provide sport and guided sport fishermen a reasonable opportunity to harvest these salmon stocks over the entire run, as measured by the frequency of inriver restrictions. The commissioner may depart from the provisions of the management plan under this section as provided in 5 AAC 21.363(e).

Drift gillnet fishing begins on the third Monday in June or June 19, whichever is later. Fishing periods are Mondays and Thursdays from 7:00 a.m. to 7:00 p.m.

From July 9–15, fishing during the first regular fishing period is restricted to the Expanded Kenai and Expanded Kasilof sections, additional fishing time is allowed only in the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict, and fishing during the second regular fishing period is restricted to the Kenai and Kasilof sections of the Upper Subdistrict and Drift Gillnet Area 1. At run strengths greater than 2.3 million sockeye salmon to the Kenai River, the commissioner may, by emergency order (EO), open one additional 12-hour fishing period in the Kenai and Kasilof sections of the Upper Subdistrict and Drift Gillnet Area 1.

From July 16–31, at run strengths of less than 2.3 million sockeye salmon to the Kenai River, fishing during one regular 12-hour fishing period will be restricted to the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict. At run strengths of 2.3 million to 4.6 million sockeye salmon to the Kenai River, fishing during one regular 12-hour fishing period per week will be restricted to either or both the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict or Drift Gillnet Area 1. At run strengths greater than 4.6 million sockeye salmon to the Kenai River, there will be no mandatory restrictions during regular fishing periods.

From August 11–15, there are no mandatory area restrictions to regular periods, except that if the Upper Subdistrict set gillnet fishery is closed because of the one-percent rule, regular fishing periods will be restricted to Drift Gillnet areas 3 and 4. From August 16 until closed by EO, Drift Gillnet areas 3 and 4 are open for fishing during regular fishing periods.

There are two subsistence fisheries in the Upper Cook Inlet (UCI) area: the Tyonek setnet fishery and the Yentna River fish wheel fishery. In salt water, subsistence fishing is allowed only in the

Tyonek Subdistrict of the Northern District on a one mile stretch of beach adjacent to the community of Tyonek. Subsistence fishing is open during two seasons per year. The early season, which runs from May 15 through June 15, is open for three periods per week—Tuesdays, Thursdays, and Fridays—and for 16 hours per period, from 4:00 a.m. through 8:00 p.m. The late season, which runs from June 16 through October 15, is open for one period per week—Saturday—and for 12 hours, from 6:00 a.m. to 6:00 p.m. Yentna River subsistence salmon, other than king salmon, may be harvested in the mainstem of the Yentna River from its confluence with Martin Creek upstream to its confluence with the Skwentna River from July 15 through July 31 from 4:00 a.m. to 8:00 p.m. Monday, Wednesday, and Friday.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It is unlikely a change to the preamble would affect management of the drift gillnet fishery because the department would continue to manage the drift gillnet fishery following the provisions of the management plan with the primary management objective of achieving established escapement goals. Adding to the purpose statement would result in the board needing to consider how proposed new regulations uphold or support the new guiding principle of the plan.

This proposal would decrease the commercial drift gillnet harvest of salmon and potentially increase passage of salmon migrating north and to the Kenai and Kasilof rivers by an unknown amount depending on the abundance, migration or run timing, and migratory patterns of salmon returning throughout Upper Cook Inlet (UCI), including the Kenai, Kasilof, and Susitna rivers. The department would continue to manage the drift fishery with the primary management objective of achieving established escapement goals. However, restricting the drift gillnet fishery to only the Expanded Kenai and Expanded Kasilof sections may make it difficult to achieve sockeye salmon escapement objectives in the Kasilof and Kenai rivers.

BACKGROUND: In 1996, the *Northern District Coho Salmon Management Plan* (5 AAC 21.358) was first adopted. In 1999, the plan was renamed to the *Northern District Salmon Management Plan* and included new restrictions to the drift gillnet fishery. In 2002, additional changes were made to the *Northern District Salmon Management Plan*. In 2005, the Alaska Board of Fisheries (board) eliminated all specific references to the drift gillnet fishery in the *Northern District Salmon Management Plan* and established a new management plan for the drift gillnet fishery, the CDDGFMP (5 AAC 21.353). In 2008, there were no significant changes to the CDDGFMP. In 2011, a number of changes were made to the plan and there were issues implementing the changes during the 2011 season. The 2012 and 2013 seasons were managed using the regulations currently in effect.

From July 9–15, in years 2000–2013, the drift gillnet fishery has been open for 28 regular fishing periods (Table 142-1). Of the 28 periods, 18 were fished in either Drift Area 1 or in all of the Central District, for an average sockeye salmon harvest of 255,000 fish per period. Drifters were opened in the Kenai and Kasilof sections or Expanded Kenai and Expanded Kasilof sections 10 different days during this time period, for an average harvest of approximately 33,000 sockeye salmon per period.

From 1996–2001, the Fish Creek personal use salmon fishery was opened by regulation from June 10 through June 30. The sustainable escapement goal (SEG) during this period was 50,000

sockeye salmon counted through a weir. Low runs experienced in 1997–2001 prompted closing the fishery by EO during each of these seasons in an effort to achieve the goal. The SEG was not met from 1998 through 2001. In 2002, in response to low sockeye salmon returns, the Alaska Board of Fisheries (board) modified the management strategy to open the fishery by EO when an SEG of 20,000–70,000 sockeye salmon was projected to be exceeded. This strategy helped to achieve the SEG and avoid overharvesting sockeye salmon during years of low or average sockeye salmon runs. Under this strategy, the fishery was opened during the last week in July of 2009 and 2010 when above-average runs were observed. In 2011, the board lowered the value set to trigger the opening of the fishery from 70,000 to 50,000 in order to provide additional fishing opportunity on above-average runs. The fishery was opened in 2011 under this strategy (Table 142-2), but was not opened in 2012 or 2013.

The Big Lake system (Fish Creek) has been stocked with sockeye salmon by the department and later by Cook Inlet Aquaculture Association from 1975 to 2008. Sockeye salmon escapements at Fish Creek have been erratic over the past decade, with a low of 14,000 in 2005 to high of 127,000 in 2010 (Table 142-3). The contribution of hatchery sockeye salmon in the run to Fish Creek has been as high as 73%. The stocking program was discontinued in 2008 and the last year of hatchery fish returning to this system was in 2012. Without the return of hatchery fish, it is likely there will be little opportunity to open Fish Creek to dipnetting. The fishery was not opened in 2012 or 2013 and escapements fell short of the SEG in each of these years.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal but has concerns with proposals that reduce the department's ability to achieve escapement goals.

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 142-1.–Drift gillnet sockeye salmon harvest during July 9–15 regular fishing periods.

Date	2000	2001	2002	2003	2004	2005	2006
9-Jul		**6,042**					
10-Jul	**8,606**			**135,718**			**1,650**
11-Jul			**18,723**			244,130	
12-Jul		206,005			222,717		
13-Jul	229,032						**1,544**
14-Jul				390,459		176,127	
15-Jul			214,932		273,799		

Date	2007	2008	2009	2010	2011	2012	2013
9-Jul	104,709		137,338			**3,584**	
10-Jul		**2,550**					
11-Jul					**105,866**		**50,139**
12-Jul	190,505			333,303		136,923	
13-Jul			143,674				
14-Jul		208,918			691,622		
15-Jul				246,973			438,274

	Area 1/DW	Corridor
Average	254,969 (n = 18)	33,442 (n = 10)

Table 142-2.–Fish Creek personal use salmon harvests, 1987–2013.

Year	Sockeye	Coho	Chum	Pink	King	Total
1987	2,200	0	0	0	0	2,200
1988	3,000	0	0	0	0	3,000
1989	5,000	0	0	0	0	5,000
1990	6,500	0	0	0	0	6,500
1991	14,369	0	549	567	0	15,485
1992	19,002	0	607	678	0	20,287
1993	37,224	973	503	2,068	0	40,768
1994	16,012	1,336	248	632	0	18,228
1995	9,102	2,640	99	290	0	12,131
1996	17,260	2,414	153	331	37	20,195
1997	3,277	63	4	53	0	3,397
1998	4,036	649	29	80	1	4,795
1999	1,083	17	0	12	0	1,112
2000	6,925	958	29	83	0	7,995
2001	463 [b]	13	1	4	1	482
2002[a]	No fishery					
2003	No fishery					
2004	No fishery					
2005	No fishery					
2006	No fishery					
2007	No fishery					
2008	No fishery					
2009	9,898 [c]	53	33	66	10	10,060
2010	23,705 [e]	3,576	290	1,721	12	29,304
2011	4,240 [f]	775	59	114	2	5,190
2012	No fishery					
2013	No fishery					
Average[g]	10,183	748	145	372	4	11,452

[a] Prior to 2002 the fishery was open until closed by EO contingent on projected escapement of 50,000 fish. Beginning in 2002, the fishery was closed until opened by EO between July 10 and July 31 contingent on projected escapement above the SEG of 20,000–70,000 fish.

[b] Closed by EO on July 12 at 11:00 p.m. (3 days of harvest).

[c] Opened by EO at 6:00 a.m. August 1 through 11:00 p.m. August 7 (7 days of harvest).

[d] Opened by EO at 6:00 a.m. August 1 through 11:00 p.m. August 11.

[e] Opened by EO at 6:00 a.m. July 24 through 11:00 p.m. July 31.

[f] Opened by EO at 6:00 a.m. July 29 through 11:00 p.m. July 31.

[g] Average is only for years fishery was open.

Table 142-3.–Contribution of hatchery fish to the Fish Creek sockeye salmon escapement, and sockeye salmon harvest, in the personal use fishery, 2002–2013.

	Sockeye Salmon Escapement				
	Total	Hatchery Contribution		Wild	Personal Use
Year	Escapement	Percent	Total	Escapement	Harvest
2002	90,482	2%	1,810	88,672	
2003	91,952	12%	11,034	80,918	
2004	22,157	17%	3,767	18,390	
2005	14,215	55%	7,818	6,397	
2006	32,562	73%	23,770	8,792	
2007	27,948	71%	19,843	8,105	
2008	19,339	51%	9,863	9,476	
2009	83,480	36%	30,053	53,427	10,060
2010	126,836	67%	84,980	41,856	29,304
2011	66,678	69%	46,008	20,670	1,573
2012	18,823	17%	3,200	15,623	
2013	18,888	NA	NA	NA	
Average	51,113	43%	22,013	32,030	

NA = Data not available.

Note: Blank cells represent years when personal use fishery was closed.

PROPOSAL 143 – 5 AAC 21.353. Central District Drift Gillnet Fishery Management Plan.

PROPOSED BY: Tony Russ.

WHAT WOULD THE PROPOSAL DO? This proposal would implement a registration requirement for drift gillnet fishermen in the Central District. Drift gillnet fishermen would be required to register to fish in one of two specific Central District fisheries for the duration of a season from July 19–August 10. Drift permit holders who register to fish on an areawide basis may fish up to one 12-hour period on Mondays. Additional fishing time is only allowed after July 15 at run strengths larger than 4.6 million sockeye salmon to Kenai River, and is only allowed in Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict. Drift permit holders who register to fish within the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict will be restricted to fishing those waters during regular fishing periods. All additional fishing time is only allowed within the Expanded Kenai and Expanded Kasilof sections.

WHAT ARE THE CURRENT REGULATIONS? Currently, there are no registration requirements for drift gillnet fishermen in the Central District, other than for those fishermen who intend to fish with two permit holders on board one vessel ("D-boat" fishing). All commercially harvested salmon, whether sold or kept for personal use, are required to be reported on a fish ticket that must be mailed to the department or dropped off within seven days of landing.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would decrease commercial harvest of salmon within the drift fishery and increase the salmon migrating north and to the Kenai and Kasilof rivers. In addition, it is likely that harvest of all salmon by set gillnet fisheries in the Northern District and the Upper Subdistrict would increase. The department would continue to manage the drift gillnet fishery with the primary management objective of achieving established escapement goals. However, restricting the drift gillnet fishery to only the Expanded Kenai and Expanded Kasilof sections may make it difficult to achieve sockeye salmon escapement objectives in the Kasilof and Kenai rivers.

BACKGROUND: In Upper Cook Inlet (UCI), there are registration requirements for set gillnetting and for drift gillnetting if two permit holders are fishing on one vessel ("D-boats"). Drift gillnet permit holders are not required to register to fish in UCI if they only have one permit being fished on their vessel.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal but has concerns with proposals that reduce the department's ability to achieve escapement goals.

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 144 – 5 AAC 21.353. Central District Drift Gillnet Fishery Management Plan.

PROPOSED BY: Alaska Outdoor Council.

WHAT WOULD THE PROPOSAL DO? This proposal would amend the preamble of the drift gillnet management plan to provide reasonable subsistence, personal use, and commercial set gillnetting opportunity, and manage the drift gillnet fishery so that any commercial drift fishing opportunity outside the Expanded Kenai and Expanded Kasilof sections is based on abundance of Northern District sockeye and coho salmon. In addition, the proposal would: add West Cook Inlet to the list of drainages that adequate salmon escapements are to be ensured and state that the department shall manage the drift fishery in such a manner as to minimize harvest of all Upper Cook Inlet (UCI) coho salmon instead of just Northern District and Kenai River coho; require that allowing fishing periods outside of the Expanded Kenai and Expanded Kasilof sections, at sockeye salmon run strengths to the Kenai River up to 4.6 million fish, be contingent on the abundance of sockeye salmon and coho salmon in Fish Creek; Little Susitna River; Larson, Chelatna, and Judd lakes; or other Northern District and West Cook Inlet salmon abundance indices as the department deems appropriate; and, at run strengths greater than 4.6 million sockeye salmon to the Kenai River, require that fishing time outside the Expanded Kenai and Expanded Kasilof sections be based on projections to achieve midpoints of at least four of the six Northern District escapement goals.

WHAT ARE THE CURRENT REGULATIONS? The purpose of the *Central District Drift Gillnet Fishery Management Plan* is to ensure adequate escapement of salmon into the Northern District drainages and to provide management guidelines to the Alaska Department of Fish and Game (department). The department manages the commercial drift gillnet fishery to minimize harvest of Northern District and Kenai River coho salmon in order to provide sport and guided sport fishermen a reasonable opportunity to harvest these salmon stocks over the entire run, as measured by the frequency of inriver restrictions. The commissioner may depart from the provisions of the management plan under this section as provided in 5 AAC 21.363(e).

Drift gillnet fishing begins on the third Monday in June or June 19, whichever is later. Fishing periods are Mondays and Thursdays from 7:00 a.m. to 7:00 p.m.

From July 9–15, fishing during the first regular fishing period is restricted to the Expanded Kenai and Expanded Kasilof sections; additional fishing time is allowed only in the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict; and fishing during the second regular fishing period is restricted to the Kenai and Kasilof sections of the Upper Subdistrict and Drift Gillnet Area . At run strengths greater than 2.3 million sockeye salmon to the Kenai River, the commissioner may, by emergency order (EO), open one additional 12-hour fishing period in the Kenai and Kasilof sections of the Upper Subdistrict and Drift Gillnet Area 1.

From July 16–31, at run strengths of less than 2.3 million sockeye salmon to the Kenai River, fishing during one regular 12-hour fishing period will be restricted to the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict. At run strengths of 2.3 million to 4.6 million sockeye salmon to the Kenai River, fishing during one regular 12-hour fishing period per week will be restricted to either or both the Expanded Kenai and Expanded Kasilof sections of the

Upper Subdistrict or Drift Gillnet Area 1. At run strengths greater than 4.6 million sockeye salmon to the Kenai River, there will be no mandatory restrictions during regular fishing periods.

From August 11–15, there are no mandatory area restrictions to regular periods, except that if the Upper Subdistrict set gillnet fishery is closed because of the one-percent rule, regular fishing periods will be restricted to Drift Gillnet areas 3 and 4. From August 16 until closed by EO, Drift Gillnet areas 3 and 4 are open for fishing during regular fishing periods.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It is unlikely a change to the preamble would affect management of the drift gillnet fishery because the department would continue to manage the drift gillnet fishery following the provisions of the management plan with the primary management objective of achieving established escapement goals. Adding to the purpose statement would result in the board needing to consider how proposed new regulations uphold or support the new guiding principle of the plan.

This proposal would make it more difficult for the department to manage the drift gillnet fishery inseason. Weirs are used to assess sockeye and coho salmon escapements in Fish Creek; Little Susitna River; Larson, Chelatna, and Judd lakes. The information from weirs is often not available until to the end of the season and therefore not available for inseason management.

This proposal would also decrease commercial harvest of salmon within the drift fishery and increase the salmon migrating north and to the Kenai and Kasilof rivers. Any change in commercial harvest would be dependent on the abundance, migration or run timing, and migratory patterns of salmon returning throughout UCI, including the Kenai, Kasilof, and Susitna rivers. The department would continue to manage the drift gillnet fishery with the primary management objective of achieving established escapement goals. However, restricting the drift gillnet fishery to only the Expanded Kenai and Expanded Kasilof sections may make it difficult to achieve sockeye salmon escapement objectives in the Kasilof and Kenai rivers.

BACKGROUND: From July 9–15 in years 2000–2013, the drift gillnet fishery has been open for 28 regular fishing periods (Table 144-1). Of the 28 periods, 18 were fished in either Drift Area 1 or in all of the Central District, for an average sockeye salmon harvest of 255,000 fish per period. Drifters were opened in the Kenai and Kasilof sections or Expanded Kenai and Expanded Kasilof sections 10 different days during this time period, for an average harvest of approximately 33,000 sockeye salmon per period.

In 2009, the department determined the Yentna River sockeye salmon escapement estimates and the escapement goal were inappropriate given uncertainties associated with the species allocation of daily sonar estimates of passage. Because of the apparent declining productivity of the Susitna River sockeye salmon stock, the Alaska Board of Fisheries (board) designated this stock as a stock of yield concern at the 2008 UCI board meeting. Because of the considerable uncertainty in estimating sockeye salmon escapement at the Yentna River, the sockeye salmon sustainable escapement goal (SEG) of 90,000–160,000 fish was eliminated by the department in favor of three weir-based lake goals at Chelatna, Judd, and Larson lakes. Three SEGs for these systems were established: Chelatna (20,000–65,000), Judd (25,000–55,000), and Larson Lake (15,000–50,000). Since the new goals were implemented (2008–2013), Chelatna Lake met or exceeded its

SEG in five out of six years, Judd Lake met or exceeded its SEG in three out of six years, and Larson Lake met or exceeded its SEG in five out of six years.

The SEG for Little Susitna River coho salmon is 10,100–17,700 fish. The average annual sport harvest since 2002 is approximately 11,000 coho salmon and average escapement for the same period is 20,000 coho salmon. Since 2002, the SEG has been achieved in seven of the past twelve years. Poor runs were observed in 2011 and 2012, and the SEG was not achieved in each of those two years despite actions taken to reduce sport harvest inseason. The Little Susitna River coho Salmon SEG was achieved in 2013.

At Fish Creek, a coho salmon escapement goal was first adopted in 1994. Since then, the goal has been met or exceeded 20 years, or 80% of the time.
Since 1986 (28 years), the final sonar count for Kenai River late-run sockeye salmon was above the inriver goals in 17 years (61%), within the inriver goals in 11 years (39%), and never below the inriver goals. From 1987–2012, the final spawning escapement (based on postseason analysis) was above the BEG/SEG goals in 15 years (58%), within the BEG/SEG goals in 8 years (31%), and below the BEG/SEG goals in 3 years (11%). Since converting to DIDSON-based goals in 2011, the final spawning escapement (based on postseason analysis) was within the OEG in 2011 and 2012.

Since 1978, the Kasilof River sockeye salmon escapement has been above the BEG in 23 years (64%), within the BEG in 11 years (31%), and under the BEG in two years (6%). More recently (2002–2013), Kasilof River sockeye salmon escapement has been within or above the BEG and OEG in every year; with escapement above the BEG in ten of 12 years (83%) and above the OEG in seven of 12 years (58%).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal but has concerns with proposals that reduce the department's ability to achieve escapement goals.

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 144-1.–Drift gillnet sockeye salmon harvest during July 9–15 regular fishing periods.

Date	2000	2001	2002	2003	2004	2005	2006
9-Jul		**6,042**					
10-Jul	**8,606**			**135,718**			**1,650**
11-Jul			**18,723**			244,130	
12-Jul		206,005			222,717		
13-Jul	229,032						**1,544**
14-Jul				390,459		176,127	
15-Jul			214,932		273,799		

Date	2007	2008	2009	2010	2011	2012	2013
9-Jul	104,709		137,338			**3,584**	
10-Jul		**2,550**					
11-Jul					**105,866**		**50,139**
12-Jul	190,505			333,303		136,923	
13-Jul			143,674				
14-Jul		208,918			691,622		
15-Jul				246,973			438,274

	Area 1/DW	Corridor
Average	254,969 (n = 18)	33,442 (n = 10)

PROPOSAL 145 – 5 AAC 21.353. Central District Drift Gillnet Fishery Management Plan.

PROPOSED BY: Joseph Wright.

WHAT WOULD THE PROPOSAL DO? This proposal would amend the drift gillnet management plan by adding a subsection that addresses mixed-stock management of the drift fishery. The proposal does not identify what the new paragraph would say, but contends that there should be more escapement goals for Northern Cook Inlet stocks to provide a better assessment tool for the department in managing the commercial drift gillnet fishery in the Central District.

WHAT ARE THE CURRENT REGULATIONS? The Alaska Department of Fish and Game (department) manages the Central District commercial drift gillnet fishery based on the *Central District Drift Gillnet Fishery Management Plan* (CDDGFMP). The purpose of this management plan is to ensure adequate escapement of salmon into Northern District drainages and to provide management guidelines to the department. The department shall manage the commercial drift gillnet fishery to minimize harvest of Northern District and Kenai River coho salmon in order to provide sport and guided sport fishermen a reasonable opportunity to harvest these salmon stocks over the entire run, as measured by the frequency of inriver restrictions. The plan goes on to identify specific time and area restrictions to the drift gillnet fishery in July intended to reduce the harvest of northern-bound sockeye and coho salmon.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It is unclear what the effects of this proposal would be. The proposal adds language regarding management of mixed-stock fisheries, but does not identify what the new language would be. Therefore, we are unable to determine what the effects of this proposal would be.

BACKGROUND: In 1996, the *Northern District Coho Salmon Management Plan* (5 AAC 21.358) was first adopted. In 1999, the plan was renamed to the *Northern District Salmon Management Plan* and included new restrictions to the drift gillnet fishery. In 2002, additional changes were made to the *Northern District Salmon Management Plan*. In 2005, the Alaska Board of Fisheries (board) eliminated all specific references to the drift gillnet fishery in the *Northern District Salmon Management Plan* and established a new management plan for the drift gillnet fishery, the CDDGFMP (5 AAC 21.353). In 2008, there were no significant changes to the CDDGFMP. In 2011, a number of changes were made to the plan and there were issues implementing the changes during the 2011 season. The 2012 and 2013 seasons were managed using the regulations currently in effect.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. The board has no "administrative, budgeting, or fiscal powers" that would allow the board to direct department activities.

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 146 – 5 AAC 21.353. Central District Drift Gillnet Fishery Management Plan.

PROPOSED BY: Bruce Knowles.

WHAT WOULD THE PROPOSAL DO? This proposal would have the Alaska Department of Fish and Game (department) develop an inseason harvest estimate of various salmon stocks in Upper Cook Inlet. The inseason harvest estimate would be used by the department to manage commercial drift gillnet fishery in the Central District.

WHAT ARE THE CURRENT REGULATIONS? The department manages the Central District commercial drift gillnet fishery based on the *Central District Drift Gillnet Fishery Management Plan* (CDDGFMP). The purpose of this management plan is to ensure adequate escapement of salmon into Northern District drainages and to provide management guidelines to the department. The department shall manage the commercial drift gillnet fishery to minimize harvest of Northern District and Kenai River coho salmon in order to provide sport and guided sport fishermen a reasonable opportunity to harvest these salmon stocks over the entire run, as measured by the frequency of inriver restrictions. The plan goes on to identify specific time and area restrictions to the drift gillnet fishery in July intended to reduce the harvest of northern-bound sockeye and coho salmon.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It is unclear what this proposal is asking for. The issue identified in the proposal is that the drift gillnet fishery is executed on mixed stocks that pass through the Central District and there is currently an insufficient number of escapement goals and/or inseason information available to the department to accurately assess the abundance of the salmon stocks migrating through UCI. However, the proposal does not identify how an inseason harvest estimate would be developed and what changes to management plans or regulations would need to be made. Therefore, it is difficult to determine what the effects of this proposal would be.

BACKGROUND: In 1996, the *Northern District Coho Salmon Management Plan* (5 AAC 21.358) was first adopted. In 1999, the plan was renamed to the *Northern District Salmon Management Plan* and included new restrictions to the drift gillnet fishery. In 2002, additional changes were made to the *Northern District Salmon Management Plan*. In 2005, the Alaska Board of Fisheries (board) eliminated all specific references to the drift gillnet fishery in the *Northern District Salmon Management Plan* and established a new management plan for the drift gillnet fishery, the CDDGFMP (5 AAC 21.353). In 2008, there were no significant changes to the CDDGFMP. In 2011, a number of changes were made to the plan and there were issues implementing the changes during the 2011 season. The 2012 and 2013 seasons were managed using the regulations currently in effect.

The department conducted a marine tagging study in 2002 in order to estimate the total number coho, pink, and chum salmon entering UCI (Table 146-1). Radio-telemetry tags were used to develop an estimate of coho salmon escapement into streams across UCI, while PIT tags were used to estimate the total return for all species. In 2002, the estimated coho salmon total return to UCI, as estimated by PIT tags, was 2.52 million fish (95% confidence interval (CI): 2.16–2.87 million fish); given the commercial harvest of 0.25 million fish, the total escapement of coho

into all UCI streams was 2.27 million fish (95% CI: 1.91–2.62 million fish). The UCI coho salmon escapement estimate using radio-telemetry data was 1.36 million fish (95% CI: 0.98–1.96). Based on radio-telemetry tracking of coho salmon from the 2002 study, an estimated 663,000 coho salmon entered the Susitna River (Susitna River and Yentna River). In 2002, the weir estimate of coho salmon in the Little Susitna River was approximately 48,000 fish, or about 7.2% of the number of coho salmon that entered the Susitna River (Table 146-2). In 2002, the estimated total escapement of coho salmon that entered all streams in UCI was approximately 1.36 million fish, meaning that the Susitna River comprised approximately 49% of the UCI total.

Northern Cook Inlet coho salmon stocks are also harvested in Central District drift and setnet fisheries, although quantifiable estimates of contribution to individual commercial fisheries are unknown. Exploitation rates by commercial fisheries of Upper Cook Inlet of hatchery stocks in Anchorage and Knik Arm fisheries ranged from 6% on Ship Creek in 1993 to 93% in Wasilla Creek in 1997 and averaged 47% from 1993 to 1998 across all hatchery stocks (Bird, Campbell, Ship, and Wasilla creeks and Little Susitna River).

The pink salmon run was estimated at 21.3 million fish, while the chum salmon total return was estimated at 3.9 million fish.

In 2009, the department determined the Yentna River sockeye salmon escapement estimates and the escapement goal were inappropriate given uncertainties associated with the species allocation of daily sonar estimates of passage. Because of the apparent declining productivity of the Susitna River sockeye salmon stock, the Alaska Board of Fisheries (board) designated this stock as a stock of yield concern at the 2008 UCI board meeting. Because of the considerable uncertainty in estimating sockeye salmon escapement at the Yentna River, the sockeye salmon sustainable escapement goal (SEG) of 90,000–160,000 fish was eliminated by the department in favor of three weir-based lake goals at Chelatna, Judd, and Larson lakes (Table 146-3). Three SEGs for these systems were established: Chelatna (20,000–65,000), Judd (25,000–55,000), and Larson Lake (15,000–50,000). Since the new goals were implemented (2008–2013), Chelatna Lake met or exceeded its SEG in five out of six years, Judd Lake met or exceeded its SEG in three out of six years, and Larson Lake met or exceeded its SEG in five out of six years.

The Little Susitna River coho salmon escapement goal was first established in 1990 (Table 146-4). Since that time, there have been 19 years where a complete census of escapement has been completed. Of those 19 years, the goal was achieved or exceeded 15 years (79%) and not achieved four years (21%). At Fish Creek, a coho salmon escapement goal was first adopted in 1994. Since then, the goal has been met or exceeded for 20 years, or 80% of the time.

