

ALASKA DEPARTMENT OF FISH AND GAME

**STAFF COMMENTS
COMMERCIAL, PERSONAL USE, SPORT, GUIDED SPORT AND SUBSISTENCE
FINFISH REGULATORY PROPOSALS
COMMITTEES A, B, C, D, E**

FOR THE UPPER COOK INLET MANAGEMENT AREA

**ALASKA BOARD OF FISHERIES MEETING
ANCHORAGE, ALASKA**

January 31–February 13, 2014



Regional Information Report No. 2A.2013.05

The following staff comments were prepared by the Alaska Department of Fish and Game for use at the Alaska Board of Fisheries (board) meeting, January 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 personal use, sport, 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, 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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TABLE OF CONTENTS

Proposal No. & Subject	Page
Summary of Department Positions	vii
COMMITTEE A – UPPER COOK INLET PERSONAL USE SALMON FISHING (25 PROPOSALS)	1
<u>Upper Cook Inlet personal use salmon fisheries</u>	
269 - Update sockeye salmon numbers within the personal use salmon management plan to align with the <i>Kenai River Late-Run Sockeye Salmon Management Plan</i>	1
270 - Clarify when a person is required to record their harvest within Upper Cook Inlet personal use salmon fisheries regulations	2
271 - Direct department to provide permit holder information to enforcement officials if permit holder fails to return their permit.....	3
272 - Require a person to show proof of residency prior to a permit being issued and require personal use fishery to be closed if more than five percent of permits are not returned...	6
273 - Exempt a person obtaining a personal use dipnet permit for Cook Inlet from requirement that the person is the holder of a valid resident sport fish license or is a resident exempt from licensing under AS 16.05.400.....	9
274 - Require online permitting for personal use permits, establish penalties for violations, and reduce household limit to 15 per head of household and 5 for each additional member ..	10
275 - Limit the number of Cook Inlet personal use permits that can be issued to 30,000 permits.....	18
276 - Open Kenai River personal use fishery after 350,000 sockeye salmon escapement has been reached.....	21
277 - Open Kenai River personal use fishery after escapement has been met.....	25
278 - Prohibit emergency order (EO) authority liberalizing personal use salmon fishery to 24 hours per day, but allow for increased harvest limits.	28
279 - Modify existing Kenai River personal use fishery hours from 6:00 a.m.–10:00 p.m., to 7:00 a.m.–7:00 p.m.	31
280 - Reduce Kenai River personal use fishing season, establish paired restrictions with commercial fishery to achieve inriver goal, and prohibit retention of king salmon.	32
172 - Close the Kenai River personal use fishery when it is announced the sockeye salmon optimal escapement goal (OEG) may not be met.	35
281 - Prohibit retention of king salmon in the Kenai River personal use fishery.....	36
282 - Extend the Kenai River personal use fishery into August.....	38
283 - Reduce household limits for Kenai River personal use fishery based upon Kenai River sockeye salmon run size.....	45
284 - Establish harvest allocations for the Kenai River personal use fishery based upon Kenai River sockeye salmon run size.....	54
285 - Prohibit dipnetting from boats in the Kenai River personal use fishery.	65
286 - Establish a no-wake zone and maximum speed limit on the Kenai River between river mile 3 and 4.5 during the personal use fishery.	67
287 - Reduce allowable mesh size to 2-inch mesh in Cook Inlet personal use dipnet fisheries.	69
288 - Prohibit release of salmon caught in Cook Inlet personal use fisheries.....	71

TABLE OF CONTENTS (Continued)

<u>Proposal No. & Subject</u>	<u>Page</u>
289 - Require fish waste from the Kenai River personal use fishery to be ground up to three-quarters inch.....	72
290 - Change dates for the Kasilof River personal use (PU) set gillnet fishery from June 15–24 to June 20–30, and close the PU set gillnet fishery and require release of all king salmon in the PU dipnet fishery when sport fish restrictions are placed on king salmon in the Kenai or Kasilof rivers.....	73
291 - Extend fishing season for personal use smelt fishery from April 1 through June 15.....	77
318 - Open the Fish Creek personal use fishery unless the sockeye salmon escapement is projected to be less than 50,000 fish.....	79

COMMITTEE B – COOK INLET COMMERCIAL FISHING (13 PROPOSALS).....84

Fishing Districts, Seasons, Periods, Gear, Gillnet Specifications, Registration, Closed Waters, and Reporting Requirements

121 - Allow regularly-scheduled commercial fishing periods on Mondays and Thursdays, through July 18.	84
123 - Change regularly-scheduled fishing periods in the Kalgin Island and Western subdistricts to 7 a.m. to 7 p.m. on Wednesday and Saturday.....	86
124 - Correct errors in regulation regarding regulatory marker locations and fixed positions of area boundaries.	88
125 - Allow selective harvest modules (SHM), under certain specifications and operations, to be used to commercially harvest salmon in the Upper Subdistrict of the Central District.....	89
81 - Establish various management measures to address decline in returning king salmon to Cook Inlet, including requiring net gear be certified as avoiding king salmon interception and closing commercial herring fisheries.	91
128 - Amend references to registration requirements for set and drift gillnetting in Upper Cook Inlet.	93
129 - Remove registration requirement for joint operation of drift gillnet gear.....	94
130 - Require CFEC setnet permit holders registered in the Upper Subdistrict to fish in only one section (Kasilof or Kenai) for the entire season.....	96
133 - Require the number of commercially-harvested king salmon to be recorded by length (under 20" and over 20") on fish tickets.	99

West Side Rivers

134 - Amend management plan to include all waters of the Kalgin Island Subdistrict and reduce fishing time from three days a week to two days a week.	103
79 - Close waters to commercial fishing within one statute mile of the terminus of any anadromous fish stream in Cook Inlet as measured from mean lower low tide, not mean high tide.....	106

Northern Pike

181 - Establish a commercial fishery for Northern pike in Upper Cook Inlet.....	109
182 - Establish a five-dollar bounty for northern pike.....	110

TABLE OF CONTENTS (Continued)

<u>Proposal No. & Subject</u>	<u>Page</u>
COMMITTEE C – KENAI RESIDENT SPECIES, GUIDES, BOUNDARIES, AND HABITAT (22 PROPOSALS)	111

Sport – Kenai Resident Species

252 - Open rainbow trout fishing year-round in the Kenai River downstream of an ADF&G marker located upstream of the Lower Killey River, and increase rainbow trout spawning closure area below the Upper Killey River by approximately three-quarters of a river mile.	111
253 - Open rainbow trout fishing year-round in the Kenai River downstream of an ADF&G marker, designating the upper end of the Killey River king salmon sanctuary, and increase the rainbow trout spawning closure area located above the Upper Killey River.	111
254 - Allow fishing for trout on the Kenai River below Moose River using bait beginning June 1 and restrict gear.	115
255 - Move Hidden Lake Creek and Hidden Lake special provisions from the Lower Section management area to the Middle Section management area.	118
256 - Reduce spawning closure period on Crescent Lake/Crescent Creek.	120
257 - Create a spawning closure period on Bench Lake and Bench Creek for Arctic grayling.	124
258 - Remove liberal gear limits of five lines allowed while fishing through ice on Stormy Lake for northern pike.	126

Guides – Kenai and Kasilof

259 - From May 1 to July 31, limit hours allowed for boat anglers; limit guides to 10 starts per week; and clarify department emergency order (EO) authority.	127
260 - Allow guided fishing on the Kenai River seven days per week, but guides can only operate during five days of their choosing.	136
261 - Allow five anglers to fish from a registered guide vessel on the Kenai River during the month on July.	144
262 - Prohibit sport fishing from a registered guide vessel downstream from the outlet of Kenai Lake on Sundays and Mondays.	152
266 - Prohibit a registered guide who guides on the Kenai River from guiding on the Kasilof River when the Kenai River is closed to guided fishing on Sundays and Mondays.	156
267 - Limit the number of guides on the Kenai River to 200.	158
268 - Placeholder proposal to allow stakeholders, department, and board to discuss proposed regulatory action based on results of 2012 Kenai River Freshwater Logbook data.	160

Sport – Kenai River Boundaries and Habitat

229 - Modify description of the Lower Section of the Kenai River to denote the mouth of the Kenai River.	161
230 - Add a reference to an ADF&G regulatory marker at the outlet of Skilak Lake.	163
231 - Remove a small section of water in the Moose River open to king salmon fishing.	166
232 - Modify the boundary for prohibiting sport fishing from a boat around the Moose River.	168

TABLE OF CONTENTS (Continued)

<u>Proposal No. & Subject</u>	<u>Page</u>
233 - Prohibit sport fishing within the Soldotna Centennial Campground boat launch lagoon.....	170
234 - Establish a new Kenai River riparian habitat area closed to fishing July 1–August 15....	172
235 - Require the department to conduct habitat assessments on Upper Cook Inlet rivers related to sport and personal use fisheries.	174
236 - Require submission of findings and proposals if the Kenai River riparian habitat assessment demonstrates a loss of riparian habitat.	177

COMMITTEE D – NORTHERN COOK INLET ESCAPEMENT GOALS, AND COMMERCIAL, SPORT, AND SUBSISTENCE FISHING (32 PROPOSALS).....178

Escapement Goals

300 - Establish an optimal escapement goal for Deshka River coho salmon.	178
301 - Adopt a sustainable escapement goal established by the department or establish an optimal escapement goal for Kashwitna River king salmon.	182
309 - Develop and adopt a sustainable escapement goal or optimal escapement goal for Big River and Kustatan River coho salmon.	186
313 - Adopt a sustainable escapement goal established by the department or establish an optimal escapement goal for Little Susitna River sockeye salmon.	190
315 - Adopt a sustainable escapement goal established by the department or establish an optimal escapement goal for Little Susitna River chum salmon.	194
321 - Adopt a sustainable escapement goal established by the department or establish an optimal escapement goal for Moose Creek king salmon.	197

Northern District Commercial Salmon

292 - Modify management plan to restrict commercial king salmon fishing in the Northern District if sport fishing in the Deshka River is restricted to artificial lures, or close commercial king salmon fishing in the Northern District if sport fishing is restricted to catch and release or closed in Susitna River tributary streams upriver from the Deshka River.....	200
293 - Modify management plan to restrict commercial set gillnet fishing to one regular 12-hour period per week in the Northern District if sport fishing in the Deshka River is restricted to artificial lures; or close the Northern District to commercial fishing, if sport fishing is closed in the Little Susitna River, Fish Creek, Jim Creek, or Deshka River.	206
294 - Modify management plan to manage Northern District commercial salmon fisheries based on abundance of Northern District sockeye and coho salmon.....	215
295 - 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.	223

Susitna River Drainage Sport Fisheries

296 - Adopt a Deshka River king salmon management plan.....	225
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TABLE OF CONTENTS (Continued)

<u>Proposal No. & Subject</u>	<u>Page</u>
297 - Adopt a Deshka River king salmon management plan.....	229
298 - Allow use of bait in the Deshka River on June 1 instead of May 15.	233
299 - Stock Deshka River with king salmon.	236
302 - Prohibit sport fishing for all salmon in Larson Creek and its confluence with the Talkeetna River from June 1–September 30.....	238
303 - Prohibit sport fishing in Larson Creek and its confluence with Talkeetna River from June 15–August 15.....	240
304 - Prohibit sport fishing at the outlet of Larson Lake.....	241
305 - Close the Fish Creek drainage to sport fishing for salmon.....	242
306 - Move several lakes from Unit 4 of the Susitna River drainage to Unit 1.....	244
<u>Subsistence – Susitna Salmon</u>	
307 - Extend subsistence salmon fishery from July 31 to the first Monday, Wednesday, and Friday in August.	246
308 - Allow salmon to be harvested by dipnet upstream of the Yentna/Susitna confluence to an ADF&G marker located 300 feet downstream of the department's Yentna River sonar.....	252
<u>Sport Fisheries – Knik River Area, Anchorage Area</u>	
310 - Allow harvest of king and coho salmon only on Tuesdays, Wednesdays, and Thursdays in the Little Susitna River, and reduce harvest limits	255
311 - Direct the department to begin stocking coho salmon into the Little Susitna River.	258
312 - Direct the department to begin stocking coho salmon into the Little Susitna River.	258
314 - Open Little Susitna River sockeye salmon sport fishery by emergency order (EO) and only when escapement of 2,500 sockeye salmon can be projected.	261
316 - Require use of four-stroke outboard motors on Little Susitna River and limit the number of outboards on the river per day.	264
317 - Prohibit sport fishing from a boat during the coho salmon season on the Little Susitna River.....	268
322 - Amend area open to sport fishing for king salmon in the Eklutna Tailrace.....	271
323 - Create a youth-only king salmon fishery in the Eklutna Tailrace.	273
376 - Create a youth-only coho salmon fishery in the Eklutna Tailrace.	276
324 - Update stocked lakes list for the Knik Arm drainage area.....	278
325 - Reduce bag limit for landlocked king and other salmon in Anchorage stocked lakes.....	279
COMMITTEE E – UPPER COOK INLET, KENAI, KASILOF SPORT FISHERIES (27 PROPOSALS).....280	
<u>Cook Inlet – Areawide Sport Fisheries</u>	
47 - Prohibit use of barbed hooks while sport fishing for salmon in Cook Inlet fresh waters.....	280
48 - Designate all waters where catch-and-release fishing occurs on salmon as single, unbaited, barbless-hook waters.....	283
49 - Establish criteria to designate waters in Cook Inlet as single, unbaited, barbless hooks waters.	286

TABLE OF CONTENTS (Continued)

<u>Proposal No. & Subject</u>	<u>Page</u>
50 - Prohibit catch-and-release fishing for coho salmon in all Cook Inlet fresh waters.....	289
52 - Prohibit catch-and-release fishing for salmon in all Cook Inlet fresh waters.....	291
53 - Prohibit anglers who are releasing a fish from removing the head of a fish out of the water.....	293
54 - Prohibit sport fishing in major spawning areas where spawning fish are present in Cook Inlet salmon waters.	294
183 - Adopt a policy that prohibits sport fishing within 50 percent of identified salmon spawning areas in all Upper Cook Inlet salmon waters.....	295
55 - Decrease Cook Inlet king salmon annual limit to two king salmon 20 inches or greater in length, of which only one can be from the Kenai River.	297
56 - Decrease the Cook Inlet saltwater king salmon bag and possession limit to one king salmon and reduce the annual limit to two king salmon.	299
184 - Require sport, personal use, and subsistence fishermen to record and report king salmon harvest information within a 24-hour period.	301
185 - Require daily reporting of all salmon harvested in Upper Cook Inlet salmon fisheries by all user groups.	303
57 - Limit amount of sport-caught fish that may be exported to 100 pounds of fillets.	305
 <u>Sport – Kenai River Vessel Restrictions</u>	
237 - Add an additional drift boat-only day (Thursdays) on the Kenai River.....	306
238 - Add an additional drift boat-only day (Thursdays) on the Kenai River.....	306
239 - Add an additional drift boat-only day on the Kenai River.	308
240 - Prohibit sport fishing from a vessel on Mondays in the Kenai River downstream of Skilak Lake during May, June, and July.....	310
241 - Prohibit fishing from a vessel on the Kenai River from 10:00 p.m. to 4:00 a.m. during May, June, and July.	316
242 - Restrict outboard motor use on the Kenai River to 10 horsepower or less.	322
243 - Beginning in 2015, prohibit outboard motor exhaust from being discharged into the waters of the Kenai River.	324
 <u>Sport – Kenai and Kasilof Rivers Salmon</u>	
244 - Close Hidden Lake Creek and Jean Lake Creek to salmon fishing.....	326
245 - Prohibit sport fishing for salmon in Russian River upstream of the power line.	329
246 - Prohibit barbed hooks when sport fishing in the Middle Section of the Kenai River drainage, including Russian River.	335
247 - Allow snagging of sockeye salmon in the Kenai River.....	342
249 - Prohibit use of eggs for bait in the Kasilof River king salmon sport fishery.	343
250 - Prohibit retention of female king salmon greater than 33 inches in length in the Kasilof River sport fishery.....	344
251 - Reduce king salmon bag and possession limit to one fish on the Kasilof River.....	347

Summary of Department Positions, Upper Cook Inlet Board of Fish Meeting, 2013

Proposal No.	Dept. Position	Issue	Page No.
47	O / N	Prohibit use of barbed hooks while sport fishing for salmon in Cook Inlet fresh waters.	280
48	O / N	Designate all waters where catch-and-release fishing occurs on salmon as single, unbaited, barbless-hook waters.	283
49	O / N	Establish criteria to designate waters in Cook Inlet as single, unbaited, barbless hooks waters.	286
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52	O	Prohibit catch-and-release fishing for salmon in all Cook Inlet fresh waters.	291
53	O	Prohibit anglers who are releasing a fish from removing the head of a fish out of the water.	293
54	O	Prohibit sport fishing in major spawning areas where spawning fish are present in Cook Inlet salmon waters.	294
55	O / N	Decrease Cook Inlet king salmon annual limit to two king salmon 20 inches or greater in length, of which only one can be from the Kenai River.	297
56	O / N	Decrease the Cook Inlet saltwater king salmon bag and possession limit to one king salmon and reduce the annual limit to two king salmon.	299
57	O	Limit amount of sport-caught fish that may be exported to 100 pounds of fillets.	305
79	O / N	Close waters to commercial fishing within one statute mile of the terminus of any anadromous fish stream in Cook Inlet as measured from mean lower low tide, not mean high tide.	106
81	O / N	Establish various management measures to address decline in returning king salmon to Cook Inlet, including requiring net gear be certified as avoiding king salmon interception and closing commercial herring fisheries.	91
121	N	Allow regularly-scheduled commercial fishing periods on Mondays and Thursdays, through July 18.	84
123	N	Change regularly-scheduled fishing periods in the Kalgin Island and Western subdistricts to 7 a.m. to 7 p.m. on Wednesday and Saturday.	86
124	S	Correct errors in regulation regarding regulatory marker locations and fixed positions of area boundaries.	88
125	N	Allow selective harvest modules (SHM), under certain specifications and operations, to be used to commercially harvest salmon in the Upper Subdistrict of the Central District.	89
128	S	Amend references to registration requirements for set and drift gillnetting in Upper Cook Inlet.	93
129	S	Remove registration requirement for joint operation of drift gillnet gear.	94
130	N	Require CFEC setnet permit holders registered in the Upper Subdistrict to fish in only one section (Kasilof or Kenai) for the entire season.	96
133	O	Require the number of commercially-harvested king salmon to be recorded by length (under 20" and over 20") on fish tickets.	99
134	N	Amend management plan to include all waters of the Kalgin Island Subdistrict and reduce fishing time from three days a week to two days a week.	103
172	N	Close the Kenai River personal use fishery when it is announced the sockeye salmon optimal escapement goal (OEG) may not be met.	35
181	N	Establish a commercial fishery for Northern pike in Upper Cook Inlet.	109
182	NP	Establish a five-dollar bounty for northern pike.	110
183	O	Adopt a policy that prohibits sport fishing within 50 percent of identified salmon spawning areas in all Upper Cook Inlet salmon waters.	295

Summary of Department Positions, Upper Cook Inlet Board of Fish Meeting, 2011 (Page 2 of 5)

184	O	Require sport, personal use, and subsistence fishermen to record and report king salmon harvest information within a 24-hour period.	301
185	O	Require daily reporting of all salmon harvested in Upper Cook Inlet salmon fisheries by all user groups.	303
229	S	Modify description of the Lower Section of the Kenai River to denote the mouth of the Kenai River.	161
230	S	Add a reference to an ADF&G regulatory marker at the outlet of Skilak Lake.	163
231	S	Remove a small section of water in the Moose River open to king salmon fishing.	166
232	S	Modify the boundary for prohibiting sport fishing from a boat around the Moose River.	168
233	N	Prohibit sport fishing within the Soldotna Centennial Campground boat launch lagoon.	170
234	S	Establish a new Kenai River riparian habitat area closed to fishing July 1–August 15.	172
235	NA	Require the department to conduct habitat assessments on Upper Cook Inlet rivers related to sport and personal use fisheries.	174
236	NC	Require submission of findings and proposals if the Kenai River riparian habitat assessment demonstrates a loss of riparian habitat.	177
237	N	Add an additional drift boat-only day (Thursdays) on the Kenai River.	306
238	N	Add an additional drift boat-only day (Thursdays) on the Kenai River.	306
239	N	Add an additional drift boat-only day on the Kenai River.	308
240	O/N	Prohibit sport fishing from a vessel on Mondays in the Kenai River downstream of Skilak Lake during May, June, and July.	310
241	O	Prohibit fishing from a vessel on the Kenai River from 10:00 p.m. to 4:00 a.m. during May, June, and July.	316
242	O	Restrict outboard motor use on the Kenai River to 10 horsepower or less.	322
243	O	Beginning in 2015, prohibit outboard motor exhaust from being discharged into the waters of the Kenai River.	324
244	S	Close Hidden Lake Creek and Jean Lake Creek to salmon fishing.	326
245	O	Prohibit sport fishing for salmon in Russian River upstream of the power line.	329
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254	O	Allow fishing for trout on the Kenai River below Moose River using bait beginning June 1 and restrict gear.	115
255	S	Move Hidden Lake Creek and Hidden Lake special provisions from the Lower Section management area to the Middle Section management area.	118
256	S	Reduce spawning closure period on Crescent Lake/Crescent Creek.	120
257	S	Create a spawning closure period on Bench Lake and Bench Creek for Arctic grayling.	124

Summary of Department Positions, Upper Cook Inlet Board of Fish Meeting, 2011 (Page 3 of 5)

258	S	Remove liberal gear limits of five lines allowed while fishing through ice on Stormy Lake for northern pike.	126
259	N	From May 1 to July 31, limit hours allowed for boat anglers; limit guides to 10 starts per week; and clarify department emergency order (EO) authority.	127
260	N	Allow guided fishing on the Kenai River seven days per week, but guides can only operate during five days of their choosing.	136
261	N	Allow five anglers to fish from a registered guide vessel on the Kenai River during the month on July.	144
262	N	Prohibit sport fishing from a registered guide vessel downstream from the outlet of Kenai Lake on Sundays and Mondays.	152
266	N	Prohibit a registered guide who guides on the Kenai River from guiding on the Kasilof River when the Kenai River is closed to guided fishing on Sundays and Mondays.	156
267	N	Limit the number of guides on the Kenai River to 200.	158
268	NP	Placeholder proposal to allow stakeholders, department, and board to discuss proposed regulatory action based on results of 2012 Kenai River Freshwater Logbook data.	160
269	S	Update sockeye salmon numbers within the personal use salmon management plan to align with the Kenai River Late-Run Sockeye Salmon Management Plan.	1
270	S	Clarify when a person is required to record their harvest within Upper Cook Inlet personal use salmon fisheries regulations.	2
271	N	Direct department to provide permit holder information to enforcement officials if permit holder fails to return their permit.	3
272	O	Require a person to show proof of residency prior to a permit being issued and require personal use fishery to be closed if more than five percent of permits are not returned.	6
273	O	Exempt a person obtaining a personal use dipnet permit for Cook Inlet from requirement that the person is the holder of a valid resident sport fish license or is a resident exempt from licensing under AS 16.05.400.	9
274	N	Require online permitting for personal use permits, establish penalties for violations, and reduce household limit to 15 per head of household and 5 for each additional member.	10
275	N	Limit the number of Cook Inlet personal use permits that can be issued to 30,000 permits.	18
276	N	Open Kenai River personal use fishery after 350,000 sockeye salmon escapement has been reached.	21
277	N	Open Kenai River personal use fishery after escapement has been met.	25
278	N	Prohibit emergency order (EO) authority liberalizing personal use salmon fishery to 24 hours per day, but allow for increased harvest limits.	28
279	N	Modify existing Kenai River personal use fishery hours from 6:00 a.m.–10:00 p.m., to 7:00 a.m.–7:00 p.m.	31
280	N	Reduce Kenai River personal use fishing season, establish paired restrictions with commercial fishery to achieve inriver goal, and prohibit retention of king salmon.	32
281	N	Prohibit retention of king salmon in the Kenai River personal use fishery.	36
282	O/N	Extend the Kenai River personal use fishery into August.	38
283	N/O	Reduce household limits for Kenai River personal use fishery based upon Kenai River sockeye salmon run size.	45
284	N	Establish harvest allocations for the Kenai River personal use fishery based upon Kenai River sockeye salmon run size.	54
285	N	Prohibit dipnetting from boats in the Kenai River personal use fishery.	65
286	O	Establish a no-wake zone and maximum speed limit on the Kenai River between river mile 3 and 4.5 during the personal use fishery.	67

Summary of Department Positions, Upper Cook Inlet Board of Fish Meeting, 2011 (Page 4 of 5)

287	N/O	Reduce allowable mesh size to 2-inch mesh in Cook Inlet personal use dipnet fisheries.	69
288	O	Prohibit release of salmon caught in Cook Inlet personal use fisheries.	71
289	N	Require fish waste from the Kenai River personal use fishery to be ground up to three-quarters inch.	72
290	N	Change dates for the Kasilof River personal use (PU) set gillnet fishery from June 15–24 to June 20–30, and close the PU set gillnet fishery and require release of all king salmon in the PU dipnet fishery when sport fish restrictions are placed on king salmon in the Kenai or Kasilof rivers.	73
291	N	Extend fishing season for personal use smelt fishery from April 1 through June 15.	77
292	N	Modify management plan to restrict commercial king salmon fishing in the Northern District if sport fishing in the Deshka River is restricted to artificial lures, or close commercial king salmon fishing in the Northern District if sport fishing is restricted to catch and release or closed in Susitna River tributary streams upriver from the Deshka River.	200
293	N	Modify management plan to restrict commercial set gillnet fishing to one regular 12-hour period per week in the Northern District if sport fishing in the Deshka River is restricted to artificial lures; or close the Northern District to commercial fishing, if sport fishing is closed in the Little Susitna River, Fish Creek, Jim Creek, or Deshka River.	206
294	N	Modify management plan to manage Northern District commercial salmon fisheries based on abundance of Northern District sockeye and coho salmon.	215
295	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.	223
296	O	Adopt a Deshka River king salmon management plan.	225
297	O/N	Adopt a Deshka River king salmon management plan.	229
298	N	Allow use of bait in the Deshka River on June 1 instead of May 15.	233
299	N	Stock Deshka River with king salmon.	236
300	NP	Establish an optimal escapement goal (OEG) for Deshka River coho salmon.	178
301	NP	Adopt a sustainable escapement goal (SEG) established by the department or establish an optimal escapement goal (OEG) for Kashwitna River king salmon.	182
302	N	Prohibit sport fishing for all salmon in Larson Creek and its confluence with the Talkeetna River from June 1–September 30.	238
303	N	Prohibit sport fishing in Larson Creek and its confluence with Talkeetna River from June 15–August 15.	240
304	NA	Prohibit sport fishing at the outlet of Larson Lake.	241
305	N	Close the Fish Creek drainage to sport fishing for salmon.	242
306	S	Move several lakes from Unit 4 of the Susitna River drainage to Unit 1.	244
307	N	Extend subsistence salmon fishery from July 31 to the first Monday, Wednesday, and Friday in August.	246
308	N	Allow salmon to be harvested by dipnet upstream of the Yentna/Susitna confluence to an ADF&G marker located 300 feet downstream of the department's Yentna River sonar.	252
309	NP	Develop and adopt a sustainable escapement goal (SEG) or optimal escapement goal (OEG) for Big River and Kustatan River coho salmon.	186
310	O/N	Allow harvest of king and coho salmon only on Tuesdays, Wednesdays, and Thursdays in the Little Susitna River, and reduce harvest limits.	255
311	N	Direct the department to begin stocking coho salmon into the Little Susitna River.	258
312	N	Direct the department to begin stocking coho salmon into the Little Susitna River.	258

Summary of Department Positions, Upper Cook Inlet Board of Fish Meeting, 2011 (Page 5 of 5)

313	NP	Adopt a sustainable escapement goal (SEG) established by the department or establish an optimal escapement goal (OEG) for Little Susitna River sockeye salmon.	190
314	O	Open Little Susitna River sockeye salmon sport fishery by emergency order (EO) and only when escapement of 2,500 sockeye salmon can be projected.	261
315	NP	Adopt a sustainable escapement goal (SEG) established by the department or establish an optimal escapement goal (OEG) for Little Susitna River chum salmon.	194
316	N	Require use of four-stroke outboard motors on Little Susitna River and limit the number of outboards on the river per day.	264
317	N	Prohibit sport fishing from a boat during the coho salmon season on the Little Susitna River.	268
318	O	Open the Fish Creek personal use fishery unless the sockeye salmon escapement is projected to be less than 50,000 fish.	79
321	NP	Adopt a sustainable escapement goal (SEG) established by the department or establish an optimal escapement goal (OEG) for Moose Creek king salmon.	197
322	S	Amend area open to sport fishing for king salmon in the Eklutna Tailrace.	271
323	N/S	Create a youth-only king salmon fishery in the Eklutna Tailrace.	273
324	S	Update stocked lakes list for the Knik Arm drainage area.	278
325	S	Reduce bag limit for landlocked king and other salmon in Anchorage stocked lakes.	279
376	N/S	Create a youth-only coho salmon fishery in the Eklutna Tailrace.	276
N = Neutral; S= Support; O = Oppose; NA = No Action; NP = No Position			

COMMITTEE A: PERSONAL USE FISHERIES (25 proposals)

Personal Use (25 Proposals): 269–280, 172, 281–291, 318

PROPOSAL 269 – 5 AAC 77.540. **Upper Cook Inlet Personal Use Salmon Management Plan.**

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would update the number of sockeye salmon needed in order to liberalize the Kenai River personal use salmon fishery.

WHAT ARE THE CURRENT REGULATIONS? Regulations in the *Upper Cook Inlet Personal Use Salmon Management Plan* state salmon may be taken by dip net in the Kenai River 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 2.0 million fish.

Regulations in the *Kenai River Late-Run Sockeye Salmon Management Plan* state the commissioner may, by EO, increase the inriver sport bag and possession limit 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? This would make the *Upper Cook Inlet Personal Use Salmon Management Plan* consistent with the changes made to the *Kenai River Late-Run Sockeye Salmon Management Plan* during the 2011 Upper Cook Inlet Alaska Board of Fisheries (board) meeting. Management of the Kenai River personal use fishery would not change because the department has been following the directives provided within the *Kenai River Late-Run Sockeye Salmon Management Plan*.

BACKGROUND: At the 2011 board meeting, the department recommended a new sustainable escapement goal (SEG) for Kenai River late-run sockeye salmon. As a result of the new SEG, the board also adjusted the abundance based, three-tiered inriver goal for management of the commercial, sport, and personal use fisheries. The new tiers are set at (1) less than 2.3 million fish; (2) 2.3 to 4.6 million fish; and (3) greater than 4.6 million fish. Reference to the lower tier of 2.3 million sockeye salmon in the *Upper Cook Inlet Personal Use Salmon Management Plan* was not updated to align with the changes made to the *Kenai River Late-Run Sockeye Salmon Management Plan* during the 2011 board meeting.

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 270 – 5 AAC 77.540. Upper Cook Inlet Personal Use Salmon Fishery Management Plan.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would clarify that a person is required to record personal use harvest before concealing the salmon from plain view or transporting the salmon from the shoreline or streambank adjacent to waters open to personal use fishing where the salmon were removed from the water when fishing from shore, or from the waters open to personal use fishing when fishing from a boat.

WHAT ARE THE CURRENT REGULATIONS? A person shall record all fish harvested on the permit, in ink, immediately upon harvesting the fish; for the purposes of this paragraph, "immediately" means before concealing the salmon from plain view or transporting the salmon from the "fishing site".

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It would effectively clarify and better define "fishing site," as the shoreline or streambank adjacent to waters open to personal use fishing where the salmon were removed from the water when fishing from shore, or from waters open to personal use fishing when fishing from a boat. A well-defined definition of "fishing site" would increase compliance with the recording requirement and aid law enforcement personnel when enforcing personal use fishing regulations.

BACKGROUND: The term "fishing site" has been interpreted differently among participants in the personal use fishery. During the 2012 and 2013 seasons, over 400 citations were issued for failure to record personal use salmon harvest before leaving the fishing site. Fishing from shore has different characteristics than fishing from a boat and these differences also lead to varying interpretations by the public of what constitutes the fishing site.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. A clear definition of when users are required to record harvest on a personal use permit is needed to help increase compliance of the recording requirement and decrease the chance of a user unknowingly violating the law.

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 271 – 5 AAC 77.540. Upper Cook Inlet Personal Use Salmon Fishery Management Plan.

PROPOSED BY: Margie Anderson.

WHAT WOULD THE PROPOSAL DO? This proposal would direct the department to provide permit holder information to enforcement officials if a permit holder fails to return the permit.

WHAT ARE THE CURRENT REGULATIONS? Salmon may be taken for personal use only under a personal use permit issued under 5 AAC 77.015 and 5 AAC 77.525. In addition to the requirements under 5 AAC 77.015, a person shall record all fish harvested on the permit, in ink, immediately upon harvesting the fish and shall return the permit to the department by the date specified on the permit (August 15) each year. Failure to return the permit is a violation which is subject to a \$200 fine and/or loss of future personal use fishing privileges.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? There would be no effect. The department already provides this information to the Department of Public Safety (DPS) upon their request.

BACKGROUND: The deadline for reporting fishing activity and harvest each year is August 15. For permits not returned by September 15, the department compiles a list of nonrespondents from the database and sends this list to a mailing service to issue a courtesy reminder. The reminder is essentially a copy of the permit. If a permit holder misplaced the original permit, he or she can fill out and mail the reminder instead. For permits not received within 30 days of this mailing, the process is repeated, and a second courtesy reminder is sent out via the mailing service.

Estimates of harvest are generated for nonrespondents. Participation and harvest reported by permit holders who return permits before the second reminder letter are treated as “compliant” households. Respondents to the second reminder letter and all nonrespondents are treated as “noncompliant” households. Total estimates of participation and harvest by species for each fishery are obtained by summing the estimates for the noncompliant households with the corresponding information obtained from permits returned by the compliant households. Since 1996, when the *Upper Cook Inlet Personal Use Salmon Fishery Management Plan* was created, the percentage of permits not returned has ranged from 8% to 23% of the total issued (Table 271-1).

Enforcement of the reporting requirement is challenging due to factors involving the existing permitting program. Allowing permit holders to drop their permits into drop boxes develops a chain of custody issue. Reminder letters that are not sent certified, return receipt requested, also develops a chain of custody issue.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. The department is supportive of improving enforcement of reporting requirements. The department currently provides DPS with permit information on the Upper Cook Inlet personal use salmon

fishery. The department is also developing a new statewide licensing modernization program. The program will include an internet portal, which is primarily focused on issuance of licenses and permits, including personal use permits, and could resolve some of the existing enforcement challenges.

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 271-1.—Number of Upper Cook Inlet personal use salmon fishery permits issued by year and number of permits returned by mailing and year, 1996–2013.

Year	Permits Issued Number ^a	Permits Returned								Permits not Returned	
		Voluntary		Mailing 1		Mailing 2		Total			
		Number	%	Number	%	Number	%	Number	%	Number	%
1996	14,576	9,986	69%	2,501	17%	569	4%	13,452	92%	1,124	8%
1997	14,919	7,031	47%	4,792	32%	1,148	8%	13,756	92%	1,163	8%
1998	15,535	8,209	53%	3,391	22%	1,590	10%	13,190	85%	2,345	15%
1999	17,197	8,960	52%	3,771	22%	1,485	9%	14,216	83%	2,981	17%
2000	16,107	8,070	50%	3,962	25%	1,546	10%	13,582	84%	2,525	16%
2001	16,915	8,515	50%	3,896	23%	1,987	12%	14,398	85%	2,517	15%
2002	17,568	8,881	51%	3,247	18%	2,156	12%	14,284	81%	3,284	19%
2003	19,110	9,602	50%	3,587	19%	2,537	13%	15,726	82%	3,384	18%
2004	21,910	10,653	49%	2,075	10%	5,020	23%	17,748	82%	3,868	18%
2005	21,905	12,760	59%	4,150	19%	2,171	10%	19,081	88%	2,680	12%
2006	18,563	11,658	63%	3,632	20%	1,242	7%	16,532	89%	1,996	11%
2007	23,046	14,090	61%	4,250	18%	1,972	9%	20,312	88%	2,734	12%
2008	23,722	13,743	58%	4,385	19%	2,131	9%	20,259	85%	3,289	14%
2009	29,619	18,426	63%	4,715	16%	1,888	6%	25,029	85%	4,384	15%
2010	31,590	17,193	55%	5,355	17%	2,674	9%	25,222	81%	6,092	19%
2011	34,515	20,276	60%	4,825	14%	2,080	6%	27,181	80%	6,789	20%
2012	34,315	20,266	60%	4,610	14%	2,172	7%	27,048	81%	6,616	19%
2013	35,211	17,865	51%	5,840	17%	3,050	8%	27,180	77%	8,031	23%
Minimum	14,576	7,031	47%	2,075	10%	569	4%	13,190	77%	1,124	8%
Mean	22,574	12,566	56%	4,055	19%	2,079	9%	18,789	85%	3,656	15%
Maximum	35,211	20,276	55%	5,840	32%	5,020	23%	27,181	92%	8,031	23%

Source: Reimer and Sigurdsson 2004; Dunker and Lafferty 2007; Dunker 2010; K. J. Dunker, Sport Fish Biologist, ADF&G, Anchorage, personal communication.

PROPOSAL 272 – 5 AAC 77.540. Upper Cook Inlet Personal Use Salmon Fishery Management Plan.

PROPOSED BY: Brandie Ware.

WHAT WOULD THE PROPOSAL DO? This proposal would require a person to show proof of residency, other than a resident sport fishing license, prior to an Upper Cook Inlet (UCI) personal use permit being issued, and require UCI personal use salmon fisheries to be closed if more than 5% of issued permits are not returned.

WHAT ARE THE CURRENT REGULATIONS? Finfish, shellfish, and aquatic plants may be taken for personal use only by a holder of a valid resident Alaska sport fishing license or by an Alaskan resident exempt from licensing under AS 16.05.400. Salmon may be taken for personal use only under a personal use permit. Before a permit may be issued, a person must show their resident sport fish license, or proof, satisfactory to the department, that they are exempt from licensing under AS 16.05.400; the person's sport fish license number shall be recorded on the permit. A person shall record all fish harvested on the permit, in ink, immediately upon harvesting the fish and shall return the permit to the department by the date specified on the permit (August 15) each year.

Under AS 16.05.420, a person may not make a false statement, or omit a material fact, in an application for a license, tag, permit, or sport fishing vessel registration issued under AS 16.05.330–16.05.430. A person who, without any culpable mental state, makes a false statement as to the person's identity or residency in an application for a license, tag, permit, or sport fishing vessel registration issued under AS 16.05.330–16.05.430 is guilty of a violation and upon conviction is punishable by a fine of not more than \$300. A person who knowingly violates this subsection is guilty of a class A misdemeanor.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would not modify the statewide requirement of having to possess a resident sport fishing license to participate in a personal use salmon fishery, but it would add a regulation to require a person show some other proof of residency, such as receipt of Alaska Permanent Fund benefits or voter registration, prior to being issued a permit for UCI. This proposal would also close the personal use fisheries if there is a 5% nonreturn rate of permits in a given year. It assumed this would occur the following year, because permits are not required to be returned until after the personal use fishing season is over. It is also unclear if the fisheries would be closed in one specific area or in all of Cook Inlet.

BACKGROUND: The first Cook Inlet personal use salmon dipnet fishery management plan was adopted at the 1981 Alaska Board of Fisheries (board) meeting. In this and other findings and actions, the board's intent that personal use fisheries are intended only for Alaska residents is clear: the resident sport fishing license was adopted statewide as a way to demonstrate and verify eligibility (see 5 AAC 77.001 and 5 AAC 77.015). Since gear for personal use fisheries is often different from that historically associated with sport fishing, the board determined these fisheries should not be classified as sport fisheries in order to avoid confusion among the public. Funds generated from the sale of sport fishing licenses provide the Division of Sport Fish with the only

source of revenue available to manage these fisheries. The fee for a resident sport fishing license is \$24.

The sport fishing license requirement subjects the individual to regulations and penalties governing proof of residency. The sport fishing license requirement is a vital tool for enforcement of personal use fisheries. Alaska Wildlife Troopers are able to issue citations for illegal participation in the UCI personal use fisheries by comparing the sport fishing license database to the Alaska driver's license and Alaska Permanent Fund application databases. There are other means to verify residency other than a valid resident sport fishing license, but those means are much more difficult for verifications in the field at the fishing site.

Since 1996, when the *Under Upper Cook Inlet Personal Use Salmon Fishery Management Plan* was created, the percentage of permits not returned has ranged from 8% to 20% of the total issued (Table 272-1).

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. The sport fish license requirement provides the state with an effective means of implementing residency requirements, prosecuting offenders, and funding management of personal use fisheries. Residency requirements for sport fishing licenses may differ from residency requirements of other state programs. These differences would make it difficult for vendors and the public to know what documentation would be adequate for this proposal. In addition, the department has the authority to close fisheries when necessary; we oppose a regulatory closure to everyone based on noncompliance by a fixed specific, small proportion of participants.

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

Table 272-1.--Number of Upper Cook Inlet personal use salmon fishery permits issued by year and number of permits returned by mailing and year, 1996–2013.

Year	Permits Issued Number ^a	Permits Returned								Permits not Returned	
		Voluntary		Mailing 1		Mailing 2		Total		Number	%
		Number	%	Number	%	Number	%	Number	%		
1996	14,576	9,986	69%	2,501	17%	569	4%	13,452	92%	1,124	8%
1997	14,919	7,031	47%	4,792	32%	1,148	8%	13,756	92%	1,163	8%
1998	15,535	8,209	53%	3,391	22%	1,590	10%	13,190	85%	2,345	15%
1999	17,197	8,960	52%	3,771	22%	1,485	9%	14,216	83%	2,981	17%
2000	16,107	8,070	50%	3,962	25%	1,546	10%	13,582	84%	2,525	16%
2001	16,915	8,515	50%	3,896	23%	1,987	12%	14,398	85%	2,517	15%
2002	17,568	8,881	51%	3,247	18%	2,156	12%	14,284	81%	3,284	19%
2003	19,110	9,602	50%	3,587	19%	2,537	13%	15,726	82%	3,384	18%
2004	21,910	10,653	49%	2,075	10%	5,020	23%	17,748	82%	3,868	18%
2005	21,905	12,760	59%	4,150	19%	2,171	10%	19,081	88%	2,680	12%
2006	18,563	11,658	63%	3,632	20%	1,242	7%	16,532	89%	1,996	11%
2007	23,046	14,090	61%	4,250	18%	1,972	9%	20,312	88%	2,734	12%
2008	23,722	13,743	58%	4,385	19%	2,131	9%	20,259	85%	3,289	14%
2009	29,619	18,426	63%	4,715	16%	1,888	6%	25,029	85%	4,384	15%
2010	31,590	17,193	55%	5,355	17%	2,674	9%	25,222	81%	6,092	19%
2011	34,515	20,276	60%	4,825	14%	2,080	6%	27,181	80%	6,789	20%
2012	34,315	20,266	60%	4,610	14%	2,172	7%	27,048	81%	6,616	19%
2013	35,211	17,865	51%	5,840	17%	3,050	8%	27,180	77%	8,031	23%
Minimum	14,576	7,031	47%	2,075	10%	569	4%	13,190	77%	1,124	8%
Mean	22,574	12,566	56%	4,055	19%	2,079	9%	18,789	85%	3,656	15%
Maximum	35,211	20,276	55%	5,840	32%	5,020	23%	27,181	92%	8,031	23%

Source: Reimer and Sigurdsson 2004; Dunker and Lafferty 2007; Dunker 2010; K. J. Dunker, Sport Fish Biologist, ADF&G, Anchorage, personal communication.

PROPOSAL 273 – 5 AAC 77.015. Personal use fishing permits and reports and display of personal use fish and 5 AAC 77.525. Personal use salmon fishery.

PROPOSED BY: John McCombs.

WHAT WOULD THE PROPOSAL DO? This proposal would eliminate the requirement that a person must have a valid resident Alaska sport fishing license in order to participate in a personal use fishery.

WHAT ARE THE CURRENT REGULATIONS? Under statewide regulations (5 AAC 77.010), finfish, shellfish, and aquatic plants may be taken for personal use only by a holder of a valid resident Alaska sport fishing license or by an Alaskan resident exempt from licensing under AS 16.05.400.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The sport fishing license requirement subjects the individual to regulations and penalties governing proof of residency. Without the sport fish license requirement, it would be more difficult to enforce and prosecute illegal participation in personal use fisheries and it is likely that nonresident participation in personal use fisheries would increase. Without the license requirement, funds currently provided by license sales would not be available to manage personal use fisheries.

BACKGROUND: The first Cook Inlet personal use salmon dipnet fishery management plan was adopted at the 1981 Alaska Board of Fisheries (board) meeting. In this and other findings and actions, the board's intent that personal use fisheries are intended only for Alaska residents is clear; the resident sport fishing license has been adopted as a way to demonstrate and verify eligibility. Since gear for personal use fisheries is often different from that historically associated with sport fishing, the board determined these fisheries should not be classified as sport fisheries in order to avoid confusion among the public. Funds generated from the sale of sport fishing licenses provide the Division of Sport Fish with the only source of revenue available to manage these fisheries. The fee for a resident sport fishing license is \$24.

The sport fishing license requirement is a vital tool for enforcement of personal use fisheries. Alaska Wildlife Troopers are able to issue citations for illegal participation in the Upper Cook Inlet personal use fisheries by comparing the sport fishing license database to the Alaska driver's license and Alaska Permanent Fund application databases. There are other means to verify residency other than a valid resident sport fishing license, but those means are much more difficult for verifications in the field at the fishing site.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. The sport fish license requirement provides the state with an effective means of implementing residency requirements, prosecuting offenders, and funding management of personal use fisheries. The department works closely with vendors to ensure personal use permits are distributed only to qualified applicants.

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 274 – 5 AAC 77.540. Upper Cook Inlet Personal Use Salmon Fishery Management Plan.

PROPOSED BY: John Higgins.

WHAT WOULD THE PROPOSAL DO? This proposal would require online permitting for Cook Inlet personal use permits, reduce household limit to 15 per head of household and five for each additional member, and establish additional penalties for violations for those who break regulations or fail to return permits. Penalties include not being issued a permit the following year if convicted of a personal use fishing offense, and being required to pay a fee for failure to return a personal use permit prior to issuance of a new permit to any member of the household.

WHAT ARE THE CURRENT REGULATIONS? Finfish, shellfish, and aquatic plants may be taken for personal use only by a holder of a valid resident Alaska sport fishing license or by an Alaskan resident exempt from licensing under AS 16.05.400. Salmon may be taken for personal use only under a personal use permit. A person shall record all fish harvested on the permit, in ink, immediately upon harvesting the fish and shall return the permit to the department by the date specified on the permit (August 15) each year. Failure to return the permit is a violation and subject to a \$200 fine and/or loss of future personal use fishing privileges.

In Cook Inlet, only one personal use salmon permit may be issued to each household per year. The Upper Cook Inlet (UCI) personal use salmon permit covers four fisheries: gillnetting on the Kasilof River, and dipnetting on the Kenai River, Kasilof River, and Fish Creek. The total 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. Only one king salmon may be retained, from the Kenai River dip net fishery.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Implementation of this proposal would require the department to develop and fund an online permitting program. It would deny all household members a permit if any member listed on the permit receives a citation related to the personal use fishery. Increased penalties may decrease noncompliance of regulations by an unknown amount. Reducing the household bag limit to 15, with an additional five per household member, would reduce the number of salmon harvested in personal use fisheries.

BACKGROUND: UCI personal use salmon fishery permits (Figure 274-1) are free to residents with valid Alaska sport fishing licenses and are issued by more than 60 vendors and department offices located in Anchorage, Fairbanks, Palmer, Homer, and Soldotna. Each permit contains a vendor copy that contains the permit holder's contact information, sport fishing license number, and angler's signature. Vendor copies are returned to the Anchorage department office periodically throughout the summer. Data from returned vendor copies are entered into an electronic database as time allows throughout the summer.

The deadline for permit holders reporting fishing activity and harvest each year is August 15. For permits not returned by September 15, the department compiles a list of nonrespondents from the database and sends this list to a mailing service to issue a courtesy reminder. The reminder is

essentially a copy of the permit. If a permit holder misplaced the original permit, he or she can fill out and mail the reminder instead. For permits not received within 30 days of this mailing, the process is repeated, and a second courtesy reminder is sent out via the mailing service.

Estimates of harvest are generated for nonrespondents. Participation and harvest reported by permit holders who return permits before the second reminder letter are treated as “compliant” households. Respondents to the second reminder letter and all nonrespondents are treated as “noncompliant” households. Total estimates of participation and harvest by species for each fishery are obtained by summing the estimates for the noncompliant households with the corresponding information obtained from permits returned by the compliant households.

Since 1996, when the *Under Upper Cook Inlet Personal Use Salmon Fishery Management Plan* was created, the percentage of permits not returned has ranged from 8% to 20% of the total issued (Table 274-1).

During 1996–2013, average harvest per UCI personal use permit has ranged from about 9 to 18 salmon (Table 274-2). Most households do not reach the allowable limit; about 40% of permit holders, on average, attain the allowable bag limit.

A household bag limit of 15 salmon per head of household and five salmon for each dependent of the permit holder in UCI personal use fisheries could result in an approximate 19% to 25% reduction in the harvest of sockeye salmon in the Kasilof and Kenai rivers personal use fisheries, given the past three years’ harvest patterns (tables 274-3, 274-4, and 274-5).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. With respect to develop an online permitting system and establish additional penalties, the department is supportive of improving enforcement of reporting requirements. The department currently provides Department of Public Safety with permit information on the Upper Cook Inlet personal use salmon fishery. The department is also developing a new statewide licensing modernization program. The program will include an internet portal, which is primarily focused on issuance of licenses and permits, including personal use permits, and could resolve some of the existing enforcement challenges. The Alaska Board of Fisheries has no "administrative, budgeting, or fiscal powers" that would authorize the board to require the department to administer this program (AS 16.05.241).

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 274-1.—Number of Upper Cook Inlet personal use salmon fishery permits issued by year and number of permits returned by mailing and year, 1996–2013.

Year	Permits Issued Number ^a	Permits Returned						Permits not Returned			
		Voluntary		Mailing 1		Mailing 2		Total		Number	%
		Number	%	Number	%	Number	%	Number	%	Number	%
1996	14,576	9,986	69%	2,501	17%	569	4%	13,452	92%	1,124	8%
1997	14,919	7,031	47%	4,792	32%	1,148	8%	13,756	92%	1,163	8%
1998	15,535	8,209	53%	3,391	22%	1,590	10%	13,190	85%	2,345	15%
1999	17,197	8,960	52%	3,771	22%	1,485	9%	14,216	83%	2,981	17%
2000	16,107	8,070	50%	3,962	25%	1,546	10%	13,582	84%	2,525	16%
2001	16,915	8,515	50%	3,896	23%	1,987	12%	14,398	85%	2,517	15%
2002	17,568	8,881	51%	3,247	18%	2,156	12%	14,284	81%	3,284	19%
2003	19,110	9,602	50%	3,587	19%	2,537	13%	15,726	82%	3,384	18%
2004	21,910	10,653	49%	2,075	10%	5,020	23%	17,748	82%	3,868	18%
2005	21,905	12,760	59%	4,150	19%	2,171	10%	19,081	88%	2,680	12%
2006	18,563	11,658	63%	3,632	20%	1,242	7%	16,532	89%	1,996	11%
2007	23,046	14,090	61%	4,250	18%	1,972	9%	20,312	88%	2,734	12%
2008	23,722	13,743	58%	4,385	19%	2,131	9%	20,259	85%	3,289	14%
2009	29,619	18,426	63%	4,715	16%	1,888	6%	25,029	85%	4,384	15%
2010	31,590	17,193	55%	5,355	17%	2,674	9%	25,222	81%	6,092	19%
2011	34,515	20,276	60%	4,825	14%	2,080	6%	27,181	80%	6,789	20%
2012	34,315	20,266	60%	4,610	14%	2,172	7%	27,048	81%	6,616	19%
2013	35,211	17,865	51%	5,840	17%	3,050	8%	27,180	77%	8,031	23%
Minimum	14,576	7,031	47%	2,075	10%	569	4%	13,190	77%	1,124	8%
Mean	22,574	12,566	56%	4,055	19%	2,079	9%	18,789	85%	3,656	15%
Maximum	35,211	20,276	55%	5,840	32%	5,020	23%	27,181	92%	8,031	23%

Source: Reimer and Sigurdsson 2004; Dunker and Lafferty 2007; Dunker 2010; K. J. Dunker, Sport Fish Biologist, ADF&G, Anchorage, personal communication.

Table 274-2.—Average harvest of salmon per permit per year, in the Kenai and Kasilof rivers personal use fisheries, and percent of permits achieving bag limit by year, 1996–2013.

Year	Average Harvest per permit	Average % of bag limits filled
1996	8.84	35.3
1997	9.67	39.2
1998	10.88	43.2
1999	11.86	44.2
2000	8.88	36.0
2001	12.46	43.7
2002	14.62	48.9
2003	15.12	50.6
2004	15.70	38.6
2005	17.01	39.7
2006	12.42	29.6
2007	15.49	37.5
2008	13.85	34.5
2009	15.24	38.8
2010	15.62	49.0
2011	18.17	55.0
2012	18.27	54.0
2013	13.00	40.4
Mean	13.00	39.99

Source: K. J. Dunker, Sport Fish Biologist, ADF&G, Anchorage, personal communication.

Table 274-3.--Estimated effort and harvest for bag limit reduction scenarios in the Kenai and Kasilof rivers personal use fisheries, 2011.

		<u>Kenai River Dipnet</u>		<u>Kasilof River Dipnet</u>		<u>Kasilof River Gillnet</u>	
		Days Fished	Sockeye	Days Fished	Sockeye	Days Fished	Sockeye
Actual Estimates		32,818	537,765	6,571	49,766	1,846	26,780
Estimated harvest under reduced household limit	10 salmon (all fisheries)	26,808	191,963	5,040	22,738	1,252	8,918
	Harvest Reduction	6,010	345,802	1,531	27,028	595	17,862
	Percent Harvest Reduction	18.3%	64.3%	23.3%	54.3%	32.2%	66.7%
	15 salmon (all fisheries)	28,472	271,373	5,517	30,219	1,430	12,893
	Harvest Reduction	4,346	266,392	1,054	19,546	416	13,887
	Percent Harvest Reduction	13.2%	49.5%	16.0%	39.3%	22.5%	51.9%
	20 salmon (all fisheries)	29,809	339,880	5,829	35,874	1,576	16,449
	Harvest Reduction	3,008	197,885	742	13,892	270	10,331
	Percent Harvest Reduction	9.2%	36.8%	11.3%	27.9%	14.6%	38.6%
	10 salmon + 5 (all fisheries)	29,792	343,637	5,804	36,163	1,507	15,619
	Harvest Reduction	3,025	194,129	767	13,603	340	11,161
	Percent Harvest Reduction	9.2%	36.1%	11.7%	27.3%	18.4%	41.7%
	15 salmon + 5 (all fisheries)	30,929	402,336	6,057	40,687	1,634	18,921
	Harvest Reduction	1,889	135,429	514	9,079	213	7,859
	Percent Harvest Reduction	5.8%	25.2%	7.8%	18.2%	11.5%	29.3%
	20 salmon + 5 (all fisheries)	31,689	449,549	6,264	44,066	1,730	21,776
	Harvest Reduction	1,129	88,216	307	5,699	117	5,004
	Percent Harvest Reduction	3.4%	16.4%	4.7%	11.5%	6.3%	18.7%

Table 274-4.–Estimated effort and harvest for bag limit reduction scenarios in the Kenai and Kasilof rivers personal use fisheries, 2012.

		Kenai River Dipnet		Kasilof River Dipnet		Kasilof River Gillnet	
		Days Fished	Sockeye	Days Fished	Sockeye	Days Fished	Sockeye
Actual Estimates		34,374	526,992	6,536	73,419	1,696	15,638
Estimated harvest under reduced household limit	10 salmon (all fisheries)	27,715	194,571	4,854	28,245	1,200	6,619
	Harvest Reduction	6,658	332,421	1,682	45,174	496	9,019
	Percent Harvest Reduction	19.4%	63.1%	25.7%	61.5%	29.2%	57.7%
	15 salmon (all fisheries)	29,590	272,664	5,306	39,181	1,355	9,188
	Harvest Reduction	4,784	254,328	1,231	34,239	341	6,450
	Percent Harvest Reduction	13.9%	48.3%	18.8%	46.6%	20.1%	41.2%
	20 salmon (all fisheries)	31,135	338,847	5,703	48,178	1,489	11,261
	Harvest Reduction	3,239	188,145	833	25,241	207	4,377
	Percent Harvest Reduction	9.4%	35.7%	12.8%	34.4%	12.2%	28.0%
	10 salmon + 5 (all fisheries)	31,150	346,135	5,654	49,351	1,435	10,681
	Harvest Reduction	3,224	180,857	882	24,069	261	4,957
	Percent Harvest Reduction	9.4%	34.3%	13.5%	32.8%	15.4%	31.7%
	15 salmon + 5 (all fisheries)	32,381	402,244	5,962	56,723	1,548	12,391
	Harvest Reduction	1,993	124,748	574	16,696	148	3,247
	Percent Harvest Reduction	5.8%	23.7%	8.8%	22.7%	8.7%	20.8%
	20 salmon + 5 (all fisheries)	33,297	446,872	6,209	62,650	1,625	13,788
	Harvest Reduction	1,077	80,120	327	10,769	70	1,850
	Percent Harvest Reduction	3.1%	15.2%	5.0%	14.7%	4.2%	11.8%

Table 274-5.—Estimated effort and harvest for bag limit reduction scenarios in the Kenai and Kasilof rivers personal use fisheries, 2013.

		Kenai River Dipnet		Kasilof River Dipnet		Kasilof River Gillnet	
		Days Fished	Sockeye	Days Fished	Sockeye	Days Fished	Sockeye
Actual Estimates		33,193	347,222	8,556	85,528	1,082	14,439
Estimated harvest under reduced household limit	10 salmon (all fisheries)	28,329	155,563	6,905	35,395	796	5,209
	Harvest Reduction	4,864	191,659	1,651	50,133	286	9,229
	Percent Harvest Reduction	14.7%	55.2%	19.3%	58.6%	26.5%	63.9%
	15 salmon (all fisheries)	29,991	208,085	7,413	47,940	870	7,347
	Harvest Reduction	3,202	139,137	1,144	37,588	212	7,091
	Percent Harvest Reduction	9.6%	40.1%	13.4%	43.9%	19.6%	49.1%
	20 salmon (all fisheries)	31,115	249,010	7,842	57,971	946	9,224
	Harvest Reduction	2,078	98,212	714	27,557	136	5,214
	Percent Harvest Reduction	6.3%	28.3%	8.3%	32.2%	12.5%	36.1%
	10 salmon + 5 (all fisheries)	31,067	250,605	7,790	60,616	922	8,645
	Harvest Reduction	2,126	96,617	767	24,912	160	5,793
	Percent Harvest Reduction	6.4%	27.8%	9.0%	29.1%	14.7%	40.1%
	15 salmon + 5 (all fisheries)	31,909	283,031	8,124	68,678	986	10,327
	Harvest Reduction	1,284	64,191	432	16,850	96	4,112
	Percent Harvest Reduction	3.9%	18.5%	5.1%	19.7%	8.9%	28.5%
	20 salmon + 5 (all fisheries)	32,489	307,208	8,303	74,668	1,025	11,775
	Harvest Reduction	704	40,014	254	10,860	57	2,663
	Percent Harvest Reduction	2.1%	11.5%	3.0%	12.7%	5.3%	18.4%

PROPOSAL 275 – 5 AAC 77.525. Personal use salmon fishery.

PROPOSED BY: John McCombs.

WHAT WOULD THE PROPOSAL DO? This proposal would limit the number of Cook Inlet personal use permits that can be issued to 30,000 permits.

WHAT ARE THE CURRENT REGULATIONS? Upper Cook Inlet (UCI) personal use permits are available to residents of Alaska. Only one UCI personal use salmon fishing permit may be issued to each household per year. Permits for the taking of finfish will be issued only to holders of a valid resident Alaska sport fishing license and Alaska residents exempt from licensing under AS 16.05.400.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Based upon recent participation (2010–2013), this would reduce the number of household permits issued annually by 1,590–5,211 permits. It would limit any future growth in participation and harvest in the permitted UCI personal use salmon fishery. It may increase harvest and participation in other fisheries by residents who do not receive a UCI permit.

BACKGROUND: Personal use regulations were created in 1982 at the request of the Alaska Board of Fisheries (board). In this and other findings and actions, the board’s intent is clear that personal use fisheries are intended only for Alaska residents. The number of permits for UCI personal use salmon permits has exceeded 30,000 since 2010 (Table 275-1). The number of personal use permit holders who reported that they did not fish averaged approximately 4,466 from 2010–2013 (Table 275-2).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. Should the board adopt it, the board may need to develop additional regulations to authorize the department to implement a limited permit program for UCI personal use fisheries. The department would need to restructure existing budgets to implement such a program. However, the board has no "administrative, budgeting, or fiscal powers" that would authorize the board to require the department to administer this program (AS 16.05.241).”

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 275-1.—Number of Upper Cook Inlet personal use salmon fishery permits issued by year and number of permits returned by mailing and year, 1996–2013.

Year	Permits Issued Number ^a	Permits Returned								Permits not Returned	
		Voluntary		Mailing 1		Mailing 2		Total		Number	%
		Number	%	Number	%	Number	%	Number	%		
1996	14,576	9,986	69%	2,501	17%	569	4%	13,452	92%	1,124	8%
1997	14,919	7,031	47%	4,792	32%	1,148	8%	13,756	92%	1,163	8%
1998	15,535	8,209	53%	3,391	22%	1,590	10%	13,190	85%	2,345	15%
1999	17,197	8,960	52%	3,771	22%	1,485	9%	14,216	83%	2,981	17%
2000	16,107	8,070	50%	3,962	25%	1,546	10%	13,582	84%	2,525	16%
2001	16,915	8,515	50%	3,896	23%	1,987	12%	14,398	85%	2,517	15%
2002	17,568	8,881	51%	3,247	18%	2,156	12%	14,284	81%	3,284	19%
2003	19,110	9,602	50%	3,587	19%	2,537	13%	15,726	82%	3,384	18%
2004	21,910	10,653	49%	2,075	10%	5,020	23%	17,748	82%	3,868	18%
2005	21,905	12,760	59%	4,150	19%	2,171	10%	19,081	88%	2,680	12%
2006	18,563	11,658	63%	3,632	20%	1,242	7%	16,532	89%	1,996	11%
2007	23,046	14,090	61%	4,250	18%	1,972	9%	20,312	88%	2,734	12%
2008	23,722	13,743	58%	4,385	19%	2,131	9%	20,259	85%	3,289	14%
2009	29,619	18,426	63%	4,715	16%	1,888	6%	25,029	85%	4,384	15%
2010	31,590	17,193	55%	5,355	17%	2,674	9%	25,222	81%	6,092	19%
2011	34,515	20,276	60%	4,825	14%	2,080	6%	27,181	80%	6,789	20%
2012	34,315	20,266	60%	4,610	14%	2,172	7%	27,048	81%	6,616	19%
2013	35,211	17,865	51%	5,840	17%	3,050	8%	27,180	77%	8,031	23%
Minimum	14,576	7,031	47%	2,075	10%	569	4%	13,190	77%	1,124	8%
Mean	22,574	12,566	56%	4,055	19%	2,079	9%	18,789	85%	3,656	15%
Maximum	35,211	20,276	55%	5,840	32%	5,020	23%	27,181	92%	8,031	23%

Source: Reimer and Sigurdsson 2004; Dunker and Lafferty 2007; Dunker 2010; K. J. Dunker, Sport Fish Biologist, ADF&G, Anchorage, personal communication.

Table 275-2.--Number of Upper Cook Inlet personal use salmon fishery permits that did not fish, by year, 2010–2013.

Year	Permits Issued	Did Not Fish		Did Fish	
	Number	Number	%	Number	%
2010	31,590	4,069	13%	27,521	87%
2011	34,515	4,440	13%	30,075	87%
2012	34,315	4,402	13%	29,913	87%
2013	35,211	4,952	14%	30,259	86%
Mean	33,908	4,466	13%	29,442	87%

PROPOSAL 276 – 5 AAC 77.540. Upper Cook Inlet Personal Use Salmon Fishery Management Plan.

PROPOSED BY: John McCombs.

WHAT WOULD THE PROPOSAL DO? This proposal would open the Kenai River personal use fishery after escapement reaches 350,000 sockeye salmon.

WHAT ARE THE CURRENT REGULATIONS? Subject to the requirement of achieving the lower end of the optimal escapement goal (OEG) of 700,000 to 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 Kenai River late-run sockeye salmon is greater than 2.3 million.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would result in an undetermined reduction in the total number of days or hours the Kenai River personal use salmon fishery would be open for a season, depending on run timing characteristics of late-run sockeye salmon into the Kenai River. It would likely delay the opening of the personal use fishery; reduce the number of salmon, primarily sockeye salmon, harvested in the personal use fishery by an unknown amount; and increase crowding in the remaining days the fishery would be open. This proposal may result in an increase in the harvest of sockeye salmon in other fisheries, primarily the commercial fishery, but also the sport fishery below the sonar.

BACKGROUND: The *Upper Cook Inlet Personal Use Salmon Fishery Management Plan* (5 AAC 77.540) provides for a personal use salmon gillnet fishery at the mouth of the Kasilof River, and salmon dip net fisheries in the Kenai and Kasilof rivers, and Fish Creek in Northern Cook Inlet. This plan was in effect for the 1981 season and later adopted into regulation by the Alaska Board of Fisheries (board) in 1982. The plan has undergone several amendments since that time.

Prior to 1996, gillnet and dip net fisheries at both the Kenai and Kasilof rivers did not occur each year. The dip net fisheries were set to open when a specified sonar estimate was achieved. During years when the sonar estimate was not achieved, the dip net fishery scheduled for either the Kenai or Kasilof rivers did not occur.

Beginning with the 1996 season, the board established a season of July 10 to August 5 (later amended to July 31) for the dip net fishery in the Kenai River. Establishment of a regular season provided predictability to this fishery. The regulatory season dates were independent of the abundance of returning salmon and were not tied to the management plans for other user groups. The household annual limit was 25 salmon for the head of the household and 10 additional salmon per member of the household, of which only one may be a king salmon.

In 2002, the management plan was modified to manage the fishery more conservatively until inseason abundance information became available. The season dates remained unchanged, but the daily hours were reduced from 24 hours per day to 6:00 a.m. to 11:00 p.m., until the department could project that the total Kenai River sockeye salmon late run would exceed two million fish. If the department can determine that the late run exceeds two million fish, the department may liberalize the fishery to 24 hours per day by EO, until the season closure on July 31.

The *Kenai River Late-Run Sockeye Salmon Management Plan* (5 AAC 21.360) provides the department direction to liberalize and restrict the personal use salmon fishery, based upon meeting the OEG, when circumstances require. The Kenai River personal use dip net fishery was closed inseason by EO in 1998 due to low abundance of Kenai River late-run sockeye salmon, and in 2006 due to late run timing. During 1999–2001, 2008, and 2009, the Kenai River personal use dip net fishery was not liberalized or restricted. The Kenai River personal use dip net fishery was liberalized during the 2002–2005, 2007, and 2010–2013 seasons. The fishery was liberalized by increasing the daily hours the fishery was open. This liberalization was based on inseason projections of sockeye salmon run strengths greater than two million fish prior to 2011, and greater than 2.3 million fish starting in 2011. The number of salmon harvested in the Kenai River personal use fishery can be found on Table 276-1. Generally, 350,000 sockeye salmon pass the department’s sonar project located at river mile 19 by mid to late July (Table 276-2).

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 276-1.–Kenai River personal use dipnet fishery total salmon harvests by year, 1996–2013.

Year	Sockeye	King	Coho	Pink	Chum	Total
1996	102,821	295	1,932	2,404	175	107,627
1997	114,619	364	559	619	58	116,219
1998	103,847	254	1,011	1,032	85	106,229
1999	149,504	488	1,009	1,666	102	152,769
2000	98,262	410	1,449	1,457	193	101,771
2001	150,766	638	1,555	1,326	155	154,440
2002	180,028	606	1,721	5,662	551	188,568
2003	223,580	1,016	1,332	1,647	249	227,824
2004	262,831	792	2,661	2,103	387	268,774
2005	295,496	997	2,512	1,806	321	301,132
2006	127,630	1,034	2,235	11,127	551	142,577
2007	291,270	1,509	2,111	1,939	472	297,301
2008	234,109	1,362	2,609	10,631	504	249,215
2009	339,993	1,189	2,401	5,482	285	349,350
2010	389,552	865	2,870	3,655	508	397,450
2011 ^a	537,765	1,243	4,745	3,914	915	548,583
2012 ^a	526,992	40	4,008	3,770	425	535,236
2013 ^a	347,222	11	3,169	3,625	701	354,727
<u>Average</u>						
1996–2011	225,130	816	2,045	3,529	344	231,864
1996–2013	248,683	729	2,216	3,548	369	255,544

Source: Reimer and Sigurdsson 2004; Dunker and Lafferty 2007; Dunker 2010; K. J. Dunker, Sport Fish Biologist, ADF&G, Anchorage, personal communication.

^a Personal use dip net fishery prohibited retention of king salmon either part of or for the whole season.

Table 276-2.—Kenai River cumulative estimated sonar counts of sockeye salmon by year and date during the month of July, 2003–2013.

Date	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
7/1	8,189	4,351	7,309	2,205	5,530	3,886	3,769	5,094	2,256	3,970	7,506
7/2	12,837	9,043	18,241	5,682	12,189	8,343	8,620	10,656	6,516	12,940	11,862
7/3	19,422	13,960	28,496	8,890	17,884	12,570	14,111	14,394	9,600	20,007	16,026
7/4	28,663	17,009	44,821	12,254	21,717	14,759	22,138	21,831	11,844	25,521	26,532
7/5	35,983	19,434	63,604	15,959	25,882	16,278	29,273	34,953	16,116	30,434	37,992
7/6	40,386	22,131	80,347	20,413	30,680	17,605	35,748	49,721	20,763	33,860	42,864
7/7	45,651	27,333	93,932	24,877	38,309	18,857	44,765	55,836	26,065	37,508	46,356
7/8	52,123	35,844	110,696	28,692	49,932	20,497	51,478	66,174	30,802	42,974	49,879
7/9	61,091	39,682	149,126	33,482	62,558	23,820	60,388	73,506	37,324	49,444	56,677
7/10	75,627	43,334	180,517	38,884	68,031	28,547	68,047	80,262	44,170	56,218	74,887
7/11	109,981	46,234	231,738	42,744	74,499	30,887	79,600	91,032	47,680	68,272	108,589
7/12	195,844	50,436	300,811	45,203	81,600	34,007	109,642	109,540	50,782	77,998	118,675
7/13	254,800	58,759	337,663	48,709	85,592	40,857	127,691	141,495	54,604	88,546	127,765
7/14	295,146	220,697	360,056	51,269	92,035	45,042	158,927	163,530	61,004	108,760	150,817
7/15	326,595	417,570	379,526	56,693	101,955	84,515	231,561	193,644	63,920	228,034	243,541
7/16	451,559	552,684	441,027	74,480	111,975	187,197	313,749	258,192	91,746	424,390	489,937
7/17	600,865	622,720	526,790	95,226	119,892	264,134	390,685	343,434	322,389	497,116	704,347
7/18	730,106	668,915	596,598	107,368	132,277	291,792	443,420	434,771	499,442	528,722	822,103
7/19	830,024	698,401	701,439	115,570	191,719	317,878	481,660	545,909	587,420	557,444	914,327
7/20	875,488	712,903	751,332	125,841	214,561	362,954	548,749	621,011	700,598	597,674	995,279
7/21	920,075	756,261	779,908	147,442	258,579	411,677	588,857	686,399	791,024	695,588	1,033,523
7/22	1,016,380	891,191	814,467	192,982	323,123	459,508	601,654	737,472	828,998	806,486	1,058,423
7/23	1,108,619	932,623	887,605	240,678	378,269	475,172	617,965	783,348	935,311	894,741	1,088,603
7/24	1,185,148	977,917	965,305	302,443	426,801	492,520	641,040	805,044	1,046,083	945,963	1,106,453
7/25	1,228,161	1,026,857	1,006,701	373,952	475,352	508,977	652,586	859,206	1,125,601	1,007,383	1,120,007
7/26	1,272,323	1,084,795	1,032,435	491,802	542,876	520,120	668,420	883,692	1,203,583	1,069,195	1,141,961
7/27	1,306,077	1,135,412	1,048,520	570,965	629,267	545,417	721,610	906,756	1,276,675	1,134,445	1,171,872
7/28	1,362,182	1,193,933	1,060,887	654,042	690,852	573,838	779,763	933,450	1,332,145	1,197,883	1,199,911
7/29	1,402,151	1,244,219	1,078,865	748,396	735,989	607,083	825,981	952,842	1,368,685	1,267,753	1,228,677
7/30	1,427,314	1,279,807	1,122,502	830,015	764,272	646,114	865,300	971,292	1,399,069	1,311,247	1,252,515
7/31	1,452,726	1,307,293	1,173,724	897,980	791,963	674,781	905,257	986,874	1,417,309	1,352,167	1,270,618

Source: P. Shields, Commercial Fisheries biologist, ADF&G, personal communication.

Note: Shaded boxes highlight the day cumulative sonar passage estimates exceeded 350,000 sockeye salmon.

PROPOSAL 277 – 5 AAC 77.540. Upper Cook Inlet Personal Use Salmon Fishery Management Plan.

PROPOSED BY: John McCombs.

WHAT WOULD THE PROPOSAL DO? This proposal would open Kenai River personal use fishery after the escapement goal has been met.

WHAT ARE THE CURRENT REGULATIONS? Subject to the requirement of achieving the lower end of the optimal escapement goal (OEG) of 700,000 to 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? This proposal would result in an undetermined reduction in the total number of days or hours the Kenai River personal use salmon fishery would be open for a season, depending on run timing characteristics of late-run sockeye salmon into the Kenai River. It would likely delay the opening of the personal use fishery; reduce the number of salmon, primarily sockeye salmon, harvested in the personal use fishery by an unknown amount; and increase crowding into the remaining days the fishery would be open. This proposal may result in an increase in the harvest of sockeye salmon in other fisheries, primarily the commercial fishery, but also the sport fishery below the sonar.

BACKGROUND: The *Upper Cook Inlet Personal Use Salmon Fishery Management Plan* (5 AAC 77.540) provides for a personal use salmon gillnet fishery at the mouth of the Kasilof River, and salmon dip net fisheries in the Kenai and Kasilof rivers, and Fish Creek in Northern Cook Inlet. This plan was in effect for the 1981 season and later adopted into regulation by the Alaska Board of Fisheries (board) in 1982. The plan has undergone several amendments since that time.

Prior to 1996, gillnet and dip net fisheries at both the Kenai and Kasilof rivers did not occur each year. The dip net fisheries were set to open when a specified sonar estimate was achieved. During years when the sonar estimate was not achieved, the dip net fishery scheduled for either the Kenai or Kasilof rivers did not occur.

Beginning with the 1996 season, the board established a season of July 10 to August 5 (later amended to July 31) for the dip net fishery in the Kenai River. Establishment of a regular season provided predictability to this fishery. The regulatory season dates were independent of the abundance of returning salmon and were not tied to the management plans for other user groups. The household annual limit was 25 salmon for the head of the household and 10 additional salmon per member of the household, of which only one may be a king salmon.

In 2002, the management plan was modified to manage the fishery more conservatively until inseason abundance information became available. The season dates remained unchanged, but the daily hours were reduced from 24 hours per day to 6:00 a.m. to 11:00 p.m. until the department could project that the total Kenai River sockeye salmon late run would exceed two million fish. If the department can determine that the late run exceeds two million fish, the department may liberalize the fishery by EO to 24 hours per day until the season closure on July 31.

The *Kenai River Late-Run Sockeye Salmon Management Plan* (5 AAC 21.360) provides the department direction to liberalize and restrict the personal use salmon fishery, based upon meeting the OEG, when circumstances require. The Kenai River personal use dip net fishery was closed inseason by EO in 1998 due to low abundance of Kenai River late-run sockeye salmon, and in 2006 due to late run timing. During 1999–2001, 2008, and 2009, the Kenai River personal use dip net fishery was not liberalized or restricted. The Kenai River personal use dip net fishery was liberalized during the 2002–2005, 2007, and 2010–2013 seasons. The fishery was liberalized by increasing the daily hours the fishery was open. This liberalization was based on inseason projections of sockeye salmon run strengths greater than two million fish prior to 2011, and greater than 2.3 million fish starting in 2011.

Generally, 1,000,000 sockeye salmon are needed to pass the department’s sonar project located at river mile 19 to achieve the OEG of 700,000 to 1,400,000 sockeye salmon, based upon recent harvests of sockeye salmon in the Kenai River upstream of the sonar by sport anglers. Generally, 1,000,000 sockeye salmon pass the department’s sonar project located at river mile 19 by late July or early August (Table 277-1).

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 277-1.—Kenai River cumulative estimated sonar counts of sockeye salmon by year and date, 2003–2013.

Date	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
7/1	8,189	4,351	7,309	2,205	5,530	3,886	3,769	5,094	2,256	3,970	7,506
7/2	12,837	9,043	18,241	5,682	12,189	8,343	8,620	10,656	6,516	12,940	11,862
7/3	19,422	13,960	28,496	8,890	17,884	12,570	14,111	14,394	9,600	20,007	16,026
7/4	28,663	17,009	44,821	12,254	21,717	14,759	22,138	21,831	11,844	25,521	26,532
7/5	35,983	19,434	63,604	15,959	25,882	16,278	29,273	34,953	16,116	30,434	37,992
7/6	40,386	22,131	80,347	20,413	30,680	17,605	35,748	49,721	20,763	33,860	42,864
7/7	45,651	27,333	93,932	24,877	38,309	18,857	44,765	55,836	26,065	37,508	46,356
7/8	52,123	35,844	110,696	28,692	49,932	20,497	51,478	66,174	30,802	42,974	49,879
7/9	61,091	39,682	149,126	33,482	62,558	23,820	60,388	73,506	37,324	49,444	56,677
7/10	75,627	43,334	180,517	38,884	68,031	28,547	68,047	80,262	44,170	56,218	74,887
7/11	109,981	46,234	231,738	42,744	74,499	30,887	79,600	91,032	47,680	68,272	108,589
7/12	195,844	50,436	300,811	45,203	81,600	34,007	109,642	109,540	50,782	77,998	118,675
7/13	254,800	58,759	337,663	48,709	85,592	40,857	127,691	141,495	54,604	88,546	127,765
7/14	295,146	220,697	360,056	51,269	92,035	45,042	158,927	163,530	61,004	108,760	150,817
7/15	326,595	417,570	379,526	56,693	101,955	84,515	231,561	193,644	63,920	228,034	243,541
7/16	451,559	552,684	441,027	74,480	111,975	187,197	313,749	258,192	91,746	424,390	489,937
7/17	600,865	622,720	526,790	95,226	119,892	264,134	390,685	343,434	322,389	497,116	704,347
7/18	730,106	668,915	596,598	107,368	132,277	291,792	443,420	434,771	499,442	528,722	822,103
7/19	830,024	698,401	701,439	115,570	191,719	317,878	481,660	545,909	587,420	557,444	914,327
7/20	875,488	712,903	751,332	125,841	214,561	362,954	548,749	621,011	700,598	597,674	995,279
7/21	920,075	756,261	779,908	147,442	258,579	411,677	588,857	686,399	791,024	695,588	1,033,523
7/22	1,016,380	891,191	814,467	192,982	323,123	459,508	601,654	737,472	828,998	806,486	1,058,423
7/23	1,108,619	932,623	887,605	240,678	378,269	475,172	617,965	783,348	935,311	894,741	1,088,603
7/24	1,185,148	977,917	965,305	302,443	426,801	492,520	641,040	805,044	1,046,083	945,963	1,106,453
7/25	1,228,161	1,026,857	1,006,701	373,952	475,352	508,977	652,586	859,206	1,125,601	1,007,383	1,120,007
7/26	1,272,323	1,084,795	1,032,435	491,802	542,876	520,120	668,420	883,692	1,203,583	1,069,195	1,141,961
7/27	1,306,077	1,135,412	1,048,520	570,965	629,267	545,417	721,610	906,756	1,276,675	1,134,445	1,171,872
7/28	1,362,182	1,193,933	1,060,887	654,042	690,852	573,838	779,763	933,450	1,332,145	1,197,883	1,199,911
7/29	1,402,151	1,244,219	1,078,865	748,396	735,989	607,083	825,981	952,842	1,368,685	1,267,753	1,228,677
7/30	1,427,314	1,279,807	1,122,502	830,015	764,272	646,114	865,300	971,292	1,399,069	1,311,247	1,252,515
7/31	1,452,726	1,307,293	1,173,724	897,980	791,963	674,781	905,257	986,874	1,417,309	1,352,167	1,270,618
8/1	1,479,837	1,326,339	1,208,353	980,831	820,289	707,778	931,304	1,006,320	1,439,023	1,377,043	1,293,616
8/2	1,511,216	1,351,792	1,229,424	1,048,673	840,882	733,610	960,999	1,037,634	1,459,730	1,402,327	1,310,538
8/3	1,539,524	1,408,196	1,259,398	1,105,656	853,025	753,405	993,487	1,088,760	1,470,126	1,420,429	1,322,121
8/4	1,561,074	1,470,618	1,283,742	1,166,269	870,387	774,474	1,013,286	1,108,101	1,480,200	1,437,337	1,330,563
8/5	1,575,413	1,511,454	1,305,115	1,230,689	896,144	791,147	1,030,907	1,122,819	1,491,420	1,459,417	1,339,876
8/6	1,599,544	1,549,346	1,356,419	1,272,394	928,998	806,921	1,041,540	1,138,461	1,513,506	1,474,021	1,347,217
8/7	1,618,142	1,578,127	1,403,554	1,302,371	950,747	819,113	1,048,981	1,155,128	1,530,822	1,484,299	1,354,554
8/8	1,630,896	1,594,041	1,422,570	1,321,288	969,095	828,367	1,053,623	1,171,146	1,536,936	1,495,063	1,354,554
8/9	1,642,747	1,634,867	1,438,069	1,339,346	1,003,348	839,185	1,060,264	1,187,248	1,549,134	1,506,181	1,354,554
8/10	1,656,026	1,698,601	1,451,379	1,354,067	1,023,023	853,853	1,070,418	1,201,022	1,565,658	1,520,149	1,354,554
8/11	1,656,026	1,758,124	1,471,612	1,374,070	1,053,452	868,854	1,075,645	1,209,461	1,576,984	1,529,709	1,354,554
8/12	1,656,026	1,820,763	1,544,122	1,406,926	1,084,508	883,482	1,081,831	1,217,256	1,589,188	1,540,018	1,354,554
8/13	1,656,026	1,861,218	1,628,667	1,435,303	1,104,382	893,740	1,090,055	1,228,805	1,599,217	1,548,291	1,354,554
8/14	1,656,026	1,888,606	1,681,281	1,462,277	1,119,079	905,488	1,090,055	1,241,523	1,599,217	1,561,629	1,354,554
8/15	1,656,026	1,909,879	1,740,952	1,504,181	1,133,958	912,919	1,090,055	1,259,394	1,599,217	1,575,338	1,354,554
8/16	1,656,026	1,922,955	1,797,505	1,552,811	1,147,784	915,047	1,090,055	1,276,600	1,599,217	1,581,555	1,354,554
8/17	1,656,026	1,936,896	1,835,793	1,596,685	1,160,970	917,139	1,090,055	1,284,360	1,599,217	1,581,555	1,354,554
8/18	1,656,026	1,945,383	1,858,400	1,640,517	1,172,698	917,139	1,090,055	1,290,768	1,599,217	1,581,555	1,354,554
8/19	1,656,026	1,945,383	1,870,699	1,691,736	1,187,992	917,139	1,090,055	1,294,884	1,599,217	1,581,555	1,354,554
8/20	1,656,026	1,945,383	1,892,348	1,741,760	1,202,733	917,139	1,090,055	1,294,884	1,599,217	1,581,555	1,354,554
8/21	1,656,026	1,945,383	1,908,821	1,775,366	1,211,955	917,139	1,090,055	1,294,884	1,599,217	1,581,555	1,354,554
8/22	1,656,026	1,945,383	1,908,821	1,820,433	1,220,784	917,139	1,090,055	1,294,884	1,599,217	1,581,555	1,354,554
8/23	1,656,026	1,945,383	1,908,821	1,859,949	1,229,945	917,139	1,090,055	1,294,884	1,599,217	1,581,555	1,354,554
8/24	1,656,026	1,945,383	1,908,821	1,888,197	1,229,945	917,139	1,090,055	1,294,884	1,599,217	1,581,555	1,354,554
8/25	1,656,026	1,945,383	1,908,821	1,918,178	1,229,945	917,139	1,090,055	1,294,884	1,599,217	1,581,555	1,354,554

Source: P. Shields, Commercial Fisheries biologist, ADF&G, personal communication.

Note: Shaded boxes highlight the day cumulative sonar passage estimates exceeded 1,000,000 sockeye salmon.

PROPOSAL 278 – 5 AAC 77.540. Upper Cook Inlet Personal Use Salmon Fishery Management Plan.

PROPOSED BY: Linda Lemanski.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit the use of emergency order (EO) authority to liberalize the Kenai River personal use salmon fishery to 24 hours per day when it is determined that the abundance of sockeye salmon is greater than 2.3 million fish. Instead, the fishery would be liberalized by increasing harvest limits by an unspecified amount.

WHAT ARE THE CURRENT REGULATIONS? Subject to the requirement of achieving the lower end of the optimal escapement goal (OEG) of 700,000 to 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 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.

Personal use salmon fisheries are open only to residents of the state. In Cook Inlet, only one personal use salmon permit may be issued to each household per year. The Upper Cook Inlet (UCI) personal use salmon permit covers four fisheries: gillnetting on the Kasilof River, and dipnetting on the Kenai River, Kasilof River, and Fish Creek. The total 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. Only one king salmon may be retained, from the Kenai River dip net fishery.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would likely result in an increase in crowding during the regularly scheduled fishing hours of 6:00 a.m. to 11:00 p.m. by decreasing the amount of time personal use anglers are allowed to fish during years of high inriver abundance. It would also create inconsistencies among bag limits with other UCI personal use salmon fisheries and thereby increase regulatory complexity. This proposal may benefit enforcement and the City of Kenai because no dipnetting would occur during overnight hours. Increasing limits instead of increasing time allowed may or may not change harvest levels.

BACKGROUND: The *Upper Cook Inlet Personal Use Salmon Fishery Management Plan* (5 AAC 77.540) provides for a personal use salmon gillnet fishery at the mouth of Kasilof River, and salmon dip net fisheries in the Kenai and Kasilof rivers, and Fish Creek in Northern Cook Inlet. This plan was in effect for the 1981 season and later adopted into regulation by the Alaska Board of Fisheries (board) in 1982. The plan has undergone several amendments since that time.

Beginning with the 1996 season, the board established a season of July 10 to August 5 (later amended to July 31) for the dip net fishery in the Kenai River. Establishment of a regular season provided predictability to this fishery. The regulatory season dates were independent of the abundance of returning salmon and were not tied to the management plans for other user groups.

The household annual limit was 25 salmon for the head of the household and 10 additional salmon per member of the household, of which only one may be a king salmon.

In 2002, the management plan was modified to manage the fishery more conservatively until inseason abundance information became available. The season dates remained unchanged, but the daily hours were reduced from 24 hours per day to 6:00 a.m. to 11:00 p.m. until the department could project that the total Kenai River sockeye salmon late run would exceed two million fish. If the department can determine that the late run exceeds two million fish, the department may liberalize the fishery by EO to 24 hours per day until the season closure on July 31.

The *Kenai River Late-Run Sockeye Salmon Management Plan* (5 AAC 21.360) provides the department direction to liberalize and restrict the personal use salmon fishery, based upon meeting the OEG, when circumstances require. The Kenai River personal use dip net fishery was closed inseason by EO in 1998 due to low abundance of Kenai River late-run sockeye salmon, and in 2006 due to late run timing. During 1999–2001, 2008, and 2009, the Kenai River personal use dip net fishery was not liberalized or restricted. The Kenai River personal use dip net fishery was liberalized during the 2002–2005, 2007, and 2010–2013 seasons. The fishery was liberalized by increasing the daily hours the fishery was open. This liberalization was based on inseason projections of sockeye salmon run strengths greater than two million fish prior to 2011, and greater than 2.3 million fish starting in 2011.

During 1996–2013, the average harvest per UCI personal use permit has ranged from about 9 to 18 salmon (Table 278-1). Most households do not reach the allowable limit; about 40% of permit holders, on average, attain the allowable bag limit.

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 278-1.—Average harvest of salmon per permit per year, in the Kenai and Kasilof rivers personal use fisheries, and percent of permits achieving bag limit by year, 1996–2013.

Year	Average Harvest per permit	Average % of bag limits filled
1996	8.84	35.3
1997	9.67	39.2
1998	10.88	43.2
1999	11.86	44.2
2000	8.88	36.0
2001	12.46	43.7
2002	14.62	48.9
2003	15.12	50.6
2004	15.70	38.6
2005	17.01	39.7
2006	12.42	29.6
2007	15.49	37.5
2008	13.85	34.5
2009	15.24	38.8
2010	15.62	49.0
2011	18.17	55.0
2012	18.27	54.0
2013	13.00	40.4
Mean	13.00	39.99

Source: K. J. Dunker, Sport Fish Biologist, ADF&G, Anchorage, personal communication.

PROPOSAL 279 – 5 AAC 77.540. Upper Cook Inlet Personal Use Salmon Fishery Management Plan.

PROPOSED BY: John McCombs.

WHAT WOULD THE PROPOSAL DO? This proposal would modify the existing Kenai River personal use fishery hours from 6:00 a.m.–10:00 p.m., to 7:00 a.m.–7:00 p.m.

WHAT ARE THE CURRENT REGULATIONS? Subject to the requirement of achieving the lower end of the optimal escapement goal (OEG) of 700,000 to 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? This proposal would reduce the number of hours available to personal use fish for salmon on the Kenai River by five hours, from 17 hours daily to 12 hours daily. It would likely reduce the number of salmon, primarily sockeye salmon, harvested in the personal use fisheries by an unknown amount, and would likely increase crowding into the remaining hours the fishery would be open.

BACKGROUND: The *Upper Cook Inlet Personal Use Salmon Fishery Management Plan* (5 AAC 77.540) provides for a personal use salmon gillnet fishery at the mouth of the Kasilof River, and salmon dip net fisheries in the Kenai and Kasilof rivers, and Fish Creek in Northern Cook Inlet.

Beginning with the 1996 season, the Alaska Board of Fisheries (board) established a season of July 10 to August 5 (later amended to July 31) for the dip net fishery in the Kenai River. Establishment of a regular season provided predictability to this fishery. The regulatory season dates were independent of the abundance of returning salmon and were not tied to the management plans for other user groups.

In 2002, the management plan was modified to manage the fishery more conservatively until inseason abundance information became available. The season dates remained unchanged, but the daily hours were reduced from 24 hours per day to 6:00 a.m. to 11:00 p.m. until the department could project that the total Kenai River sockeye salmon late run would exceed two million fish. If the department can determine that the Kenai River sockeye salmon late run exceeds two million fish, the department may liberalize the fishery by EO to 24 hours per day until the season closure on July 31.

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 280 – 5 AAC 77.540. Upper Cook Inlet Personal Use Salmon Fishery Management Plan.

PROPOSED BY: Brandie Ware.

WHAT WOULD THE PROPOSAL DO? This proposal would reduce the Kenai River personal use fishing season by opening the season five days later on July 15 instead of July 10, and prohibit retention of king salmon. It would also establish paired restrictions with the commercial fishery by closing the personal use and sport fisheries in the Kenai River until the escapement goal is projected to be achieved when the commercial fishery is closed for more than one regular period.

WHAT ARE THE CURRENT REGULATIONS? Subject to the requirement of achieving the lower end of the optimal escapement goal (OEG) of 700,000 to 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? Management would become complex since paired restrictions with commercial fisheries would result in closures and re-openings of the dip net and sport fisheries during the proposed July 15 to July 31 season. Fishing time would decrease and in some years the personal fishery may not open. This proposal would likely reduce the number of salmon, primarily sockeye salmon, harvested in the personal use fisheries by an unknown amount by shortening the season, and would likely increase crowding in the days the fishery would be open. This proposal may result in an increase in the harvest of sockeye salmon in other fisheries, primarily the commercial fishery, as well as the inriver sport fishery, depending on abundance and run-timing.

BACKGROUND: The *Upper Cook Inlet Personal Use Salmon Fishery Management Plan* (5 AAC 77.540) provides for a personal use salmon gillnet fishery at the mouth of the Kasilof River, and salmon dip net fisheries in the Kenai and Kasilof rivers and Fish Creek in Northern Cook Inlet.

Beginning with the 1996 season, the Alaska Board of Fisheries (board) established a season of July 10 to August 5 (later amended to July 31) for the dip net fishery in the Kenai River. Establishment of a regular season provided predictability to this fishery. The regulatory season dates were independent of the abundance of returning salmon and were not tied to the management plans for other user groups.

In 2002, the management plan was modified to manage the fishery more conservatively until inseason abundance information became available. The season dates remained unchanged, but the daily hours were reduced from 24 hours per day to 6:00 a.m. to 11:00 p.m. until the department could project that the total Kenai River sockeye salmon late run would exceed two million fish. If the department can determine that the late run exceeds two million fish, the

department may liberalize the fishery by EO to 24 hours per day until the season closure on July 31.

The *Kenai River Late-Run Sockeye Salmon Management Plan* (5 AAC 21.360) provides direction to liberalize and restrict the personal use salmon fishery, based upon meeting the OEG, when circumstances require. The Kenai River personal use dip net fishery was closed inseason by EO in 1998 due to low abundance of Kenai River late-run sockeye salmon, and in 2006 due to late run timing. During 1999–2001, 2008, and 2009, the Kenai River personal use dip net fishery was not liberalized or restricted. The Kenai River personal use dip net fishery was liberalized during the 2002–2005, 2007, and 2010–2013 seasons. The fishery was liberalized by increasing the daily hours the fishery was open. This liberalization was based on inseason projections of sockeye salmon run strengths greater than two million fish prior to 2011, and greater than 2.3 million fish starting in 2011. The escapements of Kenai River late-run sockeye salmon can be found in Table 280-1.

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 280-1.—Kenai River drainage sockeye salmon escapement and inriver harvest, 1981–2012.