Since 1986 (28 years), the final sonar count for Kenai River late-run sockeye salmon was above the inriver goals in 17 years (61%), within the inriver goals in 11 years (39%), and never below the inriver goals (Table 146-5). From 1987–2012, the final spawning escapement (based on postseason analysis) was above the BEG/SEG goals in 15 years (58%), within the BEG/SEG goals in 8 years (31%), and below the BEG/SEG goals in 3 years (11%). Since converting to DIDSON-based goals in 2011, the final spawning escapement (based on postseason analysis) was within the OEG in 2011 and 2012.

Since 1978, the Kasilof River sockeye salmon escapement has been above the BEG in 23 years (64%), within the BEG in 11 years (31%), and under the BEG in two years (6%; Table 146-6). More recently (2002–2013), Kasilof River sockeye salmon escapement has been within or above the BEG and OEG in every year; with escapement above the BEG in ten of 12 years (83%) and above the OEG in seven of 12 years (58%).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. However, the proposal does not identify how an inseason harvest estimate would be developed and what changes would need to be made to management plans or 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.

Table 146-1.–UCI total population estimates of coho, pink, and chum salmon in 2002 derived from a marine tagging study.

2002 Marine Tagging Study

		Estimate (millions)			
Species	Tag Type	Total Pop	Harvest	Esc	Exploitation
Coho	PIT	2.52	0.25	2.27	10%
	Telemetry	1.61	0.25	1.36	15%
Pink	PIT	21.28	0.45	20.83	2%
Chum	PIT	3.88	0.24	3.64	6%

Table 146-2.–Coho salmon escapement estimates into the Susitna River based on two different tagging studies in 2002 and 2010. Little Susitna River coho salmon escapement through the weir is presented as a proportion of the big Susitna River escapement estimate.

	Escapement estimate of Susitna Coho Salmon			
Year	Tag Type	Population	Little Su Weir	Little Susitna proportion of Susitna River population.
2002	Radio	663,000	47,938	7.2%
2010	Dart	196,000	9,214	4.7%

Table 146-3.–Sockeye salmon escapement in the Susitna River drainage, monitored at weirs on Chelatna, Judd, and Larson Lakes, 2006–2013. Weir based goals began in 2009.

Lake	SEG	2006	2007	2008	2009	2010	2011	2012	2013
Chelatna	20,000–65,000	18,433	41,290	73,469	17,721	37,784	70,353	36,577	70,555
Judd	25,000–55,000	40,633	58,134	54,304	44,616	18,361	39,997	18,303	14,088
Larson	15,000–50,000	57,411	47,736	35,040	40,933	20,324	12,413	16,708	21,821

Table 146-4.–Coho salmon sport harvest and escapement on select streams within Northern Cook Inlet, 2002–2013.

	Little Susitna		Fish Creek		McRoberts Creek (Jim Creek)		Deshka River	
Year	Harvest	Escapement	Harvest	Escapement	Harvest	Escapement	Harvest	Escapement
2002	19,278	47,938	1,233	14,651	14,707	2,473	3,616	24,612 [a]
2003	13,672	10,877	112	1,231	6,415	1,421	4,946	17,305
2004	15,307	40,199	774	1,415 [b]	11,766	4,652	4,440	62,940
2005	10,203	16,839 [a]	535	3,011 [b]	10,114	1,464	3,616	47,887
2006	12,399	8,786 [a]	281	4,967 [b]	19,259	2,389	6,042	59,419 [a]
2007	11,089	17,573	120	6,868 [b]	11,848	725	2,550	10,575
2008	13,498	18,485	993	4,868 [b]	17,545	1,890	3,426	12,724
2009	8,346	9,523	1,178	8,214	11,573	1,331	4,060	27,348
2010	10,662	9,214	805	6,977	8,442	242	5,690	10,393
2011	2,452	4,826	414	1,428 [b]	3,132	261	2,282	7,508 [a]
2012	1,681	6,779 [a]	274	1,237	1,858	213	1,358	6,825
2013	NA	13,583 [a]	NA	7,593 [a]	NA	663	NA	22,141 [a]
Average								
2002–2012[c]	10,781	19,829 [c]	611	4,988 [c]	10,605	1,477	3,821	24,500 [c]
SEG		10,100-17,700[d]		1,200-4,400[d]		450-700[e]		No goal

[a] Incomplete or partial count due to weir submersion.

[b] Weir was removed on August 15, before the majority of the coho run, 2004–2008 and 2011.

[c] Includes complete count years only.

[d] Weir counts

[e] Foot Survey

NA = Data not available.

Table 146-5.–Late-run Kenai River sockeye salmon inriver sonar goals, escapement goals, sonar counts, and escapements, 1986–2013.

Year	Inriver Sonar Enumeration Goal[a]	Biological/ Sustainable Escapement Goal	Optimum Escapement Goal	Final Sonar Count	Inriver Sport Harvest	Final Escapement	Actual Run Size (Millions)
1986	350,000–500,000			501,157	72,398	410,458	2.7
1987	400,000–700,000	330,000–600,000	330,000–600,000	1,596,871	240,819	1,363,028	8.7
1988	400,000–700,000	330,000–600,000	330,000–600,000	1,021,469	152,751	877,558	5.9
1989	400,000–700,000	330,000–600,000	330,000–600,000	1,599,959	277,906	1,331,701	ND
1990	400,000–700,000	330,000–600,000	330,000–600,000	659,520	118,287	503,916	2.9
1991	400,000–700,000	330,000–600,000	330,000–600,000	647,597	161,678	419,989	ND
1992	400,000–700,000	330,000–600,000	330,000–600,000	994,798	242,491	772,316	7.8
1993	400,000–700,000	330,000–600,000	330,000–600,000	813,617	137,179	676,425	3.9
1994	400,000–700,000	330,000–600,000	330,000–600,000	1,003,446	93,616	901,094	3.4
1995	400,000–700,000	330,000–600,000	330,000–600,000	630,447	125,428	522,405	2.3
1996	550,000–800,000	330,000–600,000	330,000–600,000	797,847	186,291	631,698	3.4
1997	550,000–825,000	330,000–600,000	330,000–600,000	1,064,818	177,133	917,831	4.0
1998	550,000–850,000	330,000–600,000	330,000–600,000	767,558	164,536	611,653	1.6
1999	750,000–950,000	500,000–800,000	500,000–1,000,000	803,379	200,574	615,654	2.6
2000	600,000–850,000	500,000–800,000	500,000–1,000,000	624,578	230,983	420,777	1.5
2001	600,000–850,000	500,000–800,000	500,000–1,000,000	650,036	200,762	481,932	1.9
2002	750,000–950,000	500,000–800,000	500,000–1,000,000	957,924	225,917	744,884	3.1
2003	750,000–950,000	500,000–800,000	500,000–1,000,000	1,181,309	285,925	927,623	3.8
2004	850,000–1,100,000	500,000–800,000	500,000–1,000,000	1,385,981	294,038	1,131,210	5.0
2005	850,000–1,100,000	500,000–800,000	500,000–1,000,000	1,376,452	294,287	1,121,634	5.6
2006	750,000–950,000	500,000–800,000	500,000–1,000,000	1,499,692	173,425	1,327,054	2.5
2007	750,000–950,000	500,000–800,000	500,000–1,000,000	867,572	308,812	602,186	3.4
2008	600,000–850,000	500,000–800,000	500,000–1,000,000	623,120	230,030	415,292	2.3
2009	600,000–850,000	500,000–800,000	500,000–1,000,000	745,170	252,319	503,659	2.4
2010	750,000–950,000	500,000–800,000	500,000–1,000,000	970,662	304,635	713,443	3.3
2011[b]	1,100,000–1,350,000	700,000–1,200,000	700,000–1,400,000	1,599,217	384,840	1,257,080	6.1
2012[b]	1,000,000–1,200,000	700,000–1,200,000	700,000–1,400,000	1,581,555	455,418	1,212,837	4.7
2013[b, c]	1,000,000–1,200,000	700,000–1,200,000	700,000–1,400,000	1,359,893	*Not Available*	*Not Available*	3.5
Average (1986–1995)					162,255		4.7
Average (1996–2001)					193,380		2.5
Average (2002–2012)					291,786		3.8

[a] Since 1999, inriver goal is set one of three tiers depending on total run size.

[b] Sonar technology switched to DIDSON (2011–2013) from Bendix (1986–2010) which changed the goals and inseason fish counts.

[c] 2013 run size is preliminary until published.

ND = No Data

Table 146-6.–Escapement, biological escapement goals (BEGs), and optimum escapement goals (OEGs) for sockeye salmon in the Kasilof River, 1978–2013. Included is a comparison of the number of years the escapement was above, within, and below the escapement goals (BEG, OEG).

Year	Escapement	Biological Escapement Goal		Optimum Escapement Goal	
1978	116,600	75,000–150,000	Within		
1979	152,179	75,000–150,000	Above		
1980	184,260	75,000–150,000	Above		
1981	256,625	75,000–150,000	Above		
1982	180,239	75,000–150,000	Above		
1983	210,271	75,000–150,000	Above		
1984	231,685	75,000–150,000	Above		
1985	505,049	75,000–150,000	Above		
1986	275,963	75,000–150,000	Above		
1987	249,250	150,000–250,000	Within		
1988	204,000	150,000–250,000	Within		
1989	158,206	150,000–250,000	Within		
1990	144,289	150,000–250,000	Below		
1991	238,269	150,000–250,000	Within		
1992	184,178	150,000–250,000	Within		
1993	149,939	150,000–250,000	Below		
1994	205,117	150,000–250,000	Within		
1995	204,935	150,000–250,000	Within		
1996	249,944	150,000–250,000	Within		
1997	266,025	150,000–250,000	Above		
1998	273,213	150,000–250,000	Above		
1999	312,587	150,000–250,000	Above		
2000	256,053	150,000–250,000	Above		
2001	307,570	150,000–250,000	Above		
2002	226,682	150,000–250,000	Within	150,000–300,000	Within
2003	359,633	150,000–250,000	Above	150,000–300,000	Above
2004	577,581	150,000–250,000	Above	150,000–300,000	Above
2005	348,012	150,000–250,000	Above	150,000–300,000	Above
2006	368,092	150,000–250,000	Above	150,000–300,000	Above
2007	336,866	150,000–250,000	Above	150,000–300,000	Above
2008	301,469	150,000–250,000	Above	150,000–300,000	Above
2009	297,125	150,000–250,000	Above	150,000–300,000	Within
2010	267,013	150,000–250,000	Above	150,000–300,000	Within
2011	245,721	160,000–340,000	Within	160,000–390,000	Within
2012	374,523	160,000–340,000	Above	160,000–390,000	Within
2013	489,654	160,000–340,000	Above	160,000–390,000	Above
Averages					
1978–2013	269,689				
2004–2013	360,606				

Comparison of Escapement to Escapement Goals

	Years	%	Years	%
Above Goal	23	64%	7	58%
Within Goal	11	31%	5	42%
Below Goal	2	6%	0	0%
Total	36		12	

PROPOSAL 147 – 5 AAC 21.353. Central District Drift Gillnet Fishery Management Plan.

PROPOSED BY: Mark Glassmaker.

WHAT WOULD THE PROPOSAL DO? This proposal would reduce the bag limit for coho salmon in all sport fisheries on the west side of Cook Inlet and also restrict the Central District commercial drift gillnet fishery to the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict whenever the sport fishery is restricted in the Little Susitna River.

WHAT ARE THE CURRENT REGULATIONS? From January 1–December 31, salmon, other than king salmon, 16 inches or greater in length may be taken in flowing waters West Cook Inlet; limit is three fish per day and six fish in possession; all may be coho salmon. From January 1–December 31, salmon, other than king salmon, 16 inches or greater in length may be taken in flowing waters of the Little Susitna River from its mouth upstream to the Parks Highway; bag and possession limit is three fish, of which no more than two per day and two in possession may be coho salmon; a coho salmon 16 inches or greater in length that is removed from the water must be retained and becomes part of the bag limit of the person originally hooking it; a person may not remove a coho salmon from the water before releasing the fish; bait is allowed from August 6 until September 30.

The Alaska Department of Fish and Game (department) manages the Central District commercial drift gillnet fishery based on the *Central District Drift Gillnet Fishery Management Plan* (CDDGFMP). The purpose of this management plan is to ensure adequate escapement of salmon into Northern District drainages and to provide management guidelines to the department. The department shall manage the commercial drift gillnet fishery to minimize the harvest of Northern District and Kenai River coho salmon in order to provide sport and guided sport fishermen a reasonable opportunity to harvest these salmon stocks over the entire run, as measured by the frequency of inriver restrictions. The plan goes on to identify specific time and area restrictions to the drift gillnet fishery in July intended to reduce the harvest of northern-bound sockeye and coho salmon.

There are two subsistence fisheries in the Upper Cook Inlet (UCI) area, the Tyonek setnet fishery and the Yentna River fish wheel fishery. In salt water, subsistence fishing is allowed only in the Tyonek Subdistrict of the Northern District on a one mile stretch of beach adjacent to the community of Tyonek. Subsistence fishing is open during two seasons per year. The early season, which runs from May 15 through June 15, is open for three periods per week—Tuesdays, Thursdays, and Fridays—and for 16 hours per period, from 4:00 a.m. through 8:00 p.m. The late season, which runs from June 16 through October 15, is open for one period per week—Saturday—and for 12 hours, from 6:00 a.m. to 6:00 p.m. Yentna River subsistence salmon, other than king salmon, may be harvested in the mainstem of the Yentna River from its confluence with Martin Creek upstream to its confluence with the Skwentna River from July 15 through July 31 from 4:00 a.m. to 8:00 p.m. Monday, Wednesday, and Friday.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would reduce the harvest of coho salmon in sport fisheries on the west side of Cook Inlet and in the Central District commercial drift gillnet fishery whenever the sport fishery is

restricted in the Little Susitna River. The decrease in coho salmon harvest would be dependent upon the number of restrictions. The restrictions would also decrease the sockeye salmon harvest in the commercial drift gillnet fishery and increase the salmon migrating north and to the Kenai and Kasilof rivers. Any change in commercial harvest would be dependent on the abundance, migration or run timing, and migratory patterns of salmon returning throughout UCI, including the Kenai, Kasilof, and Susitna rivers. The department would continue to manage the drift gillnet fishery with the primary management objective of achieving established escapement goals. However, restricting the drift gillnet fishery to only the Expanded Kenai and Expanded Kasilof sections may make it difficult to achieve sockeye salmon escapement objectives in the Kasilof and Kenai rivers.

BACKGROUND: In 1996, the *Northern District Coho Salmon Management Plan* (5 AAC 21.358) was first adopted. In 1999, the plan was renamed to the *Northern District Salmon Management Plan* and included new restrictions to the drift gillnet fishery. In 2002, additional changes were made to the *Northern District Salmon Management Plan*. In 2005, the Alaska Board of Fisheries eliminated all specific references to the drift gillnet fishery in the *Northern District Salmon Management Plan* and established a new management plan for the drift gillnet fishery, the *Central District Drift Gillnet Fishery Management Plan* (CDDGFMP; 5 AAC 21.353). In 2008, there were no significant changes to the CDDGFMP. In 2011, a number of changes were made to the plan and there were issues implementing the changes during the 2011 season. The 2012 and 2013 seasons were managed using the regulations currently in effect.

The department conducted a marine tagging study in 2002 in order to estimate the total number coho, pink, and chum salmon entering Upper Cook Inlet (UCI). Radio-telemetry tags were used to develop an estimate of coho salmon escapement into streams across UCI, while PIT tags were used to estimate the total return for all species. In 2002, the estimated coho salmon total return to UCI, as estimated by PIT tags, was 2.52 million fish (95% confidence interval (CI): 2.16–2.87 million fish); given the commercial harvest of 0.25 million fish, the total escapement of coho into all UCI streams was 2.27 million fish (95% CI: 1.91–2.62 million fish). The UCI coho salmon escapement estimate using radio-telemetry data was 1.36 million fish (95% CI: 0.98–1.96). Based on the radio-telemetry tracking of coho salmon from the 2002 study, an estimated 663,000 coho salmon entered the Susitna River (Susitna River and Yentna River). In 2002, the weir estimate of coho salmon in the Little Susitna River was approximately 48,000 fish, or about 7.2% of the number of coho salmon that entered the Susitna River. In 2002, the estimated total escapement of coho salmon that entered all streams in UCI was approximately 1.36 million fish, meaning that the Susitna River comprised approximately 49% of the UCI total. The pink salmon run was estimated at 21.3 million fish, while the chum salmon total return was estimated at 3.9 million fish.

Northern Cook Inlet coho salmon stocks are also harvested in Central District drift and setnet fisheries, although quantifiable estimates of contribution to individual commercial fisheries are unknown. Exploitation rates by commercial fisheries in Upper Cook Inlet (UCI) ranged from 10%–15%, based on a marine tagging study (using telemetry and pit tags) in 2002. Exploitation rates by commercial fisheries of Upper Cook Inlet of hatchery stocks in Anchorage and Knik Arm fisheries ranged from 6% on Ship Creek in 1993 to 93% in Wasilla Creek in 1997 and

averaged 47% from 1993 to 1998 across all hatchery stocks (Bird, Campbell, Ship, and Wasilla creeks and Little Susitna River).

The department does not monitor coho salmon escapement on West Cook Inlet (WCI) area streams and relies on the Statewide Harvest Survey to monitor changes in effort and harvest over time. The sport fishery has been managed under existing regulations to ensure sustainable harvest. Current regulations allow three coho salmon per day and six in possession. Sport harvests for coho salmon on the Kustatan River average (1993–2012) 4,000 fish annually. This level of harvest has been sustained since the mid-1980s.

Sport fishing for coho salmon in the Big River system is spread between several small streams, including Wolverine Creek, which drains into Big River Lake and several locations within the lake. Sport effort and harvest on the Big River system increased beginning in 2003 due to large runs and a corresponding increase in guided effort. Effort increased from about 1,000 angler days prior to 2003, to 3,800 angler days since that year. Much of this effort is directed at sockeye salmon. Harvest of coho salmon prior to 2003 averaged about 300 fish. Harvest since 2003 has averaged 2,800 coho salmon and has been stable, with the exception of 2011 and 2012 (Table 147-1). The poor coho salmon runs of 2011 and 2012 likely affected sport harvest on WCI and other Cook Inlet streams.

In 2009, the department determined the Yentna River sockeye salmon escapement estimates and the escapement goal were inappropriate given uncertainties associated with the species allocation of daily sonar estimates of passage. Because of the apparent declining productivity of the Susitna River sockeye salmon stock, the Alaska Board of Fisheries (board) designated this stock as a stock of yield concern at the 2008 UCI board meeting. Because of the considerable uncertainty in estimating sockeye salmon escapement at the Yentna River, the sockeye salmon sustainable escapement goal (SEG) of 90,000–160,000 fish was eliminated by the department in favor of three weir-based lake goals at Chelatna, Judd, and Larson lakes. Three SEGs for these systems were established: Chelatna (20,000–65,000), Judd (25,000–55,000), and Larson Lake (15,000–50,000). Since the new goals were implemented (2008–2013), Chelatna Lake met or exceeded its SEG in five out of six years, Judd Lake met or exceeded its SEG in three out of six years, and Larson Lake met or exceeded its SEG in five out of six years.

The SEG for Little Susitna River coho salmon is 10,100–17,700 fish. The average annual sport harvest since 2002 is approximately 11,000 coho salmon and average escapement for the same period is 20,000 coho salmon. Since 2002, the SEG has been achieved in seven of the past twelve years. Poor runs were observed in 2011 and 2012, and the SEG was not achieved in each of those two years despite actions taken to reduce sport harvest inseason. The Little Susitna River coho Salmon SEG was achieved in 2013.

At Fish Creek, a coho salmon escapement goal was first adopted in 1994. Since then, the goal has been met or exceeded for 20 years, or 80% of the time.

Since 1986 (28 years), the final sonar count for Kenai River late-run sockeye salmon was above the inriver goals in 17 years (61%), within the inriver goals in 11 years (39%), and never below the inriver goals. From 1987–2012, the final spawning escapement (based on postseason

analysis) was above the BEG/SEG goals in 15 years (58%), within the BEG/SEG goals in 8 years (31%), and below the BEG/SEG goals in 3 years (11%). Since converting to DIDSON-based goals in 2011, the final spawning escapement (based on postseason analysis) was within the OEG in 2011 and 2012.

Since 1978, the Kasilof River sockeye salmon escapement has been above the BEG in 23 years (64%), within the BEG in 11 years (31%), and under the BEG in two years (6%). More recently (2002–2013), Kasilof River sockeye salmon escapement has been within or above the BEG and OEG in every year; with escapement above the BEG in ten of 12 years (83%) and above the OEG in seven of 12 years (58%).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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.

Table 147-1.–Sport effort and harvest of coho salmon on the Kustatan River and Big River Lakes, 1993–2012.

	Kustatan		Big River Lakes	
Year	Days Fished[a]	Harvest	Days Fished[a]	Harvest
1993	5,403	6,457	535	158
1994	3,972	5,259	653	25
1995	3,684	4,237	659	75
1996	2,699	6,266	1,251	600
1997	2,684	3,605	976	305
1998	2,749	3,999	729	264
1999	3,234	3,178	1,341	463
2000	4,393	5,699	2,504	325
2001	3,336	4,920	902	508
2002	5,254	5,795	678	490
2003	3,915	3,967	3,497	2,830
2004	2,854	3,984	3,322	2,648
2005	2,649	3,551	5,365	3,916
2006	2,515	3,556	4,957	3,953
2007	3,517	4,057	2,203	1,644
2008	3,416	3,868	2,837	3,560
2009	2,238	2,639	3,829	3,032
2010	2,152	2,832	4,859	3,627
2011	1,215	1,876	2,452	1,270
2012	1,949	2,136	3,908	1,634
Average				
1993–2012	3,191	4,094	2,373	1,566
1993–2002	3,741	4,942	1,023	321
2003–2012	2,642	3,247	3,723	2,811

[a] Days fished are days spent fishing for all species, not just coho salmon.

Fishing Periods and Permit Stacking (2 Proposals): 122, 127

PROPOSAL 122 – 5 AAC 21.353. Weekly Fishing Periods.

PROPOSED BY: United Cook Inlet Drift Association.

WHAT WOULD THE PROPOSAL DO? This proposal would allow the Alaska Department of Fish and Game (department) to alter the times and dates of regularly scheduled weekly fishing periods for the drift gillnet fishery by up to 36 hours based on inclement weather forecasts.

WHAT ARE THE CURRENT REGULATIONS? Weekly fishing periods are set in 5 AAC 21.320 and occur on Mondays and Thursdays from 7:00 a.m. until 7:00 p.m. Fishing time beyond regularly scheduled periods is allowed via emergency order (EO).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal may provide an increase in the drift fleet fishing time and harvest of salmon by an undetermined amount depending on the number of days each fishing season the fleet was blown-off due to inclement weather.

BACKGROUND: From 1971 to 1984, weekly fishing periods in Upper Cook Inlet occurred from 6:00 a.m. until 6:00 p.m. on Mondays and Fridays. From 1985 through 1998, weekly periods were from 7:00 a.m. until 7:00 p.m. on Mondays and Fridays. Since 1999, weekly periods have occurred on Mondays and Thursdays from 7:00 a.m. until 7:00 p.m. The department has EO authority to modify weekly fishing periods.

This proposal seeks to identify weather criteria upon which the department would use EO authority to adjust weekly fishing periods. While the department is cognizant of the fact that high winds can cause a safety issue for the fishing fleet, modifying weekly fishing periods based on a weather forecast is problematic. First, weather forecasts are not always accurate. Moreover, moving weekly fishing periods based on weather introduces the possibility of department staff making allocative decisions that would favor smaller boats in the fleet by attempting to open fishing periods when seas are forecasted to be calmer.

Since this proposal was written, the National Oceanic and Atmospheric Administration has revised the marine forecast zones for Cook Inlet. There are now two zones for Cook Inlet: Zone 139 (Cook Inlet from Kalgin Island to Pt. Bede) and Zone 140 (Cook Inlet north of Kalgin Island). If this proposal is adopted, these new zones should be implemented into the language. Additionally, because there are now two forecast zones, there is the distinct possibility that one zone could have a forecast for winds greater than 23 knots or have a small craft advisory or greater, while the other zone does not. Provisions on how this should be resolved if this situation arises would have to be clearly spelled out if this proposal were adopted.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. Adjusting regular weekly fishing periods based on weather forecasts would result in allocative decisions favoring vessels more willing to fish when seas are forecasted to be calmer and be biased against vessels willing to fish in more inclement weather.

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 127 – 5 AAC 21.333. Requirements and specifications for use of 200 fathoms of drift gillnet in the Cook Inlet Area.

PROPOSED BY: United Cook Inlet Drift Association.

WHAT WOULD THE PROPOSAL DO? This proposal would allow one individual to hold two limited entry drift gillnet permits and fish both at the same time from the same vessel.

WHAT ARE THE CURRENT REGULATIONS? Current regulations state that when two drift gillnet permit holders are onboard a single vessel (D-boat fishing), an additional 50 fathoms of drift gillnet gear may be fished, for a total not to exceed 200 fathoms. The length of a drift gillnet when only one permit holder is on board is limited to no more than 150 fathoms. When two Cook Inlet drift gillnet Commercial Fishery Entry Commission (CFEC) permit holders fish from the same vessel and jointly operate additional drift gillnet gear, the vessel must display its ADF&G permanent license plate number followed by the letter "D" to identify the vessel as a dual permit vessel. The remaining provisions for D-boat fishing are in 5 AAC 21.333, *Requirements and specifications for use of 200 fathoms of drift gillnet in the Cook Inlet Area*.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Adoption of this proposal would allow a single individual to own two drift permits and operate up to 200 fathoms of drift gillnet gear from the same vessel. It is unclear if adoption of this proposal would increase or decrease the amount of gear being fished. For example, it could result in an increase in the amount of drift gillnet gear fished if latent permits became active. Conversely, it could also decrease the amount of gear being fished depending on whether or not dual permits remained in the fishery or latent permits entered the fishery. It is unclear if adoption of this proposal would increase harvest or affect existing harvest allocations.

BACKGROUND: House Bill 286 was passed into law in 2002, allowing an individual to own two commercial salmon permits in the same fishery. In 2006, House Bill 251 was passed allowing the Alaska Board of Fisheries (board) to authorize additional gear with ownership of a second permit.

In 2008, the board adopted 5 AAC 21.333, *Requirements and specifications for use of 200 fathoms of drift gillnet in the Cook Inlet Area*. This provided drift gillnetters in Upper Cook Inlet with the option of having a second permit holder on board a vessel. When this occurs, a "D-boat" vessel may fish one additional shackle (50 fathoms) of fishing gear, increasing the legal complement of gear from 3 shackles, or 150 fathoms, to 4 shackles, or 200 fathoms.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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. However, there could be additional costs for a drift permit holder to purchase a second drift gillnet permit, and an additional shackle of gear in order to fish 200 fathoms.

Cook Inlet Pink Salmon Management Plan (8 Proposals): 173–180

PROPOSAL 173 – 5 AAC 21.354. Cook Inlet Pink Salmon Management Plan.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would modify provisions of the management plan to include references to the Upper Subdistrict to ensure they meet Alaska Board of Fisheries (board) intent as originally adopted. Specifically, three changes would be made to the current management plan. First, language would be added to the preamble stating that the purpose of the plan is to allow for the harvest of surplus pink salmon in the Upper Subdistrict of the Central District instead of all of Upper Cook Inlet (UCI). Secondly, language would be added such that pink salmon harvest requirements and coho salmon harvest caps would only apply to the Upper Subdistrict set gillnet fishery. Lastly, language would be added such that drift gillnetting would only be allowed in the Kenai Section of the Upper Subdistrict.

WHAT ARE THE CURRENT REGULATIONS? The pink salmon management plan states that from August 11 through August 15, the commissioner may, by emergency order (EO), open a commercial pink salmon fishery in an even-numbered year for up to two regular 12-hour fishing periods if the commissioner determines that the sockeye salmon escapement goals in the Kenai and Kasilof rivers are being achieved and coho salmon run strength is sufficient to withstand additional harvest. The first pink salmon commercial fishing period will occur only if, during the regular fishing periods from August 6 through August 10, the daily harvest of pink salmon exceeds 50,000 fish or the cumulative harvest is 100,000 or more pink salmon. The second pink salmon commercial fishing period will occur only if 50,000 or more pink salmon, and no more than 2,500 coho salmon, are harvested during the first pink salmon commercial fishing period. During fishing periods opened under this plan, a set gillnet may not have a mesh size greater than four and three-quarters inches and the set gillnet may only be operated 600 feet or greater from the shoreline, while a drift gillnet may not have a mesh size greater than four and three-quarters inches and fishing with drift gillnet gear will only be opened in the Kenai and East Foreland sections of the Upper Subdistrict. Currently, fishing under the management plan is also allowed in the East Forelands Section.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The proposal would help clarify that the purpose of the *Cook Inlet Pink Salmon Management Plan* is to harvest surplus pink salmon in the Upper Subdistrict of the Central District. In addition, pink salmon harvest requirements and coho salmon harvest caps would be calculated based on harvests in the Upper Subdistrict set gillnet fishery only. Lastly, drift gillnet fishing would only be allowed in the Kenai Section of the Upper Subdistrict and not in the East Forelands Section. If adopted as proposed, the effects of this proposal would have very little effect on management during the pink salmon fishery based upon the one year the plan was used. However, it would clarify board intent on how to manage the pink salmon fishery.

BACKGROUND: Pink salmon runs in UCI are even-year dominant and receive little commercial exploitation; a 2002 department study estimated the commercial harvest rate at approximately two percent (Table 173-1). The drift fleet and the Upper Subdistrict set gillnet

fishery are the primary harvesters of pink salmon in UCI. The relatively small harvests are, in part, due to restrictions on fishing time and seasons in these two fisheries. Since the 1990s, the board has implemented various restrictions to the commercial fishery, primarily to conserve king, sockeye, and coho salmon stocks. These restrictions have also resulted in lower harvests of pink salmon.

The original *Cook Inlet Pink Salmon Management Plan* was adopted in 2002. At the time, it was considered an experimental fishery by the board. Its purpose was to allow harvest of abundant pink salmon stocks by the drift gillnet fleet. The fishery was to be authorized if pink salmon stocks were sufficient to withstand harvest, if UCI coho salmon escapement goals were being met, and if sport fishermen had a reasonable opportunity to harvest coho over the entire run. The fishery could be opened by EO, in 2002 and 2004, for a total of three 12-hour periods after August 9, which could only occur on Mondays, Wednesdays, or Fridays. The area open to drifting included much of the eastern side of the Central District, but was prohibited in the Kenai and Kasilof sections. Closing the Kenai and Kasilof sections to fishing during these open periods effectively prohibited set gillnetting under this plan; however, because the plan did not exclude the East Forelands Section, set gillnetting in this area was legal. Drift gillnets in this fishery could not exceed 150 fathoms in length and 45 meshes in depth. In 2002, the maximum mesh size was five inches and in 2004, mesh size was restricted to four and three-quarter inches or less. To participate in this fishery, permit holders were required to obtain a pink salmon permit from the department by August 9. This plan was also set to sunset after December 31, 2004.

In 2002, the fishery was open for three periods, but only four drift boats took part in the fishery and only on the first period. The harvest included 116 pink, 4 sockeye, 10 coho, and 18 chum salmon. The low price being paid for pink salmon was the reason given that more fishermen did not participate. In 2004, the fishery was again opened for three periods, with a total harvest of 66 pink, 247 sockeye, 183 coho, and 37 chum salmon.

In 2005, the *Cook Inlet Pink Salmon Plan* was reauthorized, but with some modifications, as follows: 1) changed the list of conditions that must be met prior to authorization of the fishery to only include that pink salmon stocks must be able to withstand harvest, 2) removed area restrictions, 3) removed mesh-size restrictions, and 4) removed any sunset provisions. Although the plan did not state an area restriction, when a pink salmon fishery was opened in 2006, the area fished was the same as that defined in the 2002 plan. Fishing periods were again on the first Monday, Wednesday, and Friday after August 9. The total harvest from these three periods, which occurred on August 11, 14, and 16, was 4 king, 10,515 sockeye, 3,294 coho, 17,148 pink, and 1,423 chum salmon.

In 2008, the *Cook Inlet Pink Salmon Management Plan* was deleted from regulation. At this meeting, the board extended the Upper Subdistrict set gillnet and Central District drift gillnet fishing seasons from a closing date of August 10 to closing on August 15, with the provision that from August 11–15, only regular periods could be fished.

In 2011, the board adopted the current *Cook Inlet Pink Salmon Management Plan*, which still applies in even years only. In 2011, drift gillnetting in the Kenai Section (corridor) was added to open waters if the pink salmon fishery occurred. The current management plan can be interpreted

to mean that fishing for pink salmon is open in all of UCI for set gillnet fishing. Secondly, it is unclear from which fisheries the harvest criteria must be met during the August 6–10 timeframe. Lastly, part of the area that the management plan states is to be opened to drift gillnetting during the pink salmon fishery – East Forelands Section (5 AAC 21.200(b)(2)(A)) – is a defined set gillnet fishing area. This can cause confusion to both setnetters and drifters when opening an area specifically designated as a set gillnet fishing area.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. The department provided suggested language changes that would help clarify some of the confusing aspects of the plan, but submitted this proposal so the board could clarify their specific intent for specific aspects of the 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.

Table 173-1.–Estimates of the total population and harvest rate of coho, pink, and chum salmon entering Upper Cook Inlet in 2002 based upon a marine tagging study.

		Estimate (millions)			
Species	Tag Type	Total Pop	Harvest	Esc	Harvest Rate
Coho	Telemetry	2.52	0.25	2.27	10%
	PIT	1.61	0.25	2.27	15%
Pink	PIT	21.28	1.45	20.83	2%
Chum	PIT	3.88	0.24	3.64	6%

PROPOSAL 174 – 5 AAC 21.354. Cook Inlet Pink Salmon Management Plan.

PROPOSED BY: United Cook Inlet Drift Association.

WHAT WOULD THE PROPOSAL DO? This proposal would modify pink salmon management and/or develop a new management plan to allow for harvests of earlier-arriving northern-bound pink salmon and later-arriving Kenai and Kasilof rivers pink salmon.

WHAT ARE THE CURRENT REGULATIONS? The pink salmon management plan states that from August 11 through August 15, the commissioner may, by emergency order (EO), open a commercial pink salmon fishery in an even-numbered year for up to two regular 12-hour fishing periods if the commissioner determines that the sockeye salmon escapement goals in the Kenai and Kasilof rivers are being achieved and coho salmon run strength is sufficient to withstand additional harvest. The first pink salmon commercial fishing period will occur only if, during the regular fishing periods from August 6 through August 10, the daily harvest of pink salmon exceeds 50,000 fish or the cumulative harvest is 100,000 or more pink salmon. The second pink salmon commercial fishing period will occur only if 50,000 or more pink salmon, and no more than 2,500 coho salmon, are harvested during the first pink salmon commercial fishing period. During fishing periods opened under this plan, a set gillnet may not have a mesh size greater than four and three-quarters inches and the set gillnet may only be operated 600 feet or greater from the shoreline, while a drift gillnet may not have a mesh size greater than four and three-quarters inches and fishing with drift gillnet gear will only be opened in the Kenai and East Foreland sections of the Upper Subdistrict.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal does not identify specific changes to the existing plan, so it is difficult to summarize what the effects would be, if passed. The proposal states that specific regulatory wording can be worked out at the Alaska Board of Fisheries (board) meeting that would allow for harvest of northern-bound pink salmon stocks. This proposal would increase the harvest rate of pink salmon in even-numbered years. It would also increase the harvest of sockeye, coho, and chum salmon.

BACKGROUND: Upper Cook Inlet (UCI) pink salmon runs are even-year dominant and these stocks receive little commercial exploitation; a 2002 Alaska Department of Fish and Game (department) study estimated the commercial harvest rate at approximately 2%. The drift fleet and the Upper Subdistrict set gillnet fishery are the primary harvesters of pink salmon in UCI. The relatively small harvests are, in part, due to restrictions on fishing time and seasons in these two fisheries. Since the 1990s, the board has implemented various restrictions to the commercial fishery, primarily to conserve king, sockeye, and coho salmon stocks. These restrictions have also resulted in lower harvests of pink salmon.

The original *Cook Inlet Pink Salmon Management Plan* was adopted in 2002. At the time, it was considered an experimental fishery by the board. Its purpose was to allow harvest of abundant pink salmon stocks by the drift gillnet fleet. The fishery was to be authorized if pink salmon stocks were sufficient to withstand harvest, if UCI coho salmon escapement goals were being met, and if sport fishermen had a reasonable opportunity to harvest coho over the entire run. The fishery could be opened by EO, in 2002 and 2004, for a total of three 12-hour periods after

August 9, which could only occur on Mondays, Wednesdays, or Fridays. The area open to drifting included much of the eastern side of the Central District, but was prohibited in the Kenai and Kasilof sections. Closing the Kenai and Kasilof sections to fishing during these open periods effectively prohibited set gillnetting under this plan; however, because the plan did not exclude the East Forelands Section, set gillnetting in this area was technically legal. Drift gillnets in this fishery could not exceed 150 fathoms in length and 45 meshes in depth; in 2002, the maximum mesh size was five inches and in 2004, mesh size was restricted to four and three-quarter inches or less. To participate in this fishery, permit holders were required to obtain a pink salmon permit from the department by August 9. This plan was also set to sunset after December 31, 2004.

In 2002, the fishery was open for three periods, but only four drift boats took part in the fishery and only on the first period. The harvest included 116 pink, 4 sockeye, 10 coho, and 18 chum salmon. The low price being paid for pink salmon was the reason given that more fishermen did not participate. In 2004, the fishery was again opened for 3 periods, with a total harvest of 66 pink, 247 sockeye, 183 coho, and 37 chum salmon.

In 2005, the *Cook Inlet Pink Salmon Plan* was reauthorized, but with some modifications, as follows: 1) changed the list of conditions that must be met prior to authorization of the fishery to only include that pink salmon stocks must be able to withstand harvest, 2) removed area restrictions, 3) removed mesh-size restrictions, and 4) removed any sunset provisions. Although the plan did not state an area restriction, when a pink salmon fishery was opened in 2006, the area fished was the same as that defined in the 2002 plan. Fishing periods were again on the first Monday, Wednesday, and Friday after August 9. The total harvest from these three periods, which occurred on August 11, 14, and 16, was 4 king, 10,515 sockeye, 3,294 coho, 17,148 pink, and 1,423 chum salmon.

In 2008, the *Cook Inlet Pink Salmon Management Plan* was deleted from regulation. At this meeting, the board extended the Upper Subdistrict set gillnet and Central District drift gillnet fishing seasons from a closing date of August 10 to closing on August 15, with the provision that from August 11–15, only regular periods could be fished.

In 2011, the board adopted the current *Cook Inlet Pink Salmon Management Plan*, which applies in even years only.

Pink salmon escapement is monitored secondarily to coho salmon on the Deshka River and are considered a minimum count. Weir counts ranged from 9,000 to 1,279,148 and averaged 418,000 on even numbered years from 1998–2012 (Table 174-1). Weir counts have been below average since 2002.

Northern Cook Inlet (NCI) supports relatively large coho salmon sport fisheries. On the Little Susitna, anglers fish an average of 33,000 days each season, about half of which is associated with coho salmon. Average sport harvest from 1993–2002 was 16,400 fish (Table 174-2). A more recent average since 2003 is 9,900 fish. Sport harvest in 2011 of 2,450 fish and in 2012 of 1,680 coho salmon reflect poor run years when the sport fishery was closed midseason. The average sport harvest on Jim Creek from 1993 to 2012 was 10,200 coho salmon.

Coho salmon escapement is monitored on several NCI streams. In the Little Susitna River, it is monitored by weir and evaluated against an SEG of 10,100–17,700 fish. The average escapement from 1994–2003 was 19,800 fish (Table 174-3). A more recent average since 2003 is 16,600 based on complete weir count years. The SEG was achieved in six of the past 10 years. The SEG was not achieved in 2009–2012 despite inseason restrictions and closures in 2011 and 2012 to reduce sport harvest inseason. The SEG was attained in 2013 with a count of 13,583 coho salmon. The SEG for the Jim Creek system was not met in three of the past 10 years (2010–2012). Coho salmon escapement is also monitored on the Deshka River of the Susitna drainage and on Fish Creek of the Knik Arm area.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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.

Table 174-1.–Pink salmon weir counts during even years on the Deshka River, 1998–2012.

Year	Pink salmon weir count
1998	541,946
2000	1,279,148
2002	946,256
2004	390,087
2006	83,454
2008	12,947
2010	9,078
2012	78,857
Average	417,722

Table 174-2.–Effort and harvest of coho salmon on the Little Susitna River and Jim Creek, 1994–2012.

	Little Susitna River		Jim Creek	
Year	Angler-days	Coho salmon harvest	Angler-days	Coho salmon harvest
1993	42,249	27,610	6,824	2,878
1994	45,149	17,665	9,658	3,946
1995	41,119	14,451	10,893	3,549
1996	24,575	16,753	7,561	3,911
1997	27,883	7,756	5,349	1,786
1998	22,108	14,469	5,272	4,197
1999	30,437	8,864	6,860	2,612
2000	39,556	20,357	10,975	5,653
2001	33,521	17,071	13,028	8,374
2002	40,346	19,278	17,989	14,707
2003	31,993	13,672	13,474	6,415
2004	33,819	15,307	19,342	11,766
2005	27,490	10,203	19,605	10,114
2006	28,547	12,399	25,271	19,259
2007	35,636	11,089	21,342	11,848
2008	31,989	13,498	27,874	17,545
2009	28,151	8,346	16,486	11,573
2010	24,846	10,662	16,140	8,442
2011	12,779	2,452	9,810	3,132
2012	10,115	1,681	7,474	1,858
Average				
1993–2012	30,615	13,179	13,561	7,678
2003–2012	26,537	9,931	17,682	10,195
2008–2012	21,576	7,328	15,557	8,510

Table 174-3.–Coho salmon counts on select streams within the Northern Cook Inlet, 1994–2013.

Year	Little Susitna (Weir count) [a]	Fish Creek (Weir count)	McRoberts Creek (Jim Creek) (Foot count)	Deshka River (Weir count) [e]
1994	27,820	350 [c]	506	no count
1995	11,817	390 [c]	702	12,824
1996	15,803	682 [c]	72	
1997	9,894 [b]	2,578	701	8,063
1998	15,159	5,463	922	6,773 [b]
1999	3,017	1,766	12	4,563 [b]
2000	15,436	5,218 [d]	657	26,387
2001	30,587	9,247 [d]	1,019	29,927
2002	47,938	14,651 [d]	2,473	24,612 [b]
2003	10,877	1,231 [d]	1,421	17,305
2004	40,199	1,415 [c d]	4,652	62,940
2005	16,839 [b]	3,011 [c d]	1,464	47,887
2006	8,786 [b]	4,967 [c d]	2,389	59,419 [b]
2007	17,573	6,868 [c d]	725	10,575
2008	18,485	4,868 [c d]	1,890	12,724
2009	9,523	8,214 [d]	1,331	27,348
2010	9,214	6,977 [d]	242	10,393
2011	4,826	1,428 [c d]	261	7,508 [b]
2012	6,779 [b]	1,237	213	6,825
2013	13,583 [b]	7,593 [b]	663	22,141 [b]
Average				
1994–2003	19,828 [f]	4,333 [f]	865	17,484 [f]
2004–2013	16,637 [f]	5,476 [f]	1,459	24,500 [f]
2009–2013	7,854 [f]	5,476 [f]	787	14,323 [f]
SEG	10,100–17,700	1,200–4,400	450–700	No goal

[a] Weir located at river mile (rm) 34 in 1986; rm 32 in 1988–1995, and 2012–2013; rm 71 from 1996–2010.

[b] Incomplete or partial count due to weir submersion.

[c] In 1994–1996 and 2004–2008 and 2011, weir was removed on August 15 before the majority of the coho run. In 1997, the weir was removed on September 1.

[d] Coho salmon counted below weir after it was pulled: 761 (2000), 800 (2001), 536 (2002), 911 (2003), 1,840 (2004), 825 (2005), 756 (2006), 2,750 (2007), 4,735 (2008), 452 (2009), 57 (2010), 872 (2011).

[e] Deshka River weir locations: 1995 (rm 17) and 1997–2013 (rm 7).

[f] Includes complete count years only.

PROPOSAL 175 – 5 AAC 21.356. Cook Inlet Pink Salmon Management Plan.

PROPOSED BY: Central Peninsula Fish and Game Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would amend the management plan to state that the Alaska Department of Fish and Game (department) shall manage Cook Inlet pink salmon stocks primarily for commercial uses to provide an economic yield from the harvest of these salmon resources based on abundance.

WHAT ARE THE CURRENT REGULATIONS? The pink salmon management plan states that from August 11 through August 15, the commissioner may, by emergency order (EO), open a commercial pink salmon fishery in an even-numbered year for up to two regular 12-hour fishing periods if the commissioner determines that the sockeye salmon escapement goals in the Kenai and Kasilof rivers are being achieved and coho salmon run strength is sufficient to withstand additional harvest. The first pink salmon commercial fishing period will occur only if, during the regular fishing periods from August 6 through August 10, the daily harvest of pink salmon exceeds 50,000 fish or the cumulative harvest is 100,000 or more pink salmon. The second pink salmon commercial fishing period will occur only if 50,000 or more pink salmon, and no more than 2,500 coho salmon, are harvested during the first pink salmon commercial fishing period. During fishing periods opened under this plan, a set gillnet may not have a mesh size greater than four and three-quarters inches and the set gillnet may only be operated 600 feet or greater from the shoreline, while a drift gillnet may not have a mesh size greater than four and three-quarters inches and fishing with drift gillnet gear will only be opened in the Kenai and East Foreland sections of the Upper Subdistrict.

In addition, the preamble to 5 AAC 21.358, *Northern District Salmon Management Plan,* states "The purposes of this management plan are to minimize the harvest of coho salmon bound for the Northern District of Upper Cook Inlet (UCI) and to provide the department direction for management of salmon stocks. The department shall manage the chum, pink, and sockeye salmon stocks primarily for commercial uses to provide commercial fishermen with an economic yield from the harvest of these salmon resources based on abundance. The department shall also manage the chum, pink, and sockeye salmon stocks to minimize the harvest of Northern District coho salmon, to provide sport and guided sport fishermen a reasonable opportunity to harvest these salmon resources over the entire run, as measured by the frequency of inriver restrictions, or as specified in this section and other regulations."

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It is unclear what the effects of this proposal would be, if adopted because no regulatory changes were listed by the proposal and the *Northern District Salmon Management Plan* has a similar statement in its preamble.

BACKGROUND: Pink salmon runs in UCI are even-year dominant and these stocks receive little commercial exploitation; a 2002 department study estimated the commercial harvest rate at approximately 2%. The drift fleet and the Upper Subdistrict set gillnet fishery are the primary harvesters of pink salmon in UCI. The relatively small harvests are, in part, due to restrictions on fishing time and seasons in these two fisheries. Since the 1990s, the Alaska Board of Fisheries

(board) has implemented various restrictions to the commercial fishery, primarily to conserve king, sockeye, and coho salmon stocks. These restrictions have also resulted in lower harvests of pink salmon.

The original *Cook Inlet Pink Salmon Management Plan* was adopted in 2002. At the time, it was considered an experimental fishery by the board. Its purpose was to allow harvest of abundant pink salmon stocks by the drift gillnet fleet. The fishery was to be authorized if pink salmon stocks were sufficient to withstand harvest, if UCI coho salmon escapement goals were being met, and if sport fishermen had a reasonable opportunity to harvest coho over the entire run. The fishery could be opened by EO, in 2002 and 2004, for a total of three 12-hour periods after August 9, which could only occur on Mondays, Wednesdays, or Fridays. The area open to drifting included much of the eastern side of the Central District, but was prohibited in the Kenai and Kasilof sections. Closing the Kenai and Kasilof sections to fishing during these open periods effectively prohibited set gillnetting under this plan; however, because the plan did not exclude the East Forelands Section, set gillnetting in this area was technically legal. Drift gillnets in this fishery could not exceed 150 fathoms in length and 45 meshes in depth. In 2002, the maximum mesh size was five inches and in 2004, mesh size was restricted to four and three-quarter inches or less. To participate in this fishery, permit holders were required to obtain a pink salmon permit from the department by August 9. This plan was also set to sunset after December 31, 2004.

In 2002, the fishery was open for three periods, but only four drift boats took part in the fishery and only on the first period. The harvest included 116 pink, 4 sockeye, 10 coho, and 18 chum salmon. The low price being paid for pink salmon was the reason given that more fishermen did not participate. In 2004, the fishery was again opened for 3 periods, with a total harvest of 66 pink, 247 sockeye, 183 coho, and 37 chum salmon.

In 2005, the *Cook Inlet Pink Salmon Plan* was reauthorized, but with some modifications, as follows: 1) changed the list of conditions that must be met prior to authorization of the fishery to only include that pink salmon stocks must be able to withstand harvest, 2) removed area restrictions, 3) removed mesh-size restrictions, and 4) removed any sunset provisions. Although the plan did not state an area restriction, when a pink salmon fishery was opened in 2006, the area fished was the same as that defined in the 2002 plan. Fishing periods were again on the first Monday, Wednesday, and Friday after August 9. The total harvest from these three periods, which occurred on August 11, 14, and 16, was 4 king, 10,515 sockeye, 3,294 coho, 17,148 pink, and 1,423 chum salmon.

In 2008, the *Cook Inlet Pink Salmon Management Plan* was deleted from regulation. At this meeting, the board extended the Upper Subdistrict set gillnet and Central District drift gillnet fishing seasons from a closing date of August 10 to closing on August 15, with the caveat that from August 11–15, only regular periods could be fished.

In 2011, the board adopted the current *Cook Inlet Pink Salmon Management Plan*, which applies in even years only.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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 176 – 5 AAC 21.310. Fishing Seasons and 5 AAC 21.354. Cook Inlet Pink Salmon Management Plan.

PROPOSED BY: Kenai Peninsula Fishermen's Association.

WHAT WOULD THE PROPOSAL DO? This proposal would amend fishing seasons and the pink salmon management plan. Specifically, this proposal would amend the pink salmon management plan and allow up to five 12-hour fishing periods from August 11–15 in even years, instead of the maximum of two 12-hour fishing periods currently in the management plan. In addition, during even years the fishing season would be extended from August 16–18 for up to two 12-hour fishing periods during this time. This proposal would also delete the section of *Fishing Seasons* that restricts set gillnetting in the Upper Subdistrict from fishing regular periods only from August 11–15. Finally, this proposal would delete what is commonly referred to as the "one-percent rule," which states that the Upper Subdistrict set gillnet fishery will close any time after July 31 if less than one percent of the season's total sockeye salmon harvest has been taken for two consecutive fishing periods.

WHAT ARE THE CURRENT REGULATIONS? The current pink salmon management plan states that from August 11 through August 15, the commissioner may, by emergency order (EO), open a commercial pink salmon fishery in an even-numbered year for up to two regular 12-hour fishing periods if the commissioner determines that sockeye salmon escapement goals in the Kenai and Kasilof rivers are being achieved, and coho salmon run strength is sufficient to withstand additional harvest. The first pink salmon commercial fishing period will occur only if, during the regular fishing periods from August 6 through August 10, the daily harvest of pink salmon exceeds 50,000 fish or the cumulative harvest is 100,000 or more pink salmon. The second pink salmon commercial fishing period will occur only if 50,000 or more pink salmon, and no more than 2,500 coho salmon, are harvested during the first pink salmon commercial fishing period. During fishing periods opened under this plan, a set gillnet may not have a mesh size greater than four and three-quarters inches and the set gillnet may only be operated 600 feet or greater from the shoreline, while a drift gillnet may not have a mesh size greater than four and three-quarters inches and fishing with drift gillnet gear will only be opened in the Kenai and East Foreland sections of the Upper Subdistrict.

The set gillnet season in the Upper Subdistrict currently closes no later than August 15, and only regular fishing periods are allowed between August 11 and August 15. However, the season closes any time after July 31 if less than one percent of the season's total sockeye salmon harvest has been taken per fishing period for two consecutive fishing periods. If the Upper Subdistrict set gillnet fishery is closed under the provisions of the one-percent rule, the Central District drift gillnet fishery will be restricted for regular fishing periods beginning on August 11 to Drift Gillnet Areas 3 and 4.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would likely increase the commercial harvest of king, sockeye, pink and coho salmon by an unknown amount. The one-eighth inch increase in net mesh size would likely have little impact on harvest. The amount of additional harvest would be dependent upon run timing and run size of the respective salmon stocks in the east side of Cook Inlet after July 31. It is unclear

what would happen to the drift fishery if the one-percent rule was met in only one of the two set gillnet areas.

BACKGROUND: Upper Cook Inlet (UCI) pink salmon runs are even-year dominant and these stocks receive little commercial exploitation; a 2002 department study estimated the commercial harvest rate at approximately 2%. The drift fleet and the Upper Subdistrict set gillnet fishery are the primary harvesters of pink salmon in UCI. The relatively small harvests are, in part, due to restrictions on fishing time and seasons in these two fisheries. Since the 1990s, the board has implemented various restrictions to the commercial fishery, primarily to conserve king, sockeye, and coho salmon stocks. These restrictions have also resulted in lower harvests of pink salmon.

In 2008, the Alaska Board of Fisheries (board) extended the Upper Subdistrict set gillnet fishing season from August 10 to no later than August 15, with the regular period restriction only from August 11–15. This additional fishing time was allowed largely in response to data the Alaska Department of Fish and Game (department) brought forward that estimated that each additional day of fishing by the set gillnet fishery resulted in approximately 0.7% additional harvest of the Kenai River coho salmon run (Table 176-1).

Information gathered from research programs on Kenai River indicate the coho salmon runs averaged about 140,000 fish from 1999 to 2004, with harvests averaging just over 62,000 fish (Table 176-2). Overall exploitation rates for Kenai River coho salmon runs prior to 2000 were high, in some cases (84% in 1999) under the previous Kenai River coho salmon management plan, which allowed a three-fish bag limit and more liberal commercial fishing in August; under a plan that allowed a two-fish bag limit and more restrictive commercial fishing, the exploitation rate ranged from 35% to 47% from 2000 to 2004. New regulations in 2005 and 2008, which liberalized sport and commercial fisheries, very likely increased exploitation rates of Kenai River coho salmon relative to the rates observed from 1999–2004. Research findings from studies conducted in Southeast Alaska with transboundary coho salmon stocks have indicated that an exploitation rate of about 61% is sustainable. Based on average harvest and total run during 2000–2004, Kenai River coho salmon harvest rates averaged 38% by sport fisheries, 1% by personal use fisheries, and 3% by commercial fisheries (Table 176-2).

The original *Cook Inlet Pink Salmon Management Plan* was adopted in 2002. At the time, it was considered an experimental fishery by the board. Its purpose was to allow the harvest of abundant pink salmon stocks by the drift gillnet fleet. The fishery was to be authorized if pink salmon stocks were sufficient to withstand harvest, if UCI coho salmon escapement goals were being met, and if sport fishermen had a reasonable opportunity to harvest coho over the entire run. The fishery could be opened by EO, in 2002 and 2004, for a total of three 12-hour periods after August 9, which could only occur on Mondays, Wednesdays, or Fridays. The area open to drifting included much of the eastern side of the Central District, but was prohibited in the Kenai and Kasilof sections. Closing the Kenai and Kasilof sections to fishing during these open periods effectively prohibited set gillnetting under this plan; however, because the plan did not exclude the East Forelands Section, set gillnetting in this area was technically legal. Drift gillnets in this fishery could not exceed 150 fathoms in length and 45 meshes in depth; in 2002, the maximum mesh size was five inches and in 2004, mesh size was restricted to four and three-quarter inches

or less. To participate in this fishery, permit holders were required to obtain a pink salmon permit from the department by August 9. This plan was also set to sunset after December 31, 2004.
In 2002, the fishery was open for three periods, but only four drift boats took part in the fishery and only on the first period. The harvest included 116 pink, 4 sockeye, 10 coho, and 18 chum salmon. The low price being paid for pink salmon was the reason given that more fishermen did not participate. In 2004, the fishery was again opened for 3 periods, with a total harvest of 66 pink, 247 sockeye, 183 coho, and 37 chum salmon.