	Personal Use Dipnet, and Educational Harvest	Sport Harvest Below Sonar ^a	Harvests above Sonar							
			Kenai River Sonar Count	Total Inriver Run	Sport Harvest Above Sonar	Late Run Russian River	Inriver Federal Subsistence ^b	Total Harvest Above Sonar	Hidden Creek Escapement	Kenai River Spawning Escapement
1981	ND	3,116	575,848	578,965	16,605	23,720	ND	40,325	7,970	527,554
1982	Insignificant	6,922	809,173	816,095	43,181	10,320	ND	53,501	259	755,413
1983	7,562	13,577	866,455	887,594	57,690	16,000	ND	73,690	0	792,765
1984	ND	2,613	481,473	484,086	13,106	21,970	ND	35,076	0	446,397
1985	ND	8,835	680,897	689,732	48,651	58,410	ND	107,061	0	573,836
1986	ND	12,522	645,906	658,428	59,889	30,810	ND	90,699	8,335	546,872
1987	24,090	50,274	2,245,615	2,319,979	193,263	40,580	ND	233,843	28,964	1,982,808
1988	16,880	29,345	1,356,958	1,403,183	124,371	19,540	ND	143,911	38,318	1,174,729
1989	51,192	66,162	2,295,576	2,412,931	213,729	55,210	ND	268,939	0	2,026,638
1990	3,477	19,640	950,358	973,474	99,424	56,180	ND	155,604	61,598	733,155
1991	13,433	31,536	954,843	999,812	196,234	31,450	ND	227,684	30,814	696,345
1992	30,454	47,622	1,429,864	1,507,940	196,381	26,101	ND	222,482	18,848	1,188,534
1993	35,592	27,717	1,134,922	1,198,231	110,420	26,772	ND	137,192	5,634	992,096
1994	15,804	17,954	1,412,047	1,445,805	75,977	26,375	ND	102,352	2,255	1,307,440
1995	15,720	29,451	884,922	930,094	96,237	11,805	ND	108,042	4,945	771,936
1996	104,110	39,810	1,129,274	1,273,194	147,013	19,136	ND	166,149	46,881	916,244
1997	116,107	43,642	1,512,733	1,672,482	134,077	12,910	ND	146,987	39,544	1,326,202
1998	105,497	33,980	1,084,996	1,224,472	130,795	25,110	ND	155,905	51,383	877,707
1999	150,993	46,043	1,137,001	1,334,037	155,390	32,335	ND	187,725	32,644	916,632
2000	99,571	57,978	900,700	1,058,249	173,572	30,229	ND	203,801	27,493	669,406
2001	152,580	51,374	906,333	1,110,287	149,554	18,550	ND	168,104	24,028	714,201
2002	182,229	46,693	1,339,682	1,568,604	181,041	31,999	ND	213,040	44,081	1,082,561
2003	227,207	60,722	1,656,026	1,943,955	225,601	28,085	ND	253,686	6,364	1,395,976
2004	266,937	62,397	1,945,383	2,274,717	232,419	22,417	ND	254,836	10,741	1,679,806
2005	300,105	58,017	1,908,821	2,266,943	236,315	18,503	ND	254,818	6,980	1,647,023
2006	130,486	30,964	2,064,728	2,226,178	142,944	29,694	ND	172,638	15,910	1,876,180
2007	295,866	60,623	1,229,945	1,586,434	248,523	16,863	298	265,684	6,831	957,430
2008	239,075	46,053	917,139	1,202,267	184,148	23,680	478	208,306	4,854	703,979
2009	346,773	45,868	1,090,055	1,482,696	207,572	33,935	431	241,938	4,862	843,255
2010	395,586	59,651	1,294,885	1,750,122	246,983	9,333	903	257,219	22,560	1,015,106
2011	543,043	85,720	1,599,217	2,227,980	299,230	14,412	1,089	314,731	9,117	1,275,369
2012	528,610	102,376	1,581,555	2,212,541	353,099	15,072	547	368,718	15,319	1,197,518
2013	350,302	ND	1,359,893	ND	ND	ND	ND	ND	21,056	ND
Average										
2008–2012	410,620	67,930	1,296,570	1,775,120	258,210	19,290	690	278,180	11,340	1,007,050
1981–2012	162,930	40,600	1,250,730	1,428,800	156,040	26,170	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, Commercial Fisheries Biologist, ADF&G, Soldotna, personal communication; Educational harvest data, Kenaitze Indian Tribe; 2007–2012 Subsistence data, USFWS.

ND = no data available

^a 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.

^b 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.

PROPOSAL 172 – 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 close the Kenai River personal use fishery when it is announced that the sockeye salmon optimal escapement goal (OEG) may not be met; the fishery would reopen when the department projects the OEG will be achieved.

WHAT ARE THE CURRENT REGULATIONS? 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 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? This proposal would have no effect on management of the Kenai River personal use salmon fishery because the department is already directed to provide for the fishery only if the lower end of the OEG will be met.

BACKGROUND: The *Kenai River Late-Run Sockeye Salmon Management Plan* (5 AAC 21.360) provides the department direction to liberalize and restrict the personal use salmon fishery, based upon meeting the optimal escapement goal, when circumstances require. The Kenai River personal use dip net fishery was closed inseason by EO in 1998 due to low abundance of Kenai River late-run sockeye salmon, and in 2006 due to late run timing.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. The department already manages the Kenai River personal use fishery subject to achieving the lower end of the OEG as directed in the late-run sockeye salmon 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 281 – 5 AAC 77.540. Upper Cook Inlet Personal Use Salmon Fishery Management Plan.

PROPOSED BY: Debbie Petroze.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit retention of king salmon in the Kenai River personal use dip net fishery.

WHAT ARE THE CURRENT REGULATIONS? The annual limit for each Upper Cook Inlet personal use salmon fishing permit is 25 salmon for the head of a household and 10 salmon for each. Only one king salmon per household permit may be retained from the Kenai River dip net fishery. No retention of king salmon is allowed in the Kasilof or Fish Creek dip net fisheries.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Eliminating king salmon harvest in the Kenai River personal use fishery would decrease harvest and increase the inriver run strength of late-run Kenai River king salmon by 254 to 1,500 fish, based upon past harvest levels.

BACKGROUND: From 1996–2011, when retention of king salmon was not prohibited for the entire season in the Kenai River personal use fishery, the personal use harvest of king salmon in the Kenai River dip net fishery ranged from 254 to 1,509 fish. From 1996 to 2011, the harvest of king salmon averaged 816 fish (Table 281-1). Retention of king salmon in the Kenai River personal use dip net fishery has been prohibited for the entire season from 2012 to 2013 in an effort to achieve the Kenai River late-run king salmon sustainable escapement goal. The department currently has the emergency order authority to prohibit the retention of king salmon in the Kenai River personal use dip net fishery inseason if the department projects that the escapement goal for late-run king salmon will not be met.

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 281-1.–Kenai River personal use dipnet fishery total salmon harvests by year, 1996–2013.

Year	Sockeye	King	Coho	Pink	Chum	Total
1996	102,821	295	1,932	2,404	175	107,627
1997	114,619	364	559	619	58	116,219
1998	103,847	254	1,011	1,032	85	106,229
1999	149,504	488	1,009	1,666	102	152,769
2000	98,262	410	1,449	1,457	193	101,771
2001	150,766	638	1,555	1,326	155	154,440
2002	180,028	606	1,721	5,662	551	188,568
2003	223,580	1,016	1,332	1,647	249	227,824
2004	262,831	792	2,661	2,103	387	268,774
2005	295,496	997	2,512	1,806	321	301,132
2006	127,630	1,034	2,235	11,127	551	142,577
2007	291,270	1,509	2,111	1,939	472	297,301
2008	234,109	1,362	2,609	10,631	504	249,215
2009	339,993	1,189	2,401	5,482	285	349,350
2010	389,552	865	2,870	3,655	508	397,450
2011 ^a	537,765	1,243	4,745	3,914	915	548,583
2012 ^a	526,992	40	4,008	3,770	425	535,236
2013 ^a	347,222	11	3,169	3,625	701	354,727
<u>Average</u>						
1996–2011	225,130	816	2,045	3,529	344	231,864
1996–2013	248,683	729	2,216	3,548	369	255,544

Source: Reimer and Sigurdsson 2004; Dunker and Lafferty 2007; Dunker 2010; K. J. Dunker, Sport Fish Biologist, ADF&G, Anchorage, personal communication.

^a Personal use dip net fishery prohibited retention of king salmon either part of or for the whole season.

PROPOSAL 282 – 5 AAC 77.540. Upper Cook Inlet Personal Use Salmon Fishery Management Plan.

PROPOSED BY: South Central Alaska Dipnetters Association.

WHAT WOULD THE PROPOSAL DO? This proposal would extend the Kenai River personal use fishery through August 10 and increase the household limit by 10 additional salmon when the Kenai River sockeye salmon late run is greater than 4.6 million fish.

WHAT ARE THE CURRENT REGULATIONS? Personal use salmon fisheries are open only to residents of the state. In Cook Inlet, only one personal use salmon permit may be issued to each household per year. 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. Only one king salmon may be retained from the Kenai River dip net fishery.

Subject to the requirement of achieving the lower end of the optimal escapement goal (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 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 two million.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would increase the number of sockeye salmon harvested in the personal use fishery by an undetermined amount when the late run is greater than 4.6 million. This proposal would increase the harvest of Kenai River king and coho salmon by an unknown amount. It could increase harvest rates of coho salmon during years of below average returns. It would potentially increase crowding at the Kenai River since more people may participate in the personal use fishery. It would increase regulatory complexity by having differential household harvest limits for the other Upper Cook Inlet (UCI) personal use fisheries. It may result in a decrease in the harvest of sockeye salmon in other fisheries, primarily the commercial fishery, as well as the inriver sport fishery, depending on abundance and run-timing. It is unclear if these household limits would be instituted based on the preseason forecast of late-run Kenai River sockeye salmon, or on the inseason run assessment of sockeye salmon run strength which is announced around July 20 or later.

BACKGROUND: The *Upper Cook Inlet Personal Use Salmon Fishery Management Plan* (5 AAC 77.540) provides for a personal use salmon gillnet fishery at the mouth of the Kasilof River, and salmon dip net fisheries in the Kenai and Kasilof rivers and Fish Creek in Northern Cook Inlet. The UCI personal use salmon permit covers four fisheries: gillnetting on the Kasilof River, and dipnetting on the Kenai River, Kasilof River, and Fish Creek.

Beginning with the 1996 season, the Alaska Board of Fisheries (board) established a season of July 10 to August 5 (later amended to July 31) for the dip net fishery in the Kenai River. Establishment of a regular season provided predictability to this fishery. The regulatory season dates were independent of the abundance of returning salmon and were not tied to the

management plans for other user groups. The household annual limit was 25 salmon for the head of the household and 10 additional salmon per member of the household, of which only one may be a king salmon.

In 2002, the management plan was modified to manage the fishery more conservatively until inseason abundance information became available. The season dates remained unchanged, but the daily hours were reduced from 24 hours per day to 6:00 a.m. to 11:00 p.m. until the department could project that the total Kenai River sockeye salmon late run would exceed two million fish. If the department can determine that the late run exceeds two million fish, the department may liberalize the fishery by EO to 24 hours per day until the season closure on July 31.

The *Kenai River Late-Run Sockeye Salmon Management Plan* (5 AAC 21.360) provides direction to liberalize and restrict the personal use salmon fishery, based upon meeting the optimal escapement goal, when circumstances require. The Kenai River personal use dip net fishery was closed inseason by EO in 1998 due to low abundance of Kenai River late-run sockeye salmon, and in 2006 due to late run timing. The 2006 fishery was reopened August 3 and extended through August 10. The reported harvest (not expanded for nonrespondents) during that timeframe was 1,017 coho salmon. During 1999–2001, 2008, and 2009, the Kenai River personal use dip net fishery was not liberalized or restricted. The Kenai River personal use dip net fishery was liberalized during the 2002–2005, 2007, and 2010–2013 seasons. The fishery was liberalized by increasing the daily hours the fishery was open. This liberalization was based on inseason projections of sockeye salmon run strengths greater than two million fish prior to 2011, and greater than 2.3 million fish starting in 2011.

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 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:

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 in season 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 indicates the coho salmon runs averaged about 140,000 fish from 1999 to 2004, with harvests averaging just over 62,000 fish (Table 282-1). Overall harvest 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.

Minimum daily coho salmon harvests in the Kenai River personal use dip net fishery from 2007–2012 are reported in Table 282-2.

During 1996–2013, the average harvest per UCI personal use permit has ranged from about 9 to 18 salmon (Table 282-3). Most households do not reach the allowable limit; about 40% of permit holders, on average, attain the allowable bag limit.

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 volatile 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.

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 282-1.—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/subsistence).

^f Total Harvest divided by Total Run.

ND = No Data

Table 282-2.—Minimum daily harvests of coho salmon (not expanded for nonrespondents) in the Kenai River personal use dipnet fishery, from 2006–2012.

Date	2006	2007	2008	2009	2010	2011	2012	Average
10-Jul	17	5	1	42	86	10	35	28
11-Jul	9	12	14	37	22	87	26	30
12-Jul	2	9	12	92	60	13	28	31
13-Jul	61	23	0	13	59	23	123	43
14-Jul	61	67	13	49	40	37	85	50
15-Jul	133	25	70	107	76	86	59	79
16-Jul	37	5	18	73	111	593	140	140
17-Jul	17	12	60	63	188	176	116	90
18-Jul	24	84	62	174	90	245	144	118
19-Jul	27	46	98	200	83	99	86	91
20-Jul	134	97	117	79	108	47	177	108
21-Jul	236	199	196	63	120	76	375	181
22-Jul	^a	89	35	51	69	252	163	110
23-Jul	^a	41	93	31	99	570	195	172
24-Jul	^a	77	68	58	219	131	119	112
25-Jul	^a	102	82	165	75	167	195	131
26-Jul	^a	163	235	76	59	156	57	124
27-Jul	^a	117	99	57	40	141	112	94
28-Jul	^a	151	125	182	74	119	182	139
29-Jul	^a	69	88	95	72	206	133	111
30-Jul	^a	74	226	135	133	153	161	147
31-Jul	80	28	292	49	76	130	96	107
1-Aug	^a							
2-Aug	^a							
3-Aug	9	^a						
4-Aug	50	^a						
5-Aug	179	^a						
6-Aug	166	^a						
7-Aug	105	^a						
8-Aug	98	^a						
9-Aug	136	^a						
10-Aug	274	^a						
Total	1,855	1,495	2,004	1,891	1,959	3,517	2,807	2,236

^a Fishery closed.

Table 282-3.—Average harvest of salmon per permit per year, in the Kenai and Kasilof rivers personal use fisheries, and percent of permits achieving bag limit by year, 1996–2013.

Year	Average Harvest per permit	Average % of bag limits filled
1996	8.84	35.3
1997	9.67	39.2
1998	10.88	43.2
1999	11.86	44.2
2000	8.88	36.0
2001	12.46	43.7
2002	14.62	48.9
2003	15.12	50.6
2004	15.70	38.6
2005	17.01	39.7
2006	12.42	29.6
2007	15.49	37.5
2008	13.85	34.5
2009	15.24	38.8
2010	15.62	49.0
2011	18.17	55.0
2012	18.27	54.0
2013	13.00	40.4
Mean	13.00	39.99

Source: K. J. Dunker, Sport Fish Biologist, ADF&G, Anchorage, personal communication.

PROPOSAL 283 – 5 AAC 77.525. Personal use salmon fishery.

PROPOSED BY: United Cook Inlet Drift Association.

WHAT WOULD THE PROPOSAL DO? This proposal would reduce annual household limits for Kenai River personal use fishery based upon Kenai River sockeye salmon run size. The annual limit would decrease to 15 salmon for the head of household and five salmon for each dependent of the permit holder when the Kenai River late-run sockeye salmon run is greater than two million, but less than four million, and 10 salmon for the head of household and two salmon for each dependent when the late-run sockeye salmon run is less than two million. This proposal would make it illegal to possess both sport and personal use salmon on the same day.

WHAT ARE THE CURRENT REGULATIONS? Upper Cook Inlet (UCI) personal use permits are available to residents of Alaska. Only one UCI personal use salmon fishing permit may be issued to each household per year. The UCI personal use salmon permit covers four fisheries: gillnetting on the Kasilof River, and dipnetting on the Kenai River, Kasilof River, and Fish Creek. The total 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. Only one king salmon may be retained from the Kenai River dip net fishery.

Subject to the requirement of achieving the lower end of the optimal escapement goal (OEG) of 700,000 to 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.

The retention of both sport and personal use salmon on the same day is legal statewide, unless specifically prohibited.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would reduce the total salmon harvest for each permit holder participating in the Kenai River personal use fishery based on Kenai River sockeye salmon run sizes of less than four million fish, regardless of household size. If total harvest was reduced by a large amount it may result in an increase in the harvest of sockeye salmon in other fisheries, primarily the commercial fishery as well as the inriver sport fishery, depending on abundance.

It would increase regulatory complexity by having a household limit differing from the other UCI personal use fisheries. Also, it is unclear if these household limits would be instituted based on the preseason forecast of late-run Kenai River sockeye salmon, or the inseason run assessment of sockeye salmon run strength, which is announced around July 20 or later. It would also increase regulatory complexity by creating different tiered sockeye abundance threshold values: two million and four million that would be used to trigger personal use fishery management actions, rather than the 2.3 million and 4.6 million that presently trigger inriver sport and commercial fisheries management actions by the management plan.

This proposal would require Alaska residents to remove from their possession salmon taken from a sport or personal use fishery before they possessed salmon taken from either of the aforementioned fisheries on that same day. It would likely reduce opportunity for Alaska residents to participate in either sport or personal use fisheries by making it difficult to participate in a sport fishery and a personal use fishery during the same day.

BACKGROUND: In 1995, the Alaska Supreme Court overturned an October 1993 Superior Court decision (in *Kenaitze vs. Alaska*) that found unconstitutional the provision in a 1992 state subsistence law that directed the board to designate nonsubsistence use areas. This new ruling re-established the Anchorage/Mat-Su/Kenai nonsubsistence use area. The Alaska Board of Fisheries (board) convened an emergency meeting by teleconference on May 24, 2005 to close subsistence fisheries in the now nonsubsistence use area. The board delegated the commissioner to readopt the *Upper Cook Inlet Subsistence Salmon Management Plan* as a personal use fishery, having the same regulations as the 1994 subsistence fishery. That fishery included a household annual limit of 25 salmon for the head of the household and 10 additional salmon per member of the household, of which only one may be a king salmon.

Beginning with the 1996 season, the board established a season of July 10 to August 5 (later amended to July 31) for the dip net fishery in the Kenai River. Establishment of a regular season provided predictability to this fishery. The regulatory season dates were independent of the abundance of returning salmon and were not tied to the management plans for other user groups. The household annual limit unchanged.

The *Kenai River Late-Run Sockeye Salmon Management Plan* (5 AAC 21.360) provides the department direction to liberalize and restrict the personal use salmon fishery, based upon meeting the optimum escapement goal, when circumstances require. The Kenai River personal use dip net fishery was closed inseason by EO in 1998 due to low abundance of Kenai River late-run sockeye salmon, and in 2006 due to late run timing. Harvest of sockeye salmon was 103,847 fish in 1998 and 127,630 fish in 2006 (Table 283-1; Figure 283-1). During 1999–2001, 2008, and 2009, the Kenai River personal use dip net fishery was not liberalized or restricted. The personal use harvest of sockeye salmon during these years averaged 194,527 fish. The Kenai River personal use dip net fishery was liberalized during the 2002–2005, 2007, and 2010–2013 seasons. The fishery was liberalized by increasing the daily hours the fishery was open. This liberalization was based on inseason projections of sockeye salmon run strengths greater than two million fish prior to 2011, and greater than 2.3 million fish, starting in 2011.

During 1996–2013, the average harvest per UCI personal use permit has ranged from about 9 to 18 salmon (Table 283-2). Most households do not reach the allowable limit; about 40% of permit holders, on average, attain the allowable bag limit.

A household bag limit of 15 salmon per head of household and five salmon for each dependent of the permit holder in UCI personal use fisheries could result in an approximate 19% to 30% reduction in the harvest of sockeye salmon in the Kasilof and Kenai rivers personal use fisheries, given the past three years harvest patterns (tables 283-3, 283-4, and 283-5).

The current regulation provides the means to enforce personal use fishing limits, as well as to differentiate salmon harvested in the various fisheries. “Possession limit” means the maximum number of unpreserved fish a person may have in possession. “Preserved fish” means 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 than contain ice, dry ice, or fish that are lightly salted.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative element of this proposal affecting harvest limits. The department **OPPOSES** the element that would prohibit a person from possessing sport and personal use caught salmon on the same day.

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 283-1.—Upper Cook Inlet personal use fishery total permits issued and Kenai River personal use dip net salmon harvest by year, 1996–2013.

Year	Permits Issued	Salmon Harvest					Total
		Sockeye	King	Coho	Pink	Chum	
1996	14,576	102,821	295	1,932	2,404	175	107,627
1997	14,919	114,619	364	559	619	58	116,219
1998 ^a	15,535	103,847	254	1,011	1,032	85	106,229
1999	17,197	149,504	488	1,009	1,666	102	152,769
2000	16,107	98,262	410	1,449	1,457	193	101,771
2001	16,915	150,766	638	1,555	1,326	155	154,440
2002	17,568	180,028	606	1,721	5,662	551	188,568
2003	19,110	223,580	1,016	1,332	1,647	249	227,824
2004	21,910	262,831	792	2,661	2,103	387	268,774
2005	21,905	295,496	997	2,512	1,806	321	301,132
2006 ^a	18,563	127,630	1,034	2,235	11,127	551	142,577
2007	23,046	291,270	1,509	2,111	1,939	472	297,301
2008	23,722	234,109	1,362	2,609	10,631	504	249,215
2009	29,619	339,993	1,189	2,401	5,482	285	349,350
2010	31,590	389,552	865	2,870	3,655	508	397,450
2011 ^b	34,515	537,765	1,243	4,745	3,914	915	548,583
2012 ^b	34,315	526,992	40	4,008	3,770	425	535,236
2013 ^b	35,211	347,222	11	3,169	3,625	701	354,727
<u>Average</u>							
1996–2004	17,093	154,029	540	1,470	1,991	217	158,247
2005–2013	28,054	343,337	917	2,962	5,105	520	352,841

Source: Reimer and Sigurdsson 2004; Dunker and Lafferty 2007; Dunker 2010; K. J. Dunker, Sport Fish Biologist, ADF&G, Anchorage, personal communication.

^a Personal use dip net fishery restricted by time at some point during the season.

^b Personal use dip net fishery prohibited retention of king salmon for either part of or for the whole season.

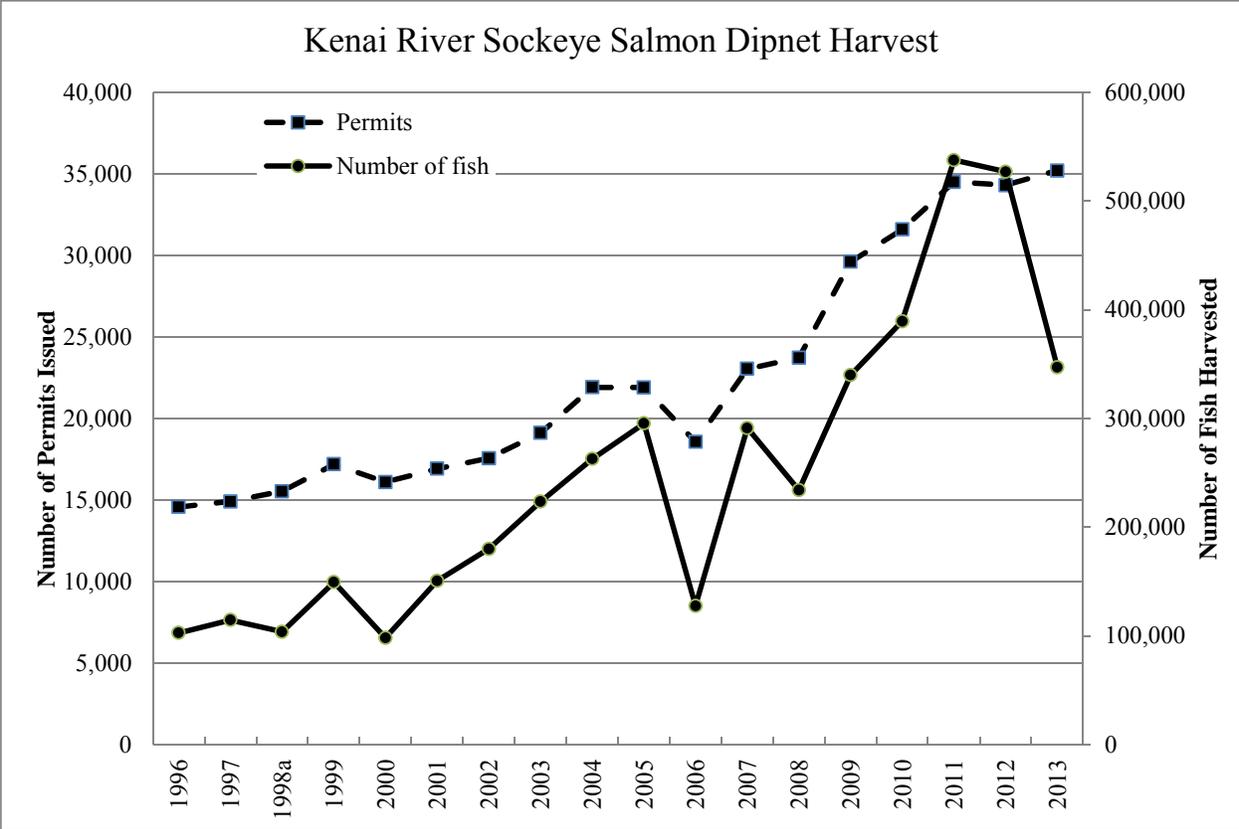


Figure 283-1.—Kenai River personal use dipnet fishery total salmon harvest by year, 1996–2013.

Table 283-2.—Average harvest of salmon per permit per year, in the Kenai and Kasilof rivers personal use fisheries, and percent of permits achieving bag limit by year, 1996–2013.

Year	Average Harvest per permit	Average % of bag limits filled
1996	8.84	35.3
1997	9.67	39.2
1998	10.88	43.2
1999	11.86	44.2
2000	8.88	36.0
2001	12.46	43.7
2002	14.62	48.9
2003	15.12	50.6
2004	15.70	38.6
2005	17.01	39.7
2006	12.42	29.6
2007	15.49	37.5
2008	13.85	34.5
2009	15.24	38.8
2010	15.62	49.0
2011	18.17	55.0
2012	18.27	54.0
2013	13.00	40.4
Mean	13.00	39.99

Source: K. J. Dunker, Sport Fish Biologist, ADF&G, Anchorage, personal communication.

Table 283-3.--Estimated effort and harvest for bag limit reduction scenarios in the Kenai and Kasilof rivers personal use fisheries, 2011.

		<u>Kenai River Dipnet</u>		<u>Kasilof River Dipnet</u>		<u>Kasilof River Gillnet</u>	
		Days Fished	Sockeye	Days Fished	Sockeye	Days Fished	Sockeye
Actual Estimates		32,818	537,765	6,571	49,766	1,846	26,780
Estimated harvest under reduced household limit	10 salmon (all fisheries)	26,808	191,963	5,040	22,738	1,252	8,918
	Harvest Reduction	6,010	345,802	1,531	27,028	595	17,862
	Percent Harvest Reduction	18.3%	64.3%	23.3%	54.3%	32.2%	66.7%
	15 salmon (all fisheries)	28,472	271,373	5,517	30,219	1,430	12,893
	Harvest Reduction	4,346	266,392	1,054	19,546	416	13,887
	Percent Harvest Reduction	13.2%	49.5%	16.0%	39.3%	22.5%	51.9%
	20 salmon (all fisheries)	29,809	339,880	5,829	35,874	1,576	16,449
	Harvest Reduction	3,008	197,885	742	13,892	270	10,331
	Percent Harvest Reduction	9.2%	36.8%	11.3%	27.9%	14.6%	38.6%
	10 salmon + 5 (all fisheries)	29,792	343,637	5,804	36,163	1,507	15,619
	Harvest Reduction	3,025	194,129	767	13,603	340	11,161
	Percent Harvest Reduction	9.2%	36.1%	11.7%	27.3%	18.4%	41.7%
	15 salmon + 5 (all fisheries)	30,929	402,336	6,057	40,687	1,634	18,921
	Harvest Reduction	1,889	135,429	514	9,079	213	7,859
	Percent Harvest Reduction	5.8%	25.2%	7.8%	18.2%	11.5%	29.3%
	20 salmon + 5 (all fisheries)	31,689	449,549	6,264	44,066	1,730	21,776
	Harvest Reduction	1,129	88,216	307	5,699	117	5,004
	Percent Harvest Reduction	3.4%	16.4%	4.7%	11.5%	6.3%	18.7%

Table 283-4.—Estimated effort and harvest for bag limit reduction scenarios in the Kenai and Kasilof rivers personal use fisheries, 2012.

		Kenai River Dipnet		Kasilof River Dipnet		Kasilof River Gillnet	
		Days Fished	Sockeye	Days Fished	Sockeye	Days Fished	Sockeye
Actual Estimates		34,374	526,992	6,536	73,419	1,696	15,638
Estimated harvest under reduced household limit	10 salmon (all fisheries)	27,715	194,571	4,854	28,245	1,200	6,619
	Harvest Reduction	6,658	332,421	1,682	45,174	496	9,019
	Percent Harvest Reduction	19.4%	63.1%	25.7%	61.5%	29.2%	57.7%
	15 salmon (all fisheries)	29,590	272,664	5,306	39,181	1,355	9,188
	Harvest Reduction	4,784	254,328	1,231	34,239	341	6,450
	Percent Harvest Reduction	13.9%	48.3%	18.8%	46.6%	20.1%	41.2%
	20 salmon (all fisheries)	31,135	338,847	5,703	48,178	1,489	11,261
	Harvest Reduction	3,239	188,145	833	25,241	207	4,377
	Percent Harvest Reduction	9.4%	35.7%	12.8%	34.4%	12.2%	28.0%
	10 salmon + 5 (all fisheries)	31,150	346,135	5,654	49,351	1,435	10,681
	Harvest Reduction	3,224	180,857	882	24,069	261	4,957
	Percent Harvest Reduction	9.4%	34.3%	13.5%	32.8%	15.4%	31.7%
	15 salmon + 5 (all fisheries)	32,381	402,244	5,962	56,723	1,548	12,391
	Harvest Reduction	1,993	124,748	574	16,696	148	3,247
	Percent Harvest Reduction	5.8%	23.7%	8.8%	22.7%	8.7%	20.8%
	20 salmon + 5 (all fisheries)	33,297	446,872	6,209	62,650	1,625	13,788
	Harvest Reduction	1,077	80,120	327	10,769	70	1,850
	Percent Harvest Reduction	3.1%	15.2%	5.0%	14.7%	4.2%	11.8%

Table 283-5.—Estimated effort and harvest for bag limit reduction scenarios in the Kenai and Kasilof rivers personal use fisheries, 2013.

		Kenai River Dipnet		Kasilof River Dipnet		Kasilof River Gillnet	
		Days Fished	Sockeye	Days Fished	Sockeye	Days Fished	Sockeye
Actual Estimates		33,193	347,222	8,556	85,528	1,082	14,439
Estimated harvest under reduced household limit	10 salmon (all fisheries)	28,329	155,563	6,905	35,395	796	5,209
	Harvest Reduction	4,864	191,659	1,651	50,133	286	9,229
	Percent Harvest Reduction	14.7%	55.2%	19.3%	58.6%	26.5%	63.9%
	15 salmon (all fisheries)	29,991	208,085	7,413	47,940	870	7,347
	Harvest Reduction	3,202	139,137	1,144	37,588	212	7,091
	Percent Harvest Reduction	9.6%	40.1%	13.4%	43.9%	19.6%	49.1%
	20 salmon (all fisheries)	31,115	249,010	7,842	57,971	946	9,224
	Harvest Reduction	2,078	98,212	714	27,557	136	5,214
	Percent Harvest Reduction	6.3%	28.3%	8.3%	32.2%	12.5%	36.1%
	10 salmon + 5 (all fisheries)	31,067	250,605	7,790	60,616	922	8,645
	Harvest Reduction	2,126	96,617	767	24,912	160	5,793
	Percent Harvest Reduction	6.4%	27.8%	9.0%	29.1%	14.7%	40.1%
	15 salmon + 5 (all fisheries)	31,909	283,031	8,124	68,678	986	10,327
	Harvest Reduction	1,284	64,191	432	16,850	96	4,112
	Percent Harvest Reduction	3.9%	18.5%	5.1%	19.7%	8.9%	28.5%
	20 salmon + 5 (all fisheries)	32,489	307,208	8,303	74,668	1,025	11,775
	Harvest Reduction	704	40,014	254	10,860	57	2,663
	Percent Harvest Reduction	2.1%	11.5%	3.0%	12.7%	5.3%	18.4%

PROPOSAL 284 – 5 AAC 77.540. Upper Cook Inlet Personal Use Salmon Fishery Management Plan.

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

WHAT WOULD THE PROPOSAL DO? This proposal would direct the department to limit the Kenai River personal use fishery harvest to no more than 100,000 sockeye salmon when the Kenai River late run sockeye forecast is less than two million fish, and no more than 225,000 sockeye salmon when the forecast is between two and four million fish.

WHAT ARE THE CURRENT REGULATIONS? The Upper Cook Inlet (UCI) personal use salmon permit covers four fisheries: gillnetting on the Kasilof River, and dipnetting on the Kenai River, Kasilof River, and Fish Creek. Subject to the requirement of achieving the lower end of the optimal escapement goal (OEG) of 700,000 to 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, 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 two million.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would reduce the total salmon harvest for each permit holder participating in the Kenai River personal use fishery based on Kenai River run strength, regardless of household size. If total harvest was reduced by a large amount it may result in an increase in the harvest of sockeye salmon in other fisheries, primarily the commercial fishery, depending on abundance. It may increase crowding and shift harvest earlier in the season if participants anticipate a closure to occur. It would increase regulatory complexity by having a household limit differing from the other UCI personal use fisheries. It would also increase regulatory complexity by creating different tiered sockeye abundance threshold values: two million and four million, which would be used to trigger personal use fishery management actions rather than the 2.3 million and 4.3 million that presently trigger inriver sport and commercial fisheries management actions by the management plan. It is unclear if these household limits would be instituted based on the preseason forecast of late-run Kenai River sockeye salmon, or based on the inseason run assessment of sockeye salmon run strength, which is typically announced around July 20 or later. It would also require a new harvest monitoring system to be developed and funded.

BACKGROUND: Since 1996, the estimated number of sockeye salmon passing the Kenai River sonar annually has ranged from 900,700 to nearly 2.1 million fish (Table 284-1), while the estimated harvest of sockeye salmon in the personal use dip net fishery has ranged from 98,262 to 537,765 fish (Table 284-2; Figure 284-1). During this period, the annual personal use harvest comprised 7.4% of the total run. The commercial fisheries harvest about 58.6% and inriver sport fisheries harvest 9.4% of the total Kenai River sockeye salmon late run (Table 284-3). During 2004–2013, daily harvest of sockeye salmon in the Kenai River personal use fishery varied widely, ranging from 571 to 76,203 sockeye salmon (Table 284-4). Factors affecting daily harvest rates include effort, abundance, tides, weather, and weekends versus weekdays.

During 1996–2013, the average harvest per UCI personal use permit has ranged from about 9 to 18 salmon (Table 284-5). Most households do not reach the allowable limit; about 40% of permit holders, on average, attain the allowable bag limit.

A household bag limit of 10 salmon per head of household and five salmon for each dependent of the permit holder in UCI personal use fisheries could result in an approximate 27% to 31% reduction in the harvest of sockeye salmon in the Kenai River personal use dip net fishery (tables 284-6, 284-7, and 284-8).

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 284-1.—Kenai River drainage sockeye salmon escapement and inriver harvest, 1981–2012.

	Personal Use Dipnet, and Educational Harvest	Sport Harvest Below Sonar ^a	Harvests above Sonar							
			Kenai River Sonar Count	Total Inriver Run	Sport Harvest Above Sonar	Late Run Russian River	Inriver Federal Subsistence ^b	Total Harvest Above Sonar	Hidden Creek Escapement	Kenai River Spawning Escapement
1981	ND	3,116	575,848	578,965	16,605	23,720	ND	40,325	7,970	527,554
1982	Insignificant	6,922	809,173	816,095	43,181	10,320	ND	53,501	259	755,413
1983	7,562	13,577	866,455	887,594	57,690	16,000	ND	73,690	0	792,765
1984	ND	2,613	481,473	484,086	13,106	21,970	ND	35,076	0	446,397
1985	ND	8,835	680,897	689,732	48,651	58,410	ND	107,061	0	573,836
1986	ND	12,522	645,906	658,428	59,889	30,810	ND	90,699	8,335	546,872
1987	24,090	50,274	2,245,615	2,319,979	193,263	40,580	ND	233,843	28,964	1,982,808
1988	16,880	29,345	1,356,958	1,403,183	124,371	19,540	ND	143,911	38,318	1,174,729
1989	51,192	66,162	2,295,576	2,412,931	213,729	55,210	ND	268,939	0	2,026,638
1990	3,477	19,640	950,358	973,474	99,424	56,180	ND	155,604	61,598	733,155
1991	13,433	31,536	954,843	999,812	196,234	31,450	ND	227,684	30,814	696,345
1992	30,454	47,622	1,429,864	1,507,940	196,381	26,101	ND	222,482	18,848	1,188,534
1993	35,592	27,717	1,134,922	1,198,231	110,420	26,772	ND	137,192	5,634	992,096
1994	15,804	17,954	1,412,047	1,445,805	75,977	26,375	ND	102,352	2,255	1,307,440
1995	15,720	29,451	884,922	930,094	96,237	11,805	ND	108,042	4,945	771,936
1996	104,110	39,810	1,129,274	1,273,194	147,013	19,136	ND	166,149	46,881	916,244
1997	116,107	43,642	1,512,733	1,672,482	134,077	12,910	ND	146,987	39,544	1,326,202
1998	105,497	33,980	1,084,996	1,224,472	130,795	25,110	ND	155,905	51,383	877,707
1999	150,993	46,043	1,137,001	1,334,037	155,390	32,335	ND	187,725	32,644	916,632
2000	99,571	57,978	900,700	1,058,249	173,572	30,229	ND	203,801	27,493	669,406
2001	152,580	51,374	906,333	1,110,287	149,554	18,550	ND	168,104	24,028	714,201
2002	182,229	46,693	1,339,682	1,568,604	181,041	31,999	ND	213,040	44,081	1,082,561
2003	227,207	60,722	1,656,026	1,943,955	225,601	28,085	ND	253,686	6,364	1,395,976
2004	266,937	62,397	1,945,383	2,274,717	232,419	22,417	ND	254,836	10,741	1,679,806
2005	300,105	58,017	1,908,821	2,266,943	236,315	18,503	ND	254,818	6,980	1,647,023
2006	130,486	30,964	2,064,728	2,226,178	142,944	29,694	ND	172,638	15,910	1,876,180
2007	295,866	60,623	1,229,945	1,586,434	248,523	16,863	298	265,684	6,831	957,430
2008	239,075	46,053	917,139	1,202,267	184,148	23,680	478	208,306	4,854	703,979
2009	346,773	45,868	1,090,055	1,482,696	207,572	33,935	431	241,938	4,862	843,255
2010	395,586	59,651	1,294,885	1,750,122	246,983	9,333	903	257,219	22,560	1,015,106
2011	543,043	85,720	1,599,217	2,227,980	299,230	14,412	1,089	314,731	9,117	1,275,369
2012	528,610	102,376	1,581,555	2,212,541	353,099	15,072	547	368,718	15,319	1,197,518
2013	350,302	ND	1,359,893	ND	ND	ND	ND	ND	21,056	ND
Average										
2008–2012	410,620	67,930	1,296,570	1,775,120	258,210	19,290	690	278,180	11,340	1,007,050
1981–2012	162,930	40,600	1,250,730	1,428,800	156,040	26,170	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, Commercial Fisheries Biologist, ADF&G, Soldotna, personal communication; Educational harvest data, Kenaitze Indian Tribe; 2007–2012 Subsistence data, USFWS.

ND = no data available

^a 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.

^b 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.

Table 284-2.—Upper Cook Inlet personal use fishery total permits issued and Kenai River personal use dip net salmon harvest by year, 1996–2013.

Year	Permits Issued	Salmon Harvest					Total
		Sockeye	King	Coho	Pink	Chum	
1996	14,576	102,821	295	1,932	2,404	175	107,627
1997	14,919	114,619	364	559	619	58	116,219
1998 ^a	15,535	103,847	254	1,011	1,032	85	106,229
1999	17,197	149,504	488	1,009	1,666	102	152,769
2000	16,107	98,262	410	1,449	1,457	193	101,771
2001	16,915	150,766	638	1,555	1,326	155	154,440
2002	17,568	180,028	606	1,721	5,662	551	188,568
2003	19,110	223,580	1,016	1,332	1,647	249	227,824
2004	21,910	262,831	792	2,661	2,103	387	268,774
2005	21,905	295,496	997	2,512	1,806	321	301,132
2006 ^a	18,563	127,630	1,034	2,235	11,127	551	142,577
2007	23,046	291,270	1,509	2,111	1,939	472	297,301
2008	23,722	234,109	1,362	2,609	10,631	504	249,215
2009	29,619	339,993	1,189	2,401	5,482	285	349,350
2010	31,590	389,552	865	2,870	3,655	508	397,450
2011 ^b	34,515	537,765	1,243	4,745	3,914	915	548,583
2012 ^b	34,315	526,992	40	4,008	3,770	425	535,236
2013 ^b	35,211	347,222	11	3,169	3,625	701	354,727
<u>Average</u>							
1996–2004	17,093	154,029	540	1,470	1,991	217	158,247
2005–2013	28,054	343,337	917	2,962	5,105	520	352,841

Source: Reimer and Sigurdsson 2004; Dunker and Lafferty 2007; Dunker 2010; K. J. Dunker, Sport Fish Biologist, ADF&G, Anchorage, personal communication.

^a Personal use dip net fishery restricted by time at some point during the season.

^b Personal use dip net fishery prohibited retention of king salmon for either part of or for the whole season.

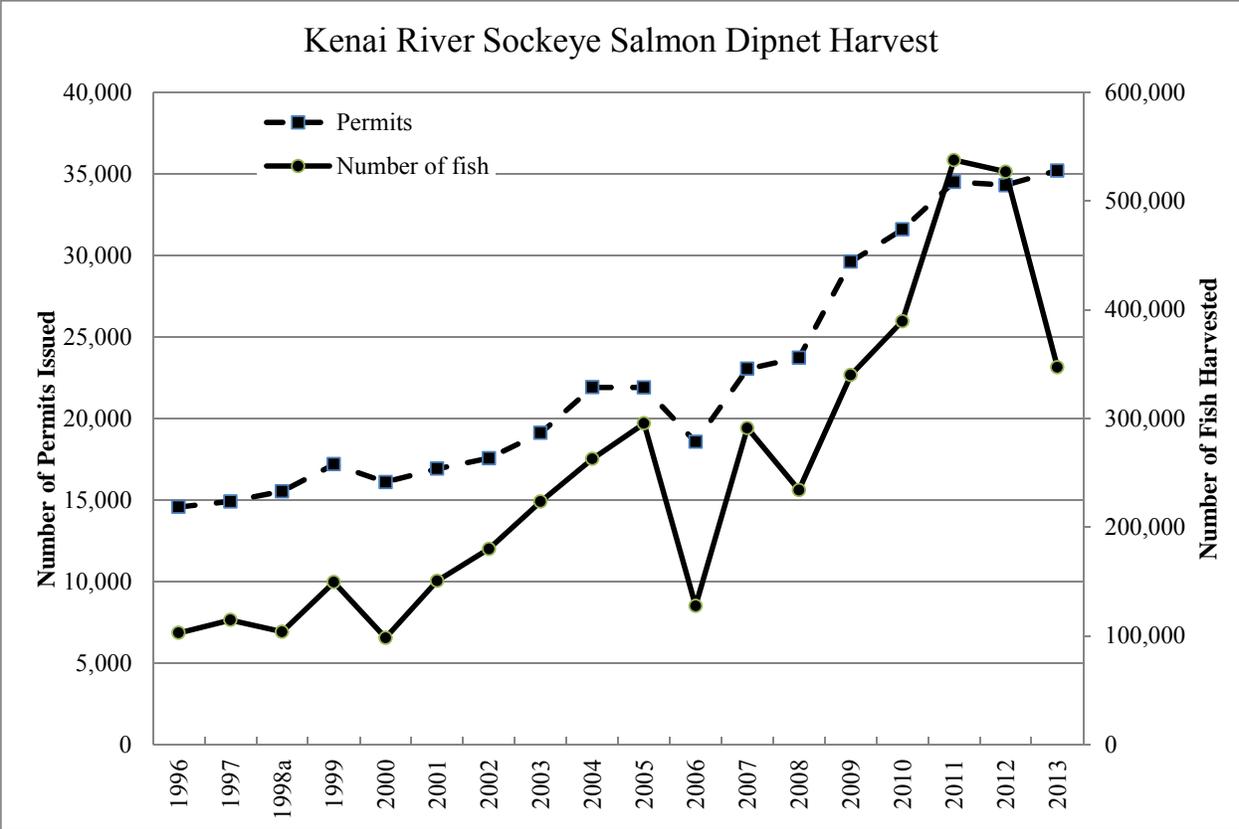


Figure 284-1.—Kenai River personal use dipnet fishery total salmon harvest by year, 1996–2013.

Table 284-3.—Kenai River sockeye salmon sonar estimates, harvests, and returns by year, 1981–2013.

Year	Total Run	Commercial Fisheries		Personal Use Dip Net		Inriver Sport		Sonar Estimate
		Number Harvested	Percent of Total Run	Number Harvested	Percent of Total Run	Number Harvested	Percent of Total Run	
1981	913,763	511,131	55.9%	ND		43,441	4.8%	575,847
1982	2,539,635	1,913,193	75.3%	Unknown		60,423	2.4%	809,174
1983	3,636,921	2,985,442	82.1%	7,562	0.2%	87,267	2.4%	866,453
1984	1,049,519	702,335	66.9%	ND		37,689	3.6%	481,470
1985	2,148,239	1,635,779	76.1%	ND		115,896	5.4%	680,897
1986	2,691,045	2,188,409	81.3%	ND		103,221	3.8%	645,906
1987	8,572,845	6,938,572	80.9%	24,086	0.3%	284,117	3.3%	2,245,610
1988	5,752,895	4,730,749	82.2%	16,880	0.3%	173,256	3.0%	1,356,958
1989	5,862,323	4,145,014	70.7%	48,976	0.8%	335,101	5.7%	2,295,575
1990	2,685,214	2,075,919	77.3%	ND		175,244	6.5%	950,357
1991	1,682,597	1,093,851	65.0%	ND		259,220	15.4%	954,841
1992	7,716,559	6,660,256	86.3%	12,189	0.2%	270,104	3.5%	1,429,867
1993	3,904,145	3,035,627	77.8%	33,467	0.9%	164,909	4.2%	1,134,923
1994	3,382,316	2,335,429	69.0%	ND		120,306	3.6%	1,412,050
1995	2,270,352	1,587,520	69.9%	14,352	0.6%	137,493	6.1%	884,922
1996	3,173,542	2,297,324	72.4%	102,821	3.2%	205,959	6.5%	1,129,274
1997	3,876,451	2,704,036	69.8%	114,619	3.0%	190,629	4.9%	1,512,731
1998	1,470,877	636,171	43.3%	103,847	7.1%	189,885	12.9%	1,084,993
1999	2,502,572	1,551,907	62.0%	149,504	6.0%	233,768	9.3%	1,137,003
2000	1,441,611	705,699	49.0%	98,262	6.8%	261,779	18.2%	900,695
2001	1,841,801	1,028,205	55.8%	150,766	8.2%	219,478	11.9%	906,333
2002	2,972,502	1,827,466	61.5%	180,028	6.1%	259,733	8.7%	1,339,681
2003	3,788,166	2,321,047	61.3%	223,580	5.9%	314,408	8.3%	1,656,026
2004	4,992,136	3,289,237	65.9%	262,831	5.3%	317,233	6.4%	1,945,383
2005	5,550,441	3,818,737	68.8%	295,496	5.3%	312,835	5.6%	1,908,823
2006	2,509,615	862,338	34.4%	127,630	5.1%	203,602	8.1%	2,064,726
2007	3,416,650	2,202,073	64.5%	291,270	8.5%	326,009	9.5%	1,229,944
2008	2,304,587	1,407,952	61.1%	234,109	10.2%	253,881	11.0%	917,138
2009	2,470,906	1,360,934	55.1%	339,993	13.8%	287,375	11.6%	1,090,057
2010	3,259,000	1,887,000	57.9%	389,552	12.0%	315,967	9.7%	1,294,885
2011	6,221,009	3,980,860	64.0%	537,765	8.6%	399,362	6.4%	1,599,217
2012	4,672,157	2,301,505	49.3%	526,992	11.3%	470,547	10.1%	1,581,555
2013 ^a	3,389,222	1,678,868	N/A	347,222	N/A	N/A	N/A	1,359,893
<u>Average</u>								
1981–2013	3,474,590	2,375,780	66.0%	140,420	5.4%	216,060	7.3%	1,254,040
1996–2013	3,325,180	1,992,300	58.6%	248,680	7.4%	264,580	9.4%	1,369,910

Source : Statewide Harvest Surveys; Brannian and Fox 1996; Reimer and Sigurdsson 2004; Dunker and Lafferty 2007; Dunker 2010, K. J. Dunker, Sport Fish Biologist, ADF&G, Anchorage, personal communication; P. Shields, Comm Fish Biologist, ADF&G, Soldotna, personal communication.

^a Preliminary estimates.

NA = Data not available.

Table 284-4.–Sockeye salmon harvest by date during the Kenai River personal use dipnet fishery, 2004–2009.

Date	2004	2005	2006 ^a	2007	2008	2009	2010	2011	2012	2013	Average	Cumulative	Percent of
												Average	Total
10-Jul	1,416	3,966	1,066	1,146	571	2,658	4,176	1,713	1,512	2,887	2,111	2,111	0.75%
11-Jul	950	3,754	848	757	721	5,542	3,824	2,024	1,045	1,120	2,059	4,170	1.48%
12-Jul	1,339	5,905	946	647	1,450	4,093	4,489	1,480	2,638	1,966	2,495	6,665	2.36%
13-Jul	10,005	5,363	820	1,698	1,143	5,228	6,478	2,505	4,145	5,831	4,322	10,987	3.89%
14-Jul	20,934	4,265	2,783	3,907	3,843	17,856	9,168	2,884	19,564	8,704	9,391	20,377	7.22%
15-Jul	18,854	16,085	8,930	4,119	11,292	21,973	23,698	9,018	31,561	29,204	17,473	37,851	13.41%
16-Jul	19,397	24,157	10,365	2,125	15,152	14,248	40,020	76,203	21,084	39,682	26,243	64,094	22.71%
17-Jul	15,715	14,353	5,390	3,990	11,848	24,914	45,462	46,340	15,550	31,107	21,467	85,561	30.31%
18-Jul	7,135	16,033	4,798	19,883	19,053	32,852	29,852	34,261	16,177	24,071	20,412	105,972	37.55%
19-Jul	4,352	8,668	6,469	6,649	23,022	27,235	19,936	49,528	18,464	33,354	19,768	125,740	44.55%
20-Jul	13,008	10,908	13,512	25,622	15,074	21,801	20,880	34,000	62,484	24,201	24,149	149,889	53.11%
21-Jul	31,776	8,153	30,607	47,331	16,294	9,502	18,401	15,351	64,942	8,787	25,114	175,004	62.00%
22-Jul	6,321	19,858	^a	19,446	8,668	10,156	15,683	39,654	34,762	7,343	17,988	192,991	68.38%
23-Jul	10,803	20,324	^a	7,651	9,401	7,795	16,716	43,764	24,800	5,267	16,280	209,272	74.15%
24-Jul	13,525	9,077	^a	11,749	4,937	6,990	22,311	17,871	24,519	3,896	12,764	222,035	78.67%
25-Jul	9,174	5,096	^a	25,865	9,738	12,861	6,783	13,831	21,696	5,436	12,276	234,311	83.02%
26-Jul	4,664	3,427	^a	19,531	13,126	12,695	4,057	13,814	15,011	11,864	10,910	245,221	86.88%
27-Jul	5,569	2,086	^a	16,388	7,534	13,187	7,418	9,062	15,789	11,750	9,865	255,086	90.38%
28-Jul	6,141	3,143	^a	16,061	5,769	12,270	7,136	7,661	13,767	7,338	8,810	263,895	93.50%
29-Jul	4,677	7,160	^a	6,482	6,165	8,533	4,275	9,140	9,666	4,895	6,777	270,672	95.90%
30-Jul	4,151	9,694	^a	6,432	7,009	9,033	6,341	7,706	6,868	4,881	6,902	277,574	98.35%
31-Jul	4,271	2,740	6,030	4,855	5,331	5,451	4,581	3,808	6,073	3,547	4,669	282,243	100.00%
1-Aug													
2-Aug													
3-Aug			102										
4-Aug			1,144										
5-Aug			3,844										
6-Aug			2,145										
7-Aug			1,707										
8-Aug			1,168										
9-Aug			1,316										
10-Aug			2,280										
Total ^b	214,177	204,215	106,270	252,334	197,141	286,873	321,685	441,618	432,117	277,131	282,243	274,164	

Source: K. J. Dunker, Sport Fish biologist, ADF&G, Anchorage, personal communication.

^a Emergency Order closed dipnetting from July 21–July 30; subsequent emergency orders re-opened dipnetting on July 31 and for August 3–10.

^b Harvest numbers by date cumulatives do not include estimates for permits that were not returned, or for dates that were reported incorrectly (i.e., out of season).

Blank cells = no data because the fishery was closed during those dates.

Table 284-5.—Average harvest of salmon per permit per year, in the Kenai and Kasilof rivers personal use fisheries, and percent of permits achieving bag limit by year, 1996–2013.

Year	Average Harvest per permit	Average % of bag limits filled
1996	8.84	35.3
1997	9.67	39.2
1998	10.88	43.2
1999	11.86	44.2
2000	8.88	36.0
2001	12.46	43.7
2002	14.62	48.9
2003	15.12	50.6
2004	15.70	38.6
2005	17.01	39.7
2006	12.42	29.6
2007	15.49	37.5
2008	13.85	34.5
2009	15.24	38.8
2010	15.62	49.0
2011	18.17	55.0
2012	18.27	54.0
2013	13.00	40.4
Mean	13.00	39.99

Source: K. J. Dunker, Sport Fish Biologist, ADF&G, Anchorage, personal communication.

Table 284-6.—Estimated effort and harvest for bag limit reduction scenarios in the Kenai and Kasilof rivers personal use fisheries, 2011.

		<u>Kenai River Dipnet</u>		<u>Kasilof River Dipnet</u>		<u>Kasilof River Gillnet</u>	
		Days Fished	Sockeye	Days Fished	Sockeye	Days Fished	Sockeye
Actual Estimates		32,818	537,765	6,571	49,766	1,846	26,780
Estimated harvest under reduced household limit	10 salmon (all fisheries)	26,808	191,963	5,040	22,738	1,252	8,918
	Harvest Reduction	6,010	345,802	1,531	27,028	595	17,862
	Percent Harvest Reduction	18.3%	64.3%	23.3%	54.3%	32.2%	66.7%
	15 salmon (all fisheries)	28,472	271,373	5,517	30,219	1,430	12,893
	Harvest Reduction	4,346	266,392	1,054	19,546	416	13,887
	Percent Harvest Reduction	13.2%	49.5%	16.0%	39.3%	22.5%	51.9%
	20 salmon (all fisheries)	29,809	339,880	5,829	35,874	1,576	16,449
	Harvest Reduction	3,008	197,885	742	13,892	270	10,331
	Percent Harvest Reduction	9.2%	36.8%	11.3%	27.9%	14.6%	38.6%
	10 salmon + 5 (all fisheries)	29,792	343,637	5,804	36,163	1,507	15,619
	Harvest Reduction	3,025	194,129	767	13,603	340	11,161
	Percent Harvest Reduction	9.2%	36.1%	11.7%	27.3%	18.4%	41.7%
	15 salmon + 5 (all fisheries)	30,929	402,336	6,057	40,687	1,634	18,921
	Harvest Reduction	1,889	135,429	514	9,079	213	7,859
	Percent Harvest Reduction	5.8%	25.2%	7.8%	18.2%	11.5%	29.3%
	20 salmon + 5 (all fisheries)	31,689	449,549	6,264	44,066	1,730	21,776
	Harvest Reduction	1,129	88,216	307	5,699	117	5,004
	Percent Harvest Reduction	3.4%	16.4%	4.7%	11.5%	6.3%	18.7%

Table 284-7.—Estimated effort and harvest for bag limit reduction scenarios in the Kenai and Kasilof rivers personal use fisheries, 2012.

		Kenai River Dipnet		Kasilof River Dipnet		Kasilof River Gillnet	
		Days Fished	Sockeye	Days Fished	Sockeye	Days Fished	Sockeye
Actual Estimates		34,374	526,992	6,536	73,419	1,696	15,638
Estimated harvest under reduced household limit	10 salmon (all fisheries)	27,715	194,571	4,854	28,245	1,200	6,619
	Harvest Reduction	6,658	332,421	1,682	45,174	496	9,019
	Percent Harvest Reduction	19.4%	63.1%	25.7%	61.5%	29.2%	57.7%
	15 salmon (all fisheries)	29,590	272,664	5,306	39,181	1,355	9,188
	Harvest Reduction	4,784	254,328	1,231	34,239	341	6,450
	Percent Harvest Reduction	13.9%	48.3%	18.8%	46.6%	20.1%	41.2%
	20 salmon (all fisheries)	31,135	338,847	5,703	48,178	1,489	11,261
	Harvest Reduction	3,239	188,145	833	25,241	207	4,377
	Percent Harvest Reduction	9.4%	35.7%	12.8%	34.4%	12.2%	28.0%
	10 salmon + 5 (all fisheries)	31,150	346,135	5,654	49,351	1,435	10,681
	Harvest Reduction	3,224	180,857	882	24,069	261	4,957
	Percent Harvest Reduction	9.4%	34.3%	13.5%	32.8%	15.4%	31.7%
	15 salmon + 5 (all fisheries)	32,381	402,244	5,962	56,723	1,548	12,391
	Harvest Reduction	1,993	124,748	574	16,696	148	3,247
	Percent Harvest Reduction	5.8%	23.7%	8.8%	22.7%	8.7%	20.8%
	20 salmon + 5 (all fisheries)	33,297	446,872	6,209	62,650	1,625	13,788
	Harvest Reduction	1,077	80,120	327	10,769	70	1,850
	Percent Harvest Reduction	3.1%	15.2%	5.0%	14.7%	4.2%	11.8%

Table 284-8.—Estimated effort and harvest for bag limit reduction scenarios in the Kenai and Kasilof rivers personal use fisheries, 2013.

		Kenai River Dipnet		Kasilof River Dipnet		Kasilof River Gillnet	
		Days Fished	Sockeye	Days Fished	Sockeye	Days Fished	Sockeye
Actual Estimates		33,193	347,222	8,556	85,528	1,082	14,439
Estimated harvest under reduced household limit	10 salmon (all fisheries)	28,329	155,563	6,905	35,395	796	5,209
	Harvest Reduction	4,864	191,659	1,651	50,133	286	9,229
	Percent Harvest Reduction	14.7%	55.2%	19.3%	58.6%	26.5%	63.9%
	15 salmon (all fisheries)	29,991	208,085	7,413	47,940	870	7,347
	Harvest Reduction	3,202	139,137	1,144	37,588	212	7,091
	Percent Harvest Reduction	9.6%	40.1%	13.4%	43.9%	19.6%	49.1%
	20 salmon (all fisheries)	31,115	249,010	7,842	57,971	946	9,224
	Harvest Reduction	2,078	98,212	714	27,557	136	5,214
	Percent Harvest Reduction	6.3%	28.3%	8.3%	32.2%	12.5%	36.1%
	10 salmon + 5 (all fisheries)	31,067	250,605	7,790	60,616	922	8,645
	Harvest Reduction	2,126	96,617	767	24,912	160	5,793
	Percent Harvest Reduction	6.4%	27.8%	9.0%	29.1%	14.7%	40.1%
	15 salmon + 5 (all fisheries)	31,909	283,031	8,124	68,678	986	10,327
	Harvest Reduction	1,284	64,191	432	16,850	96	4,112
	Percent Harvest Reduction	3.9%	18.5%	5.1%	19.7%	8.9%	28.5%
	20 salmon + 5 (all fisheries)	32,489	307,208	8,303	74,668	1,025	11,775
	Harvest Reduction	704	40,014	254	10,860	57	2,663
	Percent Harvest Reduction	2.1%	11.5%	3.0%	12.7%	5.3%	18.4%

PROPOSAL 285 – 5 AAC 77.540. Upper Cook Inlet Personal Use Salmon Fishery Management Plan.

PROPOSED BY: United Cook Inlet Drift Association.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit dipnetting from boats in the Kenai River personal use fishery.

WHAT ARE THE CURRENT REGULATIONS? Salmon may be taken by dip net in the Kenai River from a boat, in the area from a department regulatory marker located near the Kenai city dock upstream to the downstream side of the Warren Ames Bridge; however, salmon may not be taken from a boat powered by a two-stroke motor, other than a motor manufactured as a direct fuel injection motor. Salmon may also be taken from shore, in the area from department regulatory markers located on Cook Inlet beaches outside the terminus of the river upstream to the downstream side of the Warren Ames Bridge, except dipnetting is closed on the north shore from a department regulatory marker located below the end of Main Street, upstream from a department regulatory marker located near the Kenai city dock.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would likely result in an initial reduction in the salmon harvest from the Kenai River personal use fishery. Harvest may rebound when participants adapt to the new regulation and fish from the area open to dipnetting from shore. This proposal would displace those who would have fished from a boat to the shore, thereby increasing crowding in the area open to dipnetting from shore. This proposal may result in an increase in the harvest of sockeye salmon in other fisheries, primarily the commercial fishery, depending on abundance.

BACKGROUND: Department estimates of personal use salmon harvest are by fishery location and participants do not record if the fish were harvested from a boat or from shore.

The Alaska Department of Natural Resources (DNR) and the U.S. Army Corps of Engineers have completed studies to better understand the effect of boat wakes on Kenai River channel morphology, including wakes generated by combinations of boat hull designs, engine horsepower, and weight loading. Results of these studies concluded that the Kenai River was maintaining a natural channel and boats with V-hull configuration and heavy loads generated the largest waves, as well as wave energy, while boats with flat-bottomed configuration produced small waves with less wave energy. In addition, they concluded that increasing engine horsepower may slightly reduce wave size from boats with V-hull configuration.

A DNR regulation allowing the use of motors with a total propeller shaft rating of up to and including 50 HP in the Kenai River Special Management Area (KRSMA) was adopted in 2008. Additional DNR motor horsepower restrictions specify that motors with a total propeller shaft rating greater than 35 HP must be a four-stroke or a direct fuel injection motor. Furthermore, during the month of July, no one may operate a motorized boat on the Kenai River in the KRSMA unless the motor is a four-stroke or a direct fuel injection motor. Beginning in 2013, all power boats operating in the KRSMA at any time of the year are required to use either a four-stroke or a direct fuel injection motor. Lastly, in 2008 the Alaska Board of Fisheries adopted a

regulation prohibiting the taking of fish in the Kenai River personal use dip net fishery from a boat powered by a two-stroke motor, unless it is a direct fuel injection motor.

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 286 – 5 AAC 77.540. Upper Cook Inlet Personal Use Salmon Fishery Management Plan.

PROPOSED BY: Preston Williams.

WHAT WOULD THE PROPOSAL DO? This proposal would establish a no-wake zone and maximum speed limit of five miles per hour on the Kenai River between river mile 3.0 and 4.5 during the personal use fishery when a high tide of 21 feet or higher occurs.

WHAT ARE THE CURRENT REGULATIONS? Salmon may be taken by dip net in the Kenai River from a boat, in the area from a department regulatory marker located near the Kenai city dock upstream to the downstream side of the Warren Ames Bridge; however, salmon may not be taken from a boat powered by a two-stroke motor other than a motor manufactured as a direct fuel injection motor. Salmon may also be taken from shore, in the area from department regulatory markers located on Cook Inlet beaches outside the terminus of the river upstream to the downstream side of the Warren Ames Bridge. However, dipnetting is closed on the north shore from a department regulatory marker located below the end of Main Street, upstream to a department regulatory marker located near the Kenai city dock.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal may result in participants not fishing from a vessel during tides that are 21 feet or higher. Reduced impact to the river bank and shore vegetation may or may not occur because heavily loaded vessels that are not on step may generate large waves and wave energy. This proposal would likely result in reduced harvests from people fishing from vessels.

BACKGROUND: The department estimates personal use salmon harvest by fishery location, but participants do not report if fish were harvested from a boat or from shore. During the act of taking salmon by dipnetting from a vessel the boat is traveling at a slow (trolling) rate of speed and does not create a wake. It is during general transit to and from waters being fished that a boat wake is created.

The Alaska Department of Natural Resources (DNR) and the Army Corps of Engineers have completed studies to better understand the effect of boat wakes on Kenai River channel morphology, including wakes generated by combinations of boat hull designs, engine horsepower, and weight loading. Results of these studies concluded that the Kenai River was maintaining a natural channel and boats with V-hull configuration and heavy loads generated the largest waves, as well as wave energy, while boats with flat-bottomed configuration produced small waves with less wave energy. In addition, they concluded that increasing engine horsepower may slightly reduce wave size from boats with V-hull configuration.

A DNR regulation allowing the use of motors with a total propeller shaft rating of up to and including 50 HP in the Kenai River Special Management Area (KRSMA) was adopted in 2008. Additional DNR motor horsepower restrictions specify that motors with a total propeller shaft rating greater than 35 HP must be a four-stroke or a direct fuel injection motor. Furthermore, during the month of July, no one may operate a motorized boat on the Kenai River in the KRSMA unless the motor is a four-stroke or a direct fuel injection motor. Beginning in 2013, all

power boats operating in the KRSMA at any time of year are required to use either a four-stroke or a direct fuel injection motor. Lastly, in 2008 the Alaska Board of Fisheries (board) adopted a regulation prohibiting the taking of fish in the Kenai River personal use dip net fishery from a boat powered by a two-stroke motor, unless it is a direct fuel injection motor.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal on a practical basis. Boats participating in the fishery generally travel upstream in the middle of the river and fish at a slow rate of speed nearer the shoreline. Reduced impact to the river bank and shore vegetation may or may not occur because heavily loaded vessels that are not on step may generate large waves and wave energy. Participants would have to be aware of tide stages and operating speeds, both of which would increase enforcement complexity and 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 287 – 5 AAC 77.540. Upper Cook Inlet Personal Use Salmon Fishery Management Plan.

PROPOSED BY: John McCombs.

WHAT WOULD THE PROPOSAL DO? This proposal would reduce allowable mesh size to two-inch mesh in Cook Inlet personal use dipnet fisheries.

WHAT ARE THE CURRENT REGULATIONS? Dip nets are legal gear as defined under the statewide general provisions of 5 AAC 39.105(d)(24), *Types of legal gear*. A dip net is a bag-shaped net supported on all sides by a rigid frame; the maximum straight-line distance between any two points on the net frame, as measured through the net opening, may not exceed five feet; the depth of the bag must be at least one-half of the greatest straight-line distance, as measured through the net opening; no portion of the bag may be constructed of webbing that exceeds a stretched measurement of 4.5 inches; the frame must be attached to a single rigid handle and be operated by hand.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would create an exception to the statewide regulation for Cook Inlet. A reduction in mesh size from the current 4.5 inches may result in fewer sockeye salmon harvested in the personal use dip net fisheries. The proposal is unlikely to change king salmon harvest because king salmon aren't any more likely to be gilled in two-inch mesh web than in 4.5-inch mesh web. Personal use fishermen may require more time to obtain the same amount of fish.

BACKGROUND: Prior to 1988, there were no restrictions on dip net mesh size. In 1988, the Alaska Board of Fisheries adopted the current statewide regulation limiting mesh size to a maximum of 4.5 inches. This regulation was adopted in response to staff and public observation indicating more fish were “gilled” than “dipped” when larger mesh was used. At that time, the board agreed that smaller mesh should be used to ensure fish were dipped.

From 1996–2011, when retention of king salmon was not prohibited for the entire season in the Kenai River personal use fishery, the personal use harvest of king salmon in the Kenai River dip net fishery ranged from 254 to 1,509 fish, and averaged 816 fish (Table 287-1). Retention of king salmon in the Kenai River personal use dip net fishery has been prohibited for the entire season, from 2012 to 2013, in an effort to achieve the Kenai River late-run king salmon sustainable escapement goal. The department currently has the emergency order authority to prohibit the retention of king salmon in the Kenai River personal use dip net fishery inseason if the department projects that the escapement goal for late-run king salmon will not be met.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of this proposal. However, the department **OPPOSES** changing the maximum mesh size allowed for use with a dip net in Upper Cook Inlet personal use fisheries because the regulation which stipulates the maximum mesh size allowed for use with a dip net is a statewide provision, under 5 AAC 39.105. A uniform statewide standard provides regulatory consistency that is easier to enforce.

COST ANALYSIS: Approval of this proposal is expected to result in an additional direct cost for a private person to participate in this fishery. Participants would be required to buy a new net for his or her dipnet.

Table 287-1.–Kenai River personal use dipnet fishery total salmon harvest by year, 1996–2013.

Year	Sockeye	King	Coho	Pink	Chum	Total
1996	102,821	295	1,932	2,404	175	107,627
1997	114,619	364	559	619	58	116,219
1998	103,847	254	1,011	1,032	85	106,229
1999	149,504	488	1,009	1,666	102	152,769
2000	98,262	410	1,449	1,457	193	101,771
2001	150,766	638	1,555	1,326	155	154,440
2002	180,028	606	1,721	5,662	551	188,568
2003	223,580	1,016	1,332	1,647	249	227,824
2004	262,831	792	2,661	2,103	387	268,774
2005	295,496	997	2,512	1,806	321	301,132
2006	127,630	1,034	2,235	11,127	551	142,577
2007	291,270	1,509	2,111	1,939	472	297,301
2008	234,109	1,362	2,609	10,631	504	249,215
2009	339,993	1,189	2,401	5,482	285	349,350
2010	389,552	865	2,870	3,655	508	397,450
2011 ^a	537,765	1,243	4,745	3,914	915	548,583
2012 ^a	526,992	40	4,008	3,770	425	535,236
2013 ^a	347,222	11	3,169	3,625	701	354,727
<u>Average</u>						
1996–2011	225,130	816	2,045	3,529	344	231,864
1996–2013	248,683	729	2,216	3,548	369	255,544

Source: Reimer and Sigurdsson 2004; Dunker and Lafferty 2007; Dunker 2010; K. J. Dunker, Sport Fish Biologist, ADF&G, Anchorage, personal communication.

^a Personal use dip net fishery prohibited retention of king salmon either part, or for the whole season.

PROPOSAL 288 – 5 AAC 77.540. Upper Cook Inlet Personal Use Salmon Fishery Management Plan.

PROPOSED BY: United Cook Inlet Drift Association.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit the release of salmon caught in Cook Inlet personal use fisheries.

WHAT ARE THE CURRENT REGULATIONS? There are no regulations prohibiting the release of salmon caught while personal use fishing in Cook Inlet. In the Kasilof River and Fish Creek personal use dip net fisheries, retention of king salmon is prohibited and any king salmon caught must be returned to the water unharmed.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It would add a new regulation for the personal use fishery. It would also impact restrictive management actions to conserve stocks; for example, in years when it is necessary to prohibit retention of king salmon in the Kenai River personal use dip net fishery, or coho salmon in the Fish Creek personal use dip net fishery.

BACKGROUND: From 2011–2013, king salmon retention was prohibited in the Kenai River personal use dip net fishery at some point to conserve the run and help to achieve minimum escapement goals. In 2009, the department prohibited retention of coho salmon, by emergency order, in the Fish Creek personal use dip net fishery in an effort to provide an opportunity to harvest a late surge of sockeye salmon while minimizing any negative effect on sporting fishing for coho salmon.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal because it would have an adverse effect on the department’s current inseason management actions for king and coho salmon conservation purposes. In addition, staff observations of the Upper Cook Inlet personal use salmon fisheries indicate release of fish by dipnetters is minimal, with the release of flounders, as well as pink and king salmon, occasionally observed.

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 289 – 5 AAC 77.540. Upper Cook Inlet Personal Use Salmon Fishery Management Plan.

PROPOSED BY: John McCombs.

WHAT WOULD THE PROPOSAL DO? This proposal would require fish waste from the Kenai River personal use fishery to be ground to three-quarters of an inch.

WHAT ARE THE CURRENT REGULATIONS? There are no regulations that direct harvesters on how to dispose of fish waste derived from the personal use fishery.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It would add a new regulation and could require infrastructure to grind fish and law enforcement effort to ensure discarded fish waste met the regulation size requirements.

BACKGROUND: The City of Kenai adopted an ordinance prior to the 2013 fishing season requiring waste from fish processed on city beaches be disposed of back into the waters of the Kenai River. The city also uses tractors to rake fish waste that is present on beaches down to the waterline during overnight hours or in the morning during the fishery.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on 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 290 – 5 AAC 77.540. Upper Cook Inlet Personal Use Salmon Fishery.

PROPOSED BY: Mark Glassmaker.

WHAT WOULD THE PROPOSAL DO? This proposal would change dates for the Kasilof River personal use set gillnet fishery from June 15–24 to June 20–30, and close the personal use set gillnet fishery and require release of all king salmon in the PU dipnet fishery when sport fish restrictions are placed on king salmon in the Kenai or Kasilof rivers.

WHAT ARE THE CURRENT REGULATIONS? In the salt waters about one mile north and south of the Kasilof River mouth, salmon may be taken by gillnet from June 15 through June 24. Only one set gillnet per household may be fished. The fishery is open from 6:00 a.m. until 11:00 p.m. daily. There are no limits on king salmon harvested in this fishery, other than the maximum limit for all salmon for each permit. The Kasilof River dipnet fishery is open from June 25 through August 7, 24 hours per day. King salmon may not be retained in the Kasilof River dipnet fishery.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The effects of this proposal on the Kasilof River personal use gillnet fishery are difficult to assess. This proposal would increase the total number of days the gillnet fishery is open from 10 days to 11 days, which would likely increase harvest, since the daily harvest of sockeye salmon in this fishery is approximately 2,100 fish (Table 290-1). King salmon harvest has averaged approximately 200 fish annually (Table 290-2). Based on this, an additional day of gillnetting would result in approximately 20 additional king salmon being harvested. It is not known if changing the start date of the gillnet fishery would decrease the estimated annual harvest of early-run Crooked Creek king salmon. Changing the dates that the Kasilof River personal use gillnet fishery is open would mean that the Kasilof River personal use dip net fishery, which starts on June 25, would overlap with the personal use gillnet fishery for six days and would increase the likelihood of conflict between the personal use gillnet fishery, and both the personal use dipnet fishery and the Kasilof Section set gillnet commercial fishery. The Kasilof Section commercial set gillnet fishery opens on June 25, but may open as early as June 20, if 50,000 fish are in the Kasilof River by that date. By modifying the personal use gillnet fishery open dates to June 20–30, the two fisheries would overlap by a few days every year.

In addition, this proposal states that the Kasilof River gillnet fishery would be closed if a restriction is placed on either the Kenai or Kasilof river king salmon sport fisheries for conservation reasons. If a management restriction was placed on either the Kenai or Kasilof river sport fisheries, the Kasilof river dipnet fisheries would remain open, but king salmon could not be retained.

BACKGROUND: The *Upper Cook Inlet Personal Use Salmon Fishery Management Plan* (5 AAC 77.540) provides for a personal use salmon gillnet fishery at the mouth of Kasilof River, and salmon dipnet fisheries in the Kenai and Kasilof rivers, and Fish Creek in Northern Cook Inlet. This plan was in effect for the 1981 season and later adopted into regulation by the Alaska Board of Fisheries (board) in 1982. The plan has undergone several amendments since that time.

The Kasilof River personal use gillnet fishery began in 1982, when it opened on June 21. The fishery was closed by EO when it was estimated that 5,000–10,000 fish had been harvested. It remained relatively unchanged until 1999, when the season started on June 16 and was closed by EO when the department estimated that 10,000–20,000 fish had been harvested. In 2002, the board again modified the fishery by fixing the dates to June 15–24, and removing the harvest quota. From 1996 through 2012, king salmon personal use harvest estimates averaged 198 and ranged from 46 to 514 (Table 290-2).

Currently, on the south side of the Kasilof River, the personal use gillnet marker and the commercial regulatory marker are separated by approximately 200 feet, while on the north side of the river there is no separation between the personal use gillnet fishery boundary and the commercial fishing boundary. The reason for the separation on the south side of the Kasilof River is primarily due to offshore personal use nets getting caught up in the commercial fishing sets. Separating the boundaries of the two fisheries has helped alleviate some of this conflict. On the north side of the river, these kinds of conflicts have not been reported, so the commercial regulatory marker and the personal use marker are at the same location.

The early-run Crooked Creek king salmon minimum escapement goal of 650 naturally-produced fish has been achieved eight out of the past 10 years (Table 290-3). The early-run Kasilof River sport fishery has been restricted by EO to prohibit the retention of naturally-produced fish during 2010, 2012, and 2013 in an effort to achieve the sustainable escapement goal for Crooked Creek.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of this proposal, but **OPPOSES** this proposal because the commercial setnet and personal use gillnet fisheries would be open at the same time and increase the potential for user conflicts.

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 290-1.-Kasilof River personal use gillnet sockeye salmon harvest by day, 2004–2013.

Date	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Average
15-Jun	1,474	3,024	2,551	1,585	1,831	2,073	1,167	2,793	1,133	2,436	2,007
16-Jun	1,329	2,612	3,033	1,622	1,314	1,992	1,026	1,992	688	2,133	1,774
17-Jun	1,953	3,549	3,428	1,091	1,585	1,820	831	2,679	637	2,027	1,960
18-Jun	2,266	3,566	2,376	1,572	1,668	1,986	1,175	2,091	1,053	2,458	2,021
19-Jun	2,912	2,832	2,056	1,503	2,519	2,643	1,860	2,313	1,237	2,530	2,241
20-Jun	3,531	2,589	2,519	1,704	2,707	3,172	2,144	2,659	1,114		2,460
21-Jun	3,185	1,467	2,845	1,231	3,582	2,470	2,503	1,925	2,065		2,364
22-Jun	3,229	907	2,732	1,266	2,751	2,389	2,752	2,912	1,874		2,312
23-Jun	1,482	660	1,935	1,166	1,867	2,611	2,654	2,270	1,888		1,837
24-Jun	1,019	2,147	3,410	633	1,772	2,630	2,605	1,722	1,318		1,917
Total ^a	25,417	26,609	28,867	14,943	23,432	26,646	21,924	26,780	15,638	14,439	22,470

^a The sum of the daily totals by year do not match the total harvest by year. This is because on some permits the harvest of fish can be attributed to the gillnet fishery, but the harvest date is illegible.

Table 290-2.-Kasilof River personal use set gillnet harvest by species, 1996–2013.

Year	Days Open	Days Fished	Harvest					Total
			King	Sockeye	Coho	Pink	Chum	
1996	5	582	46	9,506	0	8	1	9,561
1997	5	815	65	17,997	1	102	3	18,168
1998	5	1,075	126	15,975	0	15	12	16,128
1999	10	1,287	442	12,832	25	10	10	13,319
2000	13	1,252	514	14,774	9	17	10	15,324
2001	8	1,001	174	17,201	6	11	7	17,399
2002	10	1,025	192	17,980	12	30	13	18,227
2003	10	1,206	400	15,706	107	9	4	16,226
2004	10	1,272	163	25,417	58	6	0	25,644
2005	11	1,506	87	26,609	326	16	1	27,039
2006	10	1,724	287	28,867	420	11	6	29,591
2007	10	1,570	343	14,943	68	2	0	15,356
2008	10	1,534	151	23,432	65	35	23	23,706
2009	10	1,761	127	26,646	165	14	11	26,963
2010	10	1,855	136	21,924	23	23	1	22,106
2011	10	1,846	167	26,780	47	23	3	27,020
2012	10	1,696	103	15,638	161	53	15	15,969
2013	5	1,082	46	14,439	129	3	5	14,621
Min.	5	582	46	9,506	0	2	0	9,561
Mean	9	1,338	198	19,259	90	22	7	19,576
Max.	11	1,855	514	28,867	420	102	23	29,591

Table 290-3.—Historical summary of early-run Kasilof River/Crooked Creek king salmon stocks, 1996–2012.

Year	Sport Harvest ^a			Run to Weir ^b			Total Run			Spawning Escapement ^b		
	Total	Naturally-Produced	Hatchery-Produced	Total	Naturally-Produced	Hatchery-Produced	Total	Naturally-Produced	Hatchery-Produced	Total	Naturally-Produced	Hatchery-Produced
1996	5,295	ND	ND	2,224	ND	ND	7,519	ND	ND	764	ND	ND
1997 ^c	5,627	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1998 ^c	4,202	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1999	7,597	ND	ND	1,791	1,559	232	9,388	ND	ND	1,397	ND	ND
2000	8,815	ND	ND	1,416	1,224	192	10,231	ND	ND	1,077	ND	ND
2001	7,488	ND	ND	2,586	2,122	464	10,074	ND	ND	2,315	ND	ND
2002 ^d	4,791	ND	ND	3,326	2,526	800	8,117	ND	ND	2,708	ND	ND
2003 ^d	3,090	0	3,090	4,127	2,923	1,204	7,217	2,923	4,294	3,597	ND	ND
2004 ^d	2,407	0	2,407	4,873	2,641	2,232	7,280	2,641	4,639	4,356	2,196	2,160
2005 ^e	2,665	572	2,093	3,168	2,108	1,060	5,833	2,680	3,153	2,936	1,909	1,027
2006 ^e	2,489	1,057	1,432	2,646	1,589	1,057	5,135	2,646	2,489	2,569	1,516	1,053
2007 ^e	2,654	1,107	1,547	1,527	1,038	489	4,181	2,145	2,036	1,452	965	487
2008 ^e	1,984	832	1,129	1,414	1,018	396	3,398	1,850	1,525	1,181	879	302
2009 ^e	1,532	576	956	929	674	255	2,461	1,250	1,211	734	617	117
2010 ^{e,f}	1,333	273	1,060	1,352	1,090	262	2,685	1,363	1,322	1,348	1,088	260
2011 ^{e,g}	2,054	ND	ND	933	677	256	2,987	ND	ND	782	654	128
2012 ^h	872	ND	ND	796	633	163	1,668	ND	ND	731	631	100
2013 ⁱ	<i>not avail.</i>	ND	ND	1,409	1,211	198	<i>not avail.</i>	ND	ND	1,213	1,102	111
Mean (2008–2012)	1,726	560	1,048	1,085	818	266	2,883	1,488	1,353	955	774	181

Source: Cope, J. 2011; J. L. Cope, Sport Fish Biologist, ADF&G, Soldotna, personal communication; Howe et al. 2001a-d, Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b; G. B. Jennings, Sport Fish Program Coordinator, ADF&G, Anchorage, personal communication.

Note: ND = no data collected.

^a 1996–2003, 2011 data from SWHS; 2004–2010 data from inseason creel survey. Data does not include harvest from Kasilof River personal use fishery.

^b Excludes age-0.1 fish 1999–2012; Return includes broodstock, facility morts, and escapement.

^c Weir not operational.

^d Retention of naturally-produced king salmon prohibited by EO for part of the 2002 season. The hatchery contribution to the harvest was not estimated for 2002 due to non-representative sampling and an unmarked fraction of fish, and for 2003 because the creel sampling design did not allow for harvest estimates to be generated. Prior to 2004, hatchery returns were not marked.

^e Retention of naturally-produced king salmon limited to Tuesdays and Saturdays in 2005, then changed by EO in 2006–2007 to include Thursdays; in 2008 regulations were changed to allow retention of naturally-produced king salmon on Tuesdays, Thursdays, and Saturdays only, with a limit of 2 king salmon per day of which only one may be naturally-produced ~ annual limits.

^f Retention of naturally-produced king salmon prohibited by EO from 6/5/10–6/17/10.

^g Creel survey discontinued in 2011.

^h Retention of naturally-produced king salmon prohibited by EO from 6/15/12–6/30/12. Bait and multiple hooks prohibited by EO from 6/22/12–6/30/12.

ⁱ Retention of naturally-produced king salmon prohibited by EO from 5/1/13–6/30/13. Bait and multiple hooks prohibited by EO from 6/22/12–6/30/12.

PROPOSAL 291 – 5 AAC 77.527. Personal use smelt fishery.

PROPOSED BY: Dave Lyon, Karen Berger, and Stephen McCaslin.

WHAT WOULD THE PROPOSAL DO? This proposal would extend the personal use smelt fishing season with drift gillnets by 15 days, or from May 31 to June 15, in the Kenai River.

WHAT ARE THE CURRENT REGULATIONS? The Upper Cook Inlet (UCI) PU smelt (hooligan) fishery is opened under the provisions of 5 AAC 77.527, *Personal Use Smelt Fishery*. Smelt may be taken in salt water from April 1 through May 31 and in fresh water from April 1 through June 15. Legal gear is either a dip net, or a 20-foot drift gillnet that may not exceed four feet in depth and one and one-half inches in mesh size. A drift gillnet may only be used in the Kenai River from April 1 through May 31 downstream of a department regulatory marker at Cunningham Park. There are no bag or possession limits in the personal use smelt fishery.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would likely increase the harvest of smelt during the personal use fishery in the Kenai River by an unknown amount. By extending the season until June 15, the closing date for smelt fishing in the Kenai River would now be in line with other fresh waters in UCI. However, there is a chance that sockeye salmon entering the river during this time period could be encountered by the limited number of users participating in the fishery.

BACKGROUND: Prior to 1999, smelt could be legally taken for personal use with 1) gillnets in salt water, except for Turnagain Arm east of a line from Point Possession to Point Campbell, or 2) with drift gillnets in the Kenai River downstream of Beaver Creek, only from the opening of the smelt season through May 31. Legal gillnets could not exceed 20 feet in length and two inches in mesh size, and each gillnet had to be attended by the fisherman at all times when it was being used to take fish. The Alaska Board of Fisheries (board) amended this regulation in March 1999 to prohibit gillnets for personal use smelt fishing throughout Cook Inlet, including drift gillnets in the Kenai River. The board's action was in response to proposals by the department and the public to protect Cook Inlet forage fish stocks by limiting the use of gillnets in commercial and personal use smelt fisheries. The department proposal recommended restricting commercial smelt fishing to dipnetting. The public proposal recommended eliminating all gillnetting for smelt in Cook Inlet. The written record of the March 1999 meeting indicates that the use of small drift gillnets in the Kenai River personal use smelt fishery was not specifically discussed before the board approved the amendment.

During the November 2001 Lower Cook Inlet meeting, the board readopted regulations which allowed for the harvest of smelt with a drift gillnet in the Kenai River downstream from Cunningham Park for the personal use smelt fishery. Cunningham Park was chosen as the upper boundary to limit conflicts with sport anglers.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. The proposal would bring the closing date in fresh waters in line with other smelt fisheries in UCI. However, sockeye salmon entering the river during this time period could be encountered by the limited number of users participating in the 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.

PROPOSAL 318 – 5 AAC 77.540. Upper Cook Inlet Personal Use Salmon Fishery Management Plan.

PROPOSED BY: South Central Alaska Dipnetters Association.

WHAT WOULD THE PROPOSAL DO? This proposal would allow the Fish Creek personal use fishery to open by regulation unless the sockeye salmon escapement is projected to be less than 50,000 fish. Regulations would revert back to how the fishery was regulated prior to 2002.

WHAT ARE THE CURRENT REGULATIONS? The commissioner may open, by emergency order (EO), the personal use dip net fishery in Fish Creek from July 10 through July 31, if the department projects that the escapement of sockeye salmon into Fish Creek will be more than 50,000 fish.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The personal use fishery would be open until closed by EO, instead of the current regulation where it is closed until open by EO. This would increase the harvest of sockeye salmon and increase the likelihood of failing to achieve the sustainable escapement goal (SEG) because the dipnet fishery is capable of reducing daily weir counts by as much as 95%, and the average 25th percentile of the run is July 21 (Table 318-1). Early-season projections of total escapement would likely be confounded, making it difficult to accurately assess run strength.

BACKGROUND: From 1996–2001, the Fish Creek personal use salmon fishery was opened by regulation from June 10 through June 30. The 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 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 318-2). The dipnet fishery has not been opened since 2011.

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 318-3). 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 **OPPOSES** this proposal. The current management strategy avoids overharvesting sockeye salmon during years of low or average sockeye salmon runs. The department anticipates lower runs because the Big Lake system is no longer stocked and harvestable surpluses of sockeye salmon sufficient enough to support a personal use fishery in Fish Creek may not be available in the future.

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 318-1.—Average run timing of Fish Creek sockeye salmon, 1978–1982 and 1992–2012.

Date	Average Cumulative Proportion ^a
6-Jul	0.00
7-Jul	0.00
8-Jul	0.00
9-Jul	0.00
10-Jul	0.01
11-Jul	0.01
12-Jul	0.02
13-Jul	0.02
14-Jul	0.03
15-Jul	0.05
16-Jul	0.06
17-Jul	0.08
18-Jul	0.10
19-Jul	0.13
20-Jul	0.18
21-Jul	0.24
22-Jul	0.30
23-Jul	0.37
24-Jul	0.44
25-Jul	0.50
26-Jul	0.56
27-Jul	0.61
28-Jul	0.66
29-Jul	0.70
30-Jul	0.74
31-Jul	0.77
1-Aug	0.81
2-Aug	0.84
3-Aug	0.87
4-Aug	0.89
5-Aug	0.91
6-Aug	0.92
7-Aug	0.93
8-Aug	0.94
9-Aug	0.95
10-Aug	0.96
11-Aug	0.97
12-Aug	0.97
13-Aug	0.99
14-Aug	0.99
15-Aug	0.99

^a Average cumulative proportion using data derived from weir counts when weir was located near Lewis Road, 1978–1982, 1992–2012.

Table 318-2.—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 318-3.—Contribution of hatchery fish to the Fish Creek sockeye salmon escapement, and sockeye salmon harvest, in the personal use fishery, 2002–2013.

Year	Sockeye Salmon Escapement				Personal Use Harvest
	Total Escapement	Hatchery Contribution		Wild Escapement	
		Percent	Total		
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.

COMMITTEE B: Cook Inlet Commercial Fishing (13 proposals)

Fishing Districts, Season, Periods, Gear, Gillnet specifications, Registration, Closed Waters, Reporting Requirements (9 proposals): 121, 123–125, 81, 128–129, 130, 133

West Side (2 proposals): 134, 79

Northern Pike (2 proposals): 181–182

Fishing Districts, Season, Periods, Gear, Gillnet specifications, Registration, Closed Waters, Reporting Requirements: 121, 123–125, 81, 128–129, 130, 133

PROPOSAL 121 – 5 AAC 21.320. Weekly fishing periods.

PROPOSED BY: John McCombs.

WHAT WOULD THE PROPOSAL DO? This proposal would allow regularly-scheduled commercial fishing periods on Mondays and Thursdays, through July 18.

WHAT ARE THE CURRENT REGULATIONS? During the general commercial fishing season for salmon in Upper Cook Inlet (UCI), fishing periods occur on Mondays and Thursdays from 7:00 a.m. until 7:00 p.m. (5 AAC 31.320(a)(b)). Additional fishing time beyond regular periods may occur only by emergency order (EO). Currently, there are no provisions in any management plan that prohibit fishing regularly-scheduled periods, unless the department’s assessment indicates that doing so may jeopardize achievement of escapement goals, including inriver goals. The department may then alter the regularly-scheduled fishing periods through EO to meet the escapement objective.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It is unclear if adoption of this proposal would have any effect on commercial fisheries management in UCI. Regularly-scheduled fishing periods automatically occur, unless they are closed by EO for escapement reasons. However, the proposal did not specify which commercial fishery (set or drift) it would affect. In addition, commercial fishing periods in the drift gillnet fishery include certain area restrictions and it is unclear if this proposal would affect provisions in management plans that specify the areas open to commercial fishing during different time periods.

BACKGROUND: Commercial fishing periods are specified 5 AAC 21.310, *Fishing Seasons*, and 5 AAC 21.320, *Weekly Fishing Periods*. There is also a suite of commercial and noncommercial management plans that guide the department in managing UCI fisheries. These plans have been developed through the Alaska Board of Fisheries 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. Many of these plans have specific provisions regarding commercial fishing periods and the areas open to commercial fishing during different time periods.

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 123 – 5 AAC 21.320. Weekly fishing periods.

PROPOSED BY: Kent Hermon.

WHAT WOULD THE PROPOSAL DO? This proposal would change regularly-scheduled fishing periods for set gillnets in the Kalgin Island and Western subdistricts from Mondays and Thursdays to Wednesdays and Saturdays (Figure 123-1).

WHAT ARE THE CURRENT REGULATIONS? Regular fishing periods in the Kalgin Island and Western subdistricts occur from 7:00 a.m. to 7:00 p.m. on Mondays and Thursdays. The *Packers Creek Sockeye Salmon Management Plan* stipulates 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. Most of the commercial fishing in these two subdistricts is done by set gillnet. However, the areas are also open to drifting, but 5 AAC 21.335 states no part of a commercial drift gillnet may be set or operated within 600 feet of any part of a commercial set gillnet.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? As written, this proposal would allow setnetters registered in the Greater Cook Inlet area to fish in the Kalgin Island and Western subdistricts on Wednesdays and Saturdays; and in the Kustatan and Chinitna Bay subdistricts on Mondays and Thursdays. The proposal would not prohibit setnetters from the fishing in any given subdistrict. Therefore, the effect of this proposal would be to legally allow setnetters in the Greater Cook Inlet area to fish four days a week if they were willing to move from one area to the other during the week. This could increase harvest of all salmon stocks by an unknown amount.

BACKGROUND: Prior to 1984, regular fishing periods in Upper Cook Inlet (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.

While the department does not open or close fisheries in UCI based upon processor/tender capacity, this proposal would open small fisheries on different days, requiring processors to make decisions about whether or not to buy these fish. For example, if this proposal were adopted, set gillnetting would be open on Monday, Wednesday, Thursday, and Saturday on the whole west side of the Central District, including Kalgin Island. The proposer contends this would improve processor service for these fisheries. It also possible that it could do the opposite, since processors would have to decide whether or not they wanted to send a tender to the west side of Cook Inlet for a small harvest. When all of the west side and Kalgin Island is open on the same day, the combination of harvest can make it more profitable for tenders to service these fisheries.

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.