In 2005, the *Cook Inlet Pink Salmon Plan* was reauthorized, but with some modifications, as follows: 1) changed the list of conditions that must be met prior to authorization of the fishery to only include that pink salmon stocks must be able to withstand harvest, 2) removed area restrictions, 3) removed mesh-size restrictions, and 4) removed any sunset provisions. Although the plan did not state an area restriction, when a pink salmon fishery was opened in 2006, the area fished was the same as that defined in the 2002 plan. Fishing periods were again on the first Monday, Wednesday, and Friday after August 9. The total harvest from these three periods, which occurred on August 11, 14, and 16, was 4 king, 10,515 sockeye, 3,294 coho, 17,148 pink, and 1,423 chum salmon.

In 2008, the *Cook Inlet Pink Salmon Management Plan* was deleted from regulation. At this meeting, the board extended the Upper Subdistrict set gillnet and Central District drift gillnet fishing seasons from a closing date of August 10 to closing on August 15, with the provision that from August 11–15, only regular periods could be fished.

In 2011, the board adopted the current *Cook Inlet Pink Salmon Management Plan*, which applies in even years only.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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.

Table 176-1.–Estimated daily harvest of Kenai River coho salmon during August 11–15 in select Upper Cook Inlet commercial fisheries.[a,b,c]

Upper Cook Inlet Fisheries	11-Aug	12-Aug	13-Aug	14-Aug	15-Aug	Total	Estimated average daily harvest of Kenai River coho salmon	Daily harvest represented as a percentage of the average annual total Kenai River coho salmon run (2000-2004)[d]
ESSN Setnet[e]	1,954	1,576	1,523	2,278	1,968	9,299	1,860	1.17%
Regular Drift[f]	285	327	200	144	226	1,182	236	0.15%
Corridor only Drift[g]	47	47	47	47	47	236	47	0.03%
Combined Fisheries								
Regular Drift and ESSN	2,239	1,903	1,723	2,422	2,194	10,481	2,096	1.32%
Corridor and ESSN	2,001	1,623	1,570	2,325	2,015	9,535	1,907	1.20%

* Note: The actual number of days when commercial fishing is allowed is unknown, but the most likely scenario is one or two days in the second week of August.

[a] The harvest of Kenai River coho salmon during an extension is calculated by multiplying the average daily harvest of all coho salmon from each fishery (1985-2013) by the average rate of contribution of Kenai River coho salmon estimated harvested from each fishery during 1993-2005.

[b] Commercial coho salmon harvest data source: ADF&G Commercial Fish Division Fish Ticket Database for Salmon (Zephyr) 1985-2013 downloaded on 1/7/13.

[c] Source data for Kenai River coho salmon contribution rates to the UCI commercial harvest: Carlon and Hasbrouck 1996-1998; Carlon 2000 and 2003; Massengill and Carlon 2004 a,b; Massengill and Carlon 2007 a,b; Massengill 2007 a,b and c.

[d] Average 2000-2004 Kenai River coho salmon total run estimate (158,546); source data = Carlon and Evans 2007; Massengill and Evans 2007.

[e] ESSN = all ESSN statistical areas except Kasilof terminal area (244-26).

[f] Regular Drift = Statistical areas 24450, 24460, 24470, 24570, 24580, and 24590.

[g] Corridor drift harvest: due to lack of historical corridor drift harvest during August 11-15, corridor harvest data from August 1-7 (1999-2013) was used as a surrogate for average coho harvest for each corridor opener. The daily estimates for average harvest per opener were then multiplied by the average contribution rate for Kenai River coho salmon estimated for the regular drift harvest during the second week of August (0.0780) during 1992-2005.

Table 176-2.–Estimated harvest, total return, and exploitation of Kenai River coho salmon (1999–2004).

Year	Escapement[a,b]	Harvest			Research Mortality	Total Run	Total Harvest[e]	Harvest Rate[f]
		Sport[c]	Personal Use	Commercial[d]				
1999	7,889	35,361	1,009	3,894	193	48,346	40,457	0.837
2000	72,742	52,489	1,449	2,965	555	130,200	56,903	0.437
2001	75,122	55,004	1,555	1,934	540	134,155	58,493	0.436
2002	133,612	66,104	1,721	6,115	968	208,520	73,940	0.355
2003	79,915	51,944	1,332	2,578	209	135,978	55,854	0.411
2004	95,394	72,565	2,661	11,149	2,106	183,875	86,375	0.470
Average 1999–2004	77,446	55,578	1,621	4,773	762	140,179	62,004	0.491
2000–2004	91,357	59,621	1,744	4,948	876	158,546	66,313	0.422

Note: 1991–1993 and 1998 Kenai River coho salmon creel data was used to calculate the effect of increasing the bag limit from 2 to 3 fish, only boat angler interviews/data were selected for use for 1991–1993 due to the lack of data from shore anglers.

[a] Kenai River coho salmon total runs were estimated only during 1999–2004.

[b] Sources: Carlon and Evans 2007, Massengill and Evans 2007.

[c] Source: Statewide Harvest Survey.

[d] Sources: Massengill and Carlon 2004 a,b; Massengill and Carlon 2007 a,b; Massengill 2007.

[e] Aggregate of all harvest estimates (sport, commercial, and personal-use/subsistence).

[f] Total Harvest divided by Total Run.

ND = No Data

PROPOSAL 177 – 5 AAC 21.354. Cook Inlet Pink Salmon Management Plan.

PROPOSED BY: South K-Beach Independent Fishermen's Association (SOKI).

WHAT WOULD THE PROPOSAL DO? This proposal would remove provisions restricting the harvest of pink salmon in Upper Cook Inlet (UCI) and add language to allow harvest of pink salmon from August 1–15 during even-numbered years, with mesh-size restrictions of five inches or less; to have no restrictions on area of operation relative to shore; and to manage pink salmon based on harvest or escapement goals. More specifically, this proposal would delete subsections (a) and (b) from the pink salmon management plan and substitute them with different language. The plan would be in effect from August 1–15 and direct the Alaska Department of Fish and Game (department) to manage pink salmon to a harvest goal, escapement goal, or for high sustained yields. The four and three-quarters inches mesh-size restriction would be changed to five inches. During fishing periods identified as pink salmon periods, there would be no restrictions to fishing hours or area opened relative to the shoreline; specifically, the 600' provision currently in the plan would be eliminated.

WHAT ARE THE CURRENT REGULATIONS? The pink salmon management plan states that from August 11 through August 15, the commissioner may, by emergency order (EO), open a commercial pink salmon fishery in an even-numbered year for up to two regular 12-hour fishing periods if the commissioner determines that the sockeye salmon escapement goals in the Kenai and Kasilof rivers are being achieved and coho salmon run strength is sufficient to withstand additional harvest. The first pink salmon commercial fishing period will occur only if, during the regular fishing periods from August 6 through August 10, the daily harvest of pink salmon exceeds 50,000 fish or the cumulative harvest is 100,000 or more pink salmon. The second pink salmon commercial fishing period will occur only if 50,000 or more pink salmon and no more than 2,500 coho salmon are harvested during the first pink salmon commercial fishing period. During fishing periods opened under this plan, a set gillnet may not have a mesh size greater than four and three-quarters inches and the set gillnet may only be operated 600 feet or greater from the shoreline, while a drift gillnet may not have a mesh size greater than four and three-quarters inches and fishing with drift gillnet gear will only be opened in the Kenai and East Foreland sections of the Upper Subdistrict.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It is uncertain what the effects of this proposal would be without knowing the specific provisions of the new plan. If more fishing opportunity is allowed in August, it is likely that an increase in the harvest of both pink and coho salmon would occur (Table 177-1).

BACKGROUND: Upper Cook Inlet pink salmon runs are even-year dominant and these stocks receive little commercial exploitation; a 2002 department study estimated the commercial harvest rate at approximately 2%. The drift fleet and the Upper Subdistrict set gillnet fishery are the primary harvesters of pink salmon in UCI. The relatively small harvests are, in part, due to restrictions on fishing time and seasons in these two fisheries. Since the 1990s, the Alaska Board of Fisheries (board) has implemented various restrictions to the commercial fishery, primarily to conserve king, sockeye, and coho salmon stocks. These restrictions have also resulted in lower harvests of pink salmon.

Information gathered from research programs on Kenai River indicate the coho salmon runs averaged about 140,000 fish from 1999 to 2004, with harvests averaging just over 62,000 fish (Table 176-2). Overall exploitation rates for Kenai River coho salmon runs prior to 2000 were high, in some cases (84% in 1999) under the previous Kenai River coho salmon management plan, which allowed a three-fish bag limit and more liberal commercial fishing in August; under a plan that allowed a two-fish bag limit and more restrictive commercial fishing, the exploitation rate ranged from 35% to 47% from 2000 to 2004. New regulations in 2005 and 2008, which liberalized sport and commercial fisheries, very likely increased exploitation rates of Kenai River coho salmon relative to the rates observed from 1999–2004. Research findings from studies conducted in Southeast Alaska with transboundary coho salmon stocks have indicated that an exploitation rate of about 61% is sustainable. Based on average harvest and total run during 2000–2004, Kenai River coho salmon harvest rates averaged 38% by sport fisheries, 1% by personal use fisheries, and 3% by commercial fisheries (Table 176-2).

The original *Cook Inlet Pink Salmon Management Plan* was adopted in 2002. At the time, it was considered an experimental fishery by the board. Its purpose was to allow harvest of abundant pink salmon stocks by the drift gillnet fleet. The fishery was to be authorized if pink salmon stocks were sufficient to withstand harvest, if UCI coho salmon escapement goals were being met, and if sport fishermen had a reasonable opportunity to harvest coho over the entire run. The fishery could be opened by EO, in 2002 and 2004, for a total of three 12-hour periods after August 9, which could only occur on Mondays, Wednesdays, or Fridays. The area open to drifting included much of the eastern side of the Central District, but was prohibited in the Kenai and Kasilof sections. Closing the Kenai and Kasilof sections to fishing during these open periods effectively prohibited set gillnetting under this plan; however, because the plan did not exclude the East Forelands Section, set gillnetting in this area was technically legal. Drift gillnets in this fishery could not exceed 150 fathoms in length and 45 meshes in depth; in 2002, the maximum mesh size was five inches and in 2004, mesh size was restricted to four and three-quarter inches or less. To participate in this fishery, permit holders were required to obtain a pink salmon permit from the department by August 9. This plan was also set to sunset after December 31, 2004.

In 2002, the fishery was open for three periods, but only four drift boats took part in the fishery and only on the first period. The harvest included 116 pink, 4 sockeye, 10 coho, and 18 chum salmon. The low price being paid for pink salmon was the reason given that more fishermen did not participate. In 2004, the fishery was again opened for 3 periods, with a total harvest of 66 pink, 247 sockeye, 183 coho, and 37 chum salmon.

In 2005, the *Cook Inlet Pink Salmon Plan* was reauthorized, but with some modifications, as follows: 1) changed the list of conditions that must be met prior to authorization of the fishery to only include that pink salmon stocks must be able to withstand harvest, 2) removed area restrictions, 3) removed mesh-size restrictions, and 4) removed any sunset provisions. Although the plan did not state an area restriction, when a pink salmon fishery was opened in 2006, the area fished was the same as that defined in the 2002 plan. Fishing periods were again on the first Monday, Wednesday, and Friday after August 9. The total harvest from these three periods, which occurred on August 11, 14, and 16, was 4 king, 10,515 sockeye, 3,294 coho, 17,148 pink, and 1,423 chum salmon.

In 2008, the *Cook Inlet Pink Salmon Management Plan* was deleted from regulation. At this meeting, the board extended the Upper Subdistrict set gillnet and Central District drift gillnet fishing seasons from a closing date of August 10 to closing on August 15, with the provisions that from August 11–15, only regular periods could be fished.

In 2011, the board adopted the current *Cook Inlet Pink Salmon Management Plan*, which applies in even years only.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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.

PROPOSALS 178 and 179 – 5 AAC 21.354. Cook Inlet Pink Salmon Management Plan.

PROPOSED BY: Chris Every (Proposal 178) and Cliff Dejax (Proposal 179)..

WHAT WOULD THESE PROPOSALS DO? These proposals would modify the management plan by removing the 600 foot from shore restriction on set gillnetting.

WHAT ARE THE CURRENT REGULATIONS? The pink salmon management plan restricts set gillnet gear to a mesh size no greater than four and three-quarters inches and the set gillnet may only be operated 600 feet or greater from the shore line.

WHAT WOULD BE THE EFFECT IF THE PROPOSALS WERE ADOPTED? These proposals would open all the near shore waters during the pink salmon fishery, which would likely result in an increase in king, sockeye, chum, pink, and coho salmon harvests. It would allow permit holders in the East Foreland Section to fish because under current regulations, an unknown but small number of fishermen, are able to place their gear past 600 feet from shore due to the extreme tides; the current 600-foot restriction effectively prohibits the majority of fishermen in the East Foreland Section from participating in this fishery.

BACKGROUND: The current pink salmon management plan was adopted by the Alaska Board of Fisheries (board) in 2011. The department has no information to determine if prohibiting set gillnets within 600 feet of shore will target pink salmon while minimizing coho salmon harvest. One difficulty for fishermen with this restriction, however, is that the term "shoreline" refers to where the water meets the sand. This point changes with tidal fluctuations. Fishermen who wish to fish as close as possible to the 600 feet from shore provision must constantly move their nets (either in or out) to remain in legal waters.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on these allocative proposals.

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

PROPOSAL 180 – 5 AAC 21.354. Cook Inlet Pink Salmon Management Plan.

PROPOSED BY: John McCombs.

WHAT WOULD THE PROPOSAL DO? This proposal would develop a management plan to harvest pink salmon in Upper Cook Inlet (UCI).

WHAT ARE THE CURRENT REGULATIONS? The pink salmon management plan states that from August 11 through August 15, the commissioner may, by emergency order (EO), open a commercial pink salmon fishery in an even-numbered year for up to two regular 12-hour fishing periods if the commissioner determines that the sockeye salmon escapement goals in the Kenai and Kasilof rivers are being achieved and coho salmon run strength is sufficient to withstand additional harvest. The first pink salmon commercial fishing period will occur only if, during the regular fishing periods from August 6 through August 10, the daily harvest of pink salmon exceeds 50,000 fish or the cumulative harvest is 100,000 or more pink salmon. The second pink salmon commercial fishing period will occur only if 50,000 or more pink salmon and no more than 2,500 coho salmon are harvested during the first pink salmon commercial fishing period. During fishing periods opened under this plan, a set gillnet may not have a mesh size greater than four and three-quarters inches and the set gillnet may only be operated 600 feet or greater from the shoreline, while a drift gillnet may not have a mesh size greater than four and three-quarters inches and fishing with drift gillnet gear will only be opened in the Kenai and East Foreland sections of the Upper Subdistrict.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It is unclear what the effects of this proposal would be if adopted because the proposal does not identify specific provisions of a plan or suggest new or additional regulatory language to an existing plan.

BACKGROUND: Upper Cook Inlet (UCI) pink salmon runs are even-year dominant, and these stocks receive little commercial exploitation; a 2002 department study estimated the commercial harvest rate at approximately 2%. The drift fleet and the Upper Subdistrict set gillnet fishery are the primary harvesters of pink salmon in UCI. The relatively small harvests are, in part, due to restrictions on fishing time and seasons in these two fisheries. Since the 1990s, the Alaska Board of Fisheries (board) has implemented various restrictions to the commercial fishery, primarily to conserve king, sockeye, and coho salmon stocks. These restrictions have also resulted in lower harvests of pink salmon.

The original *Cook Inlet Pink Salmon Management Plan* was adopted in 2002. At the time, it was considered an experimental fishery by the board. Its purpose was to allow harvest of abundant pink salmon stocks by the drift gillnet fleet. The fishery was to be authorized if pink salmon stocks were sufficient to withstand harvest, if UCI coho salmon escapement goals were being met, and if sport fishermen had a reasonable opportunity to harvest coho over the entire run. The fishery could be opened by EO in 2002 and 2004, for a total of three 12-hour periods after August 9, which could only occur on Mondays, Wednesdays, or Fridays. The area open to drifting included much of the eastern side of the Central District, but was prohibited in the Kenai and Kasilof sections. Closing the Kenai and Kasilof sections to fishing during these open periods effectively prohibited set gillnetting under this plan; however, because the plan did not exclude

the East Forelands Section, set gillnetting in this area was technically legal. Drift gillnets in this fishery could not exceed 150 fathoms in length and 45 meshes in depth; in 2002, the maximum mesh size was five inches and in 2004, mesh size was restricted to four and three-quarter inches or less. To participate in this fishery, permit holders were required to obtain a pink salmon permit from the department by August 9. This plan was also set to sunset after December 31, 2004.

In 2002, the fishery was open for three periods, but only four drift boats took part in the fishery and only on the first period. The harvest included 116 pink, 4 sockeye, 10 coho, and 18 chum salmon. The low price being paid for pink salmon was the reason given that more fishermen did not participate. In 2004, the fishery was again opened for 3 periods, with a total harvest of 66 pink, 247 sockeye, 183 coho, and 37 chum salmon.

In 2005, the *Cook Inlet Pink Salmon Plan* was reauthorized, but with some modifications, as follows: 1) changed the list of conditions that must be met prior to authorization of the fishery to only include that pink salmon stocks must be able to withstand harvest, 2) removed area restrictions, 3) removed mesh-size restrictions, and 4) removed any sunset provisions. Although the plan did not state an area restriction, when a pink salmon fishery was opened in 2006, the area fished was the same as that defined in the 2002 plan. Fishing periods were again on the first Monday, Wednesday, and Friday after August 9. The total harvest from these three periods, which occurred on August 11, 14, and 16, was 4 king, 10,515 sockeye, 3,294 coho, 17,148 pink, and 1,423 chum salmon.

In 2008, the *Cook Inlet Pink Salmon Management Plan* was deleted from regulation. At this meeting, the board extended the Upper Subdistrict set gillnet and Central District drift gillnet fishing seasons from a closing date of August 10 to closing on August 15, with the provision that from August 11–15, only regular periods could be fished.

In 2011, the board adopted the current *Cook Inlet Pink Salmon Management Plan*, which applies in even years only.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. A pink salmon management plan is already in regulation. However the department has no comment on developing changes to the existing 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.

Coho Salmon – Commercial and Sport Fisheries (16 Proposals): 107, 108, 109, 110, 120, 116, 117, 119, 131, 132, 248, 263, 264, 265, 319, 320

PROPOSAL 107 – 5 AAC 21.XXX. New Section.

PROPOSED BY: David Chessik.

WHAT WOULD THE PROPOSAL DO? This proposal would allow commercial set gillnet fishing to occur when commercial drift gillnetting is allowed in areas in the Central District of Upper Cook Inlet. It would open waters to set gillnetting in those areas of the Central District where areas are opened to drift gillnetting. For example, if an emergency order (EO) was issued to open drift gillnetting in Drift Gillnet Area 1, other than on a Monday or Thursday from 7:00 a.m. until 7:00 p.m., all waters in Drift Gillnet Area 1 where set gillnetting is allowed would also be opened during this extra period. In this example, it would include waters that are part of the Western Subdistrict, all of the Chinitna Bay Subdistrict, part of the Kasilof Section of the Upper Subdistrict, and a very small portion of the Kalgin Island Subdistrict.

WHAT ARE THE CURRENT REGULATIONS? Upper Cook Inlet is divided into the Central and Northern districts (Figure 107-1). Drift gillnetting is allowed only in the Central District. The Central District is further subdivided into six subdistricts: Kustatan, Western, Kalgin Island, Chinitna Bay, Upper, and Lower. Drift gillnetting is allowed in all of these subdistricts, except that in the Chinitna Bay Subdistrict, drifting is open only during periods established by EO.

In the Central District, salmon may be taken by set and drift gillnets from 7:00 a.m. until 7:00 p.m. on Mondays and Thursdays. For set gillnets, the Western Subdistrict opens from June 16 until closed by EO; in the Kalgin Island, Kustatan, and Chinitna Bay subdistricts, set gillnets are open from June 25 until closed by EO; in the Kasilof Section of the Upper Subdistrict, set gillnets are open from June 25 through August 15; in the Kenai and East Foreland sections of the Upper Subdistrict, set gillnets are open from July 8 until August 15. Drift gillnetting is open in the Central District from the third Monday in June or June 19, whichever is later, until closed by EO, except that after August 15, drift gillnetting is restricted to Drift Gillnet areas 3 and 4. In addition, in the Upper Subdistrict, drift gillnetting is not allowed within two miles of the mean high tide mark until those waters have opened for fishing with set gillnets; drifting is also not allowed within one and one-half miles of the mean high tide mark south of the Kenai River and within one mile of the mean high tide mark north of the Kenai River, if fishing with set gillnets in those areas is closed.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Adoption of this proposal would increase harvest by an unknown amount and would require the department to assess whether or not set gillnetting should be opened in areas where drifters are being allowed fishing time other than on a Monday or Thursday regular fishing period. This proposal would likely change the harvest allocation between commercial set and drift gillnetters, and among set gillnetters, because set gillnetting would be only be open in those areas that are open to drift gillnetting. This would be a change from historical management practices.

BACKGROUND: The Kalgin Island Subdistrict is defined as all waters within a line encompassing Kalgin Island within one mile of mean lower low water as delineated by the most recent U.S. Coast and Geodetic Survey chart number 8553 (5 AAC 21.200(b)(3)). Set gillnetting in this area is open only in those waters along the coast of Kalgin Island within one mile of the mean lower low tide mark (5 AAC 21.330(b)(3)(B)). Drift gillnetting is open in the waters of the Kalgin Island Subdistrict, but drifting may not occur within 600 feet of actively-operated set gillnet gear. The Kalgin Island Subdistrict is open to commercial fishing from June 25 until closed by EO. However, the *Packers Creek Sockeye Salmon Management Plan* (5 AAC 21.370) states that the department may not base fishing time in the Kalgin Island Subdistrict on the enhanced run strength of Packers Creek sockeye salmon. For the purpose of harvesting Packers Creek sockeye salmon, extra fishing time in the Kalgin Island Subdistrict shall be limited to no more than one additional fishing period per week.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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.

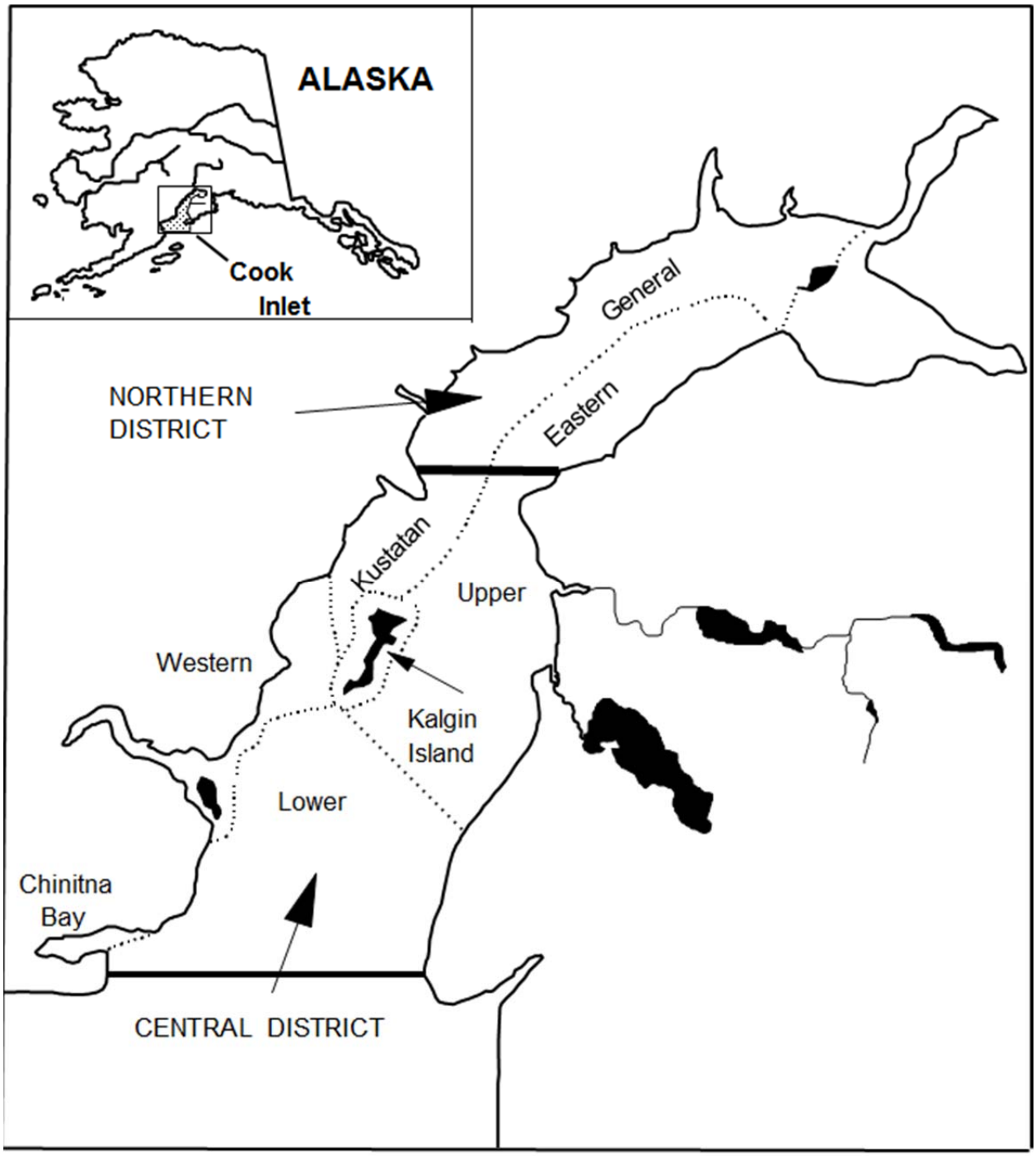

Figure 107-1.–Map of commercial fishing districts and subdistricts in the UCI management area.

PROPOSALS 108, 109, 110, and 120 – 5 AAC 21.310. Fishing seasons and 5 AAC 21.320. Weekly Fishing Periods.

PROPOSED BY: Central Peninsula Fish and Game Advisory Committee (proposals 108–109 and 120) and John McCombs (Proposal 110).

WHAT WOULD THESE PROPOSALS DO? These proposals would allow commercial salmon fishing in parts or all of the Central District to remain open until closed by emergency order (EO).

WHAT ARE THE CURRENT REGULATIONS? Upper Cook Inlet (UCI) is divided into the Central and Northern districts. Drift gillnetting is allowed only in the Central District. The Central District is further subdivided into six subdistricts: Kustatan, Western, Kalgin Island, Chinitna Bay, Upper, and Lower (figures 108-1 and 108-2). Drift gillnetting is allowed in all of these subdistricts, except that in the Chinitna Bay Subdistrict, drifting is open only during periods established by EO. In Upper Cook Inlet, salmon may be taken by set and drift gillnets from 7:00 a.m. until 7:00 p.m. on Mondays and Thursdays. The Northern District is open to set gillnetting only from June 25 until closed by EO. In the Central District, the Western Subdistrict is open from June 16 until closed by EO; in the Kalgin Island, Kustatan, and Chinitna Bay subdistricts, set gillnets are open from June 25 until closed by EO; in the Kasilof Section of the Upper Subdistrict, set gillnets are open from June 25 through August 15; in the Kenai and East Foreland sections of the Upper Subdistrict, set gillnets are open from July 8 through August 15. Drift gillnetting is open in the Central District from the third Monday in June or June 19, whichever is later, until closed by EO, except that after August 15, drift gillnetting is restricted to Drift Gillnet areas 3 and 4.

WHAT WOULD BE THE EFFECT IF THESE PROPOSALS WERE ADOPTED? The effects of these four proposals are somewhat uncertain in that they do not clearly specify which fisheries and which areas they are referring to. Currently, all fisheries in the Central District remain open until closed by EO, except for the Upper Subdistrict set gillnet fishery, which closes no later than August 15. The Central District drift gillnet fishery is restricted to Drift Gillnet areas 3 and 4 after August 15, but then remains open until closed by EO. Therefore, the primary effect of these proposals, if interpreted in the strictest sense, would be to allow set gillnetting in the Upper Subdistrict to extend beyond the current closing date of August 15. Based on that interpretation, the effect of these proposals would be to increase the commercial harvest of sockeye, coho, and pink salmon stocks in the Upper Subdistrict set gillnet fishery.