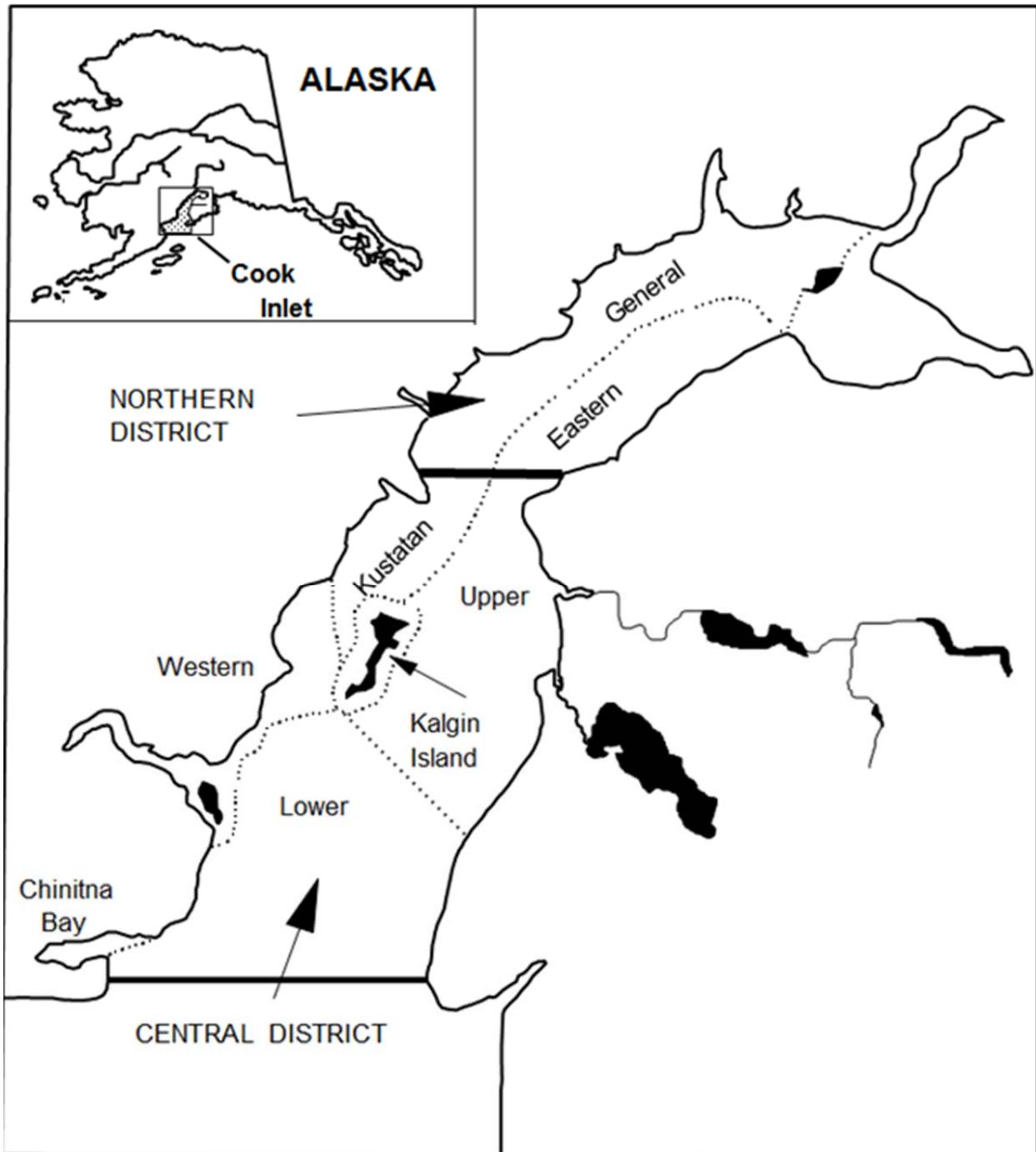


Figure 123-1.—Map of commercial fishing subdistricts in the Upper Cook Inlet management area.

PROPOSAL 124 – 5 AAC 21.330. Gear; 5 AAC 21.350. Closed waters; and 5 AAC 21.366. Northern District King Salmon Management Plan.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would correctly identify regulatory marker locations and fixed positions of area boundaries.

WHAT ARE THE CURRENT REGULATIONS? Commercial fishing regulatory marker location descriptions for numerous streams in Upper Cook Inlet (UCI) can be found in 5 AAC 21.330, *Gear*, and 5 AAC 21.350, *Closed Waters*. The description of the location of the wood chip dock near the village of Tyonek can be found in 5 AAC 21.366, *Northern District King Salmon Management Plan*.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Adoption of this proposal would help clarify and more accurately describe marker locations and waypoint descriptions in UCI. This would benefit commercial fishermen, department staff, and enforcement personnel.

BACKGROUND: During the 2012 fishing season, the Alaska Department of Fish and Game was contacted by the Department of Public Safety regarding the commercial fishing regulatory marker on the north side of the Kenai River. The marker was missing, so staff, using the waypoint description of the marker location found in 5 AAC 21.350(b)(3), set out to replace the marker. This is when it was determined that the description of the marker location was in error. On the north side of the Kenai River, the erroneous location would have allowed for approximately 1,000 feet more of beach to be open to commercial fishing. However, a check of the regulatory description of the marker location on the south side of the Kenai River would have closed approximately 1,000 feet of beach. The correct latitude and longitude of these markers was determined with the latest global positioning satellite technology. There are commercial fishing regulatory markers located approximately one mile north and one mile south of the Kasilof River. This proposal seeks to identify their location with latitude/longitude descriptions. The same is true for the commercial regulatory marker north of the Ninilchik River. Finally, using current mapping programs, the marker location for the wood chip dock (near the village of Tyonek) currently in regulation was also found to be erroneously described. This proposal seeks to correct that error.

The department is endeavoring to identify commercial fishing regulatory markers that have been in the same location for years with waypoint descriptions rather than physical descriptions, such as one mile north of a specific river. This should help to provide clarity to both fishermen and the Department of Public Safety, especially in those cases when a marker is no longer physically present.

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 125 – 5 AAC 21.330. Gear.

PROPOSED BY: Brent G. Johnson.

WHAT WOULD THE PROPOSAL DO? This proposal would allow selective harvest modules (SHM), under certain specifications and operations, to be used to commercially harvest salmon in the Upper Subdistrict of the Central District of Upper Cook Inlet (UCI). It would allow a Commercial Fisheries Entry Commission (CFEC) set gillnet permit holder to fish an SHM in place of a set gillnet in the Upper Subdistrict of the Central District.

WHAT ARE THE CURRENT REGULATIONS? Currently, only set and drift gillnet gear is allowed to commercially harvest salmon in the Upper Subdistrict of the Central District of UCI.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The effects of this proposal are unclear. It would allow a new gear type to be commercially fished in place of a set gillnet in the Upper Subdistrict. However, we do not know the effectiveness of the new gear type. Therefore, we do not know if commercial harvest of salmon will increase or decrease. In addition, the new gear type is supposed to allow the release of king salmon while harvesting sockeye salmon. If this is true, then the new gear would reduce the commercial harvest of king salmon. While the proposer identifies the dimensions of a SHM, and calls it a “reefnet-like seine device,” this could be problematic for the Department of Public Safety to determine if everyone who fished a SHM was meeting the legal requirements. Finally, because this is a brand new experimental design, it is unknown what kind of logistical challenges SHMs might pose if hundreds of people were to fish them.

BACKGROUND: The department authorized the testing of SHMs in 2013 via a commissioner’s permit as follows:

1. In 2013, the permittee was allowed to test SHMs for the capture of salmon as follows;
 - a) No more than two SHMs could be fished at any time. Each SHM was fished in place of a set gillnet (SHMs are designed to fish a 210-foot swath of water, which is the same length as a set gillnet in Cook Inlet).
 - b) SHMs were only fished in the Kenai, Kasilof, or East Forelands sections of the Upper Subdistrict of the Central District, as defined in 5 AAC 21.200.
 - c) SHMs were only fished in areas and during hours when the set gillnet fishery was open to commercial fishing.
 - d) All salmon caught, whether sold or released back into the water, were recorded on forms provided by the department.
 - e) All salmon sold or kept for personal use were also recorded on fish tickets, as required by 5 AAC 39.130.
 - f) If the Upper Subdistrict was closed to set gillnetting for king salmon conservation, SHMs were fished per the department’s direction. All salmon not released during these periods were processed by a local processor and donated to local charities. The name of the processor and the dates and numbers of fish by species donated were provided to the department within 24 hours of harvest. These fish were also recorded on fish tickets, as required by 5 AAC 39.130.

- g) No retention of fish, other than salmon, was allowed while testing SHMs.
 - h) A department observer was present at the fishing site when an SHM was deployed and fishing.
 - i) The permit expired on December 31, 2013.
2. Anytime SHMs were being fished, the permittee provided, upon request, a copy of the permit to officers of the Department of Public Safety or to representatives of the department.
 3. Failure to comply with the terms of this permit would result in permit revocation. Permit violations would be forwarded to the Alaska Department of Public Safety for enforcement action.

In 2013, an SHM was fished on two different days. The first day of testing occurred on July 1. No fish were captured in the SHM because the “lead” was partially buried in the sediment due to strong tidal currents and wave action. The second day of testing occurred on July 28. The SHM was set on the incoming tide and pulled at high tide. Approximately 27 salmon were captured during this tide. All of the fish captured in the SHM were rolled out of the net without harm. It was noticed, however, that several smaller sockeye salmon and pink salmon had been captured in the mesh of the lead, and these fish were also released unharmed.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal due to the potential allocative aspects. The proposal may result in allocative impacts, but the impacts cannot be quantified at this time.

COST ANALYSIS: Approval of this proposal may result in an additional direct cost for a private person to participate in this fishery. Individuals would need to purchase SHMs to fish with this new gear.

PROPOSAL 81 – 5 AAC 21.331. Gillnet specifications and operations; 5 AAC 21.332. Seine specifications and operations; and 5 AAC 27.410. Fishing seasons for Cook Inlet Area. *(The finfish aspects of this proposal will be considered at the Lower Cook Inlet meeting and heard and deliberated at the Upper Cook Inlet meeting. The king and Tanner crab aspects of this proposal will be considered during the Statewide King and Tanner Crab meeting.)*

PROPOSED BY: Don Johnson.

WHAT WOULD THE PROPOSAL DO? This proposal would establish various management measures to address declines in returning king salmon to Cook Inlet, including requiring setnet gear be “certified” as avoiding king salmon interception, closing commercial herring and crab fisheries, and identifying critical habitat areas. This proposal also seeks to have escapement goals increased so that nitrogen/phosphorous levels in freshwater ecosystems will increase and asks for aquaculture projects to be “certified” as not promoting or advancing one stock at the expense of other stocks.

WHAT ARE THE CURRENT REGULATIONS? Current regulations that concern commercial herring management in Lower Cook Inlet (LCI; 5 AAC 27.465) are based on abundance of this species. Herring in Upper Cook Inlet (UCI) are managed under the *Central District Herring Management Plan* (5 AAC 27.409).

Current regulations regarding commercial crab fisheries (king and Tanner) can be found in Chapter 34 of the Alaska Administrative Code (AAC; 5 AAC 34).

Salmon escapement goals are regularly reviewed in management areas and set to produce maximum sustained yield (MSY) and/or sustained yield based on the *Policy for the management of sustainable salmon fisheries* (SSFP; 5 AAC 39.222) and the *Policy for statewide salmon escapement goals* (EGP; 5 AAC 39.223). In addition, the SSFP directs the department to report to the Alaska Board of Fisheries (board) on the status of salmon stocks that present a concern related to yield, management, or conservation. When a stock of concern is identified, the department develops an action plan to ensure that the stock is sustainable.

Under the SSFP, the department is responsible for establishing biological and sustainable escapement goals. The board may establish an optimal escapement goal, if deemed appropriate, which considers biological and allocative factors and which may differ from the biological escapement goal or the sustainable escapement goal.

Current regulations regarding permitting and planning of private nonprofit salmon hatcheries can be found in Chapter 40 (5 AAC 40).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Although there are too many actions this proposal is seeking to adequately describe effects if adopted, the following are a few potential effects: commercial herring fisheries would remain closed during years where increased herring abundance would allow a commercial harvest. It is unclear who or how set gillnets would be certified as avoiding king salmon. Therefore, it is unknown what the effects of this proposal would be. Increasing escapement goals beyond the goals set by the

department would reduce harvest opportunity for all users. Salmon escapement goals are currently set to produce MSY (where possible). An increase in an escapement goal would likely result in the escapement exceeding an escapement goal range, which would decrease (not increase) the productivity and yield of a stock.

BACKGROUND: Commercial harvests of herring in LCI have been closed since 1974 in the Outer and Eastern districts, since 1979 in the Southern District, and since 1999 in the Kamishak District. In UCI, there are four areas where herring may be harvested with gillnets only. Each area has a very small harvest cap, which has never been reached. Two of the areas receive no participation, one area only has one or two participants, and the fourth area has, at most, about a dozen participants. All of the herring is sold as bait.

Regulation 5 AAC 21.331 specifies the maximum mesh size for gillnets in Cook Inlet is six inches. This restriction is for king salmon conservation. In other areas of the state, if there is a king salmon conservation issue, gear size is often reduced to six inches. It is unclear as to how gear could be certified as avoiding king salmon interception.

Regarding aquaculture programs, Alaska's hatchery program was designed to increase salmon abundance and enhance fisheries, while protecting wild stocks. The hatchery program has attempted to minimize interactions between wild and hatchery stocks by locating hatcheries away from naturally-occurring populations of salmon.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. This proposal would unnecessarily close commercial fisheries currently open and those that could possibly be opened to commercial fishing. It would also put unnecessary restrictions on many commercial salmon fisheries without proven benefits. Existing regulations provide adequate protections for salmon and herring fisheries throughout Alaska. The department is **NEUTRAL** on the allocative aspects of this proposal.

COST ANALYSIS: Approval of this proposal may result in an additional direct cost for a private person to participate in this fishery, depending on the certification process of set gillnets.

PROPOSAL 128 – 5 AAC 21.333. Requirements and specifications for use of 200 fathoms of drift gillnet in the Cook Inlet Area; 5 AAC 21.334. Identification of gear; and 5 AAC 21.345. Registration.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would allow Upper Cook Inlet (UCI) set and drift gillnet commercial fishermen an opportunity to register electronically or to purchase buoy stickers online.

WHAT ARE THE CURRENT REGULATIONS? Current regulations require set gillnet permit holders to register their intent to fish in one of three registrations areas in Cook Inlet at an ADF&G office in Anchorage, Soldotna, or Homer. However, set gillnet permit holders in the Upper Subdistrict of the Central District are required to purchase buoy sticker identification tags (and replacement tags) at the department office in Soldotna. In addition, drift gillnet permit holders are required to register for joint operation of drift gillnet gear in one of the three department locations just listed.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Adoption of this proposal would add another method available to commercial fishermen to register or purchase buoy stickers.

BACKGROUND: There are various registration requirements for both setnetters and drift gillnetters in the UCI management area. In the Northern District Area, Upper Subdistrict Area, and Greater Cook Inlet Area, setnetters may mail in their registrations or complete them in person at one of three different department offices (Anchorage, Homer, or Soldotna). Setnetters in the Upper Subdistrict, however, are required to purchase buoy stickers from only the Soldotna department office. Registration requirements for drift gillnetters who intend to "D-boat" fish (fish utilizing dual permits), may be completed in person at department offices in Anchorage, Homer, or Soldotna.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. Electronic registration is allowed in other areas of the state and should be allowed wherever it is available and feasible. Internet Technology staff with the State of Alaska have assured department personnel that electronic registration, as well as the option to purchase buoy stickers online, can be accommodated. If this proposal is adopted, it is anticipated that electronic registration will be set up and available for the 2014 season.

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 129 – 5 AAC 21.333. Requirements and specifications for use of 200 fathoms of drift gillnet in the Cook Inlet Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would remove the registration requirement for joint operation of drift gillnet gear.

WHAT ARE THE CURRENT REGULATIONS? Current regulations allow two drift gillnet permit holders to fish together on a single vessel in Upper Cook Inlet (UCI). Prior to fishing, both drift gillnet permit holders are required to register with the department office in Anchorage, Soldotna, or Homer.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Adoption of this proposal would benefit the department and commercial drift gillnetters who fish together on a single vessel (“D-boat fishing”). In addition, commercial drift gillnetters benefit because they no longer need to register to fish together on a single boat.

BACKGROUND: Since 2008, drift gillnetters have had the option of fishing up to 200 fathoms of gear as long as two permit holders are on board the vessel at the same time (commonly referred to as "D-boat fishing"). To help track D-boat fishing, a registration requirement was added to the management plan so the department might be able to predict how many boats in the drift fleet might be fishing as D-boats. Beginning with the 2013 season, salmon fish tickets were amended to include a section that required D-boat fishing activities to be recorded (Figure 129-1). This modification to the fish ticket header information has removed confusion about where fishermen and fish buyers were to record their D-boat fishing activities, and has significantly improved the department’s ability to determine when and how many D-boats have been fishing.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. The department no longer needs the D-boat registration requirement for management purposes, because the department is able to obtain the necessary fishing information from salmon fish tickets.

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 129-1.—Example of the new amended 2013 salmon fish ticket that includes a box where dual-permit drift gillnet fishing must be recorded.

PLACE WRAPAROUND COVER UNDER GREEN COPY

WHITE – PURCHASER YELLOW – FISH & GAME PINK – SELLER GREEN – PURCHASER

PURCHASER
ALASKA DEPARTMENT OF FISH & GAME
GENERAL SALMON TICKET

Vessel Name VESSEL NAME

Fishery SALMON DRIFT CI
 Name PERMIT HOLDER NAME
 Permit Number S03H 12345X
1301W

Proc. Code F1111 9 13

Company Processor Name

DO NOT WRITE IN THIS SPACE
A13 037876

DO NOT WRITE IN THIS SPACE

ADF&G NO. 12345

Tender ADF&G No. _____

Date Caught _____

Date Landed 07/01/13

STATISTICAL AREA	
Stat. Area	%
244-60	100

Dual Permit No.
S03H99999X

Permit Card info (Required. Instructions on cover.)
13 01 X

Tuxedni Bay ← Area Caught
 (Nearest bay or headland)

PROPOSAL 130 – 5 AAC 21.345. Registration.

PROPOSED BY: North-Kalifornsky Beach Fishermen.

WHAT WOULD THE PROPOSAL DO? This proposal would require setnet permit holders registered in the Upper Subdistrict to fish in only one section (Kasilof or Kenai/East Forelands) for the entire season (Figure 130-1).

WHAT ARE THE CURRENT REGULATIONS? Set gillnet permit holders in Cook Inlet must register for a registration area they intend to fish for the fishing season (5 AAC 21.345). If a set gillnet permit holder registers in the Upper Subdistrict area (5 AAC 21.200(b)(2)), then he or she must purchase buoy sticker identification tags at the Alaska Department of Fish and Game office in Soldotna (5 AAC 21.334(c)(4)).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, based upon recent participation, two to six permit holders would be unable to fish two different sections.

BACKGROUND: Area registration for set gillnets first went into effect in 1993 in order to prevent fishermen from moving into “hot” fishing areas at the peak of the season and then returning to their original area for the remainder of the season. At the time it was implemented, it was aimed primarily at reducing the influx of set gillnets into the Upper Subdistrict or to reduce the number of Upper Subdistrict fishermen from participating in the Northern District king salmon and Big River sockeye salmon fisheries. Setnet buoy sticker requirements were also instituted in 1993 to help enforcement of the legal limit of gear in the Upper Subdistrict. Prior to this requirement, there was at least the perception that people were fishing more nets than were legally allowed. The three registration areas for set gillnetting in Upper Cook Inlet are 1) Northern District, 2) Greater Cook Inlet, and 3) Upper Subdistrict (Figure 130-2).

The number of permit holders that fish in both the Kasilof Section and Kenai/East Forelands Section in the same year is very small. For example, in 2010 four permit holders fished in both sections; in 2011, two permit holders fished in both sections; in 2012, four permit holders fished in both sections; and in 2013, six permit holders fished in both sections.

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.

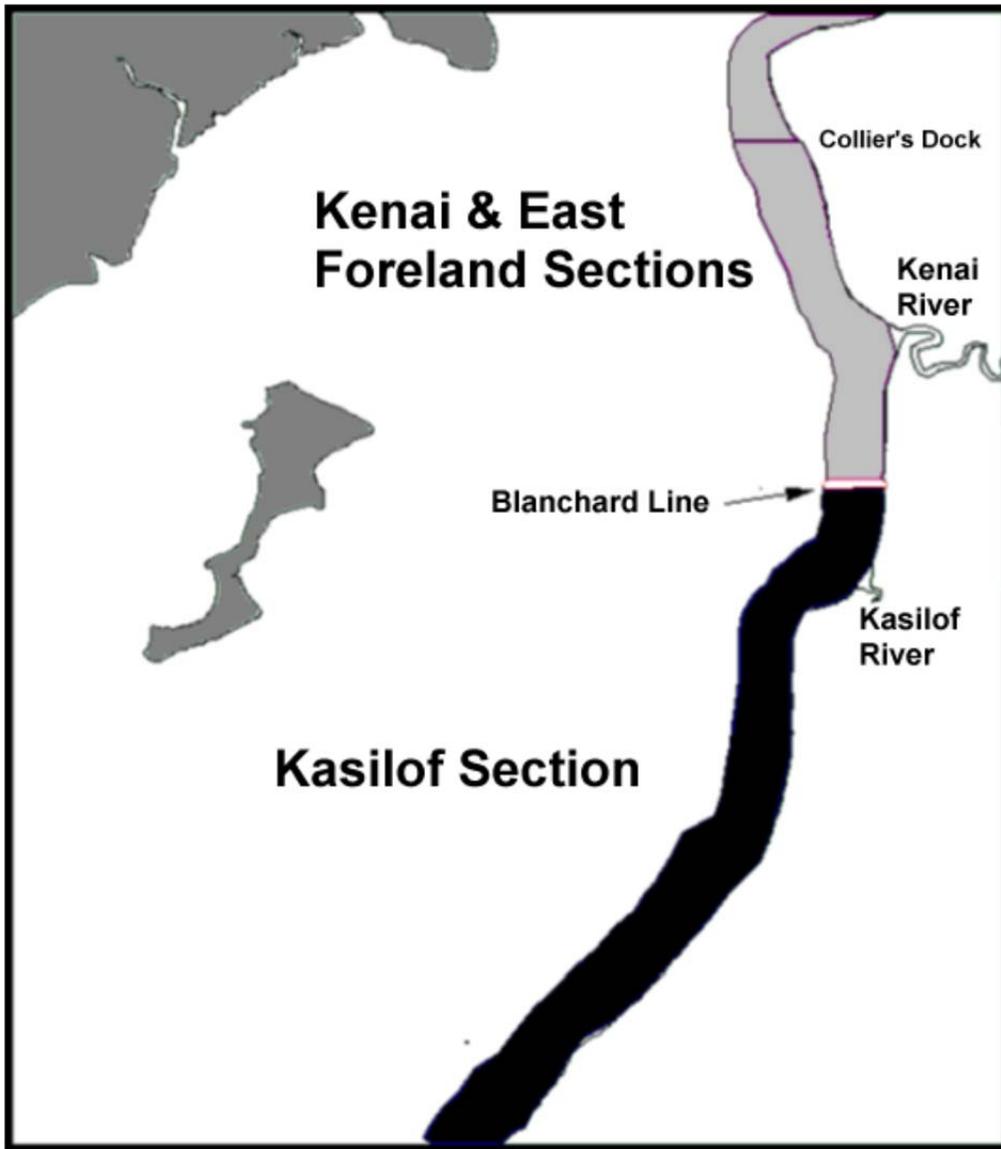


Figure 130-1.—Map of Kenai/East Foreland and Kasilof sections set gillnet fisheries.

Cook Inlet Set Gillnet Registration Areas

-  Northern District
-  Greater Cook Inlet
-  Upper Subdistrict

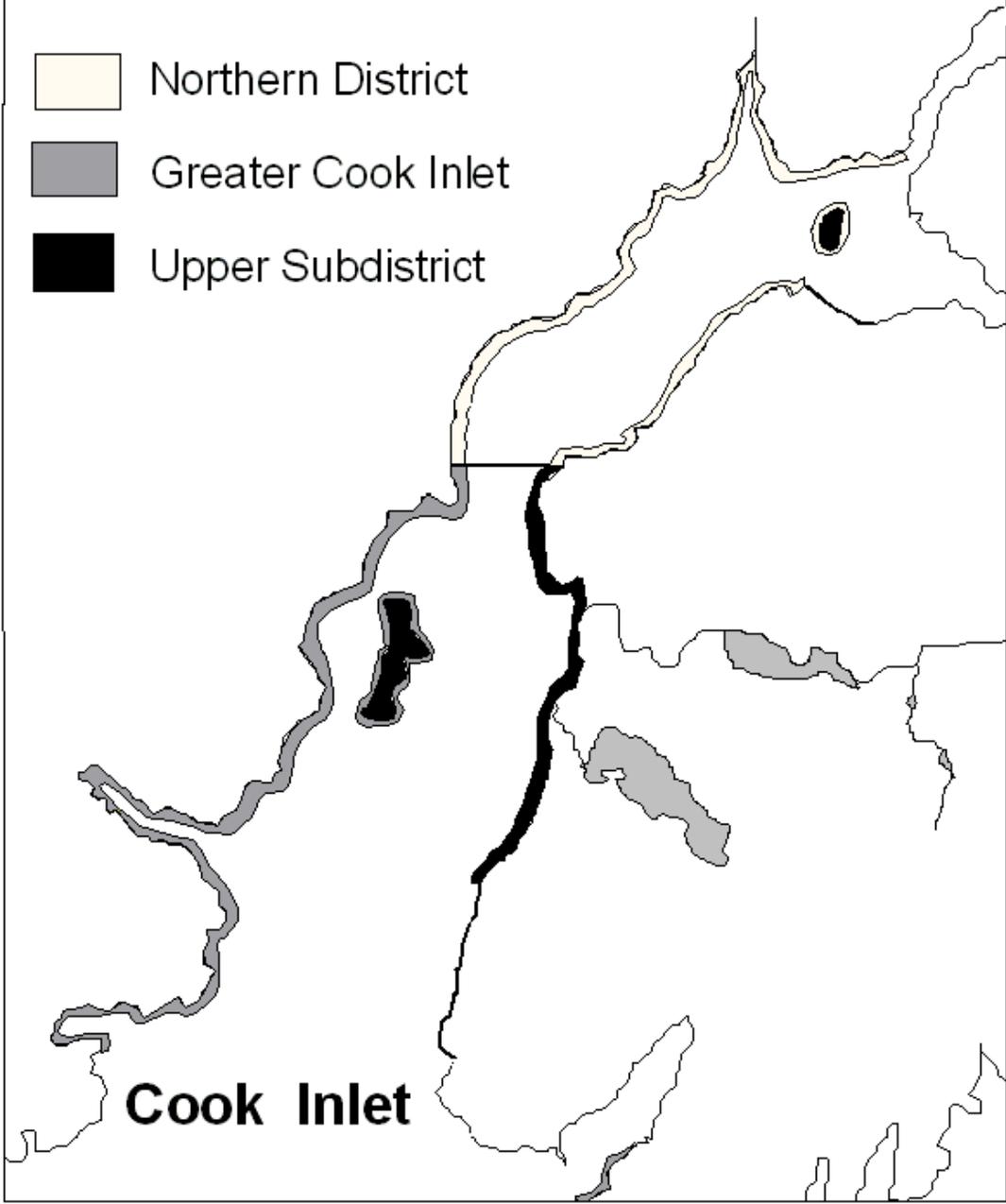


Figure 130-2.—Map of set gillnet registrations areas in Upper Cook Inlet.

PROPOSAL 133 – 5 AAC 21.355. Reporting requirements.

PROPOSED BY: Todd Smith, Megan Smith, Amber Every, and Travis Every.

WHAT WOULD THE PROPOSAL DO? This proposal would require the number of commercially-harvested king salmon to be recorded by length (under 20" and over 20") on fish tickets.

WHAT ARE THE CURRENT REGULATIONS? All salmon harvested commercially, whether sold or kept for personal use, must be reported on a fish ticket (5 AAC 39.130 and 5 AAC 21.355). From 1989–1998, 5 AAC 21.355 required each commercial fisherman to report on an ADF&G fish ticket, at the time of landing, the number of king salmon taken but not sold. In 1999, 5 AAC 21.355 was amended to state that a commercial salmon fisherman shall, at the time of landing, report on an ADF&G fish ticket the number of salmon, by species, taken but not sold; therefore, since 1999, all salmon kept for personal use must be recorded on a fish ticket.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Adoption of this proposal would require commercial fishermen or processors to measure each king salmon for length and record it on fish tickets.

BACKGROUND: Age, gender, and length composition data are already collected by the department from a sample of all king salmon harvested that are sold in the Upper Subdistrict set gillnet fishery (tables 133-1, 133-2, and 133-3).

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. The department already has the ability to record this information on fish tickets. The department would prefer to have this as an option that could be used in certain areas and not make it a requirement in all areas of Upper Cook Inlet (UCI). The department also already samples king salmon in the UCI commercial fishery; this effort provides the data being requested in this proposal. Therefore, this proposal would create an unnecessary burden on commercial users and in the processing industry by requiring collection of data the department already has available.

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 133-1.—Summary of the mean length (inches) by age-class of king salmon harvested in the Central District, Upper Subdistrict commercial set gillnet fisheries, Upper Cook Inlet, 1987–2013.

Year	Total Length by Age Class (inches)													Total	
	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	1.5	2.4	2.5		1.6
1987	29.3	18.0	43.0	27.3			36.7	25.1	42.4	35.0	44.8	42.9			35.2
1988		17.6		28.8		37.5	34.4	24.3	41.7	42.4	40.2	40.0			35.8
1989		19.9		29.9			34.6	37.6	41.7		43.6				35.4
1990	20.8	24.9	32.1	27.2	24.2	32.2	32.4	27.2	41.1	35.5	41.1	41.4			31.4
1991	26.4	20.4		27.8	17.2	43.1	34.5		41.0	36.4	44.3	43.3			32.9
1992		19.5		27.2			32.9	31.5	40.9	34.6	44.2	39.5			33.7
1993		18.5		28.1			34.7	25.8	41.6	34.3	44.0	40.8			34.9
1994		18.6		29.4	24.9		36.4	30.7	37.7	35.4	45.7	43.2		51.7	36.8
1995		18.6		28.7	18.1		37.6	27.9	43.1	38.6	46.5	44.3	50.5		34.8
1996		18.1		27.8	17.9		36.6	27.7	42.8	36.0	46.2	45.2			34.8
1997		18.8		28.1	18.2		36.0	25.5	42.1	36.4	44.3	41.8			34.2
1998	26.3	19.6	34.8	28.6	19.7	41.2	35.2	27.4	41.8	37.0	43.9	39.2			31.7
1999	30.9	18.3		27.8	19.0		33.9		40.7	32.9	44.3				32.6
2000		18.2	34.1	28.1	18.6		35.5	29.8	41.6	36.9	44.7	48.4			32.8
2001		18.6		27.3			34.4		41.4		44.3				29.4
2002		18.6	40.6	28.5			36.6		41.6		44.4	45.4			30.9
2003		19.2		28.5			36.1	27.5	42.7		46.3				30.0
2004		18.9		28.7	19.4		36.4		42.4	31.2	45.9				33.4
2005	28.2	18.0		26.4			34.2	25.6	41.4		45.8	45.0			32.6
2006		19.5		25.8			33.8	28.9	41.1		46.3				28.9
2007		19.0		26.7			33.6	27.0	40.1		44.0	39.5			29.3
2008		18.7		26.3			34.6		41.3		46.1				31.7
2009		18.1		25.6			36.3		42.1		44.2				27.0
2010		19.0		27.2			35.7	30.4	41.3	37.4	46.3				29.3
2011		17.8		27.1			36.0		40.7	37.8	44.3				31.3
2012		17.6		24.9			36.5		42.3						32.2
2013		19.4		26.2			34.9		41.3						
Mean	27.0	19.0	36.9	27.7	19.7	38.5	35.2	28.2	41.4	36.1	44.6	42.7	50.5	51.7	32.4

Note: Blank cells indicate no data.

Table 133-2.—Summary of the harvest by age-class of king salmon in the Central District, Upper Subdistrict commercial set gillnet fisheries, Upper Cook Inlet, 1987–2013.

Year	Sample	Harvest by Age Class														Total
	Size	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	1.5	2.4	2.5	1.6	Harvest
1987	1,212	17	436	17	3,108	0	0	6,985	36	10,262	53	226	17	0	0	21,159
1988	870	0	414	0	1,390	0	30	1,832	45	8,808	15	235	89	0	0	12,859
1989	854	0	103	0	1,649	0	0	2,301	25	5,815	0	1,023	0	0	0	10,914
1990	437	9	47	9	1,220	38	19	1,200	19	1,352	18	142	66	0	0	4,139
1991	446	11	33	0	1,218	11	22	1,569	0	1,886	33	99	11	0	0	4,893
1992	688	0	264	0	1,604	0	0	2,960	62	5,312	94	405	16	0	0	10,718
1993	992	0	469	0	1,972	0	0	2,923	14	7,949	113	569	70	0	0	14,079
1994	1,502	0	550	0	1,913	12	0	2,285	39	9,544	70	905	248	0	8	15,575
1995	1,508	0	329	0	2,697	11	0	3,968	92	4,218	13	712	23	6	0	12,068
1996	2,186	0	376	0	1,831	7	0	4,032	17	4,896	179	172	53	0	0	11,564
1997	1,691	0	723	0	1,530	31	0	3,520	31	5,169	82	83	159	0	0	11,325
1998	911	23	598	11	1,179	17	5	1,071	80	1,952	27	95	28	0	0	5,087
1999	1,818	5	220	0	2,489	15	0	2,320	0	4,113	38	263	0	0	0	9,463
2000	991	0	337	3	449	32	0	1,424	12	1,386	10	28	3	0	0	3,684
2001	989	0	702	0	2,406	0	0	873	0	1,954	0	74	0	0	0	6,009
2002	1,224	0	1,005	4	2,775	0	0	3,477	0	2,139	0	67	11	0	0	9,478
2003	678	0	567	0	7,667	0	0	3,495	44	2,774	0	262	0	0	0	14,810
2004	1,409	0	768	0	4,300	15	0	10,456	0	5,993	9	145	0	0	0	21,684
2005	482	45	626	0	5,825	0	0	4,347	91	10,259	0	359	45	0	0	21,597
2006	560	0	1,280	0	3,519	0	0	2,186	18	2,702	0	249	0	0	0	9,956
2007	789	0	592	0	5,250	0	0	2,758	16	3,504	0	156	16	0	0	12,292
2008	380	0	778	0	1,494	0	0	2,093	0	3,088	0	120	0	0	0	7,573
2009	487	0	769	0	2,869	0	0	688	0	1,228	0	34	0	0	0	5,588
2010	743	0	1,290	0	1,738	0	0	2,538	8	1,416	11	58	0	0	0	7,059
2011	1,187	0	351	0	2,594	0	0	1,938	0	2,715	7	92	0	0	0	7,697
2012	167	0	68	0	127	0	0	258	0	252	0	0	0	0	0	704
2013	668	0	668	0	1,300	0	0	463	0	556	0	0	0	0	0	2,988
Mean	958	4	532	2	2,449	7	3	2,739	24	4,120	29	243	32	0	0	10,184

Table 133-3.—Age composition of king salmon harvested in the Upper Subdistrict set gillnet fishery, Upper Cook Inlet, 1987–2013.

Year	Sample Size	Percent Composition by Age Class (%)														Total	
		0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	1.5	2.4	2.5	1.6		
1987	1,212	0.08	2.06	0.08	14.69			33.01	0.17	48.50	0.25	1.07	0.08				100
1988	870		3.22		10.81		0.23	14.25	0.35	68.50	0.12	1.83	0.69				100
1989	854		0.94		15.11			21.08	0.23	53.28		9.37					100
1990	437	0.22	1.14	0.22	29.48	0.92	0.46	28.99	0.46	32.66	0.43	3.43	1.59				100
1991	446	0.22	0.67		24.90	0.22	0.45	32.06		38.54	0.67	2.02	0.22				100
1992	688		2.46		14.97			27.62	0.58	49.56	0.88	3.78	0.15				100
1993	992		3.33		14.01			20.76	0.10	56.46	0.80	4.04	0.50				100
1994	1,502		3.53		12.28	0.08		14.67	0.25	61.28	0.45	5.81	1.59			0.05	100
1995	1,508		2.73		22.35	0.09		32.88	0.76	34.95	0.11	5.90	0.19	0.05			100
1996	2,186		3.25		15.83	0.06		34.87	0.15	42.34	1.55	1.49	0.46				100
1997	1,691		6.38		13.51	0.27		31.08	0.27	45.64	0.72	0.73	1.40				100
1998	911	0.46	11.75	0.22	23.18	0.34	0.10	21.06	1.57	38.38	0.54	1.87	0.56				100
1999	1,818	0.05	2.32		26.30	0.16		24.52		43.46	0.40	2.78					100
2000	991		9.15	0.08	12.19	0.88		38.65	0.33	37.61	0.27	0.77	0.08				100
2001	989		11.68		40.04			14.53		32.52		1.23					100
2002	1,224		10.60	0.04	29.28			36.68		22.57		0.71	0.12				100
2003	678		3.83		51.77			23.60	0.30	18.73		1.77					100
2004	1,409		3.54		19.83	0.07		48.22		27.64	0.04	0.67					100
2005	482	0.21	2.90		26.97			20.13	0.42	47.50		1.66	0.21				100
2006	560		12.86		35.35			21.96	0.18	27.14		2.50					100
2007	789		4.82		42.71			22.44	0.13	28.51		1.27	0.13				100
2008	380		10.27		19.73			27.64		40.78		1.59					100
2009	487		13.76		51.34			12.31		21.98		0.61					100
2010	743		18.27		24.62			35.95	0.11	20.06	0.16	0.82					100
2011	1,187		4.56		33.70			25.18		35.27	0.09	1.20					100
2012	167		9.59		17.98			36.64		35.79							100
2013	668		22.35		43.52			15.51		18.61							100
Average	958	0.05	6.74	0.02	25.42	0.11	0.05	26.53	0.24	38.08	0.28	2.18	0.30	0.00	0.00		100

Note: Blank cells indicate no data.

West Side: 134, 79

PROPOSAL 134 – 5 AAC 21.368. Big River Sockeye Salmon Management Plan.

PROPOSED BY: Mark Hermon.

WHAT WOULD THE PROPOSAL DO? This proposal would open additional waters to set gillnetting on the east side of the Kalgin Island Subdistrict during the Big River sockeye salmon fishery (Figure 134-1). It would also reduce the number of days per week that the fishery is open. To compensate for the additional waters being open, this proposal seeks to reduce the fishery from three days per week to two days per week. The proposal does not specify which two days the fishery would be open.

WHAT ARE THE CURRENT REGULATIONS? The Big River sockeye salmon set gillnet commercial fishery is open from June 1 through June 24. Fishing periods occur on Mondays-Wednesdays-Fridays from 7:00 a.m. until 7:00 p.m. The fishery closes if the harvest of king salmon reaches 1,000 fish. A set gillnet may not exceed 35 fathoms in length, nor five and one-half inch mesh. Only one net per permit holder may be fished and the separation between gear must be at least 1,800 feet, which is three times the separation of gear during the regular salmon season. No set gillnet may extend more than 35 fathoms seaward of the mainland beach at the lowest tide of the current day. In order to participate in this fishery, permit holders must register, prior to fishing, in the Greater Cook Inlet area (west side of Cook Inlet). This precludes them from fishing in either the Northern District or the Upper Subdistrict for the remainder of that year.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The effects of this proposal are difficult to assess. Effects to harvest of king and sockeye salmon would not be known until the fishery was open under the guidelines of this proposal.

BACKGROUND: The *Big River Sockeye Salmon Management Plan* (5 AAC 21.368) was first adopted in 1989. This plan allows for a set gillnet fishery in a portion of the Kustatan Subdistrict that targets sockeye salmon bound for the Big River Lakes watershed. Because king salmon are encountered in this fishery, it closes if 1,000 kings are harvested, which has never happened since the fishery was authorized. At the 2005 Alaska Board of Fisheries (board) meeting, a proposal was submitted seeking to create a Kalgin Island fishery much like the Big River sockeye salmon fishery. The board chose to add the waters of the west side of Kalgin Island as part of the Big River fishery. Although the Big River sockeye salmon fishery is a mixed-stock fishery, concerns were expressed that opening the east side of Kalgin Island might increase the harvest of Packers Lake sockeye salmon and stocks from the east side of Cook Inlet.

From 1989–2004, the average annual king salmon harvest during the Big River sockeye salmon fishery was 464 fish, while the average annual sockeye salmon harvest was 5,294 fish (Table 134-1). From 2005–2013, after the waters of the west side of Kalgin Island were added to the fishery, the average annual harvest increased to 509 king and 17,355 sockeye salmon, respectively.

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.

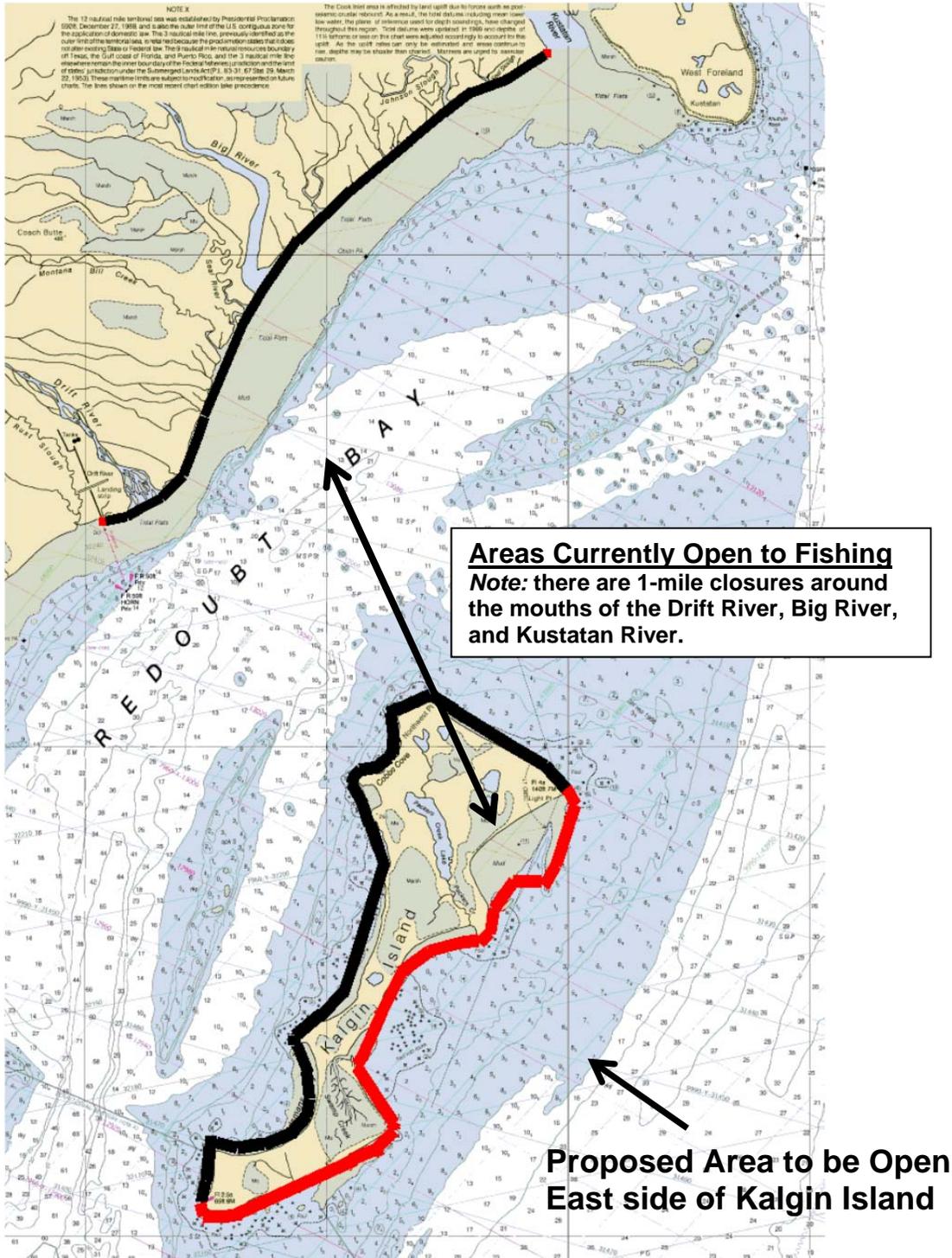


Figure 134-1.—Map of Big River sockeye salmon fishery.

Figure 134-1.—Commercial king and sockeye salmon harvest in the Big River sockeye salmon fishery, 1989–2013.

Year	King Salmon			Sockeye Salmon			Permits Fished
	Big River	Kalgin Island	Total	Big River	Kalgin Island	Total	
1989	523		523	3,429		3,429	33
1990	871		871	6,483		6,483	26
1991	716		716	11,167		11,167	39
1992	365		365	3,382		3,382	41
1993	399		399	15,193		15,193	20
1994	435		435	3,124		3,124	20
1995	186		186	3,951		3,951	14
1996	136		136	5,070		5,070	15
1997	86		86	2,408		2,408	13
1998	78		78	2,555		2,555	7
1999	777		777	4,074		4,074	10
2000	774		774	2,510		2,510	13
2001	651		651	7,020		7,020	8
2002	536		536	5,600		5,600	8
2003	469		469	5,241		5,241	8
2004	429		429	3,494		3,494	8
2005	87	444	531	2,405	13,454	15,859	21
2006	244	430	674	3,392	16,282	19,674	21
2007	43	269	312	2,074	12,894	14,968	23
2008	198	649	847	1,803	15,774	17,577	23
2009	107	333	440	3,791	21,543	25,334	26
2010	52	316	368	2,120	14,326	16,446	25
2011	77	447	524	2,997	14,783	17,780	30
2012	65	355	420	3,560	9,479	13,039	28
2013	116	346	462	3,073	12,445	15,518	
Averages (1989–2004)	464		464	5,294		5,294	18
(2005–2013)	110	399	509	2,802	14,553	17,355	25

Note: Blank cells indicate no data.

PROPOSAL 79 – 5 AAC 21.350. Closed waters. *(This proposal will be considered at the Lower Cook Inlet meeting and heard and deliberated at the Upper Cook Inlet Finfish meeting.)*

PROPOSED BY: Mark Glassmaker.

WHAT WOULD THE PROPOSAL DO? This proposal would close waters to commercial fishing within one statute mile of the terminus of any anadromous fish stream on the west side of the Central District, from the northern boundary of the district south to Harriet Point, as measured from mean lower low tide, not mean high tide. Although specific streams are mentioned in the proposal, this proposal seeks to make the one statute mile measurement apply to every anadromous stream in this area of Cook Inlet. This proposal also seeks to increase the distance that commercial fishing may be allowed from a stream bed or channel of any anadromous fish stream throughout the intertidal portion of that stream from the current distance of 900 feet to 1,000 yards (3,000 feet).

WHAT ARE THE CURRENT REGULATIONS? Regulation 5 AAC 21.350 lists specific waters closed to commercial salmon fishing in Upper Cook Inlet, including the west side of Central District of Cook Inlet (Figure 79-1), as follows:

(b) Central District

(5) on the west side of the Central District from the northern boundary of the district south to Harriet Point (60° 23.75' N. lat., 152° 14.00' W. long.),

(A) within one statute mile of the terminus, at mean high tide, of the Kustatan River and Drift River;

(B) within one statute mile of the terminus, at mean lower low water, of the Cannery Creek;

(C) within one statute mile of the Big River;

(D) within 500 yards of the terminus, at mean high tide, of any anadromous fish stream;

(E) within 900 feet of the stream bed or channel of any anadromous fish stream throughout the intertidal portion of that stream out to the lower low water mark;

There are also specific areas along the west side of the Central District that are closed to set gillnetting that overlap with the area in question of this proposal (Figure 79-1).

5 AAC 21.330(b)(3)(A) reads:

(b) Set gillnets may be used only in the following locations:

(3) Central District: set gillnets may be used only in the following locations:

(A) waters along the west coast in the Central District

(i) from the northern boundary of the district to the Drift River terminal and only within five miles of the mean high tide mark;

(ii) from 60° 29.50' N. lat., 152° 19.00' W. long., to 60° 28.50' N. lat., 152° 19.50' W. long. and only within five miles of the mean high tide mark;

(iii) from 60° 27.50' N. lat., 152° 19.74' W. long., to 60° 22.75' N. lat., 152° 16.50' W. long. and only within five miles of the mean high tide mark;

(iv) from 60° 21.47' N. lat., 152° 21.50' W. long., to 60° 20.67' N. lat., 152° 22.50' W. long. and only within five miles of the mean high tide mark;

(v) from 60° 16.19' N. lat., 152° 29.90' W. long. to 60° 14.24' N. lat., 152° 32.62' W. long.

and from 60° 13.42' N. lat., 152° 34.65' W. long. to 60° 05.25' N. lat., 152° 34.92' W. long. and only within five miles of the mean high tide mark;

(vi) near Johnson River from 60° 01.32' N. lat., 152° 36.25' W. long., to 59° 55.67' N. lat., 152° 41.67' W. long. and only within five miles of the mean high tide mark;

(vii) along the north side of Chinitna Bay from 59° 53.17' N. lat., 153° W. long., to 59° 51.52' N. lat., 153° 08.17' W. long. and only within 2,500 feet of the mean high tide mark;

Current regulations (5 AAC 21.350(i) and 5 AAC 39.290(a)) also close waters within 500 yards of a salmon stream. In addition, commercial salmon fishing is prohibited within the fresh waters of streams and rivers of the state, and over the beds or channels of fresh waters of streams and rivers of the state during all stages of the tide.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would reduce areas currently open to commercial fishing on the west side of Cook Inlet. This proposal specifies that closed waters be measured from mean lower low tide, not mean high tide, as is currently done at Kustatan and Drift rivers. There are extensive tide flats in these areas, which may stretch for miles, and the proposal would potentially close a large portion of these areas if measured from mean lower low tide and not mean high tide. This proposal also increases the closed waters area from 500 yards (1,500 feet) to one statute mile (5,280 feet) around numerous salmon streams on the west side of the of the Central District of Cook Inlet. In addition, this proposal increases the closed waters from 900 feet to 1,000 yards (3,000 feet) of the stream bed of any anadromous fish stream. This proposal may also impact shore fisheries leases in this area Cook Inlet.

BACKGROUND: The Alaska Board of Fisheries (board) considered a closed waters proposal for the Kustatan and Drift rivers, and Bachatna and Packers creeks in 2005. In 2005, the proposal would have changed the closed waters description for the Kustatan and Drift rivers sections to be one mile from mean lower low water. The board did not pass the proposal in 2005.

The board also considered and adopted a new definition of closed waters (5 AAC 39.290) and salmon stream (5 AAC 39.975) at the 2013 Statewide Finfish and Supplemental Issues board meeting. The board changed the definition because there was confusion on how closed waters were defined and enforced by the Department of Public Safety. The new definition prohibits commercial fishing in waters within 500 yards of a salmon stream. In addition, commercial salmon fishing is prohibited within the fresh waters of streams and rivers of the state, and over the beds or channels of fresh waters of streams and rivers of the state during all stages of the tide. The department and board have also regularly updated 5 AAC 21.350, which lists waters closed to commercial fishing in Upper Cook Inlet.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. This proposal would unnecessarily close waters currently open to commercial fishing. Existing regulations provide adequate protections around the terminus of salmon streams. 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.

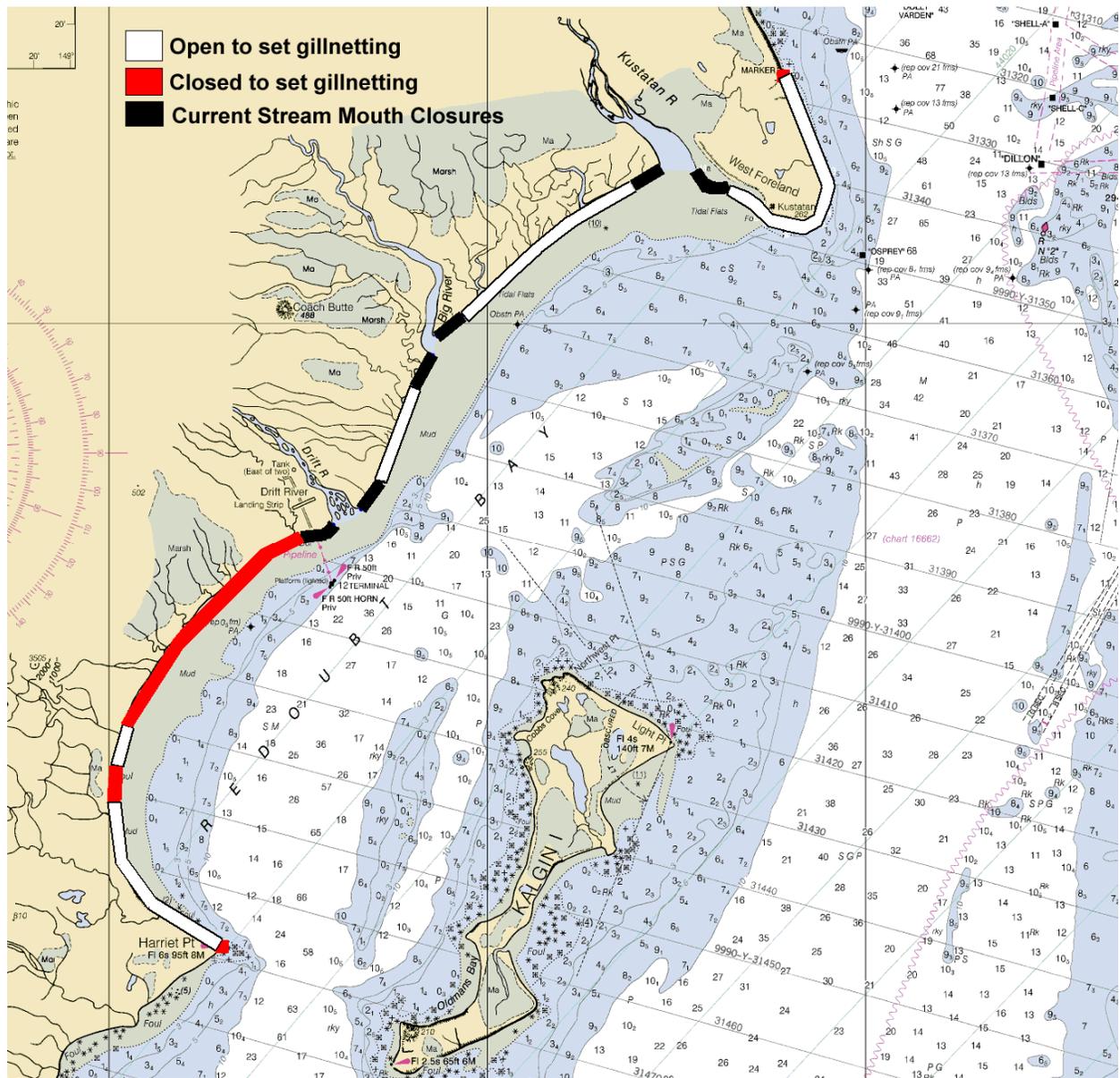


Figure 79-1.—Map of the west side of Cook Inlet showing areas of beach open and closed to set gillnetting from the northern boundary of the Central District to Harriet Point.

Northern Pike: 181–182

PROPOSAL 181 – 5 AAC XX.XXX. Cook Inlet Northern Pike Management Plan.

PROPOSED BY: John McCombs.

WHAT WOULD THE PROPOSAL DO? This proposal would establish a commercial fishery for northern pike in Upper Cook Inlet (UCI).

WHAT ARE THE CURRENT REGULATIONS? Currently, there are no commercial fisheries for northern pike in UCI.

In the fresh waters of West Cook Inlet and the Susitna River drainage, anglers are not allowed to release live northern pike back into the water. There are no bag or possession limits for northern pike in Southcentral Alaska.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The proposal does not identify the specifics or how the commercial fishery would be implemented, other than suggesting using gillnets under the ice. Depending on how the commercial fishery is implemented, this proposal would likely result in the incidental harvest of other fish species, and waterfowl (if fishery was conducted during open water periods).

BACKGROUND: Northern pike are an invasive species in the waters of UCI. They have been documented as being present in numerous watersheds throughout the drainage. In some systems, they have caused significant reductions of salmon populations through their predatory behavior (Alexander Lake king salmon and Redshirt Lake sockeye salmon being two pertinent examples). In 2011, the Alaska Board of Fisheries adopted new sport fishing regulations for northern pike fishing, which included prohibiting release of live, sport-caught, northern pike back into the fresh waters of West Cook Inlet and the Susitna River drainage, and allowing the use of up to five lines for ice fishing in selected lakes on the Kenai Peninsula and Northern Cook Inlet.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. The department supports reducing pike populations in the Susitna drainage. However, there are currently no commercial fisheries for northern pike in UCI. It is unclear how a commercial fishery would be implemented and such a fishery would likely result in the incidental harvest of other species. Finally, a commercial fishery is not likely a long-term viable solution to pike control. If other pike control efforts are successful, there will likely not be enough pike to support a commercial fishery.

COST ANALYSIS: Approval of this proposal may result in an additional direct cost for a private person to participate in this fishery. Depending upon the type of gear allowed, fishermen would have to purchase this gear and obtain other equipment for the fishery.

PROPOSAL 182 – 5 AAC XX.XXX. New Section.

PROPOSED BY: John McCombs.

WHAT WOULD THE PROPOSAL DO? This proposal would establish a \$5 bounty for the harvest of northern pike in Upper Cook Inlet (UCI).

WHAT ARE THE CURRENT REGULATIONS? Currently, there is no commercial fishery for northern pike in UCI.

In the fresh waters of West Cook Inlet and the Susitna River drainage, anglers are not allowed to release live northern pike back into the water. There are no bag or possession limits for northern pike in Southcentral Alaska.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The Alaska Board of Fisheries (board) does not have the authority to establish any kind of tax or license fee for northern pike. If a bounty was set by the board, no bounty collection system would be in place to implement the bounty.

BACKGROUND: The authority for establishing taxes or license fees is retained by the legislature per AS 16.05.340 and AS 16.05.080. Although AS 16.05.210 appears to presume the authority of the state (through the boards, the department, or the legislature) to set bounties for certain species, the board, under AS 16.05.241, has no fiscal authority to require the department to establish a bounty collection system.

DEPARTMENT COMMENTS: Department of Law has advised the Alaska Board of Fisheries (board) in the past that a superior court ruled that the board does have the power to authorize a bounty, but does not have the authority to order the Alaska Department of Fish and Game to pay bounties. Therefore, if the board established a bounty, implementation would be subject to department budget priorities. Alternatively, the Alaska Legislature would need to fund the bounty program.

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 C: KENAI RESIDENT SPECIES, GUIDES, BOUNDARIES, AND HABITAT (22 proposals)

Sport - Kenai River Resident Species (7 proposals): 252–258

Guides - Kenai and Kasilof rivers (7 proposals): 259–262, 266–268

Sport - Kenai River boundaries and habitat (8 proposals): 229–236

Kenai River Resident Species: 252–258

PROPOSALS 252 and 253 – 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: Alaska Department of Fish and Game (Proposal 252) and Kenai River Professional Guide Association (Proposal 253).

WHAT WOULD THE PROPOSALS DO? These proposals would open rainbow trout fishing year-round in the Kenai River downstream of an ADF&G marker located upstream of the Lower Killey River, and increase the rainbow trout spawning closure area below the Upper Killey River by approximately three-quarters of a river mile (Figure 252-1).

WHAT ARE THE CURRENT REGULATIONS? Rainbow/steelhead trout may be taken from June 11–May 1 in the Kenai River and Skilak Lake, except in Skilak Lake within a one-half mile radius of the Kenai River inlet. From May 2–June 10, sport fishing is closed in the Kenai River from the mouth of the Upper Killey River upstream to an ADF&G regulatory marker located at the outlet of Skilak Lake.

WHAT WOULD BE THE EFFECT IF THE PROPOSALS WERE ADOPTED? This proposal would protect a component of spawning rainbow trout that are currently not protected under existing regulations. These trout are fished by anglers during the closure under the guise of fishing for Dolly Varden. The proposal would most likely increase rainbow trout fishing effort from May 2–June 10 downstream of the Killey River boundary by an unknown amount. Catch and harvest during that time would also increase by an unknown amount. It is believed that these increases would be small initially, but may grow some over time as anglers adapt to the new rainbow trout regulation for this area.

BACKGROUND: The current area closed to protect spawning rainbow trout does not protect a large aggregate of spawning rainbow trout just downstream of the lower boundary of the closed area. Information from a recent rainbow trout radio-telemetry study shows the current lower boundary at the Upper Killey River bisects an important spawning area (figures 252-2 and 252-3). Numbers of rainbow trout are spawning downstream of the boundary in an area open to fishing for species other than rainbow trout. Annual department staff observations since this closure went into effect in 2008 indicate anglers are catching rainbow trout at and downstream of the current lower boundary when rainbow trout spawning aggregations are present from May 2–June 10.

Information also indicates relatively few rainbow/steelhead trout are present in most of the lower Kenai River (below the Lower Killey River) during the spring. This information, in combination with a restrictive bag limit and gear limited to single-hook, artificial lures only from January 1–June 30 in the lower Kenai River, indicates closing the lower Kenai River downstream of the Killey River to fishing for rainbow/steelhead trout May 2–June 10 is unnecessary.

DEPARTMENT COMMENTS: The department submitted Proposal 252 and **SUPPORTS** both of these 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.

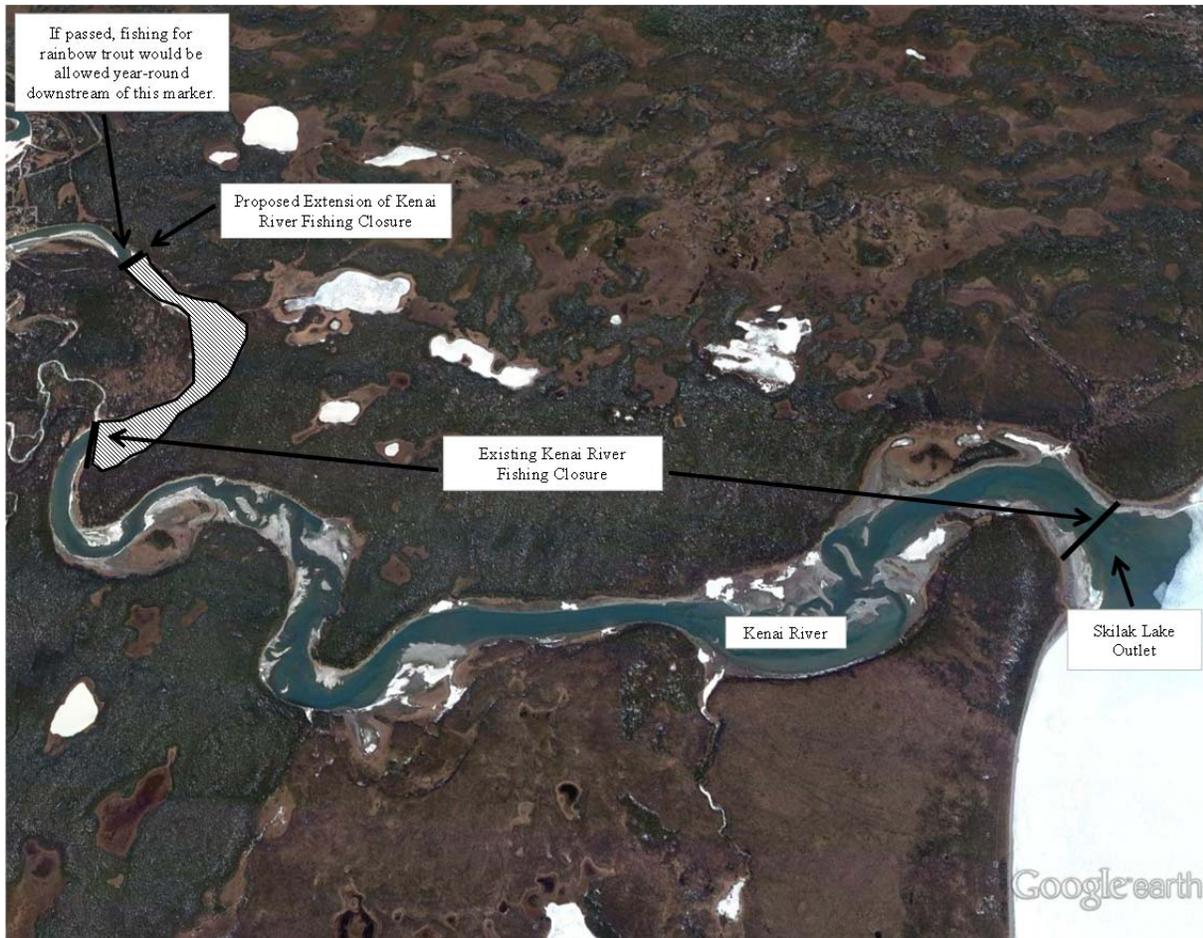


Figure 252-1.—Map of Kenai River showing proposed rainbow trout spawning closure boundary.

5/23/2011 Survey Area=Naptowne Rapids to Skilak Lake Outlet, 20 tags located in existing closed area, 4 tags located outside existing closure.

113

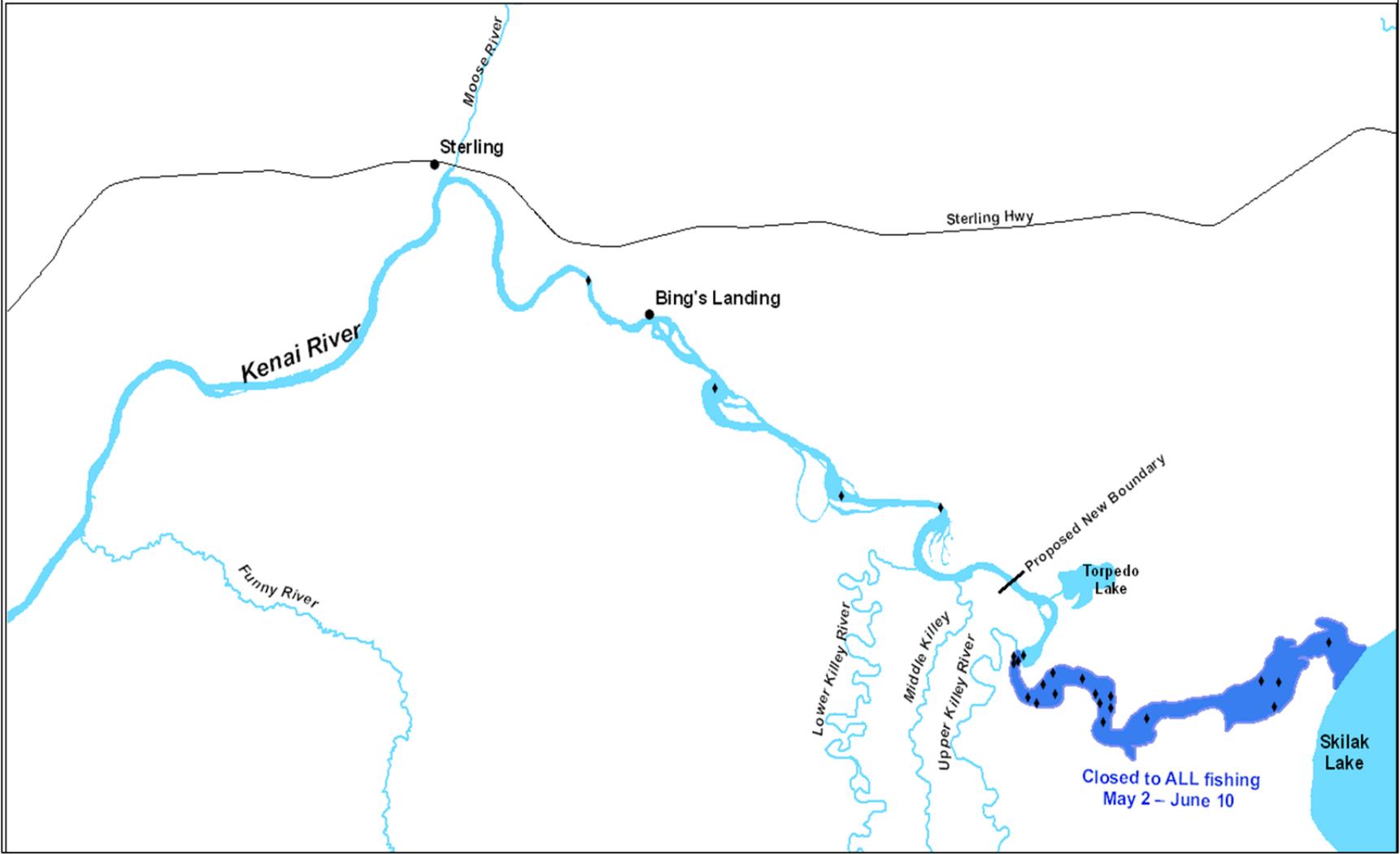


Figure 252-2.-Map of Kenai River showing radio-tagged rainbow trout detected on May 23, 2011.

5/30/2011 Survey Area=Funny River confluence to Skilak Lake Outlet, 17 tags located in existing closed area, 6 tags located outside existing closure.

114

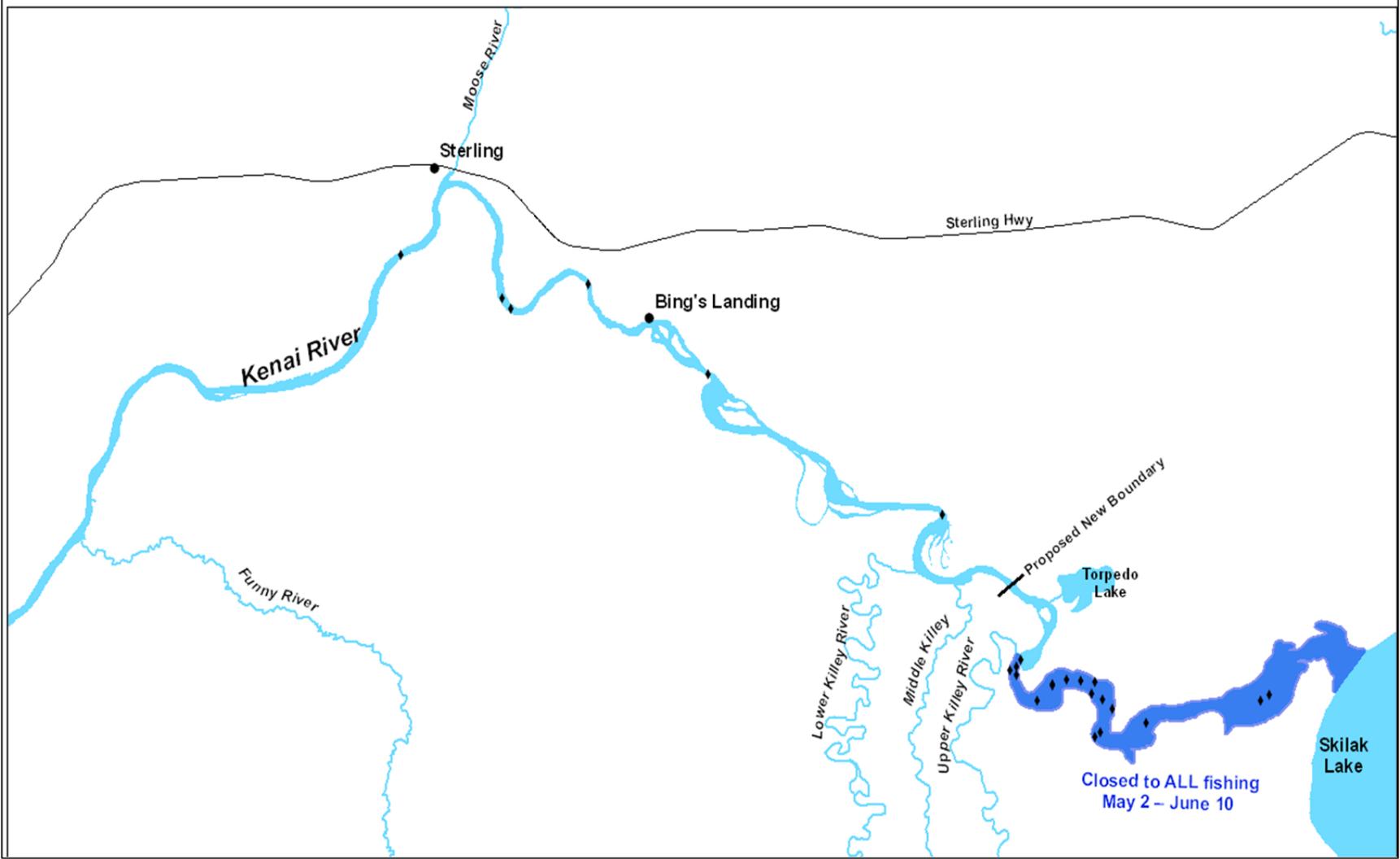


Figure 252-3.—Map of Kenai River showing radio-tagged rainbow trout detected on May 30, 2011.

PROPOSAL 254 – 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: James Dicken.

WHAT WOULD THE PROPOSAL DO? This proposal would allow fishing for trout on the Kenai River below the Moose River using bait from June 1–June 30. It would restrict gear to either a single egg on a Colorado Hook (Figure 254-1) or an artificial fly, and prohibit use of leader-line greater than 6-pound test and rod greater than 6-weight while fishing for rainbow/steelhead trout and Dolly Varden.

WHAT ARE THE CURRENT REGULATIONS? Rainbow/steelhead trout may be taken from June 11–May 1 in the Kenai River and Skilak Lake, except in Skilak Lake within a one-half mile radius of the Kenai River inlet. From January 1–June 30 in the Kenai River, only one unbaited single-hook, artificial lure may be used.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would likely increase the catch and harvest of rainbow trout and Dolly Varden in the Kenai River below the Moose River during June. It may increase incidental hooking of early-run king salmon by use of bait. This proposal would greatly increase regulatory complexity because it would create a regulatory exception for one month in a portion of the Kenai River concerning bait, and would impose restrictions on rod weight and line size. Any potential benefits to king salmon are unknown, but likely would be negligible because king salmon in this area do not spawn in June.

BACKGROUND: Use of bait is prohibited in the Kenai River from January 1–June 30. The months of May and June were included in the period closed to bait as an early-run king salmon conservation measure.

Presently, there is no practicable method for law enforcement to determine the fishing leader-line (pound test) breaking strength or strength of rod (rod weight), other than what may be written on leader-line packaging or written on the rod by the manufacturer. Line and rod standards also vary by materials used by the manufacturer and remain nonstandardized throughout the industry. Hook size also varies by manufacturer. However, the Alaska Board of Fisheries (board) has adopted fishing regulations that restrict the distance between the point and shank of a fishing hook.

The catch of rainbow trout in the Kenai River has averaged (2003–2012) 166,663 fish (Table 254-1). Based on population estimates, catch estimates indicate rainbow trout are caught and released multiple times during their life span. Current management objectives for rainbow trout and Dolly Varden fisheries of the Kenai River are:

1. Provide opportunity for angler participation at a level that can be supported by the fisheries resource and associated habitat.
2. Ensure, through appropriate management and research programs, rainbow trout and Dolly Varden populations do not decline below levels necessary to ensure sustained yield.

Based upon high catch rates of both rainbow trout and Dolly Varden that have been sustained for several years, the management objectives for these fisheries are being met.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. This proposal would greatly increase complexity of regulations. These gear restrictions would be the first of their type in Alaska and would not be enforceable. In order for regulation changes in this proposal to be enforceable, clear equipment standards and techniques to determine rod and line materials, as well as breaking strength of each, would need to be developed for law enforcement and a Colorado hook would need to be defined. Any potential benefits to king salmon are unknown and would likely not be measurable.

COST ANALYSIS: Approval of this proposal may result in an additional direct cost for a private person to participate in this fishery if they do not have gear that matches the proposed specifications.



Figure 254-1.—Examples of hooks known as Colorado fly hooks.

Table 254-1.—Kenai River rainbow trout catch and harvest by river section, 1984–2012.

Year	Cook Inlet to Soldotna			Soldotna Bridge to Moose			Moose River to Skilak Outlet			Skilak Inlet to Kenai Lake			Kenai River Reach Not Specified ^a			Kenai River Total		
	Bridge		%	River		%	Catch	Harvest	%	Catch	Harvest ^b	%	Catch	Harvest	%	Catch	Harvest	%
	Catch	Harvest		Catch	Harvest													
1984 ^c	3,464	766	22.1	2,911	644	22.1	5,112	1,130	22.1	4,200	928	22.1	ND	ND	ND	15,687	3,468	22.1
1985 ^c	3,398	880	25.9	2,653	850	32.0	5,410	1,500	27.7	3,520	710	20.2	ND	0	ND	14,981	3,940	26.3
1986	2,570	623	24.2	2,380	168	7.1	1,750	901	51.5	2,020	733	36.3	ND	ND	ND	8,720	2,425	27.8
1987	2,220	522	23.5	3,450	670	19.4	6,430	629	9.8	3,870	364	9.4	ND	ND	ND	15,970	2,185	13.7
1988	2,780	295	10.6	1,560	216	13.8	5,880	1,063	18.1	7,580	559	7.4	ND	0	ND	17,800	2,133	12.0
1989	2,020	481	23.8	2,230	354	15.9	6,470	829	12.8	6,870	253	3.7	ND	10	ND	17,590	1,927	11.0
1990	2,624	510	19.4	3,571	943	26.4	5,366	937	17.5	11,995	1,145	9.5	0	0	0.0	23,556	3,535	15.0
1991	3,672	516	14.1	3,844	1,123	29.2	7,930	940	11.9	18,108	740	4.1	31	10	32.3	33,585	3,329	9.9
1992	4,448	427	9.6	3,879	411	10.6	15,127	736	4.9	28,702	403	1.4	ND	ND	ND	52,156	1,977	3.8
1993	6,190	1,149	18.6	5,556	580	10.4	12,651	653	5.2	37,755	192	0.5	0	0	0.0	62,152	2,574	4.1
1994	3,796	506	13.3	3,980	364	9.1	10,968	543	5.0	35,089	163	0.5	ND	ND	ND	53,833	1,576	2.9
1995	4,516	620	13.7	4,087	440	10.8	13,072	780	6.0	33,475	310	0.9	ND	ND	ND	55,150	2,150	3.9
1996	5,513	304	5.5	4,777	646	13.5	8,650	373	4.3	45,471	237	0.5	ND	ND	ND	64,411	1,560	2.4
1997	7,411	739	10.0	6,641	539	8.1	20,047	632	3.2	61,053	0	0.0	ND	ND	ND	95,152	1,910	2.0
1998	5,502	608	11.1	5,380	670	12.5	12,158	737	6.1	42,224	0	0.0	ND	ND	ND	65,264	2,015	3.1
1999	11,415	1,516	13.3	8,325	695	8.3	32,050	1,573	4.9	50,189	0	0.0	ND	ND	ND	101,979	3,784	3.7
2000	16,477	1,292	7.8	9,428	1,083	11.5	18,990	1,084	5.7	78,836	0	0.0	ND	ND	ND	123,731	3,459	2.8
2001	11,216	987	8.8	7,473	868	11.6	22,392	567	2.5	51,130	0	0.0	ND	ND	ND	92,211	2,422	2.6
2002	12,641	995	7.9	8,157	944	11.6	19,355	864	4.5	71,753	0	0.0	2,269	216	9.5	114,175	3,019	2.6
2003	12,844	1,026	8.0	10,913	700	6.4	41,204	372	0.9	54,552	0	0.0	3,536	180	5.1	123,049	2,278	1.9
2004	15,080	1,452	9.6	13,310	978	7.3	34,026	831	2.4	91,443	0	0.0	5,651	50	0.9	159,510	3,311	2.1
2005	14,119	953	6.7	11,585	647	5.6	34,675	607	1.8	57,936	267	0.5	7,949	43	0.5	126,264	2,517	2.0
2006	13,168	588	4.5	13,683	1,109	8.1	33,222	472	1.4	67,741	289	0.4	4,005	41	1.0	131,819	2,499	1.9
2007	11,829	542	4.6	18,832	769	4.1	52,701	684	1.3	90,757	661	0.7	4,851	10	0.2	178,970	2,666	1.5
2008	26,385	696	2.6	20,943	794	3.8	47,956	772	1.6	103,095	941	0.9	4,496	11	0.2	202,875	3,214	1.6
2009	11,502	625	5.4	16,165	543	3.4	67,940	828	1.2	102,745	399	0.4	3,280	59	1.8	201,632	2,454	1.2
2010	9,397	553	5.9	16,944	786	4.6	63,655	696	1.1	79,663	237	0.3	3,642	131	3.6	173,301	2,403	1.4
2011	19,849	571	2.9	27,305	464	1.7	80,908	318	0.4	71,088	374	0.5	615	0	0.0	199,765	1,727	0.9
2012	16,119	843	5.2	23,866	878	3.7	47,253	396	0.8	81,349	386	0.5	856	37	4.3	169,443	2,540	1.5
Average																		
2003–2012	15,030	780	5.5	17,350	770	4.9	50,350	600	1.3	80,040	360	0.4	3,890	60	1.8	166,660	2,560	1.6
Average																		
1984–2012	9,040	740	11.7	9,100	690	11.5	25,290	770	8.2	48,080	350	4.2	ND	ND	ND	92,920	2,590	6.5

Source: Statewide Harvest Surveys from Mills 1979–1994; Howe et al. 1995, 1996, 2001a-d; Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b; G. B. Jennings, Sport Fish Program Coordinator, ADF&G, Anchorage, personal communication. Catch estimates from 1984–1989 are unpublished estimates from the SWHS data base M.J. Mills, Sport Fish Biometrician, ADF&G, Anchorage; personal communication.

^a SWHS began consistently reporting in 2002.

^b Retention of rainbow trout was prohibited from 1997 through 2004.

^c In 1984 and 1985, catch estimates were mistakenly reported as harvest in Mills (1985–1986). Corrected harvest numbers are presented here.

Note: ND = no data available

PROPOSAL 255 – 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 57.122. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for the Middle Section of the Kenai River Drainage Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would move Hidden Lake Creek and Hidden Lake special provisions from the Lower Section management area to the Middle Section management area.

WHAT ARE THE CURRENT REGULATIONS? Kenai River sport fishing regulations apply to three river sections:

- (1) Lower Section: waters from the mouth of the Kenai River upstream to Skilak Lake, including Skilak Lake, but not including the waters of Skilak Lake within a one-half mile radius of the Kenai River inlet;
- (2) Middle Section: waters of Skilak Lake within a one-half mile radius of the Kenai River inlet, upstream to the Sterling Highway Bridge at the outlet of Kenai Lake;
- (3) Upper Section: waters upstream of the Sterling Highway Bridge at the outlet of Kenai Lake, including Kenai Lake, and all stream and lakes that flow into Kenai Lake.

Regulations pertaining to more specific areas or water bodies are listed under each section.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would clarify regulatory language for the Kenai River. It would not have any effect on the regulations that apply to Hidden Lake Creek and Hidden Lake.

BACKGROUND: Hidden Lake Creek and Hidden Lake are part of the Middle Section of the Kenai River drainage area (Figure 255-1). Hidden Lake Creek and Hidden Lake are incorrectly listed under the Lower Section of the Kenai River in codified regulations.

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.

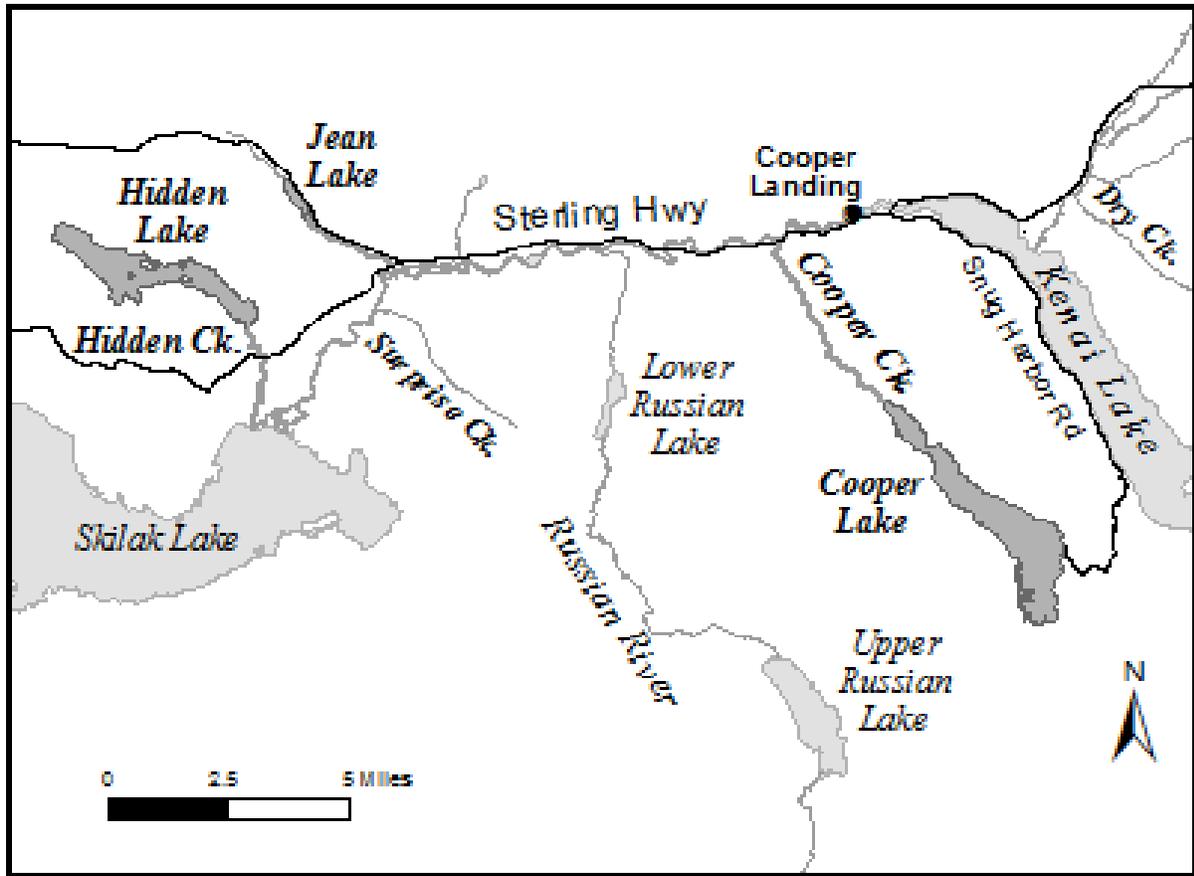


Figure 255-1.—Map of the Middle Section of the Kenai River drainage.

PROPOSAL 256 – 5 AAC 57.123. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for the Upper Section of the Kenai River Drainage Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would reduce the spawning closure period on Crescent Lake/Crescent Creek from May 2–June 30, to May 2–June 10.

WHAT ARE THE CURRENT REGULATIONS? Crescent Creek drainage (Figure 256-1) is open to sport fishing from July 1–May 1. Rainbow trout/steelhead bag and size limits are different for Crescent Lake and the remainder of the drainage. In Crescent Lake, the bag and possession limit is two fish, of which only one may be 20 inches or greater in length. In the remainder of Crescent Creek drainage, the bag and possession limit is one fish less than 16 inches in length (only). The bag and possession limit for Arctic grayling is two fish. Bait and multiple hooks are prohibited in flowing waters of Crescent Creek, but are allowed in Crescent Lake.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would add 20 days to the fishing season at Crescent Lake/Crescent Creek by reducing the closure from 60 days to 40 days, (June 30 to June 10). The number of Arctic grayling caught and harvested would increase by an unknown amount. The proposal would simplify regulations by aligning the Crescent Creek drainage with fishing closure dates in the Upper Section of the Kenai River drainage.

BACKGROUND: The current spawning closure dates from May 2 through June 10 apply to the Upper Kenai River Drainage Area and are designed around the spawning time of rainbow trout. Arctic grayling typically spawn earlier than rainbow trout. Arctic grayling are not native to the Crescent Creek drainage. Its population is naturalized from a prestatehood stocking program.

From 2009–2012, new department research and annual visual observations have shown that most Arctic grayling spawning activity has taken place by June 11 (Table 256-1). Spawning aggregations are present at the Crescent Lake outlet around the time the lake outlet is free of ice, generally prior to June 11. During “early spring years,” spawning Arctic grayling are not present at the lake outlet on June 11. However, during “late spring years” spawning Arctic grayling may be present. Department information indicates that spawning Arctic grayling were observed four of eight years with observational records that exist for the lake outlet. Furthermore, the high elevation and remote location of Crescent Lake precludes easy access to the lake and lake outlet fishing areas, typically until June. Most Arctic grayling (91%) caught at Crescent Lake are released (Table 256-2).

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. Reducing the length of the closed period will not expose the spawning population of Arctic grayling to fishing pressure, and will provide fishing opportunity during June when access trails are free of snow and spawning is completed. This proposal simplifies regulations without

jeopardizing sustainability of this stock. Rainbow trout are not present in Crescent Lake and would not be affected by 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.

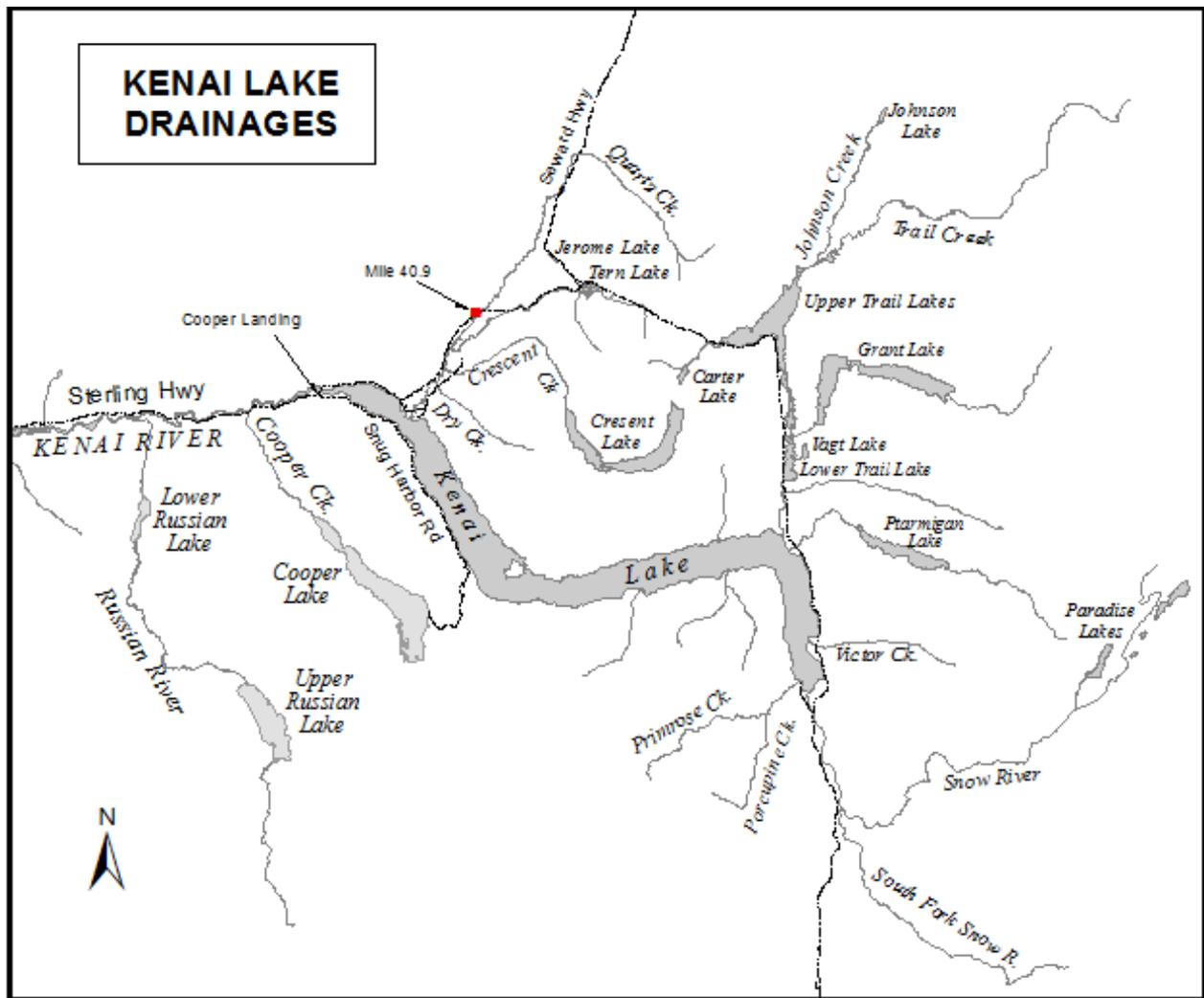


Figure 256-1.—Map of Kenai Lake drainages.

Table 256-1.—Surveys of spawning Arctic grayling in Crescent Lake/Creek near proposed opening date.

Year	Survey Date	Spawning Grayling Observed
1971	10-Jun	No
1972	10-Jun	Yes
1977	9-Jul	Yes
2009	13-Jun	No
2010	11-Jun	No
2011	9-Jun	No
2012	12-Jun	Yes
2013	10-Jun	Yes

Table 256-2.—Arctic Grayling catch and harvest for Crescent Lake, Paradise Lakes, Lower Fuller Lake, Grayling Lake, Twin Lakes, and Bench Lake, 1984–2012.

Year	Crescent Lake			Upper Paradise Lake			Lower Paradise Lake			Lower Fuller Lake			Grayling Lake			Twin Lake			Bench Lake		
	Effort ^a	Catch	Harvest																		
1984	770	ND	574	ND	ND	ND															
1985	ND	ND	ND																		
1986	1,147	ND	826	ND	ND	ND															
1987	960	ND	163	ND	ND	ND															
1988	1,255	ND	382	ND	ND	ND															
1989	1,052	ND	238	ND	ND	ND															
1990	971	2,530	260	106	2,269	135	21	229	0	33	52	0	49	42	0	ND	ND	ND	96	62	21
1991	1,223	6,262	736	49	13	0	ND	ND	ND	16	0	0	98	27	0	65	67	0	ND	ND	ND
1992	1,014	5,966	398	64	60	0	64	210	38	12	15	0	96	128	120	160	120	60	75	8	0
1993	1,713	6,716	619	30	101	17	ND	ND	ND	52	787	17	146	141	65	ND	ND	ND	56	205	44
1994	1,836	7,400	672	26	245	0	13	163	24	94	332	122	122	653	296	83	907	82	90	98	0
1995	1,874	4,448	677	82	270	26	491	3,535	313	86	282	53	167	209	17	ND	ND	ND	14	18	0
1996	756	2,990	423	169	1,674	0	91	1,917	24	201	169	95	95	291	170	43	495	0	55	50	50
1997	957	3,623	357	141	1,460	203	30	201	0	126	444	54	140	131	9	68	848	229	15	54	0
1998	1,145	6,784	536	82	820	81	62	1,150	50	105	448	104	282	276	34	24	50	50	13	307	0
1999	1,266	3,187	550	426	1,727	145	154	3,490	32	52	169	11	68	135	0	91	339	90	15	11	0
2000	1,504	6,782	462	176	2,105	253	181	1,870	192	175	629	100	91	188	38	27	100	0	0	0	0
2001	1,099	6,493	245	109	182	124	387	1,595	51	109	408	120	90	184	126	0	0	0	44	16	7
2002	1,457	6,656	427	420	1,820	303	41	305	183	121	662	0	28	120	0	0	0	0	91	977	15
2003	1,412	6,785	1,008	30	422	0	74	282	14	129	876	35	80	117	12	50	140	0	0	0	0
2004	1,104	5,510	101	143	1,496	244	58	715	195	108	543	16	33	79	0	0	0	0	33	57	57
2005	1,028	5,231	438	284	2,091	172	0	0	0	163	692	32	37	0	0	35	321	0	0	0	0
2006	790	3,161	166	86	470	0	0	0	0	173	260	0	52	386	55	49	207	0	0	0	0
2007	1,389	6,202	365	62	210	35	62	93	35	37	117	23	37	117	35	0	0	0	0	0	0
2008	959	2,542	306	163	234	101	0	0	0	175	2,718	0	197	1,979	228	0	0	0	35	0	0
2009	1,609	7,456	814	0	0	0	0	0	0	141	828	36	14	50	0	21	67	33	0	0	0
2010	758	1,916	170	0	0	0	17	1,114	0	197	520	37	17	35	0	84	683	55	34	92	23
2011	996	3,150	606	46	53	13	87	294	0	165	697	99	30	53	0	0	0	0	36	196	0
2012	896	2,857	446	107	603	86	36	689	103	71	112	0	69	50	0	0	0	0	0	0	0
Mean	1,176	4,985	463	122	797	84	89	850	60	110	511	41	89	234	52	40	217	30	32	98	10

Source : Statewide Harvest Surveys from Mills 1985-1994; 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.