BACKGROUND: There is a suite of commercial and noncommercial management plans that guide the department in managing UCI fisheries. These plans have been developed through the board process with significant public input. These plans are structured around the migratory timing and abundance of the various salmon stocks as they move through UCI. Opening and closing dates of these fisheries allow harvests of salmon throughout the run, while allowing adequate fish passage to spawning grounds to provide sustained yields.

Prior to 1978, all salmon stocks in UCI were managed primarily for commercial uses since the recreational use of these stocks was small. In 1978, the board passed the first rendition of the

Upper Cook Inlet Salmon Management Plan as an uncodified policy. That policy was challenged in court and overturned. From 1981–1996, it remained relatively unchanged and directed the department to manage most stocks returning to UCI prior to July 1 "primarily" for recreational uses. From July 1 to August 15, most stocks were managed "primarily" for commercial uses with certain exceptions. After August 15, salmon stocks migrating to the Kenai Peninsula drainages were managed for recreational purposes, while all other stocks were managed for commercial purposes. In addition, in managing the commercial fishery, the department was instructed to "minimize" the harvest of certain recreationally important stocks, such as Kenai River king and coho salmon stocks. In 1996, the plan was changed to management priority by stock: sockeye, pink, and chum stocks were to be managed for commercial purposes with the caveat that a reasonable opportunity be provided to other users, and coho and king salmon stocks were managed for recreational purposes.

Poor returns of coho salmon to UCI in 1997 and 1999, coupled with not meeting escapement goals, prompted the board to reduce the coho salmon sport fisheries on select Northern Cook Inlet streams. In 2000, the board conducted a special out-of-cycle session to address Cook Inlet coho salmon. Because of the broad decline in coho salmon abundance, restrictive action was taken in a wide geographic range (i.e., Anchorage, Kenai, Susitna River, Knik Arm, and parts of WCI). Coho salmon restrictions were placed on both sport and commercial fisheries throughout most of the UCI area. In the sport fishery, coho salmon limits were reduced from three fish per day to two fish per day. Possession limits were reduced from six to four in some areas, while in other cases, possession limits were equal to the bag limit. In addition to these restrictions, the board took action to close Wasilla Creek to salmon fishing. Commercial fishing restrictions consisted of reducing fishing time, net length, and number of nets in selected areas as described in the *Northern District Salmon Management Plan* (5AAC 21.358).

Based on good coho salmon returns, coho salmon fishing regulations were liberalized for the Kenai River by the board in 2005 and 2008. Changes resulted in a net gain in fishing time and area, a seasonal increase in the bag limit, and liberalized fishing methods. Coho salmon fishing regulations for other Northern Kenai Peninsula Management Area streams were not changed.

In 2005, the board also relaxed the August restrictions to the commercial Upper Subdistrict set gillnet fishery and Central District drift fishery. Both fisheries' closing dates were changed to no later than August 10, with the set gillnet fishery managed under the same set of weekly guidelines in August that were applicable in July. Drift gillnetters were allowed to fish beyond August 10, but only in areas 3 and 4 for Monday and Thursday 12-hr periods.

In 2008, the board extended the Upper Subdistrict set gillnet fishing season to no later than August 15 and the full Central District drift gillnet fishing season to the same ending date; however, from August 11–15 in both fisheries, only regular fishing periods were allowed. These changes were due in part to data revealing good coho salmon runs and low Kenai River coho harvest by commercial fishermen during this extended time period. In addition, liberalizations for the Kenai River coho salmon sport fishery included: an increase in the bag and possession limit from two fish to three fish beginning September 1; 30-day season extension for coho salmon fishing within the lower Kenai River drainage downstream of Skilak Lake, from October

31–November 30; and bait was allowed from July 1 through November 30 downstream of the Upper Killey River, and bait with multiple hooks was allowed from August 1 through November 30.

During 2011, the board adopted a special regulation in all Cook Inlet freshwaters for coho salmon. Under this regulation a coho salmon 16 inches or longer in total length that is removed from fresh water must be retained and becomes part of the bag limit of the person who originally hooked the fish. A person may not remove a coho salmon 16 inches or longer from the water before releasing it.

Commercial salmon harvests from drift gillnet districtwide periods can be found in Table 108-1 and Upper Subdistrict set gillnet harvests can be found in Table 108-2.

Information gathered from research programs on Kenai River indicates the coho salmon runs averaged about 140,000 fish from 1999–2004, with harvests averaging just over 62,000 fish (Table 108-3). Overall exploitation rates for Kenai River coho salmon runs prior to 2000 were high, in some cases (84% in 1999) under the previous Kenai River coho salmon management plan, which allowed a three-fish bag limit and more liberal commercial fishing in August; under a plan that allowed a two-fish bag limit and more restrictive commercial fishing, the exploitation rate ranged from 35% to 47% from 2000 to 2004. New regulations in 2005 and 2008, which liberalized sport and commercial fisheries, very likely increased exploitation rates of Kenai River coho salmon relative to the rates observed from 1999–2004. Research findings from studies conducted in Southeast Alaska with transboundary coho salmon stocks have indicated that an exploitation rate of about 61% is sustainable.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on these allocative proposals.

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

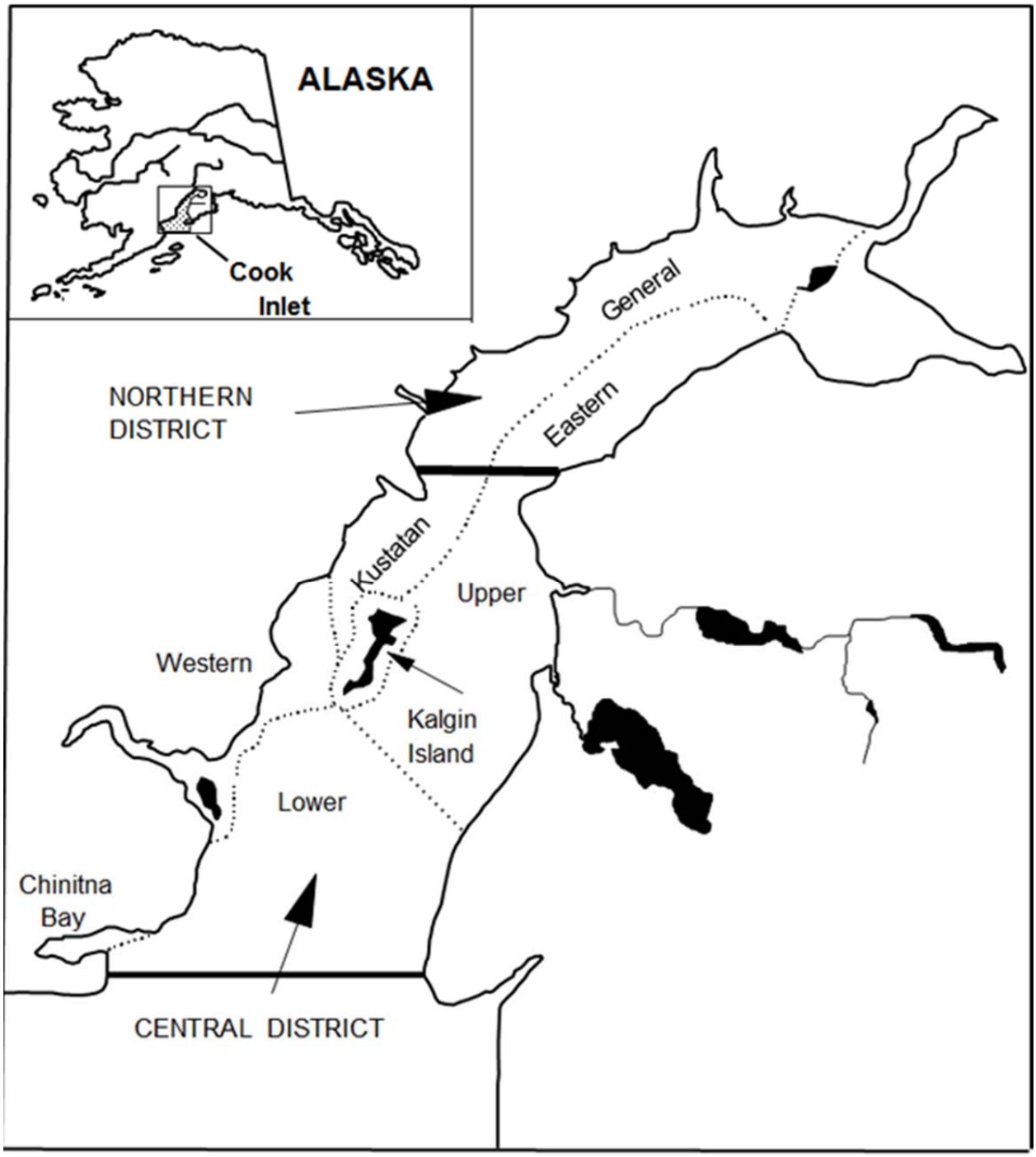

Figure 108-1.–Map of commercial fishing districts and subdistricts in the UCI management area.

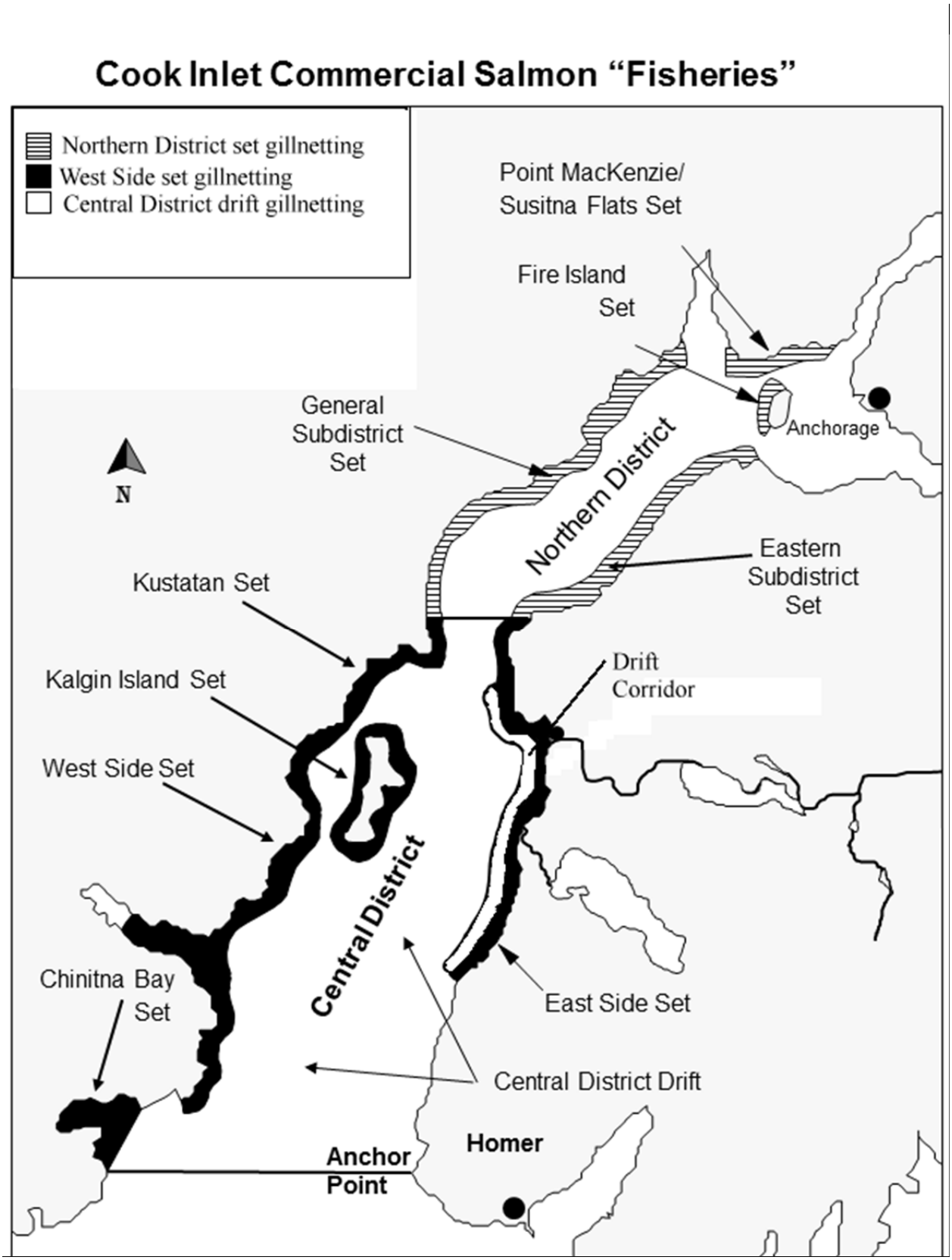

Figure 108-2.–Map of commercial fishing districts and subdistricts in the UCI management area.

Table 108-1.–Drift gillnet commercial salmon harvest after August 15, districtwide periods only, 1966–1995.

Year	King	Sockeye	Coho	Even-year Pink	Odd-year Pink	Chum	Total
1966		508	109			1	618
1967			541				541
1968		15	966	174		164	1,319
1969			530		130	4,356	5,016
1970		20	283	45		1,398	1,746
1971	7	27	170			977	1,181
1972			42	2		1,400	1,444
1973			141		5	929	1,075
1974	1		278	29		1,038	1,346
1975		8	1,221		3	2,360	3,592
1976	1	16	865	649		4,726	6,257
1977	1	9	1,314		15	31,617	32,956
1978		715	1,252	3,887		3,086	8,940
1979	9	428	4,640		32	39,223	44,332
1980	2	98	3,657	152		424	4,333
1981	3	68	5,650		63	2,703	8,487
1982	2	2,643	22,995	3,327		21,564	50,531
1983		49	1,703		7	615	2,374
1984	2	186	2,501	357		762	3,808
1985	5	609	13,569		66	2,933	17,182
1986	3	182	2,963	181		461	3,790
1987	1	369	2,136		20	1,955	4,481
1988	1	173	4,623	380		1,065	6,242
1990		604	4,398	4,968		596	10,566
1991	3	1,834	11,000		56	1,637	14,530
1992		854	5,398	665		881	7,798
1993	1	462	2,242		63	260	3,028
1994	2	343	6,312	117		571	7,345
1995		84	2,946		19	173	3,222
Average	3	429	3,602	1,067	40	4,567	8,899

Note: Blank cells indicate no data.

Table 108-2.–Upper Subdistrict commercial set gillnet salmon harvest after August 15, 1966–1983.

Year	King	Sockeye	Coho	Even-year Pink	Odd-year Pink	Chum	Total	Days Fished
1966	79	105	13,477	3,378		5	17,044	7
1967	44	63	14,082		48	8	14,245	3
1968	39	120	15,200	25,752		432	41,543	2
1969	59	118	6,546		41	17	6,781	17
1970	80	239	6,226	8,601		23	15,169	42
1971	124	125	7,583		3	81	7,916	21
1972	51	106	7,320	3,557		338	11,372	18
1973	64	100	6,860		8	53	7,085	14
1974	73	187	15,419	3,731		179	19,589	21
1975	108	195	23,130		24	101	23,558	22
1976	44	313	12,452	23,783		49	36,641	19
1977	42	129	6,238		22	211	6,642	15
1978	79	314	6,659	31,583		100	38,735	6
1983	6	1,523	71		5	3	1,608	1
Average	64	260	10,090	14,341	22	114	17,709	15

Note: Blank cells indicate no data.

Table 108-3.–Estimated harvest, total run, and exploitation rate of Kenai River coho salmon from 1999–2004.

Year	Escapement[a,b]	Harvest			Research Mortality	Total Run	Total Harvest[e]	Exploitation Rate[f]
		Sport[c]	Personal Use	Commercial[d]				
1999	7,889	35,361	1,009	3,894	193	48,346	40,457	0.837
2000	72,742	52,489	1,449	2,965	555	130,200	56,903	0.437
2001	75,122	55,004	1,555	1,934	540	134,155	58,493	0.436
2002	133,612	66,104	1,721	6,115	968	208,520	73,940	0.355
2003	79,915	51,944	1,332	2,578	209	135,978	55,854	0.411
2004	95,394	72,565	2,661	11,149	2,106	183,875	86,375	0.470
Average 1999–2004	77,446	55,578	1,621	4,773	762	140,179	62,004	0.491
2000–2004	91,357	59,621	1,744	4,948	876	158,546	66,313	0.422

Note: 1991–1993 and 1998 Kenai River coho salmon creel data was used to calculate the effect of increasing the bag limit from 2 to 3 fish, only boat angler interviews/data were selected for use for 1991–1993 due to the lack of data from shore anglers.

[a] Kenai River coho salmon total runs were estimated only during 1999–2004.

[b] Sources: Carlon and Evans 2007, Massengill and Evans 2007.

[c] Source: Statewide Harvest Survey.

[d] Sources: Massengill and Carlon 2004 a,b; Massengill and Carlon 2007 a,b; Massengill 2007.

[e] Aggregate of all harvest estimates (sport, commercial, and personal-use/subsistence).

[f] Total Harvest divided by Total Run.

ND = No Data

PROPOSALS 116 and 117 – 5 AAC 21.310. Fishing seasons.

PROPOSED BY: Kenai Peninsula Fishermen's Association.

WHAT WOULD THE PROPOSALS DO? These proposals would remove the provision where the set gillnet fishery in the Kenai, Kasilof, and East Foreland sections of the Upper Subdistrict closes after July 31 if less than one percent of the total season's sockeye is harvested in two consecutive fishing periods (one-percent rule). Proposal 116 would remove the restriction of regular periods only from August 11–15, but retains the closing date of August 15, while proposal 117 would retain the fishing season ending date of August 15, with only regular periods fished from August 11–15. Proposal 117 would also remove the restriction from the *Central District Drift Gillnet Fishery Management Plan* that requires the drift fleet to be restricted to Drift Gillnet areas 3 and 4 from August 11–15 if the Upper Subdistrict set gillnet fishery is closed due to the one-percent rule.

WHAT ARE THE CURRENT REGULATIONS? The Upper Subdistrict set gillnet fishery closes no later than August 15, unless closed by emergency order (EO) after July 31, if the Alaska Department of Fish and Game (department) determines that less than one-percent of the season's total sockeye salmon harvest has been taken per fishing period for two consecutive fishing periods; from August 11 through August 15, the fishery is open for regular fishing periods only. In addition, the *Central District Drift Gillnet Fishery Management Plan* (5 AAC 21.353(a)(2)(D)) states that from August 11 through August 15, there are no mandatory area restrictions to regular periods, except that if the Upper Subdistrict set gillnet fishery is closed per the one-percent rule, regular fishing periods will be restricted to Drift Gillnet areas 3 and 4.

WHAT WOULD BE THE EFFECT IF THE PROPOSALS WERE ADOPTED? The effects of these proposals would be to likely increase the harvest of sockeye, king, coho, pink, and chum salmon after July 31, by an unknown amount. The amount of additional harvest would be dependent upon run timing and run size of the respective salmon stocks in the east side of Cook Inlet after July 31.

BACKGROUND: In 2005, 5 AAC 21.320(b)(2)(C)(iii) was amended to include, for the first time, what is commonly referred to as the "one-percent" rule. This provision states that any time after July 31, if less than one percent of the season's total sockeye salmon harvest has been taken per fishing period for two consecutive fishing periods in the Kenai, Kasilof, and East Foreland sections set gillnet fishery, the season will close. In 2008, the Alaska Board of Fisheries (board) extended the Upper Subdistrict set gillnet and Central District drift gillnet fishing season in all of the Central District from August 10 to August 15, but added the caveat that from August 11 through August 15, there are no mandatory area restrictions to regular periods, except that if the Upper Subdistrict set gillnet fishery is closed per the one-percent rule, regular fishing periods will be restricted to Drift Gillnet areas 3 and 4. The extension of the fishing season to August 15 was adopted largely in response to data that showed an approximately 1% harvest of Kenai River coho salmon per additional day of fishing by Upper Subdistrict set gillnets (ESSN) and Central District drift gillnets prior to August 15 (Table 116-1). Since the one-percent rule was adopted, it has closed the Upper Subdistrict set gillnet fishing season twice, in 2009 and 2011 (Table 116-2).

Currently, the Upper Subdistrict set gillnet fishery closes no later than August 15; however, from August 11–15, only regular fishing periods are allowed. All weekly limitations on EO hours and window period provisions in the management plans apply to the August 1–10 timeframe. Since the Upper Subdistrict set gillnet fishery season ending date was extended to August 15 in 2008, only two fishing periods have been open during this time frame (Table 116-3).

Since the 1960s, coho salmon harvest in the Upper Subdistrict set gillnet (ESSN) fishery averaged from approximately 31,000 (1970's) to 62,000 (1980's) and more recently dropped down to approximately 19,000 (2000's) and 14,000 from 2010–2013 (Figure 116-1)

Information gathered from research programs on Kenai River indicate the coho salmon runs averaged about 140,000 fish from 1999 to 2004, with harvests averaging just over 62,000 fish (Table 116-4). Overall exploitation rates for Kenai River coho salmon runs prior to 2000 were high, in some cases (84% in 1999) under the previous Kenai River coho salmon management plan, which allowed a three-fish bag limit and more liberal commercial fishing in August; under a plan that allowed a two-fish bag limit and more restrictive commercial fishing, the exploitation rate ranged from 35% to 47% from 2000 to 2004. Based on average harvest and total run during 2000–2004, Kenai River coho salmon harvest rates averaged 38% by sport fisheries, 1% by personal use fisheries, and 3% by commercial fisheries (Table 116-4).

New regulations in 2005 and 2008, which liberalized sport and commercial fisheries, very likely increased exploitation rates of Kenai River coho salmon relative to the rates observed from 1999–2004. Research findings from studies conducted in Southeast Alaska with transboundary coho salmon stocks have indicated that an exploitation rate of about 61% is sustainable.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on these allocative proposals.

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 116-1.–Estimated daily harvest of Kenai River coho salmon during August 11–15 in select Upper Cook Inlet commercial fisheries.[a,b,c]

Upper Cook Inlet Fisheries	11-Aug	12-Aug	13-Aug	14-Aug	15-Aug	Total	Estimated average daily harvest of Kenai River coho salmon	Daily harvest represented as a percentage of the average annual total Kenai River coho salmon run (2000-2004)[d]
ESSN Setnet[e]	1,954	1,576	1,523	2,278	1,968	9,299	1,860	1.17%
Regular Drift[f]	285	327	200	144	226	1,182	236	0.15%
Corridor only Drift[g]	47	47	47	47	47	236	47	0.03%
Combined Fisheries								
Regular Drift and ESSN	2,239	1,903	1,723	2,422	2,194	10,481	2,096	1.32%
Corridor and ESSN	2,001	1,623	1,570	2,325	2,015	9,535	1,907	1.20%

* Note: The actual number of days when commercial fishing is allowed is unknown, but the most likely scenario is one or two days in the second week of August.

[a] The harvest of Kenai River coho salmon during an extension is calculated by multiplying the average daily harvest of all coho salmon from each fishery (1985-2013) by the average rate of contribution of Kenai River coho salmon estimated harvested from each fishery during 1993-2005.

[b] Commercial coho salmon harvest data source: ADF&G Commercial Fish Division Fish Ticket Database for Salmon (Zephyr) 1985-2013 downloaded on 1/7/13.

[c] Source data for Kenai River coho salmon contribution rates to the UCI commercial harvest: Carlon and Hasbrouck 1996-1998; Carlon 2000 and 2003; Massengill and Carlon 2004 a,b; Massengill and Carlon 2007 a,b; Massengill 2007 a,b and c.

[d] Average 2000-2004 Kenai River coho salmon total run estimate (158,546); source data = Carlon and Evans 2007; Massengill and Evans 2007.

[e] ESSN = all ESSN statistical areas except Kasilof terminal area (244-26).

[f] Regular Drift = Statistical areas 24450, 24460, 24470, 24570, 24580, and 24590.

[g] Corridor drift harvest: due to lack of historical corridor drift harvest during August 11-15, corridor harvest data from August 1-7 (1999-2013) was used as a surrogate for average coho harvest for each corridor opener. The daily estimates for average harvest per opener were then multiplied by the average contribution rate for Kenai River coho salmon estimated for the regular drift harvest during the second week of August (0.0780) during 1992-2005.

Table 116-2.–Season closing date and reason for closure by year in the Upper Subdistrict set gillnet fishery, 2005–2013.

Year	Last day of fishing	Closing date in regulation	1% rule (yes/no)	Reason for closing
2005	10-Aug	10-Aug	No	End of season
2006	9-Aug	10-Aug	No	End of season
2007	9-Aug	10-Aug	No	End of season
2008	7-Aug	15-Aug	No	Poor sockeye salmon run to Kenai River
2009	10-Aug	15-Aug	Yes	1% Rule
2010	12-Aug	15-Aug	No	End of season
2011	7-Aug	15-Aug	Yes	1% Rule
2012	13-Aug	15-Aug	No	End of season
2013	23-Jul	15-Aug	No	Poor late-run king salmon run to Kenai River

Table 116-3.–Coho salmon harvest, number of days fished, and number of regular fishing periods in the Upper Subdistrict set gillnet fishery from August 11–15, 2008–2013.

Year	Coho Harvest	Number of Days Fished	Number of Regular Periods August 11-15
2008	no fishing	0	2
2009	no fishing	0	1
2010	2,019	1	1
2011	no fishing	0	2
2012	1,803	1	1
2013	no fishing	0	2

Table 116-4.–Estimated harvest, total return, and harvest rate of Kenai River coho salmon (1999–2004).

Year	Escapement[a,b]	Harvest			Research Mortality	Total Run	Total Harvest[e]	Harvest Rate[f]
		Sport[c]	Personal Use	Commercial[d]				
1999	7,889	35,361	1,009	3,894	193	48,346	40,457	0.837
2000	72,742	52,489	1,449	2,965	555	130,200	56,903	0.437
2001	75,122	55,004	1,555	1,934	540	134,155	58,493	0.436
2002	133,612	66,104	1,721	6,115	968	208,520	73,940	0.355
2003	79,915	51,944	1,332	2,578	209	135,978	55,854	0.411
2004	95,394	72,565	2,661	11,149	2,106	183,875	86,375	0.470
Average 1999–2004	77,446	55,578	1,621	4,773	762	140,179	62,004	0.491
2000–2004	91,357	59,621	1,744	4,948	876	158,546	66,313	0.422

Note: 1991–1993 and 1998 Kenai River coho salmon creel data was used to calculate the effect of increasing the bag limit from 2 to 3 fish, only boat angler interviews/data were selected for use for 1991–1993 due to the lack of data from shore anglers.

[a] Kenai River coho salmon total runs were estimated only during 1999–2004.

[b] Sources: Carlon and Evans 2007, Massengill and Evans 2007.

[c] Source: Statewide Harvest Survey.

[d] Sources: Massengill and Carlon 2004 a,b; Massengill and Carlon 2007 a,b; Massengill 2007.

[e] Aggregate of all harvest estimates (sport, commercial, and personal-use/subsistence).

[f] Total Harvest divided by Total Run.

ND = No Data

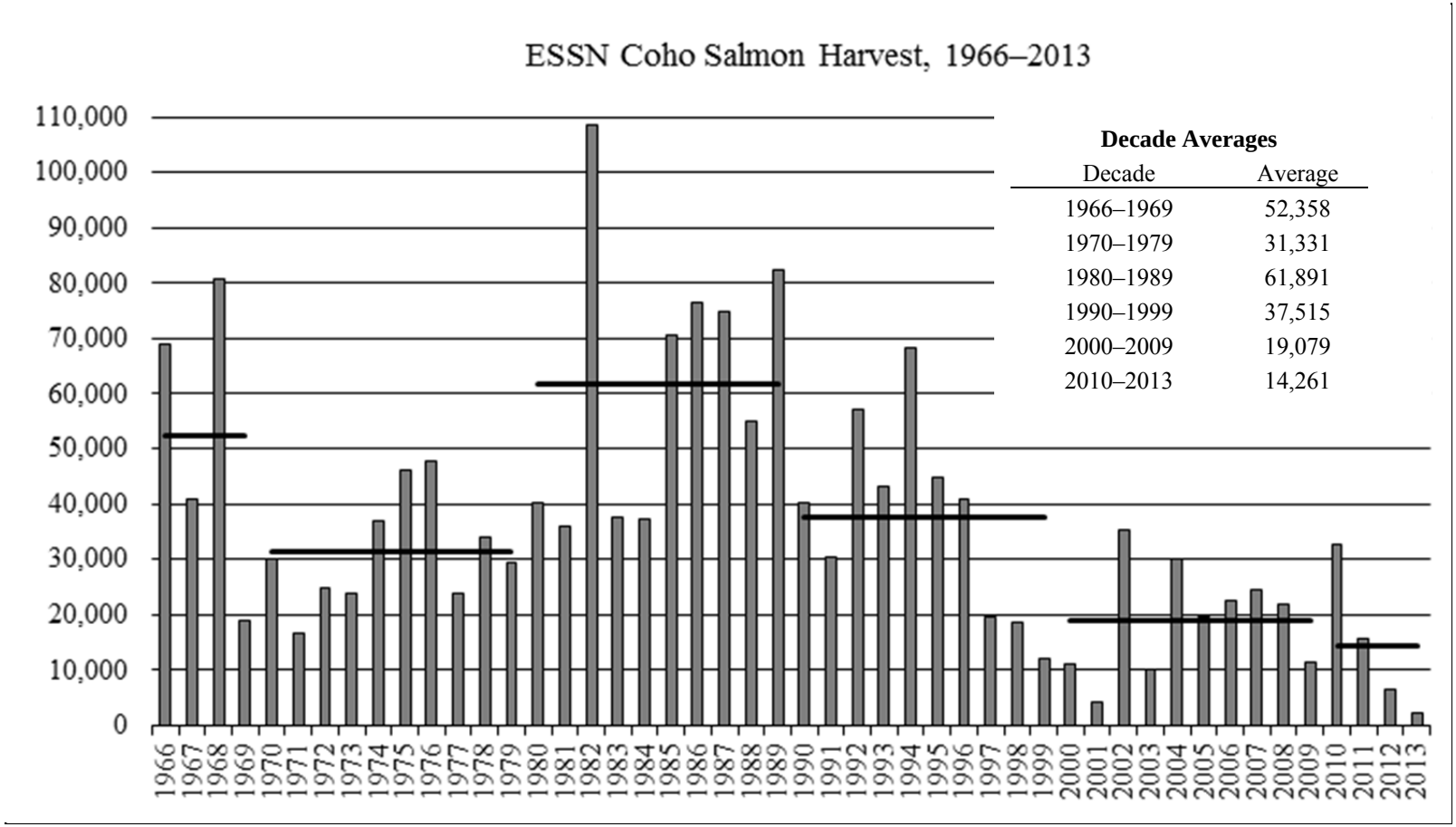

Figure 116-1.–Coho salmon harvest in the commercial set gillnet fishery (ESSN) in the Upper Subdistrict, 1966–2013.

PROPOSAL 119 – 5 AAC 21.310. Fishing seasons.

PROPOSED BY: North K-Beach Fishermen.

WHAT WOULD THE PROPOSAL DO? This proposal would change how the one-percent rule is applied to the Upper Subdistrict set gillnet fishery. Instead of basing the one-percent rule calculation on the entire Upper Subdistrict, the one-percent rule calculation would be based on the Kasilof Section and the Kenai and East Foreland sections separately. Therefore, each area would be treated independently of each other for application of the one-percent rule season-closing provision.

WHAT ARE THE CURRENT REGULATIONS? The Upper Subdistrict set gillnet fishery currently closes no later than August 15, unless closed by emergency order (EO) after July 31, if the department determines that less than one percent of the season's total sockeye salmon harvest has been taken per fishing period for two consecutive fishing periods (one-percent rule); from August 11 through August 15, the fishery is open for regular fishing periods only. In addition, the *Central District Drift Gillnet Fishery Management Plan* (5 AAC 21.353(a)(2)(D)) states that from August 11 through August 15, there are no mandatory area restrictions to regular periods, except that if the Upper Subdistrict set gillnet fishery is closed per the one-percent rule, regular fishing periods will be restricted to Drift Gillnet areas 3 and 4.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would increase the harvest of king, sockeye, coho, and pink salmon by an unknown amount in those years where the one-percent rule would have applied. This proposal might result in the Kenai and East Foreland sections being closed by the one-percent rule less often than when applying the criteria to the entire Upper Subdistrict set gillnet fishery. It would, however, most likely result in the Kasilof Section being closed more frequently than under the current regulation. It is unclear what would happen to the drift fishery if the one-percent rule was met in only one of the two set gillnet areas.

BACKGROUND: In 2005, 5 AAC 21.320(b)(2)(C)(iii) was amended to include, for the first time, what is commonly referred to as the "one-percent" rule. This provision states that any time after July 31, if less than one percent of the season's total sockeye salmon harvest has been taken per fishing period for two consecutive fishing periods in the Kenai, Kasilof, and East Foreland sections set gillnet fishery, the season will close. In 2008, the Alaska Board of Fisheries (board) extended the Upper Subdistrict set gillnet and Central District drift gillnet fishing season in all of the Central District from August 10 to August 15, but added the caveat that from August 11 through August 15, there are no mandatory area restrictions to regular periods, except that if the Upper Subdistrict set gillnet fishery is closed per the one-percent rule, regular fishing periods will be restricted to Drift Gillnet areas 3 and 4.

From 2005 through 2010, a "fishing period" was defined as a time period open to commercial fishing without closure. In 2011, the Alaska Board of Fisheries (board) modified the definition of a fishing period to a time period open to commercial fishing as measured by a 24-hour calendar day from 12:01 a.m. until 11:59 p.m.

Currently, the Upper Subdistrict set gillnet fishery closes no later than August 15; however, from August 11–15, only regular fishing periods are allowed. All weekly limitations on EO hours, as well as mandatory closed fishing times ("windows") that are in effect in July; also apply to the August 1–10 timeframe.

If the one-percent criteria had been applied separately to the Kasilof Section and the Kenai/East Foreland sections, since 2001, the Kasilof Section would have closed early in nine of 13 years (Table 119-1). In the Kenai/East Foreland sections, this area would have only closed one year out of 13.

Since the one-percent rule was adopted in 2005, it has closed the Upper Subdistrict set gillnet fishing season twice, in 2009 and 2011 (Table 119-2).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative 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.

Table 119-1.–Estimate of forgone harvest in the Kasilof Section and in the Kenai and East Foreland sections if the one-percent rule were applied to each area separately.

Sockeye	Kasilof Section		Kenai Section	
Year	1% Met	Forgone Harvest	1% Met	Forgone Harvest
2001	No		No	
2002	Yes	4,037	No	
2003	Yes	3,185	No	
2004	Yes	9,409	No	
2005	Yes	26,232	No	
2006	Yes	1,712	No	
2007	Yes	15,440	No	
2008	No		No	
2009	Yes	3,646	No	
2010	Yes	2,408	Yes	2,382
2011	Yes	11,022	No	
2012	No		No	
2013	No		No	
	Total Reduction	77,091	Total Reduction	2,382

Table 119-2.–Season closing date and reason for closure by year in the Upper Subdistrict set gillnet fishery, 2005–2013.

Year	Last day of fishing	Closing date in regulation	1% rule (yes/no)	Reason for closing
2005	10-Aug	10-Aug	No	End of season
2006	9-Aug	10-Aug	No	End of season
2007	9-Aug	10-Aug	No	End of season
2008	7-Aug	15-Aug	No	Poor sockeye salmon run to Kenai River
2009	10-Aug	15-Aug	Yes	1% Rule
2010	12-Aug	15-Aug	No	End of season
2011	7-Aug	15-Aug	Yes	1% Rule
2012	13-Aug	15-Aug	No	End of season
2013	23-Jul	15-Aug	No	Poor late-run king salmon run to Kenai River

PROPOSALS 131 and 132 – 5 AAC 21.350. Closed waters.

PROPOSED BY: Matanuska Valley Fish and Game Advisory Committee (Proposal 131) and Matanuska-Susitna Borough Fish and Wildlife Commission (Proposal 132).

WHAT WOULD THE PROPOSALS DO? These proposals would close waters within one statute mile of the Little Susitna River to commercial fishing.

WHAT ARE THE CURRENT REGULATIONS? Current regulations (5 AAC 21.350(i) and 5 AAC 39.290(a)) close waters within 500 yards of a salmon stream. In addition, commercial salmon fishing is prohibited within the fresh water of streams and rivers of the state, and over the beds or channels of fresh water of streams and rivers of the state during all stages of the tide. A salmon stream terminus is defined as a line drawn between the seaward extremities of the exposed tideland banks of any salmon stream at mean lower low water (5 AAC 39.975(14)). A salmon stream is defined as any stream used by salmon for spawning or for traveling to a spawning area (5 AAC 39.975(10)).

WHAT WOULD BE THE EFFECT IF THE PROPOSALS WERE ADOPTED? If these proposals were adopted, it would displace one set gillnet operation that fishes just east of the Little Susitna River. The operator currently has two set gillnet permits and an active State of Alaska shore fisheries lease (Figure 131-1). Shore fisheries leases are not required to fish in Cook Inlet, but do provide lease owners the rights to fish specific areas identified in the leases. For a number of years, no one has fished with set gillnets west of the Little Susitna River all the way to the Susitna River because that area is largely unfishable due to the mud flats. Within one mile east of the Little Susitna River there is only one set gillnet permit in operation. This proposal would reduce the commercial harvest of Little Susitna River coho salmon by an unknown amount.

BACKGROUND: The 500-yard closed waters regulation that applies to the Little Susitna River has been in effect since at least 1977. The average sport harvest on the Little Susitna River is approximately 2,300 king salmon and 12,000 coho salmon (Table 131-1). The Little Susitna is the third largest coho sport fisheries in the state and supports a relatively high use fishery on a moderate sized run of king salmon. On years of average or below average runs, both species are likely exploited at a rate approaching or sometimes exceeding 50% in the river. The king salmon sustainable escapement goal (SEG) of 900–1,800 fish was missed in 2010 and 2011, despite the sport fishery being closed after June 30 on each of these years. The coho salmon SEG was missed 2009–2012. The use of bait in the coho salmon sport fishery was restricted and mid-season closures occurred in each of these years. The commercial harvest by species in commercial fishing statistical area 247-41 (Figure 131-2) area can be found in Table 131-2.

DEPARTMENT COMMENTS: The department **OPPOSES** these proposals as a means of conserving Little Susitna coho salmon and is **NEUTRAL** on the allocative aspects. These proposals would unnecessarily close waters currently open to commercial fishing. The current sport and commercial harvest levels appear to be sustainable across the majority of years. Little Susitna king and coho salmon sport and commercial fishing regulations are already conservative

and the department has inseason assessment projects and EO authority to maintain sustainable harvests at the current level of inriver 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. However, displacing a setnet permit holder would result in direct cost for the operation to move and legally participate in the fishery.

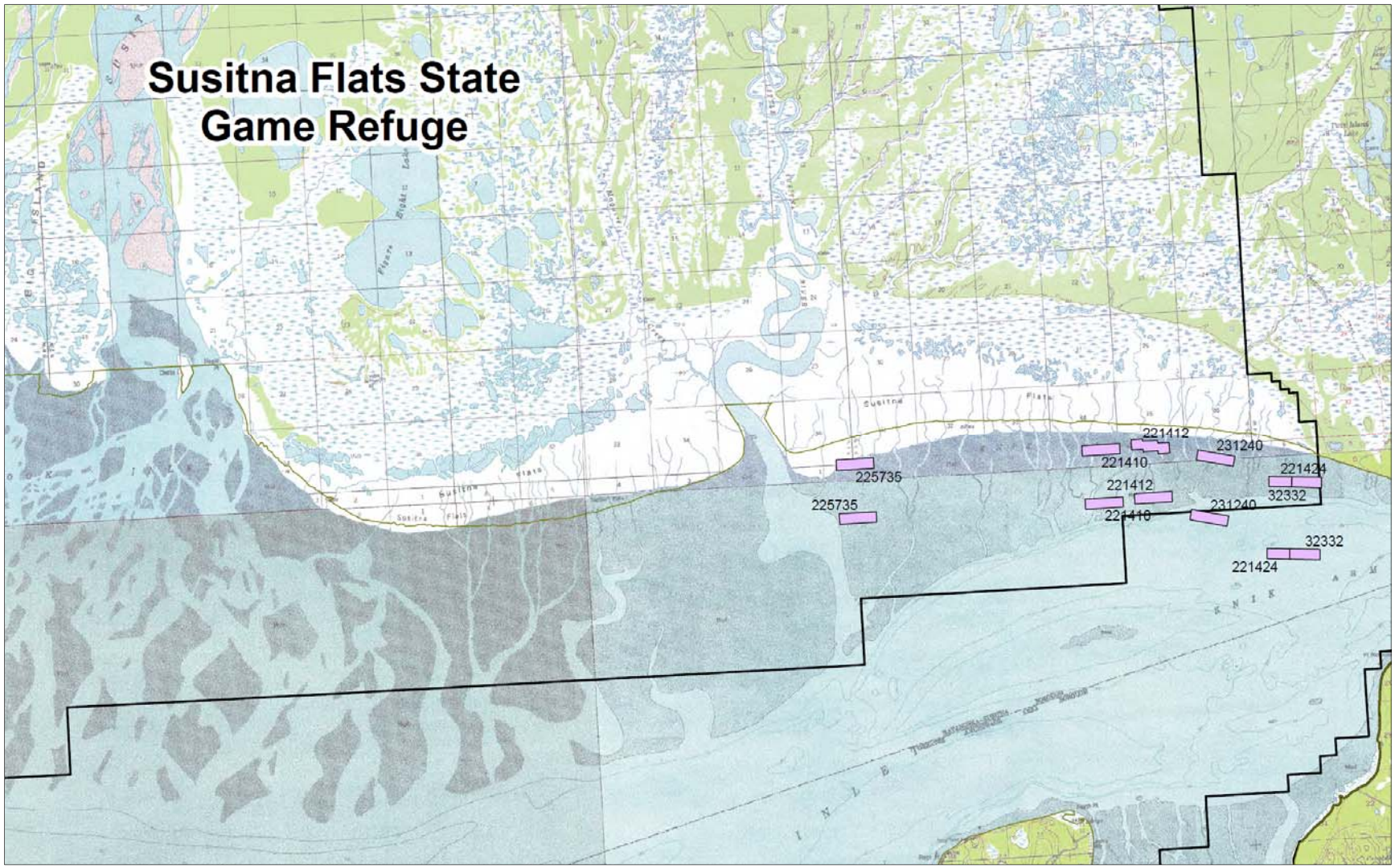

Figure 131-1.–Map of shore fisheries leases from the Susitna River east to Knik Arm.

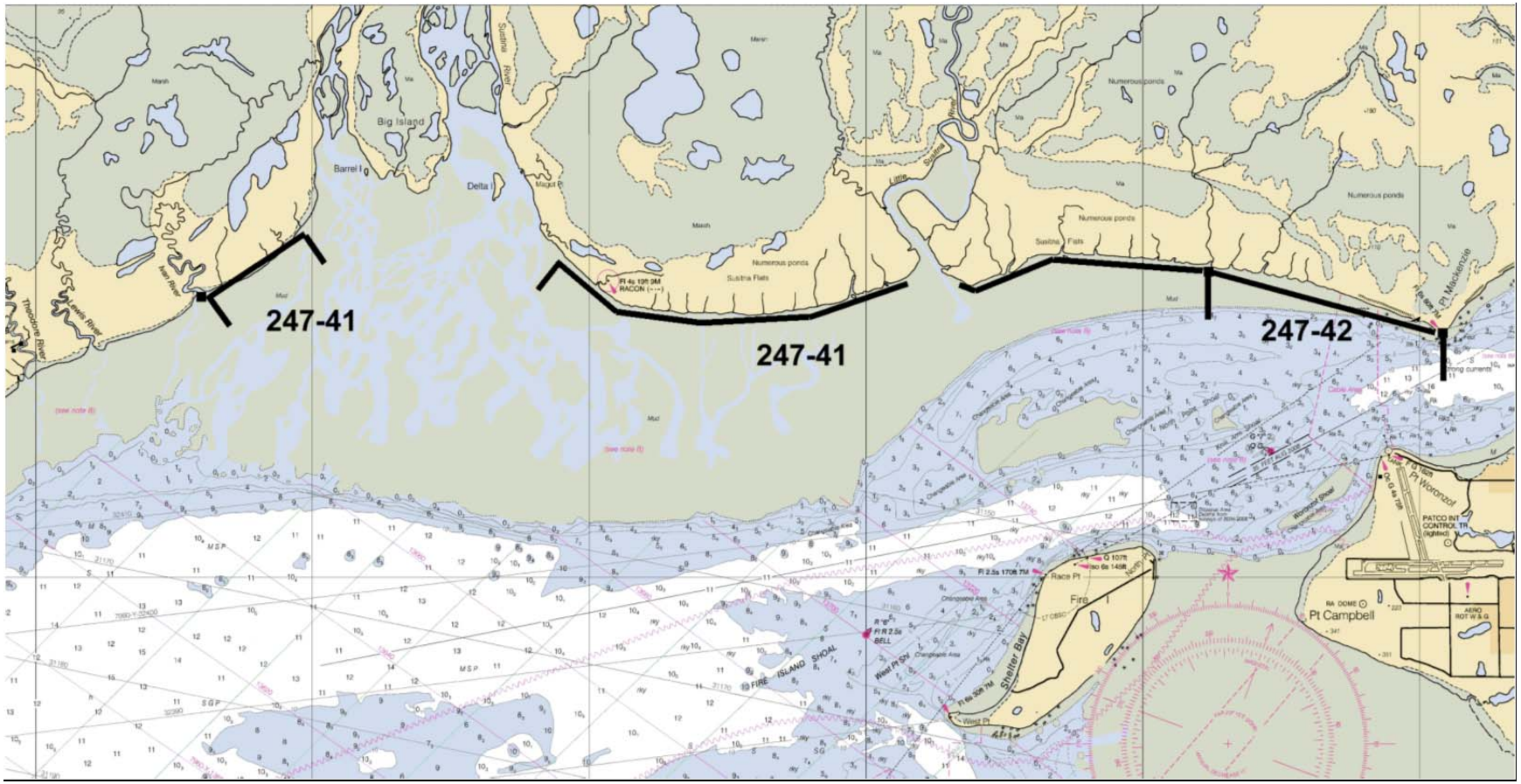

Figure 131-2.–Map of commercial fishing statistical areas 247-41 and 247-42.

Table 131-1.–Sport harvest and escapement of king and coho salmon on the Little Susitna River, 1994–2013.

	King Salmon		Coho Salmon	
Year	Sport Harvest	Escapement (aerial index)[a]	Sport Harvest	Escapement (weir count)[b]
1994	4,204	1,221	17,665	27,820
1995	1,698	1,714	14,451	11,817
1996	1,484	1,079	16,753	15,803
1997	2,938	no count	7,756	9,894[c]
1998	2,031	1,091	14,469	15,159
1999	2,713	no count	8,864	3,017
2000	2,802	1,094	20,357	15,436
2001	2,243	1,238	17,071	30,587
2002	3,144	1,660	19,278	47,938
2003	2,138	1,114	13,672	10,877
2004	2,362	1,694	15,307	40,199
2005	2,724	2,095	10,203	16,839[c]
2006	3,303	1,855	12,399	8,786[c]
2007	3,210	1,731	11,089	17,573
2008	2,219	1,297	13,498	18,485
2009	1,653	1,028	8,346	9,523
2010	889	589	10,662	9,214
2011	828	887	2,452	4,826
2012	216	1154	1,681	6,779[c]
2013	NA	1,651	NA	13,583[c]
Mean	2,253	1,344	12,420	18,552[d]

NA=Data not available.

[a] BEG from 1994–2001 was 850 king salmon; SEG from 2002–2013 is 900–1,800 king salmon.

[b] BEG from 1994–1998 was 7,500 coho salmon; BEG from 1999–2001 was 9,600-19,200 coho salmon; SEG from 2002–2013 is 10,100-17,700 coho salmon .

[c] Incomplete count due to high water and weir submersion.

[d] Complete count years only.

Table 131-2.–Commercial salmon harvest from statistical area 247-41, Susitna Flats, 1994–2013.

		Commercial Salmon Harvest				
Year	Permits Fished	Chinook	Sockeye	Coho	Pink	Chum
1994	17	0	5,048	6,080	750	1,926
1995	14	20	3,332	1,318	414	1,026
1996	11	45	3,107	3,112	262	151
1997	14	119	4,239	3,843	140	896
1998	13	105	1,580	3,194	707	820
1999	10	102	1,300	1,271	17	507
2000	7	76	1,344	4,738	611	339
2001	9	64	901	5,628	4	422
2002	12	141	3,380	6,223	50	759
2003	12	305	8,884	4,917	193	1,821
2004	14	362	4,457	10,600	197	849
2005	12	438	1,963	4,483	55	214
2006	10	569	466	1,531	37	156
2007	9	301	1,129	2,033	97	166
2008	10	547	1,160	5,362	125	353
2009	8	92	1,935	2,267	6	258
2010	7	127	2,678	2,130	94	374
2011	6	163	3,208	1,990	62	1,436
2012	7	71	1,458	666	47	518
2013	9	165	798	3,115	170	469
Average	11	191	2,618	3,725	202	673

PROPOSAL 248 – 5 AAC 57.120. General provisions for seasons, bag, possession, and size limits, and methods and means for the Kenai River Drainage Area and 5 AAC 57.170. Kenai River Coho Salmon Management Plan.

PROPOSED BY: Kenai River Sportfishing Association.

WHAT WOULD THE PROPOSAL DO? This proposal would increase the coho salmon bag limit on the Kenai River from two fish to three fish beginning on August 15 instead of September 1.

WHAT ARE THE CURRENT REGULATIONS? In the Kenai River Drainage Area, except in the Russian River, the bag and possession limit for coho salmon 16 inches or greater is two fish from July 1 through August 31. The bag and possession limit for coho salmon 16 inches or greater is three fish in the Kenai River from Skilak Lake downstream to the mouth from September 1 through November 30, and in the Kenai River between Kenai and Skilak lakes from September 1 through October 31. In the Russian River, the bag and possession limit for coho salmon coho salmon 16 inches or greater is one fish; the Russian River closes to fishing for coho salmon on October 1. After a person takes a bag limit of coho salmon from the Kenai River, a person may not fish for any species of fish downstream of the Soldotna Bridge. Coho salmon may not be removed from the water that are intended to be released, a coho salmon removed the water becomes part of the persons bag limit who caught the fish.

Bait and multiple hooks are allowed from August 1–November 30 in the Kenai River from Skilak Lake downstream to the mouth, except from Skilak Lake downstream to the Upper Killey River confluence where only unbaited, single-hook artificial lures are allowed. In the Upper Kenai River, only unbaited, single-hook artificial lures are allowed year-round, except in the Russian River fly-fishing only area from June 11–August 20.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would increase the harvest of coho salmon and may increase exploitation rates to unsustainable levels during years of below average returns.

BACKGROUND: The *Kenai River Coho Salmon Management Plan* (5 AAC 57.170) was first adopted in 1996 in response to a decline in coho salmon smolt abundance and increased harvest of returning adults in the Kenai River. A special Alaska Board of Fisheries (board) meeting was convened in 1997, through a petition submitted by the department, based on high Kenai River coho salmon harvests beginning in 1993 and 1994 which were thought to be unsustainable, and declining Moose River (Kenai River tributary) coho salmon smolt counts. As a result of that meeting, restrictions affecting all users were put into regulation to conserve Kenai River coho salmon. Additional restrictive regulations were added to the plan from 1997–1999. These regulations were an attempt to reduce the total harvest of Kenai River coho salmon by 20% from combined sport and commercial users and originally had a sunset clause of December 2002. The restrictions placed on the Kenai River coho salmon sport fishery from the 1997 board meeting included:

1. The Kenai River coho salmon sport fishing season was established from July 1–September 30.

2. Guides could not sport fish when guiding clients.
3. No fishing from a guided vessel on Mondays downstream from the confluence of the Moose and Kenai rivers.
4. No fishing for coho salmon in a guided vessel on Mondays upstream from the confluence of the Moose and Kenai rivers, but fishing for other species was allowed.

In 1999, the board again addressed this fishery by reducing the coho salmon bag limit in the Russian River and in that area of the Kenai River downstream from the confluence of the Russian and Kenai rivers to the ferry crossing from three per day to one per day. This conservation measure was in response to an increasingly popular clearwater fishery at the Russian River where stocks are subject to higher exploitation rates.

In 2000, a special board meeting was convened, through a petition submitted by the governor, based on low abundance of coho salmon throughout Cook Inlet. As an outcome of this meeting, more restrictions were put in place to conserve both Kenai River and Northern District coho salmon. The restrictions placed on the Kenai River coho salmon sport fishery from the 2000 board meeting included:

1. The bag and possession limit was reduced from three fish to two fish Cook Inlet-wide (excepting West Cook Inlet and terminal fisheries targeting hatchery fish). Anglers in the Kenai River must stop fishing for all species below the outlet of Skilak Lake for the remainder of the day after retaining a daily bag limit of two coho salmon.
2. Closing the Kenai River downstream of Skilak Lake from August 1–3 for coho salmon fishing.
3. Bait was prohibited in the Kenai River from October 1 to June 30.

The net result of the management plan on the Kenai River sport fishery was the overall reduction of coho salmon harvest. Currently, the department does not manage the Kenai River coho salmon sport fishery inseason based upon abundance because coho salmon escapement is not monitored and no escapement goal has been established for the Kenai River. There are no coho salmon escapement goals for the other streams in the Northern Kenai Peninsula Management Area where the limit for coho salmon was reduced from three daily and in possession to two daily and in possession.

Coho salmon fishing regulations were liberalized for the Kenai River by the board in 2005 and 2008. Changes resulted in a net gain in fishing time and area, a seasonal increase in the bag limit, and liberalized fishing methods. Coho salmon fishing regulations for other Northern Kenai Peninsula Management Area streams were not changed. Liberalizations for the Kenai River coho salmon sport fishery in 2005 included:

1. A 31-day season extension for coho salmon fishing within the Kenai River drainage: from September 30 to October 31.
2. Bait was allowed from July 1 through October 31 downstream of the Upper Killey River, and bait with multiple hooks was allowed from August 1 through October 31.

3. The August 1–3 coho salmon fishing closure downstream of Skilak Lake was repealed, allowing a continuous season from July 1 through October 31.
4. The regulation prohibiting fishing after a person takes a bag limit of two coho salmon below Upper Killey River was reduced to the area below the Soldotna Bridge, allowing a person to continue to fish upstream of the Soldotna Bridge after taking a limit.
5. Fishing from a guide vessel was allowed on Mondays for other species upstream of the confluence of the Moose and Kenai rivers.

In 2008, liberalizations allowed for the Kenai River coho salmon sport fishery included:

1. An increase in the bag and possession limit from two fish to three fish beginning September 1.
2. A 30-day season extension for coho salmon fishing within the lower Kenai River drainage downstream of Skilak Lake, from October 31 to November 30.
3. Bait was allowed from July 1 through November 30 downstream of the Upper Killey River, and bait with multiple hooks was allowed from August 1 through November 30.

Information gathered from research programs on Kenai River indicate the coho salmon runs averaged about 140,000 fish from 1999 to 2004, with harvests averaging just over 62,000 fish (Table 248-1). Overall exploitation rates for Kenai River coho salmon runs prior to 2000 were high, in some cases (84% in 1999) under the previous Kenai River coho salmon management plan, which allowed a three-fish bag limit and more liberal commercial fishing in August; under a plan that allowed a two-fish bag limit and more restrictive commercial fishing, the exploitation rate ranged from 35% to 47% from 2000 to 2004. New regulations in 2005 and 2008, which liberalized sport and commercial fisheries, very likely increased exploitation rates of Kenai River coho salmon relative to the rates observed from 1999–2004. Research findings from studies conducted in Southeast Alaska with transboundary coho salmon stocks have indicated that an exploitation rate of about 61% is sustainable.

Total Kenai River drainage coho salmon sport harvests prior to 2000 (three coho per day) averaged 53,228 fish annually. Since 2000 (two coho per day), harvests have remained similar at an average of 53,372 fish, with guided anglers averaging 26% of the total harvest during that time (Table 248-2).