Note: ND = no data available

^a Effort (angler days) directed toward all species.

PROPOSAL 257 – 5 AAC 56.122. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for the Kenai Peninsula Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would create a 40-day spawning closure period from May 2–June 10 on Bench Lake and Bench Creek (Figure 257-1) for Arctic grayling.

WHAT ARE THE CURRENT REGULATIONS? Bench Lake and Bench Creek are open the entire year for sport fishing for Arctic grayling.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The catch and harvest of Arctic grayling would decline by an unknown amount. The proposed spawning closure would be consistent with other spawning closures for resident species in the Northern Kenai Peninsula Management Area.

BACKGROUND: The upper Kenai River drainage spawning closure dates from May 2 through June 10 are designed around the spawning time of rainbow trout. Arctic grayling typically spawn earlier than rainbow trout. Department research and annual observations from 2009–2012 have identified an Arctic grayling spawning population within Bench Creek drainage. Arctic grayling are not native to Bench Lake drainage; instead, the population is naturalized from a prestatehood stocking program. Currently, the spawning population is exposed to fishing pressure year-round because there is no closure to protect these fish during spawning activity.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. The proposed closure dates would be consistent with other closures that protect spawning resident species in the Northern Kenai Peninsula Management Area.

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.

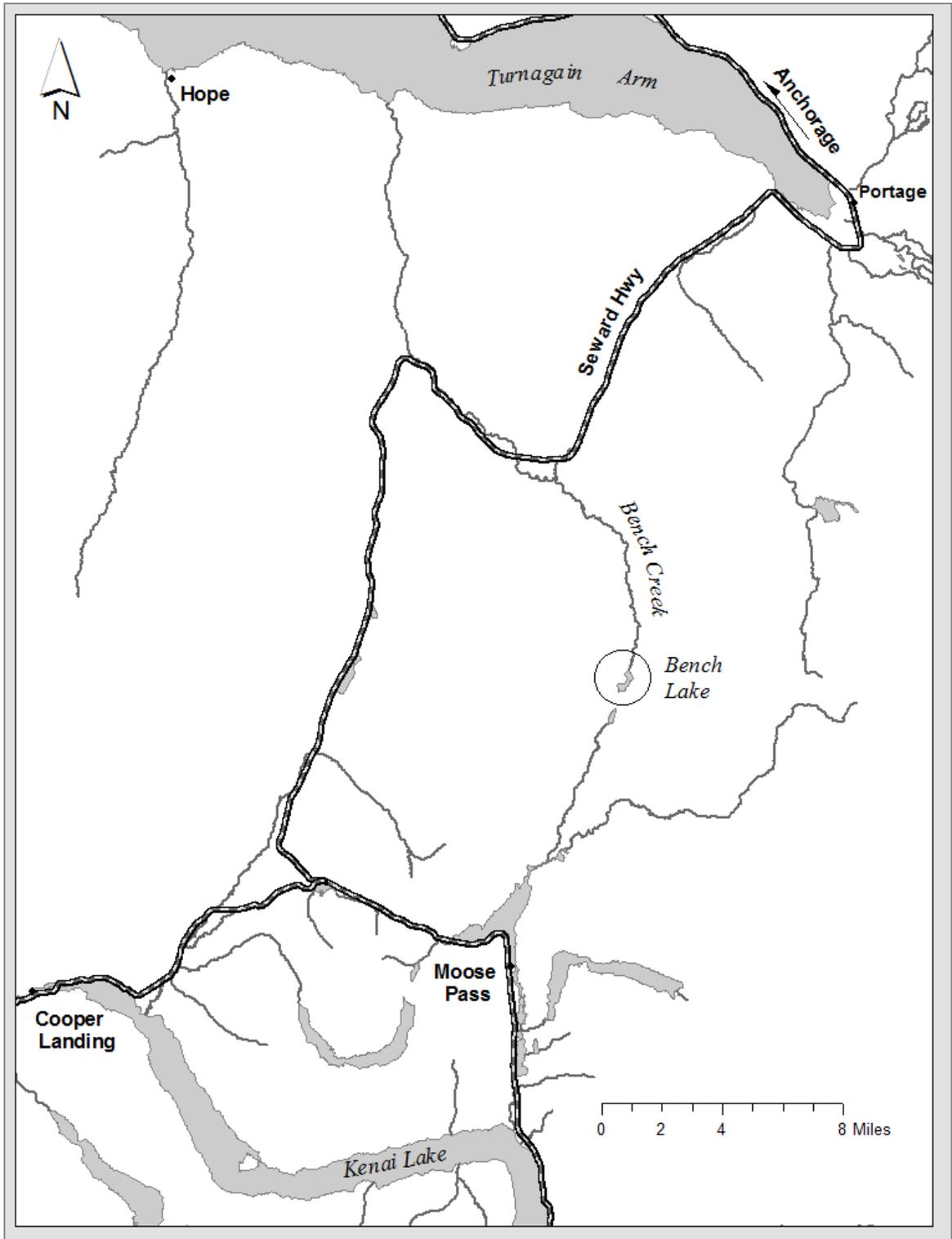


Figure 257-1.—Map of Bench Lake drainage.

PROPOSAL 258 – 5 AAC 56.122. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for the Kenai Peninsula Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would remove liberal gear limits of five lines allowed while fishing through the ice on Stormy Lake for northern pike.

WHAT ARE THE CURRENT REGULATIONS? In Stormy Lake, five lines may be used to fish for northern pike through the ice. Allowable gear is limited to standard ice fishing equipment as specified in 5 AAC 56.120(7)(B). Fishing gear must be closely attended, as specified in 5 AAC 75.033. All other species of fish caught must be released immediately.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would return Stormy Lake back to standard sport fishing regulations through the ice, which is two lines per person. A limit of two lines per person while fishing through the ice would be consistent with statewide regulations for waters that do not contain invasive northern pike.

BACKGROUND: In 2008, the Alaska Board of Fisheries (board) allowed the use of up to five lines to fish through the ice in Stormy Lake in an effort to reduce invasive northern pike. Stormy Lake was successfully treated in September 2012 to remove illegally introduced northern pike. Prior to the treatment, native Arctic char were live trapped and held for an egg-take. Stocking of these Arctic char into Stormy Lake took place in the summer of 2013. Arctic char are a species with slow growth rates and low population densities. It is unknown how long it will take for these fish to become sexually mature and to reestablish natural production.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. Stormy Lake was successfully treated with rotenone to eradicate northern pike in September 2012. Therefore, it is no longer appropriate to use liberalized fishing methods designed to increase the harvest of northern pike through the ice.

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.

Guides - Kenai and Kasilof Rivers: 259–262, 266–268

PROPOSAL 259 – 5 AAC 21.359. Kenai River Late-Run King Salmon Management Plan; 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; 5 AAC 57.140; Kenai River guiding and guided fishing requirements in the Kenai River Drainage Area; and 5 AAC 57.160. Kenai River and Kasilof River Early-run King Salmon Management Plan.

PROPOSED BY: Monte Roberts.

WHAT WOULD THE PROPOSAL DO? This proposal would limit anglers fishing for king salmon on the Kenai River from a boat to the hours of 6:00 a.m. to 10:00 p.m. It would also limit guides to 10 starts per week, and broadly define department emergency order (EO) authority to restrict or liberalize the sport fishery to achieve escapement goals.

WHAT ARE THE CURRENT REGULATIONS? Sport fishing in the Kenai River is allowed 24 hours a day for unguided anglers, year-round, in areas open to sport fishing. During May, June, and July, sport fishing from a registered guide vessel downstream of Skilak Lake is permitted only from 6:00 a.m. to 6:00 p.m. In addition, downstream of the outlet of Skilak Lake, a person may not sport fish from a registered guide vessel on any Sunday from May 1 through July 31.

On any Monday in May through July, except for Memorial Day, a person may not fish from a boat in the portion of the Kenai River from the outlet of Skilak Lake to the mouth of the river, except that unguided sport fishing from a nonmotorized vessel is allowed on Mondays in May through July.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Effort, catch, and harvest would be reduced by an unknown amount for unguided anglers. King salmon fishing opportunity for unguided anglers would be reduced by 33%. Conversely, guided anglers would be allowed to fish seven days per week from 6:00 a.m. to 10:00 p.m., including Sundays and Mondays (days currently closed to fishing from guided vessels) and get an additional four hours per day from Tuesday through Saturday. The amount of time available for guided king salmon fishing opportunity would be increased by 67%; catch and harvest of king salmon by guided anglers would increase by an unknown amount. The disparity between guided and unguided king salmon harvest would likely increase. The closure of king salmon fishing from 10:00 p.m. to 6:00 a.m. would likely increase congestion during the remaining open hours to king salmon fishing for both guided and unguided anglers. Given the increase of guided vessel days and hours available to fish, it may increase the frequency of inriver restrictions during years of low king salmon abundance. This proposal would also increase the time and complexity of enforcement efforts.

BACKGROUND: The Alaska Board of Fisheries (board) has adopted management plans structured to constrain the harvest of both early-run and late-run king salmon stocks to sustainable levels while still providing for fishing opportunity. The management guidelines that

the board has adopted through the years have closed specific areas of the river to all fishing, restricted certain areas of the river to shore fishing only, and imposed time and date closures for all guided and unguided boat anglers. In addition, the board has addressed the harvest disparity between guided and unguided anglers within the Kenai River king salmon sport fishery by reducing the number of hours and days guided anglers may fish, limiting the number of clients allowed to fish from a guided vessel, and prohibiting guides from fishing while clients are present/fishing.

Regulations prohibiting overnight sport fishing by all anglers for a particular species in the Kenai River have not been adopted. In 2003 and 2004, nonresidents were prohibited from fishing from guided vessels from 6:00 p.m. to 6:00 a.m.

Since 1985, during June and July, sport fishing from registered guide vessels has been permitted only from 6:00 a.m. to 6:00 p.m. (except for the years 1986–1988 when, during July, the time was 7:00 a.m. to 7:00 p.m.). In 2000, the daily time restrictions were extended to include the month of May. Guided anglers are also restricted from fishing on the Kenai River downstream of Skilak Lake from a registered guide vessel on Sundays or Mondays in May through July (except Memorial Day). These regulations are intended to restrict harvest of king salmon by reducing guided angling effort, provide unguided anglers with hours free of competition with guided anglers, and reduce angler congestion on the Kenai River.

Guided effort, catch, and harvest by anglers fishing from guided vessels in the early-run Kenai River king salmon fishery has exceeded that of unguided anglers from 1996–2013 (Table 259-1), whereas unguided effort, catch, and harvest by anglers fishing in the late-run Kenai River king salmon fishery has exceeded that of guided anglers every year since 1981, except four years (1998, 2008, 2012, and 2013; Table 259-2). The king salmon catch rate (number of fish caught/hours fished) is greater for guided than for unguided anglers (Table 259-3). Historically, harvest rates for both early and late runs have been relatively stable and have averaged less than 40% since 1986 (tables 259-4 and 259-5). Since 2009, the numbers of fish in the early and late runs have been well below average (tables 259-4 and 259-5).

Currently, guided vessels have the opportunity to conduct two daily six-hour trips during the five days that are open to guided king salmon fishing. However, since 2006, freshwater guide logbook data indicate an average of 85% of Kenai River guides conduct only single trips during the months of May, June, and July (Table 259-6). Nonresident anglers are the primary clientele of Kenai River guides in May, June, and July (Table 259-7).

The salt and freshwater guide logbook program has been in effect since 2006. Logbook reporting is a mandatory process governed by statute (AS 16.40.280). Logbooks are issued to individual licensed businesses. Due to the variety of way that freshwater businesses conduct operations, the number of logbooks issued to a unique business will vary. The business owner or their representative must determine how many logbooks that business will be required to have in order to comply with the recording requirements outlined in the logbook instructions. For example, an operation that conducts business from a lodge with six guides may need more logbooks than a single owner/operator with one vessel that is trailered.

A logbook is assigned by the department to the business; the business owner can distribute individual logbooks to a vessel or to a guide. It is up to the discretion of the business owner to distribute logbooks to employed guides in any manner that facilitates the timely recording of trip information as described in the logbook instructions. All guided fishing trips on both salt and fresh waters are required to be recorded daily in a logbook and submitted to the department on a weekly schedule. A week of activity begins on a Monday and ends on a Sunday, and is due to the department or has to be postmarked one week and one day (eight days) later.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal which seeks to decrease sport fishing opportunity for unguided anglers by a nighttime closure and expand the hours available to guided anglers to fish seven days each week. The existing logbook program does not provide the timely information necessary for enforcement to monitor the number of starts individual guides use each week due to weekly reporting requirements and delayed data entry. In addition, because logbooks are assigned to individual businesses, guides may end up recording their activity in multiple logbooks which would further complicate enforcement. Although the department already has EO authority to restrict the sport fishery as requested in this proposal, the department has not used its authority to restrict time open to sport fishing from boats due to the allocative nature of that action.

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 259-1.—Effort, catch, and harvest of early-run king salmon as estimated from a creel survey of anglers on the Kenai River from the mouth upstream to the Soldotna Bridge from May 16 through June 30, 1981–2013.

Year	Unguided			Guided		
	Effort	Catch	Harvest	Effort	Catch	Harvest
1981	47,913	ND	1,618	19,857	ND	1,846
1982	76,329	ND	2,144	22,799	ND	1,797
1983	64,651	ND	1,729	43,823	ND	3,526
1984	89,549	ND	1,695	40,610	ND	2,211
1985	87,199	ND	2,591	50,339	ND	4,181
1986	100,371	ND	2,958	41,724	ND	3,379
1987	122,876	ND	5,806	48,078	ND	5,418
1988	134,807	ND	5,601	66,636	ND	6,348
1989	104,702	ND	1,833	93,927	ND	4,878
1990	33,807	ND	153	38,992	ND	570
1991	24,320	ND	298	23,279	ND	593
1992	28,217	ND	653	26,113	ND	712
1993	76,500	ND	2,784	46,773	ND	4,062
1994	72,433	2,259	1,524	61,766	4,140	3,198
1995	90,073	4,679	3,009	75,917	6,681	4,724
1996	58,551	1,461	981	71,629	4,091	3,185
1997	37,792	1,991	1,282	64,451	4,791	3,660
1998	17,506	736	157	38,631	1,133	491
1999	40,816	1,634	993	69,972	5,562	4,541
2000	27,371	562	289	54,248	1,747	860
2001	24,215	257	148	45,988	1,580	1,280
2002	5,232	125	91	9,780	294	285
2003	23,840	973	628	35,218	1,840	1,320
2004	30,523	1,168	773	34,768	2,633	1,512
2005	32,492	1,176	651	47,000	3,254	2,226
2006	27,985	1,419	833	44,786	3,104	2,564
2007	25,460	917	710	44,796	3,027	1,934
2008	28,838	1,408	900	43,736	2,145	1,702
2009	23,703	388	334	29,336	670	564
2010	16,345	286	193	23,394	918	645
2011	16,255	309	155	28,108	782	661
2012	7,205	124	86	13,476	348	227
2013	1,196	15	0	1,948	25	0
2003–2013						
Average	21,258	744	478	31,506	1,704	1,214
Percentage	40%	30%	28%	60%	70%	72%
1981–2002						
Average	62,056	1,523	1,743	47,970	3,335	2,807
Percentage	56%	31%	38%	44%	69%	62%

ND = No Data

Table 259-2.—Effort, catch, and harvest of late-run king salmon as estimated from a creel survey of anglers on the Kenai River from the mouth upstream to the Soldotna Bridge from July 1 through July 31, 1981–2013.

Year	Unguided			Guided		
	Effort	Catch	Harvest	Effort	Catch	Harvest
1981	66,309	ND	1,988	30,351	ND	2,162
1982	92,931	ND	2,083	34,897	ND	2,257
1983	110,172	ND	3,405	54,756	ND	4,919
1984	208,309	ND	3,888	42,062	ND	2,614
1985	171,109	ND	4,395	40,398	ND	2,705
1986	159,943	ND	4,855	47,379	ND	3,198
1987	193,630	ND	5,573	69,622	ND	5,194
1988	235,043	ND	8,042	88,331	ND	8,393
1989	186,382	ND	3,281	86,507	ND	4,727
1990	161,071	ND	2,269	85,477	ND	3,544
1991	147,293	ND	2,985	82,706	ND	3,864
1992	112,091	ND	2,504	75,324	ND	4,176
1993	201,695	ND	7,413	92,213	ND	7,866
1994	244,729	10,502	7,760	110,049	8,037	6,628
1995	200,397	7,126	4,914	123,585	6,773	5,211
1996	128,438	2,631	2,131	110,057	4,352	3,853
1997	137,226	5,740	4,480	126,416	6,796	5,856
1998	89,854	10,502	2,406	98,872	8,037	3,575
1999	134,264	6,613	4,422	118,196	10,584	7,605
2000	134,020	6,907	5,480	114,362	8,228	6,585
2001	127,395	8,458	5,496	109,238	11,294	8,240
2002	100,808	7,282	4,917	90,868	9,584	6,436
2003	115,688	12,652	6,200	91,768	16,117	7,637
2004	127,725	8,185	5,003	110,690	14,329	9,491
2005	125,235	12,248	6,893	105,550	13,416	8,420
2006	140,490	9,516	5,895	117,210	10,272	7,295
2007	112,575	5,273	2,853	106,644	8,135	6,405
2008	98,903	4,437	3,525	99,597	6,491	5,748
2009	99,938	4,786	3,124	77,238	5,566	4,254
2010	88,995	3,141	2,748	69,194	2,898	2,627
2011	81,005	5,000	3,080	67,208	4,581	3,378
2012	11,520	553	44	20,834	697	59
2013	21,730	689	334	38,180	1,855	1,243
2003–2013						
Average	93,073	6,044	3,609	82,192	7,669	5,142
Percentage	53%	44%	41%	47%	56%	59%
1981–2002						
Average	151,960	7,307	4,304	83,258	8,187	4,982
Percentage	65%	47%	46%	35%	53%	54%

ND = No Data

Table 259-3.—Average number of hours for an angler to catch a king salmon on the Kenai River based on a creel survey from the mouth upstream to the Soldotna Bridge, 2003–2013.

Average hours to catch a king salmon				
Year	Early Run		Late Run	
	Unguided	Guided	Unguided	Guided
1994	32.1	14.9	23.3	13.7
1995	19.3	11.4	28.1	18.2
1996	40.1	17.5	48.8	25.3
1997	19.0	13.5	23.9	18.6
1998	23.8	34.1	8.6	12.3
1999	25.0	12.6	20.3	11.2
2000	48.7	31.1	19.4	13.9
2001	94.2	29.1	15.1	9.7
2002	41.9	33.3	13.8	9.5
2003	24.5	19.1	9.1	5.7
2004	26.1	13.2	15.6	7.7
2005	27.6	14.4	10.2	7.9
2006	19.7	14.4	14.8	11.4
2007	27.8	14.8	21.3	13.1
2008	20.5	20.4	22.3	15.3
2009	61.1	43.8	20.9	13.9
2010	57.2	25.5	28.3	23.9
2011	52.6	35.9	16.2	14.7
2012	58.1	38.7	20.8	29.9
2013	79.7	77.9	31.5	20.6
Mean	39.9	25.8	20.6	14.8

Table 259-4.–Early-run Kenai River king salmon population data, 1986–2012.

Year	Cook Inlet Marine Harvest	Misc. Marine	Kenaitze Educational ^a	Inriver Run ^b	Sport Harvest Above Sonar ^c	Catch-and- Release Mortality	Spawning Escapement	Total Run	Harvest Rate
1986	144	0	ND	20,100	8,156	242	11,702	20,244	0.422
1987	181	0	ND	21,750	13,557	306	7,887	21,931	0.640
1988	212	0	ND	19,800	15,209	340	4,251	20,012	0.788
1989	193	0	73	12,290	8,394	149	3,747	12,556	0.702
1990	235	0	40	9,842	1,807	378	7,657	10,117	0.243
1991	241	0	2	10,620	1,945	152	8,523	10,863	0.215
1992	300	0	73	11,930	2,241	236	9,453	12,303	0.232
1993	407	0	118	12,490	9,342	286	2,862	13,015	0.780
1994	343	0	56	13,160	8,171	285	4,704	13,559	0.653
1995	412	0	37	12,890	10,217	357	2,316	13,339	0.826
1996	235	0	104	9,764	6,623	287	2,854	10,103	0.718
1997	282	0	122	11,140	6,429	349	4,362	11,544	0.622
1998	289	0	131	11,930	1,170	254	10,506	12,350	0.149
1999	245	0	114	13,480	8,129	261	5,090	13,839	0.632
2000	239	0	124	10,790	1,818	185	8,787	11,153	0.212
2001	184	0	198	14,020	2,399	205	11,416	14,402	0.207
2002	168	0	48	10,860	899	78	9,883	11,076	0.108
2003	202	0	126	20,450	2,839	389	17,222	20,778	0.171
2004	194	0	72	23,460	3,386	257	19,817	23,726	0.165
2005	187	341	76	20,810	3,810	253	16,747	21,414	0.218
2006	252	0	65	18,180	4,693	205	13,282	18,497	0.282
2007	201	41	16	13,630	3,493	220	9,917	13,888	0.286
2008	107	102	40	10,210	3,500	123	6,587	10,459	0.370
2009	71	16	49	7,741	1,466	97	6,178	7,877	0.216
2010	88	48	32	7,830	1,337	90	6,403	7,998	0.199
2011	110	0	42	9,895	1,337	92	8,466	10,047	0.157
2012	89	0	19	5,387	316	10	5,061	5,495	0.079
Average 1986–2002	254	0	89	13,344	6,265	256	6,824	13,671	0.479
Average 2003–2012	150	55	54	13,759	2,618	174	10,968	14,018	0.214
Average 1986–2012	215	20	74	13,498	4,914	225	8,359	13,799	0.381

Source: Statewide Harvest Surveys 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.

Note: ND = no data available

^a Prior to 1994, there was no educational fishery; this was considered a subsistence fishery.

^b Inriver sonar estimate estimated using a run reconstruction model from McKinley and Fleischman 2013, FMS 13-03.

^c 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.

Table 259-5.—Late-run Kenai River king salmon population data, 1986–2012.

Year	Deep Creek Marine 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 Estimated by Sonar ^h	Sport Harvest Above Sonar ^{fg}	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	0.325
1987	731	14,536	2,731	ND	ND	ND	235	ND	63,550	13,100	123	50,327	81,783	0.385
1988	892	8,834	1,330	ND	ND	ND	0	ND	61,760	19,695	176	41,889	72,816	0.425
1989	821	7,498	0	ND	ND	22	0	ND	36,370	9,691	88	26,591	44,711	0.405
1990	963	2,843	373	91	ND	13	ND	ND	34,200	6,897	69	27,234	38,483	0.292
1991	1,023	3,361	145	130	ND	288	ND	ND	38,940	7,903	16	31,021	43,887	0.293
1992	1,269	7,363	326	50	ND	402	0	ND	42,290	7,556	234	34,500	51,700	0.333
1993	1,700	9,672	451	81	ND	27	0	ND	50,210	17,775	478	31,957	62,142	0.486
1994	1,121	10,700	276	9	1	392	ND	ND	47,440	17,837	572	29,031	59,939	0.516
1995	1,241	8,291	314	25	3	ND	712	ND	44,770	12,609	472	31,689	55,355	0.428
1996	1,223	7,944	219	31	1	ND	295	ND	42,790	8,112	337	34,341	52,503	0.346
1997	1,759	7,780	293	30	20	ND	364	ND	41,120	12,755	570	27,795	51,367	0.459
1998	1,070	3,495	199	35	2	ND	254	ND	47,110	7,515	595	39,000	52,165	0.252
1999	602	6,501	345	59	4	ND	488	1,170	43,670	12,425	682	30,563	52,839	0.422
2000	631	2,531	162	27	6	ND	410	831	47,440	14,391	499	32,550	52,038	0.374
2001	552	4,128	371	80	8	ND	638	1,336	53,610	15,144	825	37,641	60,724	0.380
2002	256	6,511	249	15	6	ND	606	1,929	56,800	10,678	665	45,457	66,372	0.315
2003	120	10,174	744	53	11	ND	1,016	823	85,110	16,120	1,803	67,187	98,052	0.315
2004	996	14,897	916	218	10	ND	792	2,386	79,690	14,988	1,019	63,683	99,905	0.363
2005	624	15,183 ⁱ	1,103	639	11	ND	997	2,287	77,440	15,927	1,267	60,246	98,284	0.387
2006	563	6,840 ⁱ	631	61	11	ND	1,034	3,322	62,270	12,490	830	48,950	74,732	0.345
2007	478	8,445 ⁱ	547	38	6	0	1,509	1,750	47,370	9,690	670	37,010	60,143	0.385
2008	310	5,203 ⁱ	392	23	15	0	1,362	1,011	42,840	10,128	370	32,342	51,156	0.368
2009	154	3,839	515	64	4	0	1,189	1,132	29,940	7,904	626	21,410	36,837	0.419
2010	335	4,567	323	32	21	0	865	445	23,250	6,762	264	16,224	29,839	0.456
2011	528	5,596	356	88	5	0	1,243	458	27,090	6,894	479	19,717	35,363	0.442
2012	30	484	115	41	0	0	40	2	27,910	101	95	27,714	28,622	0.032
Average 1986–2002	955	7,389	523	51	6	191	308	1,317	47,930	11,997	395	35,538	57,451	0.379
Average 2003–2012	414	7,523	564	126	9	0	1,005	1,362	50,291	10,100	742	39,448	61,293	0.351
Average 1986–2012	754	7,438	538	83	8	95	611	1,349	48,804	11,295	524	36,986	58,874	0.368

Source: Statewide Harvest Surveys 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.

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.

^c Eastside setnet and drift gillnet personal use data using genetic stock allocation from Fleischman and McKinley 2013, FMS 13-02.

^d Total includes fish harvested from Coho, 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 sonar estimate estimated using a run reconstruction model from Fleischman and McKinley 2013, FMS 13-02.

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

Table 259-6.—Percentage of Kenai River guides who guided single trips or multiple trips during the same day in May, June, and July, 2006–2012.

Year	Single Trip ^a	Multiple Trips
2006	83%	17%
2007	83%	17%
2008	83%	17%
2009	85%	15%
2010	86%	14%
2011	85%	15%
2012	91%	9%
Mean	85%	15%

^a A trip is defined as being completed when fish and/or clients are offloaded from a vessel. If no vessel is used, the trip ends when the guide leaves the fishing site.

Table 259-7.—Number of resident and nonresident clients fishing from guided vessels on the Kenai River, 2006–2012.

Year	May				June				July			
	Number of Resident Clients		Number of Nonresident Clients		Number of Resident Clients		Number of Nonresident Clients		Number of Resident Clients		Number of Nonresident Clients	
	Clients	%	Clients	%	Clients	%	Clients	%	Clients	%	Clients	%
2006	132	24%	419	76%	1,342	14%	8,086	86%	2,636	11%	21,041	89%
2007	122	22%	432	78%	1,221	14%	7,641	86%	2,923	13%	19,756	87%
2008	73	16%	382	84%	1,258	15%	7,006	85%	2,729	13%	18,610	87%
2009	126	30%	288	70%	1,172	20%	4,781	80%	2,568	16%	13,580	84%
2010	154	38%	254	62%	676	14%	4,120	86%	2,391	15%	13,215	85%
2011	95	26%	271	74%	845	16%	4,446	84%	1,984	13%	13,287	87%
2012	84	22%	299	78%	573	15%	3,253	85%	1,024	9%	10,222	91%
Mean	112	25%	335	75%	1,012	15%	5,619	85%	2,322	13%	15,673	87%

Source: ADF&G Freshwater Sport Fish Guide Logbook.

PROPOSAL 260 – 5 AAC 57.140. Kenai River guiding and guided fishing requirements in the Kenai River Drainage Area.

PROPOSED BY: Mel Erickson.

WHAT WOULD THE PROPOSAL DO? This proposal would allow sport fishing guides to operate five days per week on the days of their choice.

WHAT ARE THE CURRENT REGULATIONS? During May, June, and July, sport fishing from a registered guide vessel downstream of Skilak Lake is permitted only from 6:00 a.m. to 6:00 p.m. In addition, downstream of the outlet of Skilak Lake, a person may not sport fish from a registered guide vessel on any Sunday from May 1 through July 31.

On any Monday in May through July, except for Memorial Day, a person may not fish from a boat in the portion of the Kenai River from the outlet of Skilak Lake to the mouth of the river, except that unguided sport fishing from a nonmotorized vessel is allowed on Mondays in May through July.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would increase the number of days sport fishing from a guide vessel would be allowed from five days to seven days each week. The catch and harvest of king salmon by guided anglers would likely increase by an unknown amount. A program to monitor the number of days individual guides use each week would need to be created to enforce this regulation.

BACKGROUND: The Alaska Board of Fisheries (board) has adopted management plans structured to constrain the harvest of both early-run and late-run king salmon stocks to sustainable levels while still providing for fishing opportunity. The management guidelines that the board has adopted through the years have closed specific areas of the river to all fishing, restricted certain areas of the river to shore fishing only, and imposed time and date closures for all guided and unguided boat anglers. In addition, the board has addressed the harvest disparity between guided and unguided anglers within the Kenai River king salmon sport fishery by reducing the number of hours and days guided anglers may fish, limiting the number of clients allowed to fish from a guided vessel, and prohibiting guides from fishing while clients are present/fishing.

Since 1985, during June and July, sport fishing from registered guide vessels has been permitted only from 6:00 a.m. to 6:00 p.m. (except for the years 1986–1988 when, during July, the time was 7:00 a.m. to 7:00 p.m.). In 2000, the daily time restrictions were extended to include the month of May. Guided anglers are also restricted from fishing on the Kenai River downstream of Skilak Lake from a registered guide vessel on Sundays or Mondays in May through July (except Memorial Day). These regulations are intended to restrict harvest of king salmon by reducing guided angling effort, provide unguided anglers with hours free of competition with guided anglers, and reduce angler congestion on the Kenai River.

Guided effort, catch, and harvest by anglers fishing from guided vessels in the early-run Kenai River king salmon fishery has exceeded that of unguided anglers from 1996–2013 (Table 260-1),

whereas unguided effort, catch, and harvest by anglers fishing in the late-run Kenai River king salmon fishery has exceeded that of guided anglers every year since 1981, except four years (1998, 2008, 2012, and 2013; Table 260-2). The king salmon catch rate (number of fish caught/hours fished) is greater for guided than for unguided anglers (Table 260-3). Historically, harvest rates for both early and late runs have been relatively stable and have averaged less than 0.40 since 1986 (tables 260-4 and 260-5). Since 2009, the numbers of fish in the early and late runs have been well below average (tables 260-4 and 260-5).

Currently, guided vessels have the opportunity to conduct two daily six-hour trips during the five days that are open to guided king salmon fishing. However, since 2006, freshwater guide logbook data indicate an average of 85% of Kenai River guides conduct only single trips during the months of May, June, and July (Table 260-6). Nonresident anglers are the primary clientele of Kenai River guides in May, June, and July (Table 260-7).

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 260-1.—Effort, catch, and harvest of early-run king salmon as estimated from a creel survey of anglers on the Kenai River from the mouth upstream to the Soldotna Bridge from May 16 through June 30, 1981–2013.

Year	Unguided			Guided		
	Effort	Catch	Harvest	Effort	Catch	Harvest
1981	47,913	ND	1,618	19,857	ND	1,846
1982	76,329	ND	2,144	22,799	ND	1,797
1983	64,651	ND	1,729	43,823	ND	3,526
1984	89,549	ND	1,695	40,610	ND	2,211
1985	87,199	ND	2,591	50,339	ND	4,181
1986	100,371	ND	2,958	41,724	ND	3,379
1987	122,876	ND	5,806	48,078	ND	5,418
1988	134,807	ND	5,601	66,636	ND	6,348
1989	104,702	ND	1,833	93,927	ND	4,878
1990	33,807	ND	153	38,992	ND	570
1991	24,320	ND	298	23,279	ND	593
1992	28,217	ND	653	26,113	ND	712
1993	76,500	ND	2,784	46,773	ND	4,062
1994	72,433	2,259	1,524	61,766	4,140	3,198
1995	90,073	4,679	3,009	75,917	6,681	4,724
1996	58,551	1,461	981	71,629	4,091	3,185
1997	37,792	1,991	1,282	64,451	4,791	3,660
1998	17,506	736	157	38,631	1,133	491
1999	40,816	1,634	993	69,972	5,562	4,541
2000	27,371	562	289	54,248	1,747	860
2001	24,215	257	148	45,988	1,580	1,280
2002	5,232	125	91	9,780	294	285
2003	23,840	973	628	35,218	1,840	1,320
2004	30,523	1,168	773	34,768	2,633	1,512
2005	32,492	1,176	651	47,000	3,254	2,226
2006	27,985	1,419	833	44,786	3,104	2,564
2007	25,460	917	710	44,796	3,027	1,934
2008	28,838	1,408	900	43,736	2,145	1,702
2009	23,703	388	334	29,336	670	564
2010	16,345	286	193	23,394	918	645
2011	16,255	309	155	28,108	782	661
2012	7,205	124	86	13,476	348	227
2013	1,196	15	0	1,948	25	0
2003–2013						
Average	21,258	744	478	31,506	1,704	1,214
Percentage	40%	30%	28%	60%	70%	72%
1981–2002						
Average	62,056	1,523	1,743	47,970	3,335	2,807
Percentage	56%	31%	38%	44%	69%	62%

ND = No Data

Table 260-2.—Effort, catch, and harvest of late-run king salmon as estimated from a creel survey of anglers on the Kenai River from the mouth upstream to the Soldotna Bridge from July 1 through July 31, 1981–2013.

Year	Unguided			Guided		
	Effort	Catch	Harvest	Effort	Catch	Harvest
1981	66,309	ND	1,988	30,351	ND	2,162
1982	92,931	ND	2,083	34,897	ND	2,257
1983	110,172	ND	3,405	54,756	ND	4,919
1984	208,309	ND	3,888	42,062	ND	2,614
1985	171,109	ND	4,395	40,398	ND	2,705
1986	159,943	ND	4,855	47,379	ND	3,198
1987	193,630	ND	5,573	69,622	ND	5,194
1988	235,043	ND	8,042	88,331	ND	8,393
1989	186,382	ND	3,281	86,507	ND	4,727
1990	161,071	ND	2,269	85,477	ND	3,544
1991	147,293	ND	2,985	82,706	ND	3,864
1992	112,091	ND	2,504	75,324	ND	4,176
1993	201,695	ND	7,413	92,213	ND	7,866
1994	244,729	10,502	7,760	110,049	8,037	6,628
1995	200,397	7,126	4,914	123,585	6,773	5,211
1996	128,438	2,631	2,131	110,057	4,352	3,853
1997	137,226	5,740	4,480	126,416	6,796	5,856
1998	89,854	10,502	2,406	98,872	8,037	3,575
1999	134,264	6,613	4,422	118,196	10,584	7,605
2000	134,020	6,907	5,480	114,362	8,228	6,585
2001	127,395	8,458	5,496	109,238	11,294	8,240
2002	100,808	7,282	4,917	90,868	9,584	6,436
2003	115,688	12,652	6,200	91,768	16,117	7,637
2004	127,725	8,185	5,003	110,690	14,329	9,491
2005	125,235	12,248	6,893	105,550	13,416	8,420
2006	140,490	9,516	5,895	117,210	10,272	7,295
2007	112,575	5,273	2,853	106,644	8,135	6,405
2008	98,903	4,437	3,525	99,597	6,491	5,748
2009	99,938	4,786	3,124	77,238	5,566	4,254
2010	88,995	3,141	2,748	69,194	2,898	2,627
2011	81,005	5,000	3,080	67,208	4,581	3,378
2012	11,520	553	44	20,834	697	59
2013	21,730	689	334	38,180	1,855	1,243
2003–2013						
Average	93,073	6,044	3,609	82,192	7,669	5,142
Percentage	53%	44%	41%	47%	56%	59%
1981–2002						
Average	151,960	7,307	4,304	83,258	8,187	4,982
Percentage	65%	47%	46%	35%	53%	54%

ND = No Data

Table 260-3.—Average number of hours for an angler to catch a king salmon on the Kenai River based on a creel survey from the mouth upstream to the Soldotna Bridge, 2003–2013.

Average hours to catch a king salmon				
Year	Early Run		Late Run	
	Unguided	Guided	Unguided	Guided
1994	32.1	14.9	23.3	13.7
1995	19.3	11.4	28.1	18.2
1996	40.1	17.5	48.8	25.3
1997	19.0	13.5	23.9	18.6
1998	23.8	34.1	8.6	12.3
1999	25.0	12.6	20.3	11.2
2000	48.7	31.1	19.4	13.9
2001	94.2	29.1	15.1	9.7
2002	41.9	33.3	13.8	9.5
2003	24.5	19.1	9.1	5.7
2004	26.1	13.2	15.6	7.7
2005	27.6	14.4	10.2	7.9
2006	19.7	14.4	14.8	11.4
2007	27.8	14.8	21.3	13.1
2008	20.5	20.4	22.3	15.3
2009	61.1	43.8	20.9	13.9
2010	57.2	25.5	28.3	23.9
2011	52.6	35.9	16.2	14.7
2012	58.1	38.7	20.8	29.9
2013	79.7	77.9	31.5	20.6
Mean	39.9	25.8	20.6	14.8

Table 260-4.–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
<u>Average</u>									
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 260-5.—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	ND	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	0 ⁹⁹⁷	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
<u>Average</u>														
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, Salmatof, 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.

Table 260-6.—Percentage of Kenai River guides who guided single trips or multiple trips during the same day in May, June, and July, 2006–2012.

Year	Single Trip ^a	Multiple Trips
2006	83%	17%
2007	83%	17%
2008	83%	17%
2009	85%	15%
2010	86%	14%
2011	85%	15%
2012	91%	9%
Mean	85%	15%

^a A trip is defined as being completed when fish and/or clients are offloaded from a vessel. If no vessel is used, the trip ends when the guide leaves the fishing site.

Table 260-7.—Number of resident and nonresident clients fishing from guided vessels on the Kenai River, 2006–2012.

Year	May				June				July			
	Number of Resident Clients		Number of Nonresident Clients		Number of Resident Clients		Number of Nonresident Clients		Number of Resident Clients		Number of Nonresident Clients	
	Clients	%	Clients	%	Clients	%	Clients	%	Clients	%	Clients	%
2006	132	24%	419	76%	1,342	14%	8,086	86%	2,636	11%	21,041	89%
2007	122	22%	432	78%	1,221	14%	7,641	86%	2,923	13%	19,756	87%
2008	73	16%	382	84%	1,258	15%	7,006	85%	2,729	13%	18,610	87%
2009	126	30%	288	70%	1,172	20%	4,781	80%	2,568	16%	13,580	84%
2010	154	38%	254	62%	676	14%	4,120	86%	2,391	15%	13,215	85%
2011	95	26%	271	74%	845	16%	4,446	84%	1,984	13%	13,287	87%
2012	84	22%	299	78%	573	15%	3,253	85%	1,024	9%	10,222	91%
Mean	112	25%	335	75%	1,012	15%	5,619	85%	2,322	13%	15,673	87%

Source: ADF&G Freshwater Sport Fish Guide Logbook.

PROPOSAL 261 – 5 AAC 57.140. Kenai River guiding and guided fishing requirements in the Kenai River Drainage Area.

PROPOSED BY: Mel Erickson.

WHAT WOULD THE PROPOSAL DO? This proposal would allow registered guide vessels to carry six persons, including the sport fishing guide, clients, and other passengers, during July on the Kenai River as long as at least one passenger is 18 years of age or younger.

WHAT ARE THE CURRENT REGULATIONS? During July, a vessel used for guided sport fishing on the Kenai River may not carry more than five persons, including the fishing guide, clients, and other passengers.

Alaska Department of Natural Resources (DNR) regulations prohibit a person from operating a motor-powered boat on waters of the Kenai River Special Management Area, except for Kenai and Skilak lakes, with more than six persons on board, including the operator, unless authorized by the director under a permit issued under 11 AAC 18. This regulation is not specific to sport fishing guides.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? An additional person fishing for king salmon could increase the total guided fishing effort for king salmon in July up to 20%. Such an increase in effort would also likely increase the total guided harvest of Kenai River king salmon during July by an unknown amount.

BACKGROUND: Since 1985, during June and July, sport fishing from registered guide vessels has been permitted only from 6:00 a.m. to 6:00 p.m. (except for the years 1986–1988 when during July the time was 7:00 a.m. to 7:00 p.m.). In 2000, the daily time restrictions were extended to include the month of May. Guided anglers are also restricted from fishing on the Kenai River, downstream of Skilak Lake, from a registered guide vessel on Sundays or Mondays in May through July (except Memorial Day). Regulations were adopted by the Alaska Board of Fisheries (board) in 2000 limiting the total number of occupants in guide vessels registered with DNR to no more than five persons, including the guide, clients, and other passengers during the month of July. These regulations created more parity between guided and unguided anglers. They restricted guided effort and guided harvest of king salmon, provided unguided anglers with hours free of competition with guided anglers, and reduced angler congestion on the Kenai River.

Guided effort, catch, and harvest by anglers fishing in guided vessels in the early-run Kenai River king salmon fishery has exceeded that of unguided anglers from 1996–2013 (Table 261-1), whereas unguided effort, catch, and harvest by anglers fishing in the late-run Kenai River king salmon fishery has exceeded that of guided anglers every year since 1981, except four years (1998, 2008, 2012, and 2013; Table 261-2). The king salmon catch rate (number of fish caught/hours fished) is greater for guided than for unguided anglers (Table 261-3). Historically, exploitation rates for both early and late runs have been relatively stable and have averaged less than 0.40 since 1986 (tables 261-4 and 261-5). Since 2009, the numbers of fish in the early and late runs have been well below average (tables 261-4 and 261-5).

Currently, guided vessels have the opportunity to conduct two daily six-hour trips during the five days that are open to guided king salmon fishing. However, since 2006, freshwater guide logbook data indicate an average of 85% of Kenai River guides conduct only single trips during the months of May, June, and July (Table 261-6). Nonresident anglers are the primary clientele of Kenai River guides in May, June, and July (Table 261-6).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. If this proposal were to result in substantial increases in exploitation of Kenai River king salmon, it may result in more frequent inseason management actions restricting the recreational 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 261-1.—Effort, catch, and harvest of early-run king salmon as estimated from a creel survey of anglers on the Kenai River from the mouth upstream to the Soldotna Bridge from May 16 through June 30, 1981–2013.

Year	Unguided			Guided		
	Effort	Catch	Harvest	Effort	Catch	Harvest
1981	47,913	ND	1,618	19,857	ND	1,846
1982	76,329	ND	2,144	22,799	ND	1,797
1983	64,651	ND	1,729	43,823	ND	3,526
1984	89,549	ND	1,695	40,610	ND	2,211
1985	87,199	ND	2,591	50,339	ND	4,181
1986	100,371	ND	2,958	41,724	ND	3,379
1987	122,876	ND	5,806	48,078	ND	5,418
1988	134,807	ND	5,601	66,636	ND	6,348
1989	104,702	ND	1,833	93,927	ND	4,878
1990	33,807	ND	153	38,992	ND	570
1991	24,320	ND	298	23,279	ND	593
1992	28,217	ND	653	26,113	ND	712
1993	76,500	ND	2,784	46,773	ND	4,062
1994	72,433	2,259	1,524	61,766	4,140	3,198
1995	90,073	4,679	3,009	75,917	6,681	4,724
1996	58,551	1,461	981	71,629	4,091	3,185
1997	37,792	1,991	1,282	64,451	4,791	3,660
1998	17,506	736	157	38,631	1,133	491
1999	40,816	1,634	993	69,972	5,562	4,541
2000	27,371	562	289	54,248	1,747	860
2001	24,215	257	148	45,988	1,580	1,280
2002	5,232	125	91	9,780	294	285
2003	23,840	973	628	35,218	1,840	1,320
2004	30,523	1,168	773	34,768	2,633	1,512
2005	32,492	1,176	651	47,000	3,254	2,226
2006	27,985	1,419	833	44,786	3,104	2,564
2007	25,460	917	710	44,796	3,027	1,934
2008	28,838	1,408	900	43,736	2,145	1,702
2009	23,703	388	334	29,336	670	564
2010	16,345	286	193	23,394	918	645
2011	16,255	309	155	28,108	782	661
2012	7,205	124	86	13,476	348	227
2013	1,196	15	0	1,948	25	0
2003–2013						
Average	21,258	744	478	31,506	1,704	1,214
Percentage	40%	30%	28%	60%	70%	72%
1981–2002						
Average	62,056	1,523	1,743	47,970	3,335	2,807
Percentage	56%	31%	38%	44%	69%	62%

ND = No Data

Table 261-2.—Effort, catch, and harvest of late-run king salmon as estimated from a creel survey of anglers on the Kenai River from the mouth upstream to the Soldotna Bridge from July 1 through July 31, 1981–2013.