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. Given the uncertainty surrounding the variable nature of annual coho salmon run strength, additional exploitation resulting from this proposal increases the likelihood for reduced coho salmon productivity. The department is **NEUTRAL** on the allocative aspects of 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.

Table 248-1.–Estimated harvest, total run, and exploitation rate of Kenai River coho salmon from 1999–2004.

Year	Escapement[a,b]	Harvest			Research Mortality	Total Run	Total Harvest[e]	Harvest Rate[f]
		Sport[c]	Personal Use	Commercial[d]				
1999	7,889	35,361	1,009	3,894	193	48,346	40,457	0.837
2000	72,742	52,489	1,449	2,965	555	130,200	56,903	0.437
2001	75,122	55,004	1,555	1,934	540	134,155	58,493	0.436
2002	133,612	66,104	1,721	6,115	968	208,520	73,940	0.355
2003	79,915	51,944	1,332	2,578	209	135,978	55,854	0.411
2004	95,394	72,565	2,661	11,149	2,106	183,875	86,375	0.470
Average								
1999–2004	77,446	55,578	1,621	4,773	762	140,179	62,004	0.491
2000–2004	91,357	59,621	1,744	4,948	876	158,546	66,313	0.422

Note: 1991–1993 and 1998 Kenai River coho salmon creel data was used to calculate the effect of increasing the bag limit from 2 to 3 fish, only boat angler interviews/data were selected for use for 1991–1993 due to the lack of data from shore anglers.

[a] Kenai River coho salmon total runs were estimated only during 1999–2004.

[b] Sources: Carlon and Evans 2007, Massengill and Evans 2007.

[c] Source: Statewide Harvest Survey.

[d] Sources: Massengill and Carlon 2004 a,b; Massengill and Carlon 2007 a,b; Massengill 2007.

[e] Aggregate of all harvest estimates (sport, commercial, and personal use).

[f] Total Harvest divided by Total Run.

ND = No Data

Table 248-2.–Guided and unguided sport harvest of Kenai River coho salmon, 1984–2012.

Year	Bag Limit	Season Start	Season End	Guided Harvest	%	Nonguided Harvest	%	Kenai River Harvest [a]	Total Drainage Harvest
1984	3	entire year		5,490	9.2	54,154	90.8	59,644	62,076
1985	3	entire year		4,006	9.0	40,529	90.8	44,635	46,090
1986	3	entire year		13,883	23.1	46,227	76.9	60,110	62,938
1987	3	entire year		4,976	15.0	28,234	85.0	33,210	37,484
1988	3	entire year		4,456	9.1	44,238	90.7	48,785	51,950
1989	3	entire year		15,835	28.6	39,424	71.3	55,275	59,575
1990	3	entire year		15,274	25.3	45,051	74.7	60,325	63,497
1991	3	entire year		30,789	40.4	45,367	59.6	76,163	80,674
1992 [b]	3	entire year		20,794	39.8	31,516	60.2	52,310	56,877
1993	3	entire year		23,743	47.0	26,795	53.0	50,538	52,855
1994	3	entire year		41,170	47.5	45,541	52.5	86,711	91,490
1995	3	entire year		23,587	51.1	22,596	48.9	46,183	50,346
1996 [c]	3	entire year		13,728	32.5	28,565	67.5	42,293	47,860
1997 [d]	3/1 [e]	7/1	9/30	3,101	19.2	13,063	80.8	16,164	20,770
1998	3	7/1	9/30	5,217	19.3	21,750	80.7	26,967	31,579
1999 [f]	3	7/1	9/30	8,087	25.6	23,550	74.4	31,637	35,591
2000 [g]	2	7/1	9/30	9,349	19.3	39,170	80.7	48,519	52,489
2001	2	7/1	9/30	13,518	27.2	36,264	72.8	49,782	55,027
2002	2	7/1	9/30	14,444	24.2	45,206	75.8	59,650	66,160
2003	2	7/1	9/30	11,964	25.6	34,658	74.3	46,657	52,370
2004 [h]	2	7/1	10/31	14,845	22.5	51,070	77.4	65,952	72,658
2005 [i]	2	7/1	10/31	12,285	24.4	38,071	75.5	50,411	54,297
2006	2	7/1	10/31	9,233	24.5	28,281	75.1	37,639	43,118
2007	2	7/1	10/31	10,312	27.1	27,705	72.9	38,017	41,263
2008 [j]	2/3	7/1	11/30	13,618	26.4	38,006	73.6	51,624	55,520
2009	2/3	7/1	11/30	11,759	23.5	38,201	76.5	49,960	55,495
2010	2/3	7/1	11/30	15,424	29.2	37,488	70.8	52,912	55,555
2011	2/3	7/1	11/30	11,277	25.6	32,855	74.4	44,132	48,642
2012	2/3	7/1	11/30	12,277	33.7	24,130	66.3	36,407	41,237
Average (1984–1999)				14,634	27.6	34,788	72.4	49,434	53,228
Average (2000–2012)				12,331	25.6	36,239	74.3	48,589	53,372

Source: Statewide Harvest Survey (Mills 1984-1994; Howe et al. 1995-1996, 2001a-d; Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b, *In prep*. a-b).

[a] Includes Kenai R guided/non-guided not specified, reach not specified.

[b] No fishing after 3 coho harvested, to prevent "boat limits."

[c] Closed sections of 5 rm below lakes to all fishing to protect spawning cohos, from Jan 1–June 14.

[d] Guides retricted on Mondays.

e Emergency order reduced bag limit to 1 per day on 8/11/98.

[f] Repealed c.

[g] Coho salmon sport fishing closed from 8/1–8/3.

[h] Extended season to Oct. 31.

[i] Repealed g, allowed to fish after limit of coho upstream of Soldotna Bridge, guides allowed to fish upstream of Moose for other species.

[j] 2 per day in August/3 per day in September–November.

[k] Includes entire Kenai R drainage (Russian R, Beaver Cr, Funny R, Grant Cr, Hidden Cr/Lk, Jean Lk, Kenai Lk, Moose R, Quartz Cr, Sevena Lk, Skilak Lk, Soldotna Cr, and Trail Lk).

PROPOSAL 263 – 5 AAC 57.140. Kenai River guiding and guided fishing requirements in the Kenai River Drainage Area.

PROPOSED BY: Kenneth Bingaman.

WHAT WOULD THE PROPOSAL DO? This proposal would allow fishing for coho salmon from a guided vessel in the Kenai River on Labor Day.

WHAT ARE THE CURRENT REGULATIONS? From July 31 or the end of the king salmon season, whichever is later, through November 30, sport fishing from a vessel registered with the Alaska Department of Natural Resources (DNR), as a sport fishing guide vessel is restricted as follows: downstream from the confluence of the Moose River and Kenai River, sport fishing on Mondays is prohibited; and upstream from the confluence of the Moose River and Kenai River, sport fishing for coho salmon on Mondays is prohibited; any coho salmon caught must be released immediately without further harm. There is no restriction on fishing for coho salmon from an unguided vessel on Labor Day.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Anglers would be able to fish from a registered guide vessel during this holiday in September. It would remove one day during coho salmon season that unguided anglers fish without guided vessels present downstream of the Moose River. The harvest of coho salmon may increase by an unknown, but likely small, amount.

BACKGROUND: The *Kenai River Coho Salmon Management Plan* (5 AAC 57.170) was first adopted in 1996 in response to a decline in coho salmon smolt abundance and increased harvest of returning adults in the Kenai River. A special Alaska Board of Fisheries (board) meeting was convened in 1997, through a petition submitted by the department, based on high Kenai River coho salmon harvests beginning in 1993 and 1994 which were thought to be unsustainable, and declining Moose River (Kenai River tributary) coho salmon smolt counts. As a result of that meeting, restrictions affecting all users were put into regulation to conserve Kenai River coho salmon. Additional restrictive regulations were added to the plan from 1997–1999. These regulations were an attempt to reduce the total harvest of Kenai River coho salmon by 20% from combined sport and commercial users and originally had a sunset clause of December 2002. The restrictions placed on the Kenai River coho salmon sport fishery from the 1997 board meeting included:

1. The Kenai River coho salmon sport fishing season was established from July 1–September 30.
2. Guides could not sport fish when guiding clients.
3. No fishing from a guided vessel on Mondays downstream from the confluence of the Moose and Kenai rivers.
4. No fishing for coho salmon in a guided vessel on Mondays upstream from the confluence of the Moose and Kenai rivers, but fishing for other species was allowed.

Since inception of the sport fish guide logbook program in 2006, the number of guided trips in September has averaged 1,117 (Table 263-1). Using the freshwater logbook data, the average proportion of guided resident anglers from 2006 to 2012 in September was 21% (Table 263-2).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of this proposal between guided and unguided users.

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 263-1.–Number of trips by guided vessels on the entire Kenai River by month from 2006–2012.

Year	May	June	July	August	September	October
2006	165	2,774	6,413	2,549	1,030	64
2007	191	2,719	6,357	2,752	1,009	92
2008	160	2,525	6,085	3,041	1,125	83
2009	149	1,890	4,732	2,354	1,179	64
2010	129	1,510	4,560	2,916	1,146	94
2011	130	1,664	4,415	3,045	1,238	82
2012	128	1,238	3,414	3,124	1,094	92
Mean	150	2,046	5,139	2,826	1,117	82

Source: ADF&G Freshwater Sport Fish Guide Logbook.

Table 263-2.–Number of resident and nonresident clients fishing from guided vessels on the Kenai River during August, September, and October, 2006-2012.

	August				September				October			
Year	Number of Resident Clients	%	Number of Nonresident Clients	%	Number of Resident Clients	%	Number of Nonresident Clients	%	Number of Resident Clients	%	Number of Nonresident Clients	%
2006	591	7%	7,875	93%	462	15%	2,597	85%	96	58%	70	42%
2007	975	11%	7,919	89%	544	18%	2,532	82%	114	43%	149	57%
2008	1,028	10%	8,968	90%	655	19%	2,803	81%	131	53%	115	47%
2009	973	13%	6,367	87%	900	26%	2,576	74%	102	61%	66	39%
2010	1,120	12%	8,468	88%	883	27%	2,436	73%	114	46%	132	54%
2011	1,277	13%	8,751	87%	928	25%	2,821	75%	110	47%	122	53%
2012	1,099	11%	9,038	89%	668	21%	2,523	79%	139	51%	132	49%
Mean	1,009	11%	8,198	89%	720	21%	2,613	79%	115	51%	112	49%

Source: ADF&G Freshwater Sport Fish Guide Logbook.

PROPOSAL 264 – 5 AAC 57.140. Kenai River guiding and guided fishing requirements in the Kenai River Drainage Area.

PROPOSED BY: Kenai River Professional Guide Association.

WHAT WOULD THE PROPOSAL DO? This proposal would allow anglers on the Kenai River to fish for coho salmon from a registered guide vessel on Mondays beginning September 1.

WHAT ARE THE CURRENT REGULATIONS? From July 31 or the end of the king salmon season, whichever is later, through November 30, sport fishing from a registered guide vessel for any species of fish on Mondays is prohibited downstream from the confluence of the Moose and Kenai rivers, and sport fishing from a registered guide vessel for coho salmon on Mondays upstream from the confluence of the Moose River and Kenai River is prohibited; any coho salmon caught must be released immediately without further harm. There is no restriction on fishing for coho salmon from an unguided vessel on Mondays beginning September 1.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would increase guided fishing time for coho salmon by 312 to 360 hours (an additional 13–15 days, depending on calendar year) during the time the river is currently closed to fishing for coho salmon from guide vessels below Moose River from September 1 through November 30. This proposal would increase guided fishing effort, catch, and harvest of Kenai River coho salmon and other fish species by an undetermined number. This proposal would remove the available days during coho salmon season that unguided anglers fish without guided vessels present downstream of the Moose River.

BACKGROUND: The *Kenai River Coho Salmon Management Plan* (5 AAC 57.170) was first adopted in 1996 in response to a decline in coho salmon smolt abundance and increased harvest of returning adults in the Kenai River. A special Alaska Board of Fisheries (board) meeting was convened in 1997, through a petition submitted by the department, based on high Kenai River coho salmon harvests beginning in 1993 and 1994 which were thought to be unsustainable, and declining Moose River (Kenai River tributary) coho salmon smolt counts. As a result of that meeting, restrictions affecting all users were put into regulation to conserve Kenai River coho salmon. Additional restrictive regulations were added to the plan from 1997–1999. These regulations were an attempt to reduce the total harvest of Kenai River coho salmon by 20% from combined sport and commercial users and originally had a sunset clause of December 2002. The restrictions placed on the Kenai River coho salmon sport fishery from the 1997 board meeting included:

1. The Kenai River coho salmon sport fishing season was established from July 1–September 30.
2. Guides could not sport fish when guiding clients.
3. No fishing from a guided vessel on Mondays downstream from the confluence of the Moose and Kenai rivers.
4. No fishing for coho salmon in a guided vessel on Mondays upstream from the confluence of the Moose and Kenai rivers, but fishing for other species was allowed.

In 1999, the board again addressed this fishery by reducing the coho salmon bag limit from three per day to one per day in the Russian River and in that area of the Kenai River downstream from the confluence of the Russian and Kenai rivers to the ferry crossing. This conservation measure was in response to an increasingly popular clearwater fishery at the Russian River where stocks are subject to higher harvest rates.

In 2000, a special board meeting was convened through a petition submitted by the governor based on low abundance of coho salmon throughout Cook Inlet. As an outcome of this meeting, more restrictions were put in place to conserve both Kenai River and Northern District coho salmon. The restrictions placed on the Kenai River coho salmon sport fishery from the 2000 board meeting included:

4. The bag and possession limit was reduced from three fish to two fish Cook Inlet-wide (excepting West Cook Inlet and terminal fisheries targeting hatchery fish). Anglers in the Kenai River must stop fishing for all species below the outlet of Skilak Lake for the remainder of the day after retaining a daily bag limit of two coho salmon.
5. Closing the Kenai River downstream of Skilak Lake from August 1–3 for coho salmon fishing.
6. Bait was prohibited in the Kenai River from October 1 to June 30.

The net result of the management plan on the Kenai River sport fishery was the overall reduction of coho salmon harvest. Currently, the department does not manage the Kenai River coho salmon sport fishery inseason based upon abundance because coho salmon escapement is not monitored, and no escapement goal has been established for the Kenai River. There are no coho salmon escapement goals for the other streams in the Northern Kenai Peninsula Management Area where the limit for coho salmon was reduced from three daily and in possession to two daily and in possession.

Coho salmon fishing regulations were liberalized for the Kenai River by the board in 2005 and 2008. Changes resulted in a net gain in fishing time and area, a seasonal increase in the bag limit, and liberalized fishing methods. Coho salmon fishing regulations for other Northern Kenai Peninsula Management Area streams were not changed. Liberalizations for the Kenai River coho salmon sport fishery in 2005 included:

6. A 31-day season extension for coho salmon fishing within the Kenai River drainage: from September 30 to October 31.
7. Bait was allowed from July 1 through October 31 downstream of the Upper Killey River, and bait with multiple hooks was allowed from August 1 through October 31.
8. The August 1–3 coho salmon fishing closure downstream of Skilak Lake was repealed, allowing a continuous season from July 1 through October 31.
9. The regulation prohibiting fishing after a person takes a bag limit of two coho salmon below Upper Killey River was reduced to the area below the Soldotna Bridge, allowing a person to continue to fish upstream of the Soldotna Bridge after taking a limit.
10. Fishing from a guide vessel was allowed on Mondays for other species upstream of the confluence of the Moose and Kenai rivers.

In 2008, liberalizations allowed for the Kenai River coho salmon sport fishery included:

11. An increase in the bag and possession limit from two fish to three fish beginning September 1.
12. A 30-day season extension for coho salmon fishing within the lower Kenai River drainage downstream of Skilak Lake, from October 31 to November 30.
13. Bait was allowed from July 1 through November 30 downstream of the Upper Killey River, and bait with multiple hooks was allowed from August 1 through November 30.

During 2011, the board adopted a special regulation in all Cook Inlet freshwaters for coho salmon. Under this regulation a coho salmon 16 inches or longer in total length that is removed from fresh water must be retained and becomes part of the bag limit of the person who originally hooked the fish. A person may not remove a coho salmon 16 inches or longer from the water before releasing it.

Information gathered from research programs on Kenai River indicates the coho salmon runs averaged about 140,000 fish from 1999 to 2004, with harvests averaging just over 62,000 fish (Table 264-1). Overall exploitation rates for Kenai River coho salmon runs prior to 2000 were high, in some cases (84% in 1999), under the previous Kenai River coho salmon management plan, which allowed a three-fish bag limit and more liberal commercial fishing in August; under a plan that allowed a two-fish bag limit and more restrictive commercial fishing, the exploitation rate ranged from 35% to 47% from 2000 to 2004. New regulations in 2005 and 2008, which liberalized sport and commercial fisheries, very likely increased exploitation rates of Kenai River coho salmon relative to the rates observed from 1999–2004. Research findings from studies conducted in Southeast Alaska with transboundary coho salmon stocks have indicated that an exploitation rate of about 61% is sustainable.

Total Kenai River drainage coho salmon sport harvests prior to 2000 (three coho per day) averaged 53,228 fish annually; since 2000 (two coho per day), the average has remained nearly the same with 53,372 fish, with guided harvest averaging 26% of the total harvest during that time (Table 264-2).

Since inception of the sport fish guide logbook program in 2006, the number of guided trips in September and October has averaged 1,117 and 82, respectively (Table 264-3). Using the freshwater logbook data, the average proportion of guided resident anglers from 2006 to 2012 in September and October was 21% and 51%, respectively (Table 264-4).

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal because of the additional pressure it would place on Kenai River coho salmon. The stock is not monitored and is currently exposed to higher potential exploitation than other coho salmon stocks on the Cook Inlet road system. Inriver harvest data indicate that the harvest of Kenai River coho salmon is relatively stable under existing regulations. Given the uncertainty surrounding the variable nature of annual coho salmon run strength, additional exploitation resulting from this proposal increases the likelihood for reduced coho salmon productivity in the Kenai River. The department is **NEUTRAL** on the allocative aspects of this proposal between guided and unguided users.

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 264-1.–Estimated harvest, total run, and exploitation rate of Kenai River coho salmon from 1999–2004.

		Harvest						
Year	Escapement[a,b]	Sport[c]	Personal Use	Commercial[d]	Research Mortality	Total Run	Total Harvest[e]	Harvest Rate[f]
1999	7,889	35,361	1,009	3,894	193	48,346	40,457	0.837
2000	72,742	52,489	1,449	2,965	555	130,200	56,903	0.437
2001	75,122	55,004	1,555	1,934	540	134,155	58,493	0.436
2002	133,612	66,104	1,721	6,115	968	208,520	73,940	0.355
2003	79,915	51,944	1,332	2,578	209	135,978	55,854	0.411
2004	95,394	72,565	2,661	11,149	2,106	183,875	86,375	0.470
Average 1999–2004	77,446	55,578	1,621	4,773	762	140,179	62,004	0.491
2000–2004	91,357	59,621	1,744	4,948	876	158,546	66,313	0.422

Note: 1991–1993 and 1998 Kenai River coho salmon creel data was used to calculate the effect of increasing the bag limit from 2 to 3 fish, only boat angler interviews/data were selected for use for 1991–1993 due to the lack of data from shore anglers.

[a] Kenai River coho salmon total runs were estimated only during 1999–2004.

[b] Sources: Carlon and Evans 2007, Massengill and Evans 2007.

[c] Source: Statewide Harvest Survey.

[d] Sources: Massengill and Carlon 2004 a,b; Massengill and Carlon 2007 a,b; Massengill 2007.

[e] Aggregate of all harvest estimates (sport, commercial, and personal use).

[f] Total Harvest divided by Total Run.

ND = No Data

Table 264-2.–Guided and unguided sport harvest of Kenai River coho salmon, 1984–2012.

Year	Bag Limit	Season Start	Season End	Guided Harvest	%	Unguided Harvest	%	Kenai River Harvest [a]	Total Drainage Harvest
1984	3	entire year		5,490	9.2	54,154	90.8	59,644	62,076
1985	3	entire year		4,006	9.0	40,529	90.8	44,635	46,090
1986	3	entire year		13,883	23.1	46,227	76.9	60,110	62,938
1987	3	entire year		4,976	15.0	28,234	85.0	33,210	37,484
1988	3	entire year		4,456	9.1	44,238	90.7	48,785	51,950
1989	3	entire year		15,835	28.6	39,424	71.3	55,275	59,575
1990	3	entire year		15,274	25.3	45,051	74.7	60,325	63,497
1991	3	entire year		30,789	40.4	45,367	59.6	76,163	80,674
1992 [b]	3	entire year		20,794	39.8	31,516	60.2	52,310	56,877
1993	3	entire year		23,743	47.0	26,795	53.0	50,538	52,855
1994	3	entire year		41,170	47.5	45,541	52.5	86,711	91,490
1995	3	entire year		23,587	51.1	22,596	48.9	46,183	50,346
1996 [c]	3	entire year		13,728	32.5	28,565	67.5	42,293	47,860
1997 [d]	3/1 [e]	7/1	9/30	3,101	19.2	13,063	80.8	16,164	20,770
1998	3	7/1	9/30	5,217	19.3	21,750	80.7	26,967	31,579
1999 [f]	3	7/1	9/30	8,087	25.6	23,550	74.4	31,637	35,591
2000 [g]	2	7/1	9/30	9,349	19.3	39,170	80.7	48,519	52,489
2001	2	7/1	9/30	13,518	27.2	36,264	72.8	49,782	55,027
2002	2	7/1	9/30	14,444	24.2	45,206	75.8	59,650	66,160
2003	2	7/1	9/30	11,964	25.6	34,658	74.3	46,657	52,370
2004 [h]	2	7/1	10/31	14,845	22.5	51,070	77.4	65,952	72,658
2005 [i]	2	7/1	10/31	12,285	24.4	38,071	75.5	50,411	54,297
2006	2	7/1	10/31	9,233	24.5	28,281	75.1	37,639	43,118
2007	2	7/1	10/31	10,312	27.1	27,705	72.9	38,017	41,263
2008 [j]	2/3	7/1	11/30	13,618	26.4	38,006	73.6	51,624	55,520
2009	2/3	7/1	11/30	11,759	23.5	38,201	76.5	49,960	55,495
2010	2/3	7/1	11/30	15,424	29.2	37,488	70.8	52,912	55,555
2011	2/3	7/1	11/30	11,277	25.6	32,855	74.4	44,132	48,642
2012	2/3	7/1	11/30	12,277	33.7	24,130	66.3	36,407	41,237
Average (1984-1999)				14,634	27.6	34,788	72.4	49,434	53,228
Average (2000-2012)				12,331	25.6	36,239	74.3	48,589	53,372

Source: Statewide Harvest Survey (Mills 1984-1994; Howe et al. 1995-1996, 2001a-d; Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b, *In prep*. a-b).

[a] Includes Kenai R guided/unguided not specified, reach not specified.

[b] No fishing after 3 coho harvested, to prevent "boat limits."

[c] Closed sections of 5 rm below lakes to all fishing to protect spawning cohos, from Jan 1–June 14

[d] Guides retricted on Mondays

e Emergency order reduced bag limit to 1 per day on 8/11/98

[f] Repealed c,

[g] Coho salmon sport fishing closed from 8/1–8/3

[h] Extended season to Oct. 31

[i] Repealed g, allowed to fish after limit of coho upstream of Soldotna Bridge, guides allowed to fish upstream of Moose for other species

[j] 2 per day in August/3 per day in September–November

[k] Includes entire Kenai R drainage (Russian R, Beaver Cr, Funny R, Grant Cr, Hidden Cr/Lk, Jean Lk, Kenai Lk, Moose R, Quartz Cr, Sevena Lk, Skilak Lk, Soldotna Cr, and Trail Lk).

Table 264-3.–Number of trips by guided vessels on the entire Kenai River by month from 2006–2012.

Year	May	June	July	August	September	October
2006	165	2,774	6,413	2,549	1,030	64
2007	191	2,719	6,357	2,752	1,009	92
2008	160	2,525	6,085	3,041	1,125	83
2009	149	1,890	4,732	2,354	1,179	64
2010	129	1,510	4,560	2,916	1,146	94
2011	130	1,664	4,415	3,045	1,238	82
2012	128	1,238	3,414	3,124	1,094	92
Mean	150	2,046	5,139	2,826	1,117	82

Source: ADF&G Freshwater Sport Fish Guide Logbook.

Table 264-4.–Number of resident and nonresident clients fishing from guided vessels on the Kenai River during August, September, and October, 2006–2012.

	August				September				October			
Year	Number of Resident Clients	%	Number of Nonresident Clients	%	Number of Resident Clients	%	Number of Nonresident Clients	%	Number of Resident Clients	%	Number of Nonresident Clients	%
2006	591	7%	7,875	93%	462	15%	2,597	85%	96	58%	70	42%
2007	975	11%	7,919	89%	544	18%	2,532	82%	114	43%	149	57%
2008	1,028	10%	8,968	90%	655	19%	2,803	81%	131	53%	115	47%
2009	973	13%	6,367	87%	900	26%	2,576	74%	102	61%	66	39%
2010	1,120	12%	8,468	88%	883	27%	2,436	73%	114	46%	132	54%
2011	1,277	13%	8,751	87%	928	25%	2,821	75%	110	47%	122	53%
2012	1,099	11%	9,038	89%	668	21%	2,523	79%	139	51%	132	49%
Mean	1,009	11%	8,198	89%	720	21%	2,613	79%	115	51%	112	49%

Source: ADF&G Freshwater Sport Fish Guide Logbook.

PROPOSAL 265 – 5 AAC 57.140. Kenai River guiding and guided fishing requirements in the Kenai River Drainage Area.

PROPOSED BY: Cooper Landing Fish and Game Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would allow Kenai River anglers upstream of the Skilak Lake inlet to fish for coho salmon from a registered guide vessel on Mondays beginning August 1.

WHAT ARE THE CURRENT REGULATIONS? From July 31 or the end of the king salmon season, whichever is later, through November 30, sport fishing from a registered guide vessel for any species of fish on Mondays is prohibited downstream from the confluence of the Moose and Kenai rivers, and sport fishing from a registered guide vessel for coho salmon on Mondays upstream from the confluence of the Moose River and Kenai River is prohibited; any coho salmon caught must be released immediately without further harm.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would increase guided fishing time for coho salmon by 408 to 432 hours (an additional 17–18 days, depending on calendar year) that are currently closed to fishing for coho salmon from guide boats between Kenai and Skilak lakes. This proposal would increase guided fishing effort, catch, and harvest of Kenai River coho salmon stocks and other fish species by an unknown number. This proposal would remove all days during coho salmon season that unguided anglers could fish for coho salmon without competition from guided vessels fishing for coho.

BACKGROUND: The *Kenai River Coho Salmon Management Plan* (5 AAC 57.170) was first adopted in 1996 in response to a decline in coho salmon smolt abundance and increased harvest of returning adults in the Kenai River. A special Alaska Board of Fisheries (board) meeting was convened in 1997, through a petition submitted by the department, based on high Kenai River coho salmon harvests beginning in 1993 and 1994 which were thought to be unsustainable, and declining Moose River (Kenai River tributary) coho salmon smolt counts. As a result of that meeting, restrictions affecting all users were put into regulation to conserve Kenai River coho salmon. Additional restrictive regulations were added to the plan from 1997–1999. These regulations were an attempt to reduce the total harvest of Kenai River coho salmon by 20% from combined sport and commercial users and originally had a sunset clause of December 2002. The restrictions placed on the Kenai River coho salmon sport fishery from the 1997 board meeting included:

1. The Kenai River coho salmon sport fishing season was established from July 1–September 30.
2. Guides could not sport fish when guiding clients.
3. No fishing from a guided vessel on Mondays downstream from the confluence of the Moose and Kenai rivers.
4. No fishing for coho salmon in a guided vessel on Mondays upstream from the confluence of the Moose and Kenai rivers, but fishing for other species was allowed.

In 1999, the board again addressed this fishery by reducing the coho salmon bag limit from three per day to one per day in the Russian River and in that area of the Kenai River downstream from the confluence of the Russian and Kenai rivers to the ferry crossing. This conservation measure was in response to an increasingly popular clearwater fishery at the Russian River where stocks are subject to higher harvest rates.

In 2000, a special board meeting was convened through a petition submitted by the governor based on low abundance of coho salmon throughout Cook Inlet. As an outcome of this meeting, more restrictions were put in place to conserve both Kenai River and Northern District coho salmon. The restrictions placed on the Kenai River coho salmon sport fishery from the 2000 board meeting included:

5. The bag and possession limit was reduced from three fish to two fish Cook Inlet-wide (excepting West Cook Inlet and terminal fisheries targeting hatchery fish). Anglers in the Kenai River must stop fishing for all species below the outlet of Skilak Lake for the remainder of the day after retaining a daily bag limit of two coho salmon.
6. Closing the Kenai River downstream of Skilak Lake from August 1–3 for coho salmon fishing.
7. Bait was prohibited in the Kenai River from October 1 to June 30.

The net result of the management plan on the Kenai River sport fishery was the overall reduction of coho salmon harvest. Currently, the department does not manage the Kenai River coho salmon sport fishery inseason based upon abundance because coho salmon escapement is not monitored, and no escapement goal has been established for the Kenai River. There are no coho salmon escapement goals for the other streams in the Northern Kenai Peninsula Management Area where the limit for coho salmon was reduced from three daily and in possession to two daily and in possession.

Coho salmon fishing regulations were liberalized for the Kenai River by the board in 2005 and 2008. Changes resulted in a net gain in fishing time and area, a seasonal increase in the bag limit, and liberalized fishing methods. Coho salmon fishing regulations for other Northern Kenai Peninsula Management Area streams were not changed. Liberalizations for the Kenai River coho salmon sport fishery in 2005 included:

8. A 31-day season extension for coho salmon fishing within the Kenai River drainage: from September 30 to October 31.
9. Bait was allowed from July 1 through October 31 downstream of the Upper Killey River, and bait with multiple hooks was allowed from August 1 through October 31.
10. The August 1–3 coho salmon fishing closure downstream of Skilak Lake was repealed, allowing a continuous season from July 1 through October 31.
11. The regulation prohibiting fishing after a person takes a bag limit of two coho salmon below Upper Killey River was reduced to the area below the Soldotna Bridge, allowing a person to continue to fish upstream of the Soldotna Bridge after taking a limit.
12. Fishing from a guide vessel was allowed on Mondays for other species upstream of the confluence of the Moose and Kenai rivers.

In 2008, liberalizations allowed for the Kenai River coho salmon sport fishery included:

13. An increase in the bag and possession limit from two fish to three fish beginning September 1.
14. A 30-day season extension for coho salmon fishing within the lower Kenai River drainage downstream of Skilak Lake, from October 31 to November 30.
15. Bait was allowed from July 1 through November 30 downstream of the Upper Killey River, and bait with multiple hooks was allowed from August 1 through November 30.

During 2011, the board adopted a special regulation in all Cook Inlet freshwaters for coho salmon. Under this regulation a coho salmon 16 inches or longer in total length that is removed from fresh water must be retained and becomes part of the bag limit of the person who originally hooked the fish. A person may not remove a coho salmon 16 inches or longer from the water before releasing it.

Information gathered from research programs on Kenai River indicate the coho salmon runs averaged about 140,000 fish from 1999 to 2004, with harvests averaging just over 62,000 fish (Table 265-1). Overall exploitation rates for Kenai River coho salmon runs prior to 2000 were high, in some cases (84% in 1999), under the previous Kenai River coho salmon management plan, which allowed a three-fish bag limit and more liberal commercial fishing in August; under a plan that allowed a two-fish bag limit and more restrictive commercial fishing, the exploitation rate ranged from 35% to 47% from 2000 to 2004. New regulations in 2005 and 2008, which liberalized sport and commercial fisheries, very likely increased exploitation rates of Kenai River coho salmon relative to the rates observed from 1999–2004. Research findings from studies conducted in Southeast Alaska with transboundary coho salmon stocks have indicated that an exploitation rate of about 61% is sustainable.

Total Kenai River drainage coho salmon sport harvests prior to 2000 (three coho per day) averaged 53,228 fish annually; since 2000 (two coho per day), the average has remained nearly the same with 53,372 fish, with guided averaging 26% of the total harvest during that time (Table 265-2).

Since inception of the sport fish guide logbook program in 2006, the number of guided trips in August, September, and October in the Upper Kenai River section has averaged 697, 421 and 33 trips respectively (Table 265-3). Using the freshwater logbook data, the average proportion of guided resident anglers from 2006 to 2012 in August, September, and October was 11%, 22%, and 38% respectively (Table 265-4).

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal because of the additional pressure it would place on Kenai River coho salmon. The stock is not monitored and is currently exposed to higher potential exploitation than other coho salmon stocks on the Cook Inlet road system. Inriver harvest data indicate that the harvest of Kenai River coho salmon is relatively stable under existing regulations. . Given the uncertainty surrounding the variable nature of annual coho salmon run strength, additional exploitation resulting from this proposal increases the likelihood for reduced coho salmon productivity in the Kenai River. The department is **NEUTRAL** on the allocative aspects of this proposal between guided and unguided users.

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 265-1.–Estimated harvest, total run, and exploitation rate of Kenai River coho salmon from 1999–2004.

		Harvest						
Year	Escapement[a,b]	Sport[c]	Personal Use	Commercial[d]	Research Mortality	Total Run	Total Harvest[e]	Harvest Rate[f]
1999	7,889	35,361	1,009	3,894	193	48,346	40,457	0.837
2000	72,742	52,489	1,449	2,965	555	130,200	56,903	0.437
2001	75,122	55,004	1,555	1,934	540	134,155	58,493	0.436
2002	133,612	66,104	1,721	6,115	968	208,520	73,940	0.355
2003	79,915	51,944	1,332	2,578	209	135,978	55,854	0.411
2004	95,394	72,565	2,661	11,149	2,106	183,875	86,375	0.470
Average 1999–2004	77,446	55,578	1,621	4,773	762	140,179	62,004	0.491
2000–2004	91,357	59,621	1,744	4,948	876	158,546	66,313	0.422

Note: 1991–1993 and 1998 Kenai River coho salmon creel data was used to calculate the effect of increasing the bag limit from 2 to 3 fish, only boat angler interviews/data were selected for use for 1991–1993 due to the lack of data from shore anglers.

[a] Kenai River coho salmon total runs were estimated only during 1999–2004.

[b] Sources: Carlon and Evans 2007, Massengill and Evans 2007.

[c] Source: Statewide Harvest Survey.

[d] Sources: Massengill and Carlon 2004 a,b; Massengill and Carlon 2007 a,b; Massengill 2007.

[e] Aggregate of all harvest estimates (sport, commercial, and personal use).

[f] Total Harvest divided by Total Run.

ND = No Data

Table 265-2.–Guided and unguided sport harvest of Kenai River coho salmon, 1984–2012.

Year	Bag Limit	Season Start	Season End	Guided Harvest	%	Unguided Harvest	%	Kenai River Harvest [a]	Total Drainage Harvest
1984	3	entire year		5,490	9.2	54,154	90.8	59,644	62,076
1985	3	entire year		4,006	9.0	40,529	90.8	44,635	46,090
1986	3	entire year		13,883	23.1	46,227	76.9	60,110	62,938
1987	3	entire year		4,976	15.0	28,234	85.0	33,210	37,484
1988	3	entire year		4,456	9.1	44,238	90.7	48,785	51,950
1989	3	entire year		15,835	28.6	39,424	71.3	55,275	59,575
1990	3	entire year		15,274	25.3	45,051	74.7	60,325	63,497
1991	3	entire year		30,789	40.4	45,367	59.6	76,163	80,674
1992 [b]	3	entire year		20,794	39.8	31,516	60.2	52,310	56,877
1993	3	entire year		23,743	47.0	26,795	53.0	50,538	52,855
1994	3	entire year		41,170	47.5	45,541	52.5	86,711	91,490
1995	3	entire year		23,587	51.1	22,596	48.9	46,183	50,346
1996 [c]	3	entire year		13,728	32.5	28,565	67.5	42,293	47,860
1997 [d]	3/1 [e]	7/1	9/30	3,101	19.2	13,063	80.8	16,164	20,770
1998	3	7/1	9/30	5,217	19.3	21,750	80.7	26,967	31,579
1999 [f]	3	7/1	9/30	8,087	25.6	23,550	74.4	31,637	35,591
2000 [g]	2	7/1	9/30	9,349	19.3	39,170	80.7	48,519	52,489
2001	2	7/1	9/30	13,518	27.2	36,264	72.8	49,782	55,027
2002	2	7/1	9/30	14,444	24.2	45,206	75.8	59,650	66,160
2003	2	7/1	9/30	11,964	25.6	34,658	74.3	46,657	52,370
2004 [h]	2	7/1	10/31	14,845	22.5	51,070	77.4	65,952	72,658
2005 [i]	2	7/1	10/31	12,285	24.4	38,071	75.5	50,411	54,297
2006	2	7/1	10/31	9,233	24.5	28,281	75.1	37,639	43,118
2007	2	7/1	10/31	10,312	27.1	27,705	72.9	38,017	41,263
2008 [j]	2/3	7/1	11/30	13,618	26.4	38,006	73.6	51,624	55,520
2009	2/3	7/1	11/30	11,759	23.5	38,201	76.5	49,960	55,495
2010	2/3	7/1	11/30	15,424	29.2	37,488	70.8	52,912	55,555
2011	2/3	7/1	11/30	11,277	25.6	32,855	74.4	44,132	48,642
2012	2/3	7/1	11/30	12,277	33.7	24,130	66.3	36,407	41,237
Average (1984-1999)				14,634	27.6	34,788	72.4	49,434	53,228
Average (2000-2012)				12,331	25.6	36,239	74.3	48,589	53,372

Source: Statewide Harvest Survey (Mills 1984-1994; Howe et al. 1995-1996, 2001a-d; Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b, *In prep*. a-b).

[a] Includes Kenai R guided/unguided not specified, reach not specified.

[b] No fishing after 3 coho harvested, to prevent "boat limits."

[c] Closed sections of 5 rm below lakes to all fishing to protect spawning cohos, from Jan 1–June 14

[d] Guides retricted on Mondays

e Emergency order reduced bag limit to 1 per day on 8/11/98

[f] Repealed c,

[g] Coho salmon sport fishing closed from 8/1–8/3

[h] Extended season to Oct. 31

[i] Repealed g, allowed to fish after limit of coho upstream of Soldotna Bridge, guides allowed to fish upstream of Moose for other species

[j] 2 per day in August/3 per day in September–November

[k] Includes entire Kenai R drainage (Russian R, Beaver Cr, Funny R, Grant Cr, Hidden Cr/Lk, Jean Lk, Kenai Lk, Moose R, Quartz Cr, Sevena Lk, Skilak Lk, Soldotna Cr, and Trail Lk).

Table 265-3.–Number of trips by guided vessels between Skilak Lake and Kenai Lake by month from 2006–2012.

Year	May	June	July	August	September	October
2006	1	336	640	594	401	10
2007	0	370	601	581	391	37
2008	6	410	694	771	479	18
2009	0	457	698	671	421	35
2010	0	404	688	726	396	43
2011	1	399	612	786	458	46
2012	0	490	731	747	400	41
Mean	1	409	666	697	421	33

Source: ADF&G Freshwater Sport Fish Guide Logbook.

Table 265-4.–Number of resident and nonresident clients fishing from guided vessels on the Kenai River during between Skilak Lake and Kenai Lake from 2006–2012.

	August				September				October			
Year	Number of Resident Clients	%	Number of Nonresident Clients	%	Number of Resident Clients	%	Number of Nonresident Clients	%	Number of Resident Clients	%	Number of Nonresident Clients	%
2006	126	7%	1,711	93%	190	16%	974	84%	6	30%	14	70%
2007	182	10%	1,623	90%	236	20%	950	80%	24	25%	73	75%
2008	268	11%	2,178	89%	290	20%	1,176	80%	20	39%	31	61%
2009	238	12%	1,734	88%	336	27%	902	73%	45	57%	34	43%
2010	260	11%	2,025	89%	296	27%	801	73%	30	32%	64	68%
2011	332	13%	2,154	87%	319	23%	1,073	77%	60	48%	66	52%
2012	261	12%	1,985	88%	227	20%	910	80%	38	36%	69	64%
Mean	238	11%	1,916	89%	271	22%	969	78%	32	38%	50	62%

Source: ADF&G Freshwater Sport Fish Guide Logbook.

PROPOSAL 319 – 5 AAC 60.122. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for the Knik Arm Drainages Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would define the area open to fishing within the Jim Creek drainage, limit sport fishing from 6:00 a.m. to 6:00 p.m. during the coho salmon season, close specific lakes to fishing, and prohibit anglers from continuing to fish after taking a bag limit of salmon.

WHAT ARE THE CURRENT REGULATIONS? Upper Jim Creek (upstream of Leaf Lake), Jim Lake, and McRoberts Creek are closed to sport fishing for salmon. Other areas of Jim Creek drainage are open to fishing for salmon year round with a bag and possession limit of three salmon, of which, only two may be coho salmon. Fishing is allowed 24 hours per day.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would aid enforcement of regulations by geographically defining boundaries for the fishery, protect salmon staging for Upper Jim Creek and McRoberts Creek, and make coho salmon regulations more consistent among Knik Arm streams. During weekdays, fishing opportunity outside of normal business hours would be reduced. This proposal may reduce harvest by approximately 40% due to the nighttime closure.

BACKGROUND: The Jim Creek coho fishery has grown since the early 2000s. Since 2006, it has supported the second largest freshwater coho salmon sport harvest in the state. From 1993–2002, sport harvest averaged 5,200 coho salmon. Sport harvest doubled to 10,200 fish between 2003 and 2012 (Table 319-1; Figure 319-1). An average of 9,400 angler-days were expended from 1993–2002, increasing to 17,700 angler-days from 2003–2012. The sustainable escapement goal of 450–700 coho salmon (based upon a foot survey of an index area on McRoberts Creek) was not met 2010–2012 despite specific management actions to reduce sport harvest.

Coho salmon stage in Leaf and Mud lakes in large numbers prior to ascending upper Jim and McRoberts creeks to spawn, and are susceptible to catch and harvest for a prolonged period of time. Staging is especially prominent in Leaf Lake because space for spawning is limited in Upper Jim Creek. Enforcement of closed waters on McRoberts Creek where it flows through Mud Lake is difficult because the creek is not readily discernable from the lake.

The mouth of Jim Creek is indefinable because the area lacks landmarks from which to clearly define where Jim Creek begins and is separated from the Knik River. Defining a boundary for the Jim Creek fishery is necessary to maintain separation from inseason regulatory changes to Jim Creek and the rest of Knik River. Many anglers and enforcement officers have difficulty determining its location (Figure 319-2). Regulatory markers are difficult to keep intact in this area and are susceptible to being vandalized, requiring extensive effort to keep markers posted. The mouth of Bodenburg Creek is prominent and a good natural landmark about 1.25 miles downstream of the "general mouth" area of Jim Creek. Typically, this one-mile area of the Knik River is too glacially silted for anglers to successfully fish, but occasionally, the upper section of

this area nearer the mouth of Jim Creek is clear enough to fish. For management purposes, any salmon caught in the proposed area to be designated as Jim Creek waters are considered part of the Jim Creek stock.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal**.** Current harvest levels should be reduced in order to ensure sustainable harvests and achievement of escapement goals over most 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.

Table 319-1.–Coho salmon harvest and escapement on Jim Creek drainage, 1993–2013.

			Escapement			
			Foot index count			
Year	Effort	Harvest	McRoberts [a] Creek	Upper Jim Creek	Total Index	Weir Count
1993	6,824	2,878	503	535	1,038	5,532
1994	9,658	3,946	506	2,119	2,625	6,451
1995	10,893	3,549	702	1,288	1,990	
1996	7,561	3,911	72	439	511	
1997	5,349	1,786	701	563	1,264	
1998	5,272	4,197	922	560	1,482	
1999	6,860	2,612	12	320	332	
2000	10,975	5,653	657	2,561	3,218	
2001	13,028	8,374	1,019	575	1,594	
2002	17,989	14,707	2,473	1,630	4,103	
2003	13,474	6,415	1,421	393	1,814	
2004	19,342	11,766	4,652	1,045	5,697	
2005	19,605	10,114	1,464	1,883	3,347	
2006	25,271	19,259	2,389	1,750	4,139	
2007	21,342	11,848	725	1,150	1,875	
2008	27,874	17,545	1,890	1,029	2,919	
2009	16,486	11,573	1,331	1,193	2,524	
2010	16,140	8,442	242	420	662	
2011	9,810	3,132 [b]	261	229	490	
2012	7,474	1,858 [b]	213 [c]	495	708	
2013	*Not available*		663	1,029	1,692	
Average						
1993–2002	9,441	5,161	757	1,059	1,816	
2003–2012	17,682	10,195	1,459	959	2,418	
2008–2012	15,557	8,510	787	673	1,461	

[a] SEG of 450–700 coho salmon.

[b] Fishery restricted or closed early.

[c] Foot survey conducted late.

Blank cells = No data.

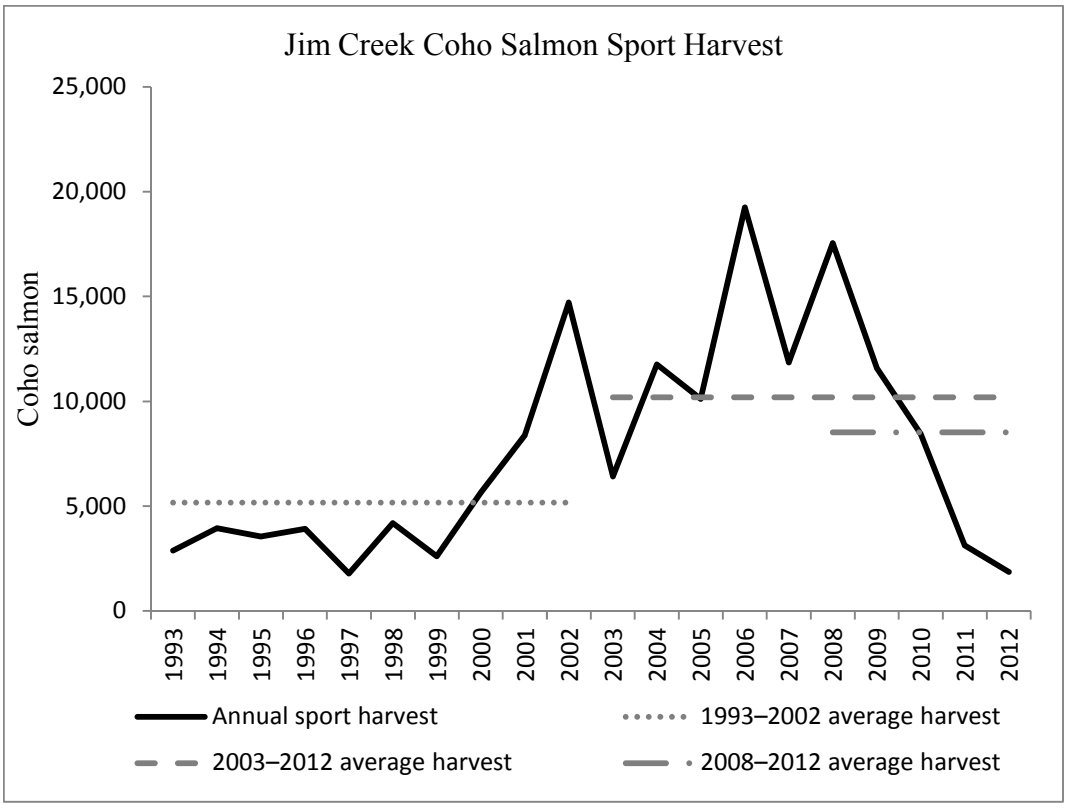

Figure 319-1.–Average harvest of coho salmon in Jim Creek, 1993–2012.

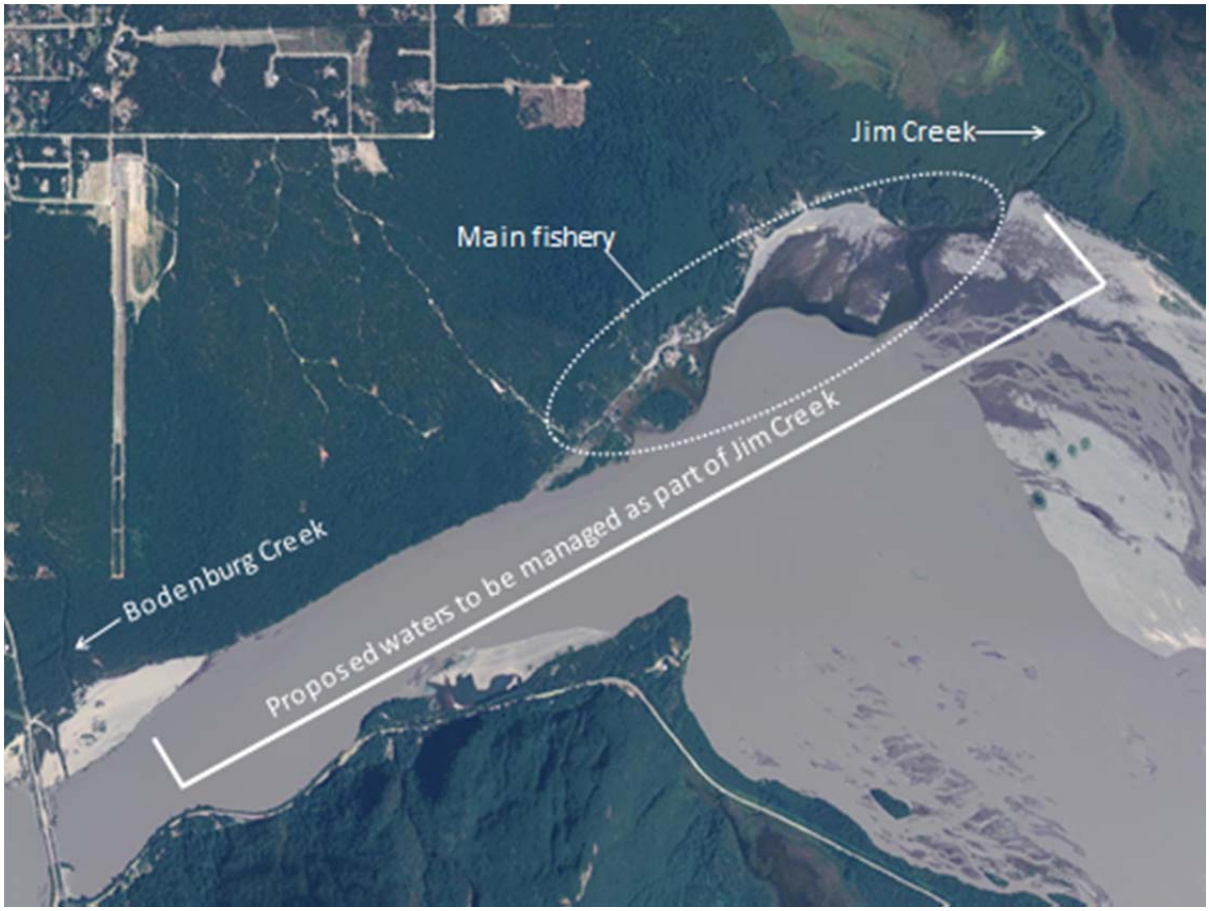

Figure 319-2.–Map of Jim Creek and proposed area to be included in the management of Jim Creek salmon.

PROPOSAL 320 – 5 AAC 60.122. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for the Knik Arm Drainages Area.

PROPOSED BY: Brian Bohman.

WHAT WOULD THE PROPOSAL DO? This proposal would limit the hours open to sport fishing in Jim Creek year-round from 24 hours per day to 6:00 a.m.–6:00 p.m.

WHAT ARE THE CURRENT REGULATIONS? Upper Jim Creek (upstream of Leaf Lake), Jim Lake, and McRoberts Creek are closed to sport fishing for salmon. Other areas of Jim Creek drainage are open to fishing for salmon year round with a bag and possession limit of three salmon, of which, only two may be coho salmon. Fishing is allowed 24 hours per day.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? During weekdays, fishing opportunity outside of normal business hours would be reduced. This proposal may reduce harvest by approximately 40%.

BACKGROUND: The Jim Creek coho fishery has grown since the early 2000s. Since 2006, it has supported the second largest freshwater coho sport harvest in the state. From 1993–2002, the harvest averaged 5,200 coho salmon. The sport harvest doubled to 10,200 fish between 2003 and 2012 (Table 320-1; Figure 320-1). An average of 9,400 angler-days were expended from 1993–2002, increasing to 17,700 angler-days from 2003–2012. The sustainable escapement goal of 450–700 coho salmon (based upon a foot survey of an index area on McRoberts Creek) was not met 2010–2012 despite specific management actions to reduce sport harvest.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal and submitted a similar proposal (319) that includes this time restriction to 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 320-1.–Coho salmon harvest and escapement on Jim Creek drainage, 1993–2013.

			Escapement			
			Foot index count			
Year	Effort	Harvest	McRoberts [a] Creek	Upper Jim Creek	Total Index	Weir Count
1993	6,824	2,878	503	535	1,038	5,532
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2002	17,989	14,707	2,473	1,630	4,103	
2003	13,474	6,415	1,421	393	1,814	
2004	19,342	11,766	4,652	1,045	5,697	
2005	19,605	10,114	1,464	1,883	3,347	
2006	25,271	19,259	2,389	1,750	4,139	
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2013	*Not available*		663	1,029	1,692	
Average						
1993–2002	9,441	5,161	757	1,059	1,816	
2003–2012	17,682	10,195	1,459	959	2,418	
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[a] SEG of 450–700 coho salmon.

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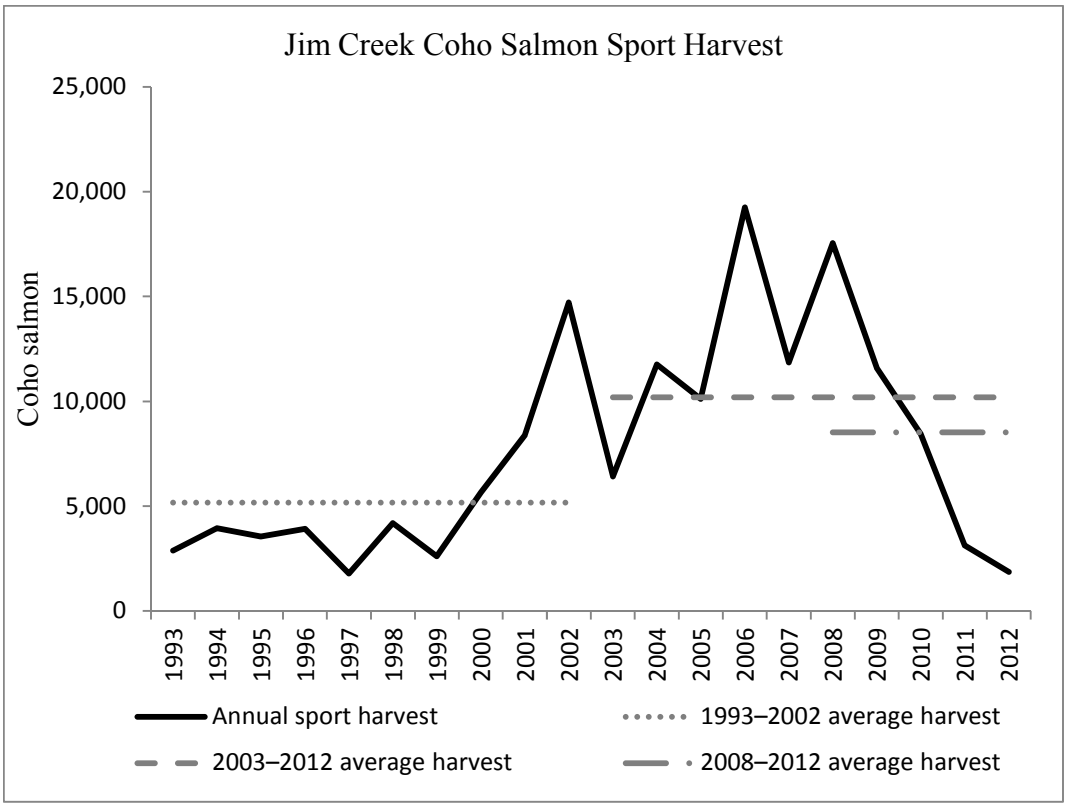

Figure 320-1.–Average harvest of coho salmon in Jim Creek, 1993–2012.