Year	Unguided			Guided		
	Effort	Catch	Harvest	Effort	Catch	Harvest
1981	66,309	ND	1,988	30,351	ND	2,162
1982	92,931	ND	2,083	34,897	ND	2,257
1983	110,172	ND	3,405	54,756	ND	4,919
1984	208,309	ND	3,888	42,062	ND	2,614
1985	171,109	ND	4,395	40,398	ND	2,705
1986	159,943	ND	4,855	47,379	ND	3,198
1987	193,630	ND	5,573	69,622	ND	5,194
1988	235,043	ND	8,042	88,331	ND	8,393
1989	186,382	ND	3,281	86,507	ND	4,727
1990	161,071	ND	2,269	85,477	ND	3,544
1991	147,293	ND	2,985	82,706	ND	3,864
1992	112,091	ND	2,504	75,324	ND	4,176
1993	201,695	ND	7,413	92,213	ND	7,866
1994	244,729	10,502	7,760	110,049	8,037	6,628
1995	200,397	7,126	4,914	123,585	6,773	5,211
1996	128,438	2,631	2,131	110,057	4,352	3,853
1997	137,226	5,740	4,480	126,416	6,796	5,856
1998	89,854	10,502	2,406	98,872	8,037	3,575
1999	134,264	6,613	4,422	118,196	10,584	7,605
2000	134,020	6,907	5,480	114,362	8,228	6,585
2001	127,395	8,458	5,496	109,238	11,294	8,240
2002	100,808	7,282	4,917	90,868	9,584	6,436
2003	115,688	12,652	6,200	91,768	16,117	7,637
2004	127,725	8,185	5,003	110,690	14,329	9,491
2005	125,235	12,248	6,893	105,550	13,416	8,420
2006	140,490	9,516	5,895	117,210	10,272	7,295
2007	112,575	5,273	2,853	106,644	8,135	6,405
2008	98,903	4,437	3,525	99,597	6,491	5,748
2009	99,938	4,786	3,124	77,238	5,566	4,254
2010	88,995	3,141	2,748	69,194	2,898	2,627
2011	81,005	5,000	3,080	67,208	4,581	3,378
2012	11,520	553	44	20,834	697	59
2013	21,730	689	334	38,180	1,855	1,243
2003–2013						
Average	93,073	6,044	3,609	82,192	7,669	5,142
Percentage	53%	44%	41%	47%	56%	59%
1981–2002						
Average	151,960	7,307	4,304	83,258	8,187	4,982
Percentage	65%	47%	46%	35%	53%	54%

ND = No Data

Table 261-3.—Average number of hours for an angler to catch a king salmon on the Kenai River based on a creel survey from the mouth upstream to the Soldotna Bridge, 2003–2013.

Average hours to catch a king salmon				
Year	Early Run		Late Run	
	Unguided	Guided	Unguided	Guided
1994	32.1	14.9	23.3	13.7
1995	19.3	11.4	28.1	18.2
1996	40.1	17.5	48.8	25.3
1997	19.0	13.5	23.9	18.6
1998	23.8	34.1	8.6	12.3
1999	25.0	12.6	20.3	11.2
2000	48.7	31.1	19.4	13.9
2001	94.2	29.1	15.1	9.7
2002	41.9	33.3	13.8	9.5
2003	24.5	19.1	9.1	5.7
2004	26.1	13.2	15.6	7.7
2005	27.6	14.4	10.2	7.9
2006	19.7	14.4	14.8	11.4
2007	27.8	14.8	21.3	13.1
2008	20.5	20.4	22.3	15.3
2009	61.1	43.8	20.9	13.9
2010	57.2	25.5	28.3	23.9
2011	52.6	35.9	16.2	14.7
2012	58.1	38.7	20.8	29.9
2013	79.7	77.9	31.5	20.6
Mean	39.9	25.8	20.6	14.8

Table 261-4.–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
<u>Average</u>									
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 261-5.—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	ND	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	0 ⁹⁹⁷	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
<u>Average</u>														
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, Salmatof, 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 Kaslof River terminal fishery which occurred 2005–2008.

^j 2013 estimates are preliminary until biometrically reviewed and published.

Table 261-6.—Number of resident and nonresident clients fishing from guided vessels on the Kenai River, 2006–2012.

Year	May				June				July			
	Number of Resident Clients		Number of Nonresident Clients		Number of Resident Clients		Number of Nonresident Clients		Number of Resident Clients		Number of Nonresident Clients	
	Clients	%	Clients	%	Clients	%	Clients	%	Clients	%	Clients	%
2006	132	24%	419	76%	1,342	14%	8,086	86%	2,636	11%	21,041	89%
2007	122	22%	432	78%	1,221	14%	7,641	86%	2,923	13%	19,756	87%
2008	73	16%	382	84%	1,258	15%	7,006	85%	2,729	13%	18,610	87%
2009	126	30%	288	70%	1,172	20%	4,781	80%	2,568	16%	13,580	84%
2010	154	38%	254	62%	676	14%	4,120	86%	2,391	15%	13,215	85%
2011	95	26%	271	74%	845	16%	4,446	84%	1,984	13%	13,287	87%
2012	84	22%	299	78%	573	15%	3,253	85%	1,024	9%	10,222	91%
Mean	112	25%	335	75%	1,012	15%	5,619	85%	2,322	13%	15,673	87%

Source: ADF&G Freshwater Sport Fish Guide Logbook.

PROPOSAL 262 – 5 AAC 57.140. Kenai River guiding and guided fishing requirements in the Kenai River Drainage Area.

PROPOSED BY: Robin Collman.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit sport fishing from a registered guide vessel downstream from the outlet of Kenai Lake on Sundays and Mondays (except Memorial Day) in May, June, and July.

WHAT ARE THE CURRENT REGULATIONS? Fishing from a registered guide vessel is prohibited in the Kenai River, downstream of Skilak Lake, Sundays and Mondays during May, June, and July. The Upper Kenai River between Kenai and Skilak lakes is open to fishing from a registered guide vessel seven days per week, June 11 through May 1 annually.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The number of boat-based guided anglers would likely decrease and the number of shore-based guided anglers would likely increase on Sundays and Mondays. Guided vessels would still be present, and would still be allowed to launch, drift downstream, land their boat, and allow clients to fish from shore. Effort by guided anglers who prefer to fish from a vessel would decline. The effect of this proposal during May would be negligible because only May 1 is open to sport fishing in May; the rest of the month is closed to fishing in the Upper Kenai River section between Kenai and Skilak lakes.

BACKGROUND: The Upper Kenai River is closed to fishing from May 2 to June 10. Overall, total sport fishing effort in this reach has increased over the years (Table 262-1). Freshwater guide logbook data indicate the number of guided fishing trips and guided anglers in this stretch during June and July has remained relatively stable from 2006 to 2012 (Table 262-2), while unguided fishing effort, based on the Statewide Harvest Survey, has increased (Table 262-3).

Alaska Department of Natural Resources (DNR) regulations prohibit operating a boat by use of a motor year-round on the Kenai River, from Skilak Lake Inlet upstream to river mile 80.7. In waters flowing through the Kenai National Wildlife Refuge (KNWR), from the Russian-Kenai river confluence near Sportsman's Landing, downstream to the waters of Skilak Lake, the number of commercial businesses and sport fishing guides is managed under a limited vendor program by the U.S. Fish and Wildlife Service (USFWS). This program has been in place since 1987 and limits the number of commercial businesses that may offer fishing guide services to 18 businesses per year, of which each business may have two sport fishing guides. In addition, the federal vendor program in this area provides for additional guided fishing opportunity by allowing all other Kenai River fishing guides registered through DNR, three starts per year to guide fishing trips on this section of the Kenai River. USFWS require operators to complete annual reports of commercial use activities on federal lands.

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 262-1.—Angler-days of sport fishing effort for the Kenai River by river section, 1977–2011.

Year	Cook Inlet to Soldotna Bridge	Soldotna Bridge to Moose River	Moose River to Skilak Outlet	Skilak Inlet to Kenai Lake	Kenai River Reach Not Specified ^a	Kenai River Total
1977	ND	ND	ND	ND	ND	122,138
1978	ND	ND	ND	ND	ND	164,264
1979	ND	ND	ND	ND	ND	178,485
1980	ND	ND	ND	ND	ND	171,803
1981	91,763	35,877	33,701	17,375	ND	178,716
1982	119,164	49,372	39,170	24,242	ND	231,948
1983	109,067	52,266	41,442	26,453	ND	229,228
1984	150,824	42,644	40,976	35,978	ND	270,422
1985	163,690	66,100	55,904	36,536	815	323,045
1986	181,035	63,876	51,171	38,969	ND	335,051
1987	141,203	66,807	41,128	40,027	ND	289,165
1988	203,728	79,727	55,334	35,470	371	374,630
1989	198,697	93,508	53,135	31,562	990	377,892
1990	169,818	82,331	43,401	47,112	49	342,711
1991	151,592	82,552	45,067	44,157	294	323,662
1992	150,249	81,378	49,774	51,172	ND	332,573
1993	162,171	70,353	38,583	53,013	235	324,355
1994	170,944	71,440	39,222	59,298	ND	340,904
1995	206,127	81,280	43,432	46,871	ND	377,710
1996	131,751	61,059	32,465	40,711	ND	265,986
1997	120,873	58,618	32,645	35,762	ND	247,898
1998	95,378	56,342	36,218	28,712	ND	216,650
1999	157,493	69,331	41,573	39,049	ND	307,446
2000	178,460	92,056	41,911	46,142	ND	358,569
2001	153,356	75,249	34,918	35,294	ND	298,817
2002	142,492	78,165	33,228	52,937	5,993	312,815
2003	143,144	90,072	35,804	40,815	11,209	321,044
2004	166,202	100,180	51,188	49,814	8,929	376,313
2005	168,570	111,806	40,903	51,892	15,506	388,677
2006	151,623	91,912	35,667	40,624	9,296	329,122
2007	164,411	110,099	60,820	67,164	7,887	410,381
2008	161,607	90,811	47,204	50,655	10,067	360,344
2009	132,059	87,360	48,661	60,319	8,818	337,217
2010	133,856	105,095	53,375	43,344	12,268	347,938
2011	159,254	107,121	53,315	43,750	2,423	365,863
2012	147,721	127,598	54,024	43,222	2,167	374,732
Mean	152,448	79,137	43,917	42,451	5,725	303,014

Source: Statewide Harvest Surveys from Mills 1979–1994; Howe et al. 1995, 1996, 2001a-d; Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b; G. B. Jennings, Sport Fish Program Coordinator, ADF&G, Anchorage, personal

Note: ND = no data collected.

^a Prior to 2002, this data was listed under the "Other Streams" category, and only separated out in the detail SWHS data.

Table 262-2.—Number of guided fishing trips and guided anglers on the Kenai River from Kenai Lake to Skilak Lake in May, June, and July, 2006–2012.

		Number of			Total
May		Trips	Resident	Nonresident	Anglers
2006	Kenai Lk. to Skilak Lk.	1	0	4	4
2007	Kenai Lk. to Skilak Lk.	0	0	0	0
2008	Kenai Lk. to Skilak Lk.	6	1	9	10
2009	Kenai Lk. to Skilak Lk.	0	0	0	0
2010	Kenai Lk. to Skilak Lk.	0	0	0	0
2011	Kenai Lk. to Skilak Lk.	1	0	2	2
2012	Kenai Lk. to Skilak Lk.	0	0	0	0

		Number of			Total
June		Trips	Resident	Nonresident	Anglers
2006	Kenai Lk. to Skilak Lk.	336	101	901	1,002
2007	Kenai Lk. to Skilak Lk.	370	96	1,031	1,127
2008	Kenai Lk. to Skilak Lk.	410	116	1,126	1,242
2009	Kenai Lk. to Skilak Lk.	457	205	1,175	1,380
2010	Kenai Lk. to Skilak Lk.	404	147	1,017	1,164
2011	Kenai Lk. to Skilak Lk.	399	149	1,048	1,197
2012	Kenai Lk. to Skilak Lk.	490	142	1,343	1,485

		Number of			Total
July		Trips	Resident	Nonresident	Anglers
2006	Kenai Lk. to Skilak Lk.	640	146	1,885	2,031
2007	Kenai Lk. to Skilak Lk.	601	137	1,751	1,888
2008	Kenai Lk. to Skilak Lk.	694	182	2,016	2,198
2009	Kenai Lk. to Skilak Lk.	698	235	1,846	2,081
2010	Kenai Lk. to Skilak Lk.	688	227	1,864	2,091
2011	Kenai Lk. to Skilak Lk.	612	202	1,690	1,892
2012	Kenai Lk. to Skilak Lk.	731	206	2,035	2,241

Source: ADF&G Freshwater Sport Fish Guide Logbook.

Table 262-3.–Kenai River guided and unguided effort (angler days) by river section, 1984–2012.

Year	Cook Inlet to Soldotna		Soldotna Bridge to		Moose River to Skilak		Skilak Inlet to Kenai Lake		Kenai River Reach Not		Kenai River Total	
	Bridge		Moose River		Outlet				Specified ^a			
	Guided Effort	Unguided Effort	Guided Effort	Unguided Effort	Guided Effort	Unguided Effort	Guided Effort	Unguided Effort	Guided Effort	Unguided Effort	Guided Effort	Unguided Effort
1984	15,662	135,162	2,442	40,202	1,209	39,767	2,317	33,661	ND	ND	21,630	248,792
1985	19,126	144,564	5,185	60,915	2,514	53,390	798	35,738	ND	ND	27,623	294,607
1986	23,956	157,079	5,443	58,433	2,202	48,969	3,126	35,843	ND	ND	34,727	300,324
1987	15,357	125,848	8,638	58,169	1,939	39,190	1,724	38,303	ND	ND	27,658	261,510
1988	22,028	181,700	7,767	71,960	1,673	53,661	4,256	31,214	ND	ND	35,724	338,535
1989	26,990	171,707	9,566	83,942	2,354	50,781	3,511	28,051	ND	ND	42,421	334,481
1990	18,336	151,482	9,268	73,063	2,963	40,438	4,100	43,012	ND	ND	34,667	307,995
1991	25,525	126,067	11,234	71,318	4,977	40,090	4,622	39,535	ND	ND	46,358	277,010
1992	28,733	121,516	11,987	69,481	6,455	43,319	5,570	45,602	ND	ND	52,745	279,918
1993	38,099	124,072	12,874	57,479	4,391	34,192	7,436	45,577	ND	ND	62,800	261,320
1994	38,331	132,613	14,542	56,898	5,883	33,339	6,696	52,602	ND	ND	65,452	275,452
1995	57,490	148,637	16,162	65,118	5,871	37,561	6,691	40,180	ND	ND	86,214	291,496
1996	34,108	97,643	13,495	47,564	3,624	28,841	5,216	35,495	ND	ND	56,443	209,543
1997	30,759	90,114	11,420	47,198	3,938	28,707	4,331	31,431	ND	ND	50,448	197,450
1998	21,208	74,170	11,058	45,284	4,205	32,013	3,846	24,866	ND	ND	40,317	176,333
1999	26,259	131,234	10,246	59,085	2,308	39,265	4,327	34,722	ND	ND	43,140	264,306
2000	30,383	148,077	11,706	80,350	2,501	39,410	4,234	41,908	ND	ND	48,824	309,745
2001	25,985	127,371	10,002	65,247	3,468	31,450	5,475	29,819	ND	ND	44,930	253,887
2002	20,582	121,910	7,561	70,604	3,630	29,598	6,684	46,253	743	5,220	39,200	273,585
2003	23,267	119,877	10,589	79,483	3,056	32,748	4,589	36,226	1,981	8,931	43,482	277,265
2004	25,829	140,373	12,090	88,090	3,616	47,572	5,733	44,081	2,182	5,804	49,450	325,920
2005	28,539	140,031	11,063	100,743	6,423	34,480	6,656	45,236	3,074	11,730	55,755	332,220
2006	28,777	122,846	11,500	80,412	4,777	30,890	6,584	34,040	3,191	5,142	54,829	273,330
2007	29,851	134,560	11,492	98,607	4,814	56,006	10,120	57,044	1,702	6,123	57,979	352,340
2008	28,511	133,096	8,861	81,950	4,193	43,011	8,053	42,602	1,694	8,373	51,312	309,032
2009	21,769	110,290	7,626	79,734	6,237	42,424	7,632	52,687	1,297	7,521	44,561	292,656
2010	23,371	110,485	9,820	95,275	6,424	46,951	8,650	34,694	1,154	11,114	49,419	298,519
2011	28,220	131,034	12,065	95,056	5,168	48,147	8,333	35,417	67	2,356	53,853	312,010
2012	22,417	125,304	16,643	110,955	5,805	48,219	7,962	35,260	873	1,294	53,700	321,032
Average (2003–2012)	26,060	126,790	11,170	91,030	5,050	43,040	7,430	41,730	1,720	6,840	51,430	309,430
Average (1984–2012)	26,880	130,310	10,430	72,160	4,020	40,500	5,490	39,000			47,440	284,500

Source : Statewide Harvest Surveys from Mills 1979–1994; 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.

Catch estimates from 1984–1989 are unpublished estimates from the SWHS data base M.J. Mills, Sport Fish Biometrician, ADF&G, Anchorage; personal communication.

^a SWHS began consistently reporting in 2002.

Note: ND = no data available

PROPOSAL 266 – 5 AAC 56.140. Kasilof River guiding and guided fishing requirements and 5 AAC 57.140. Kenai River guiding and guided fishing requirements in the Kenai River Drainage Area.

PROPOSED BY: Central Peninsula Fish and Game Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit a registered guide who guides on the Kenai River from guiding on the Kasilof River when the Kenai River is closed to guided fishing on Sundays and Mondays.

WHAT ARE THE CURRENT REGULATIONS? During May, June, and July, sport fishing from a registered guide vessel downstream of Skilak Lake is permitted only from 6:00 a.m. to 6:00 p.m. In addition, downstream of the outlet of Skilak Lake, a person may not sport fish from a registered guide vessel on any Sunday from May 1 through July 31.

On any Monday in May through July, except for Memorial Day, a person may not fish from a boat in the portion of the Kenai River from the outlet of Skilak Lake to the mouth of the river, except that unguided sport fishing from a nonmotorized vessel is allowed on Mondays in May through July.

On the Kasilof River downstream of the Sterling Highway Bridge, a person may not sport fish from a registered guide vessel on any Sunday in July.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would reduce the catch, effort and harvest of king salmon by guided anglers on the Kasilof River by an unknown amount. Guided operations affected by this proposal may shift their clients to Kenai River sockeye salmon or trout fisheries, including those in the Kenai River upstream of Skilak Lake where guiding is allowed on Sunday and Monday, the Cook Inlet marine fishery, or Lower Cook Inlet streams. Unguided anglers on the Kasilof River would have additional days of fishing without competition from guided anglers. Enforcement officers would have to spend more time investigating guides operating on the Kasilof River to determine if they also operated on the Kenai River.

BACKGROUND: Guided anglers, on average, account for 72% of the harvest of early-run Kasilof River king salmon based on a creel survey operated from 2004–2010 (Table 266-1). The number of guides that reported fishing on both the Kenai and Kasilof rivers on a Sunday or Monday in the same year during May–July has averaged 91 from 2006–2012 (Table 266-2).

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 266-1.–Early-run Kasilof River king salmon catch, harvest, and effort by guided and unguided anglers as determined by creel survey from 2004–2010.

	Year							Mean
	2004	2005	2006	2007	2008	2009	2010	
Guided								
Number of Anglers	4,328	4,615	5,410	4,625	4,477	3,576	4,794	4,546
Angler-Hours	24,670	32,840	38,065	32,363	31,361	24,459	33,802	31,080
Catch	3,463	3,446	3,330	3,162	2,317	1,711	2,334	2,823
Harvest	1,479	1,768	1,818	1,940	1,504	1,196	1,089	1,542
Unguided								
Number of Anglers	7,688	7,439	10,838	8,290	8,836	7,817	5,706	8,088
Angler-Hours	27,185	27,752	37,193	28,879	30,452	24,452	19,172	27,869
Catch	2,626	2,109	1,440	1,263	868	565	795	1,381
Harvest	929	898	671	713	481	336	244	610
Total harvest	2,408	2,666	2,489	2,653	1,985	1,532	1,333	2,152

Source : Cope 2011 and 2012.

Table 266-2.–Freshwater logbook summaries of the number of registered Kenai River guides, trips, and king salmon harvested on the Kasilof River, 2006–2012.

Year	Number of registered Kenai River Guides ^a	Number of Kenai guides on the Kasilof River on Sunday or Monday in May, June or July ^b	Number of trips by Kenai guides on the Kasilof River on Sunday or Monday in May, June or July ^b	Number of king salmon harvested by clients of Kenai guides on the Kasilof River on Sunday or Monday in May, June or July ^b
2006	395	114	444	366
2007	396	103	428	473
2008	402	91	401	388
2009	339	77	306	349
2010	331	83	318	351
2011	319	87	348	396
2012	296	82	297	106
Mean	354	91	363	347

Source: ADF&G Freshwater Sport Fish Guide Logbook.

^a Kenai Guide means the guide conducted a guided trip on the Kenai River at least once in the year indicated.

^b In the Kasilof River downstream of the Sterling Highway bridge, a person may not sport fish from a registered guide vessel on any Sunday in July.

PROPOSAL 267 – 5 AAC 57.140. Kenai River guiding and guided fishing requirements in the Kenai River Drainage Area.

PROPOSED BY: John McCombs.

WHAT WOULD THE PROPOSAL DO? This proposal would institute a limited entry program for sport fishing guides on the Kenai River by limiting the number of guides to 200.

WHAT ARE THE CURRENT REGULATIONS? There are no regulations that provide for limited entry of sport fishing guides.

All sport fishing guide business owners and sport fishing guides are required to be licensed through the department. All guided fishing trips on both salt and fresh waters are required to be reported in a logbook and submitted to the department.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The availability of guides to take anglers fishing would be reduced by less than 100 guides. Initially, it would reduce congestion on the Kenai River at times when both guided and unguided anglers are allowed to fish. Long-term effects on effort are unknown; congestion on the Kenai River could return if unguided effort increased in response to the new regulations. The demand and cost of guided fishing may increase if the number of guides is limited or reduced. The number of fish harvested by guided anglers would be reduced by an unknown amount.

BACKGROUND: In 1991, the Alaska Department of Natural Resources (DNR) developed a proposal to limit the number of guides on the Kenai River. Under this proposal the long-term number of guides allowed to operate on the Kenai River was set at 250. The proposal was determined to be unconstitutional by the Attorney General of the State of Alaska and therefore, was rescinded. The number of fishing guides registered with DNR and operating on the Kenai River grew from 222 in 1993 to 396 registered fishing guides in 2007 (Table 267-1). Since 2007, the number of registered fishing guides has decreased from 396 to 284 in 2013.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. A limited entry program similar to the current commercial fisheries programs would require legislative action to implement. Some kind of lottery system may be a legal option, but that would likely be very disruptive to the industry.

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 267-1–Number of Kenai River fishing guides registered with Alaska State Parks, 1982–2012.

Year	Guide Business Type	
	Fishing	Non-Fishing
1982	207	10
1983	198	10
1984	214	10
1985	160	11
1986	187	11
1987	222	10
1988	252	16
1989	292	20
1990	310	20
1991	290	25
1992	238	37
1993	222	41
1994	257	47
1995	314	43
1996	335	40
1997	354	46
1998	325	35
1999	329	39
2000	341	39
2001	335	39
2002	348	35
2003	339	36
2004	352	32
2005	365	42
2006	396	41
2007	396	29
2008	380	32
2009	338	46
2010	316	46
2011	319	60
2012	301	52
2013	284	66

Source: Guide and vessel data, Alaska State Parks.

PROPOSAL 268 – 5 AAC 57.XXX. New Section and 5 AAC 21.XXX. New Section.

PROPOSED BY: Todd Smith, Megan Smith, Amber Every, Travis Every.

WHAT WOULD THE PROPOSAL DO? This proposal is a placeholder proposal for possible regulatory changes and/or management practices based on Kenai River Freshwater Logbook data for 2012.

WHAT ARE THE CURRENT REGULATIONS? All sport fishing guide business owners and sport fishing guides are required to be licensed through the department. All guided fishing trips on both salt and fresh waters are required to be recorded daily in a logbook and submitted to the department on a weekly schedule. A week of activity begins on a Monday and ends on a Sunday, and is due to the department or has to be postmarked one week and one day (eight days) later.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? There is no specific action requested in which to determine an effect, if adopted.

BACKGROUND: The salt and freshwater guide logbook program has been in effect since 2006. January 15, 2013 was the last day in which 2012 data could be submitted and applied towards a business's record. Generally, the previous year's data entry is completed by the end of March. The preliminary data are then available for review by area management biologists during April and May each year, and final results are published October–November.

DEPARTMENT COMMENTS: The department has **NO COMMENT** on this proposal because it does not specify a regulatory 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.

Kenai River Boundaries and Habitat: 229–236

PROPOSAL 229 – 5 AAC 57.106. Description of Kenai River Drainage Area Sections.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would modify the description of the Lower Section of the Kenai River to denote the mouth of the Kenai River (Figure 229-1).

WHAT ARE THE CURRENT REGULATIONS? Kenai River Lower Section: waters from the mouth of the Kenai River upstream to Skilak Lake, including Skilak Lake, but not including the waters of Skilak Lake within a one-half mile radius of the Kenai River inlet.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would aid the public and enforcement officers by clearly identifying where the mouth of the Kenai River begins. Clearly defined lines are easier to enforce than lines that move with the stage of the tide.

BACKGROUND: There is confusion amongst the public over where the Kenai River ends and the marine waters of Cook Inlet begin for the purpose of administering sport fishing regulations.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. There is a prominent landmark on one shore of the Kenai River that is ideal for use as a regulatory marker, which would be supplemented by a department marker on the opposite shoreline.

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 229-1.—Map of the Kenai River showing proposed boundary marker locations at the river mouth.

PROPOSAL 230 – 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; 5 AAC 57.140. Kenai River guiding and guided fishing requirements in 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 reference a department regulatory marker that is used to delineate the outlet of Skilak Lake.

WHAT ARE THE CURRENT REGULATIONS?

5 AAC 57.120.

...

(2) king salmon 20 inches or greater in length, as follows:

(A) may be taken only from January 1–July 31, in the Kenai River from its mouth upstream 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, with a bag and possession limit of one fish, as follows:

(i) from January 1–June 30, from its mouth upstream to the outlet of Skilak Lake, and from July 1–July 14, from the Soldotna Bridge upstream to the outlet of Skilak Lake and in Moose River from its confluence with the Kenai River upstream to the northernmost edge of the Sterling Highway Bridge, only king salmon that are less than 46 inches in length or 55 inches or greater in length may be retained;

...

(B) king salmon 20 inches or greater in length may not be taken

(i) in the Kenai River upstream the outlet of Skilak Lake, including Kenai Lake; and

...

(C) a person, after taking and retaining a king salmon 20 inches or greater in length from the Kenai River, may not sport fish from a boat in the Kenai River downstream from Skilak Lake for any species of fish on that same day;

5 AAC 57.121.

...

(1)(D) from December 1–December 31, in the Kenai River from its mouth upstream to the outlet of Skilak Lake, only unbaited artificial lures may be used;

...

(3)(A) on any Monday in May, June, and July, except Memorial Day, in that portion of the Kenai River from the Sterling Highway Bridge upstream to the outlet of Skilak Lake, except that unguided sport fishing from a non-motorized vessel is allowed on Mondays in May, June, and July as described in 5 AAC 21.359(b)(2); for the purposes of this subparagraph, "non-motorized vessel" is a vessel that does not have a motor on board;

5 AAC 57.140.

...

(b) Downstream from the outlet of Skilak Lake, a person may not sport fish from a registered guide vessel on any Sunday from May 1 through July 31, and on any Monday in July, except that a person may fish from a registered sport fishing guide vessel during the last two Sundays in May and the first Sunday in June under the terms of a permit issued by the commissioner, for approved charitable nonprofit organizations or for educational public service activities.

...

(g) During July, a vessel used for guided sport fishing on the Kenai River downstream of the outlet of Skilak Lake may not carry more than five persons, including the sport fishing guide, clients, and other passengers.

5 AAC 57.160.

...

(d)(2)(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 through July 14, only one unbaited, single-hook, artificial lure may be used and only king salmon less than

...

(d)(2)(B)(i) downstream from the outlet of Skilak Lake through June 30; and

...

(d)(3) if the spawning escapement is projected to fall within the optimal escapement goal, 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 optimal escapement goal; 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? This proposal would clearly identify, for anglers and enforcement officers, the location of boundary markers at the outlet of Skilak Lake for the purpose of administering sport fishing regulations.

BACKGROUND: Regulatory markers were put up at the outlet of Skilak Lake in 2011 (Figure 230-1), but reference to the markers is inconsistent throughout the regulatory language.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. The outlet of Skilak Lake has been identified by department regulatory markers since 2011, but reference to the markers is inconsistent in regulatory language.

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.

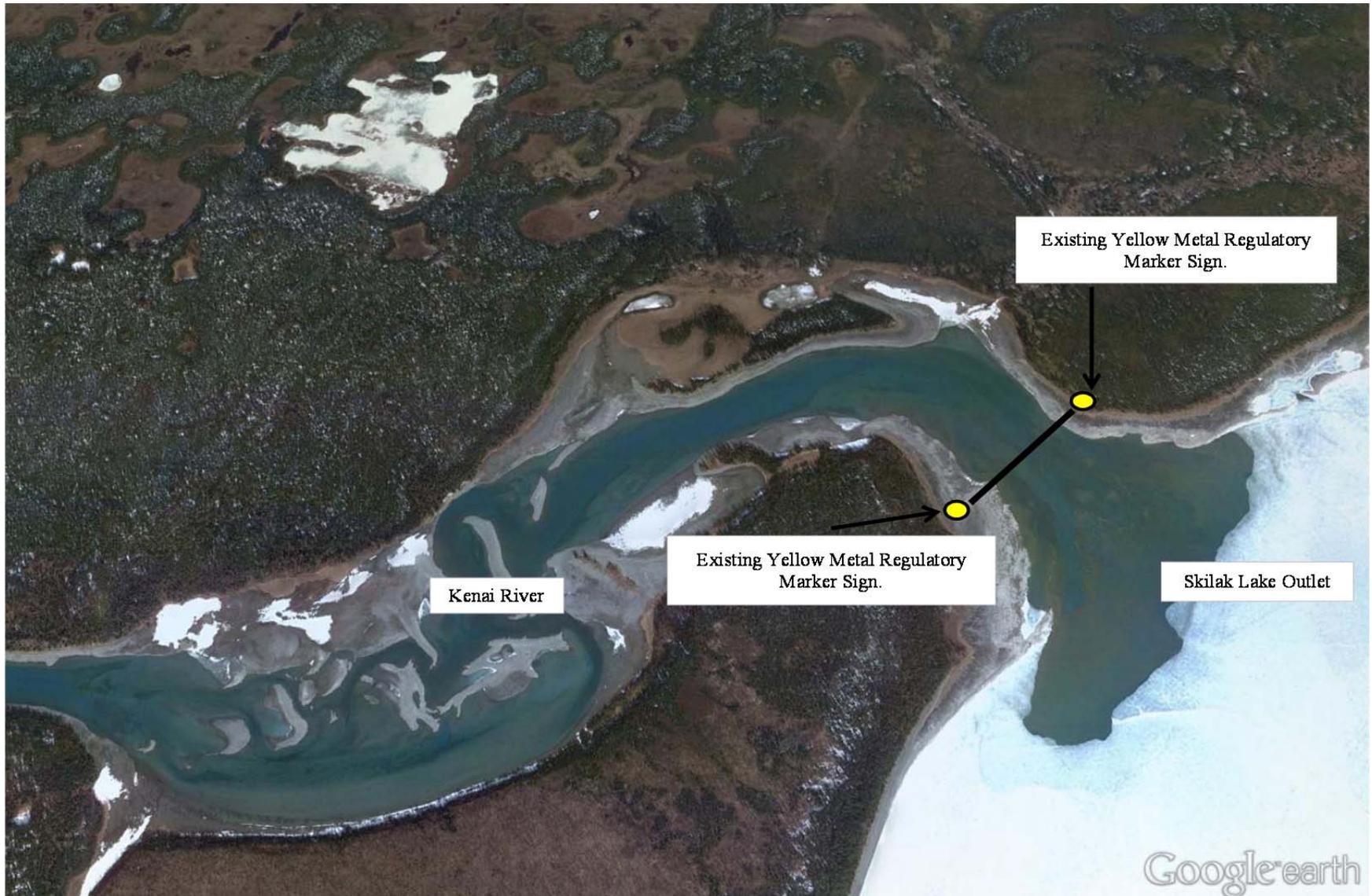


Figure 230.1.-Map of the Kenai River showing existing boundary marker locations at the outlet of Skilak Lake.

PROPOSAL 231 – 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 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 close a portion of the Moose River, from its confluence with the Kenai River upstream to the Sterling Highway Bridge, to sport fishing for king salmon.

WHAT ARE THE CURRENT REGULATIONS? King salmon 20 inches or greater in length may be taken only from January 1–July 31, in the Kenai River, from its mouth upstream 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, with a bag and possession limit of one fish. A person may not sport fish from a vessel in that portion of the Kenai River within a 100-yard radius of the mouth of the Moose River, and in the Moose River upstream to the upstream edge of the Sterling Highway Bridge.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would: 1) align king salmon fishing regulations for the entire Moose River, 2) create more consistent regulations with other Kenai River drainage sections closed to fishing from vessels on a seasonal basis, 3) help to minimize public confusion with fishing regulations for the Moose and Kenai rivers, and 4) reduce the harvest of king salmon by an unknown, but likely small, amount.

BACKGROUND: The Moose River, from its confluence with the Kenai River upstream to the northernmost edge of the Sterling Highway Bridge (approximately 100–200 yards), is closed to fishing from a vessel during king salmon season and is designated as fly-fishing-only water from May 15–August 15 (Figure 231-1). The remainder of the Moose River drainage, upstream of the Sterling Highway Bridge, is closed to king salmon fishing. This area is a low-velocity slack water area where salmon of all species are known to “hold” before continuing upstream migration. It is not a popular Kenai River king salmon fishing area.

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.

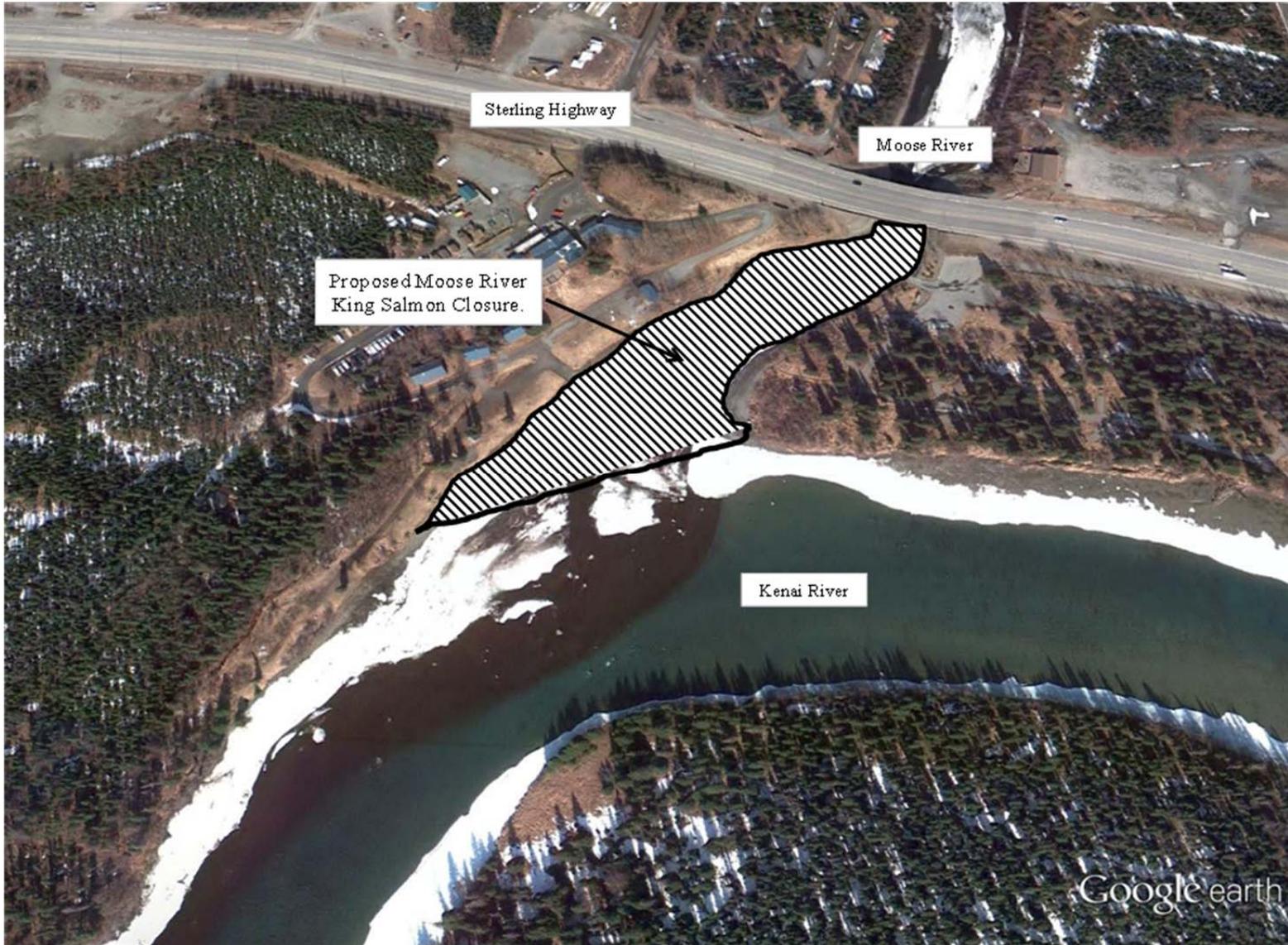


Figure 231-1.—Map of the Kenai River showing proposed king salmon sport fishing closure at the mouth of the Moose River.

PROPOSAL 232 – 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: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would modify the existing Moose River boundary which defines the area in which sport fishing from a boat is prohibited. The boundary would change from a 100-yard radius to straight lines approximately 100 yards upstream and approximately 100 yards downstream from the mouth of the Moose River.

WHAT ARE THE CURRENT REGULATIONS? A person may not sport fish from a boat in that portion of the Kenai River within a 100-yard radius of the mouth of the Moose River, and the Moose River upstream to the upstream edge of the Sterling Highway Bridge during May, June, and July or through the end of king season, whichever is later.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would clearly delineate to the public and law enforcement the area at the confluence of the Moose River and Kenai River that is closed to sport fishing from a boat for the purpose of interpreting and administering sport fishing regulations (Figure 232-1). Line-of-sight markers upstream and downstream of the Moose River mouth will maintain the boat fishing closure over the same area of the river regardless of the change in water level.

BACKGROUND: An area of the Kenai River closed to sport fishing from a boat is defined as a radius near the mouth of Moose River and is unmarked. The mouth of the Moose River may move depending on water level of the Kenai River (and thus increasing the area open to sport fishing from a boat with high Kenai River water levels, or vice versa). This creates confusion because the boundary cannot be consistently identified. The boat fishing closure at the confluence is in an area where there is an Alaska State Parks campground and boat launch. The Moose–Kenai rivers confluence area shoreline near this State of Alaska recreation site frequently supports shore-based angling for trout and salmon, except for king salmon.

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.

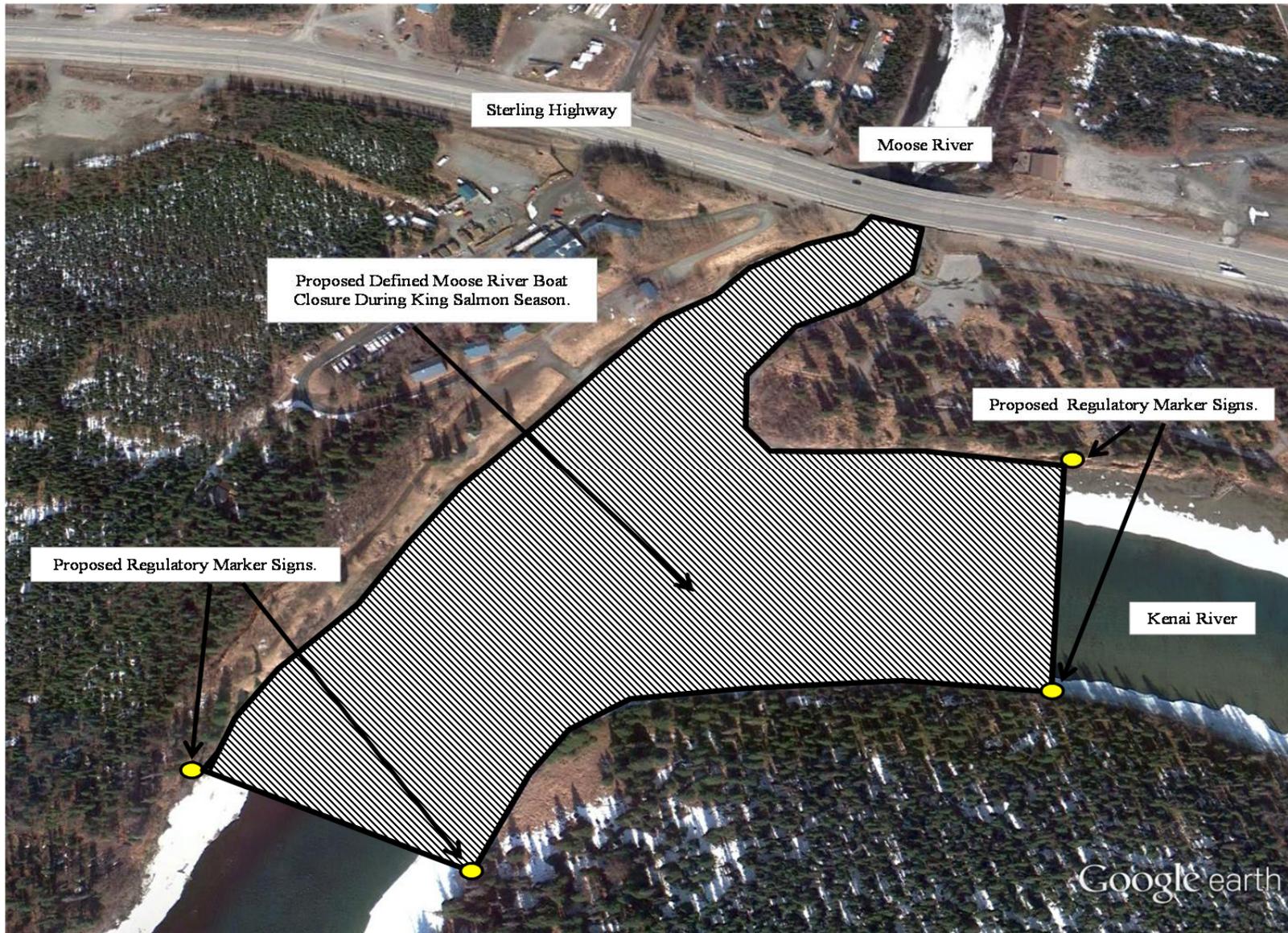


Figure 232.1—Map of the Kenai River showing proposed area closed to fishing for king salmon from a boat at the confluence of the Moose River.

PROPOSAL 233 – 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: City of Soldotna.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit sport fishing within the Soldotna Centennial Campground boat launch lagoon from July 1 through August 30.

WHAT ARE THE CURRENT REGULATIONS? There are no regulations prohibiting sport fishing within the proposed area.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would reduce opportunity of shore anglers in a small section of river. Given the small area proposed to be closed to sport fishing, the effect on catch and harvest would be negligible.

BACKGROUND: The Centennial Park boat launch lagoon (Figure 233-1) is a small staging area for boats adjacent to the boat launch area. Frequently boat operators tie up their vessels prior to departing this area. During peak use periods, several boats may be temporarily moored around the perimeter of the lagoon just after launching or while waiting to land the vessel, prior to departing the area. Consequently, fishing from the shoreline is difficult while boats are present in the lagoon. There are periods of time when no vessels are present in the lagoon.

In 2012, the City of Soldotna established municipal code that closed fishing year-round from shore or boat within the waters of the Centennial Park boat launch lagoon for safety and social purposes. Although the City of Soldotna has the jurisdiction to restrict or limit access for fishing from city-owned land and structures (above ordinary high water) at Centennial Campground, the Kenai River is a navigable and public water body under the jurisdiction of the State of Alaska; the land below ordinary high water in the Centennial Park boat launch lagoon is also under state jurisdiction. The river at that location is within the Kenai River Special Management Area (KRSMA). The Alaska Department of Natural Resources manages recreational uses in the KRSMA, except for those uses or activities which are the responsibilities of the department and the Alaska Board of Fisheries (board). The board has the responsibility for allocating fish resources, including establishment of seasons; area; bag, possession, annual, and size limits; and methods and means for taking fish.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. If passed, the outer boundary separating the lagoon and Kenai River should have markers posted and defined.

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.

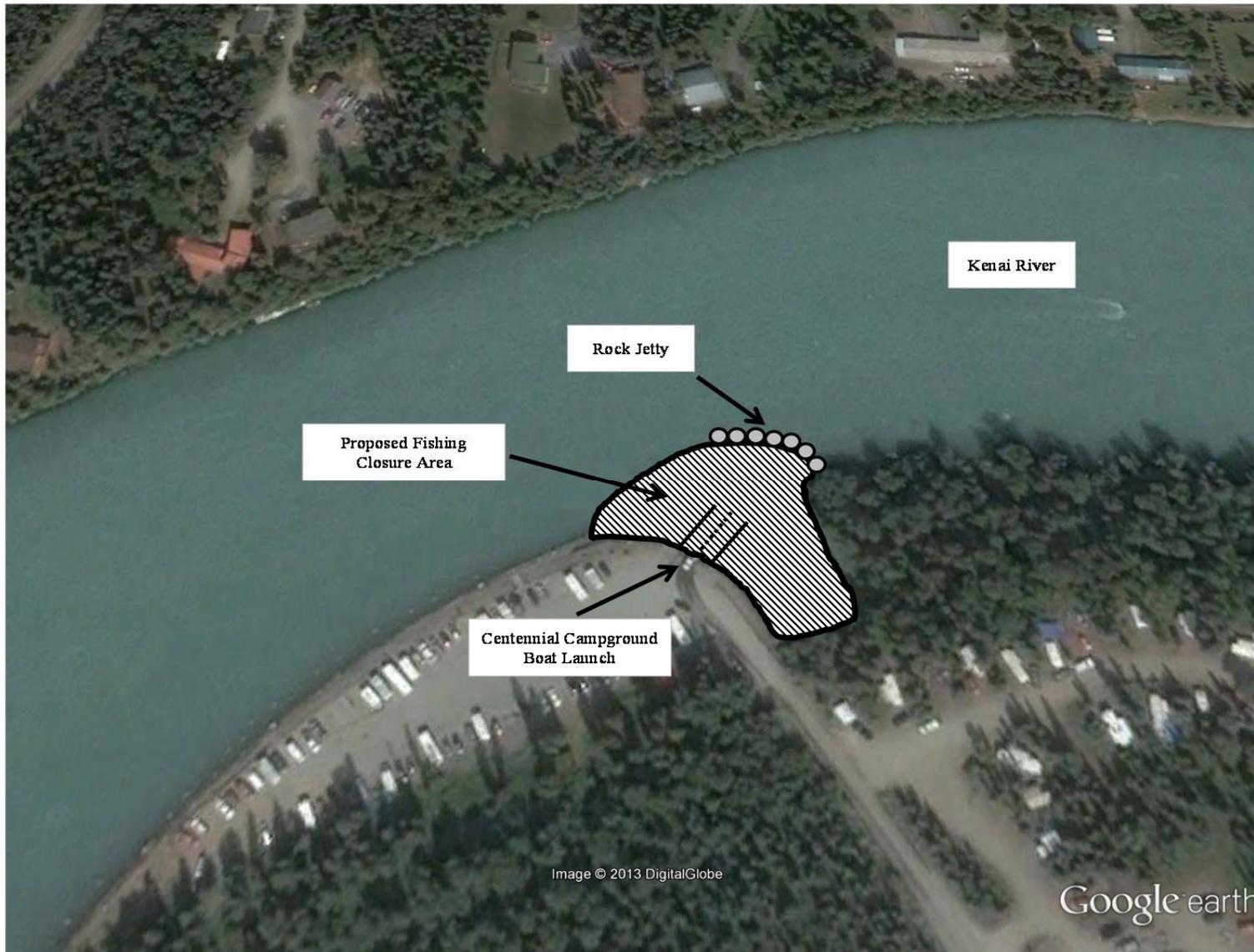


Figure 233.1—Map of the Kenai River showing proposed area closed to fishing at the Centennial Campground boat launch.

PROPOSAL 234 – 5 AAC 57.180. Riparian Habitat Fishery Management Plan for the Kenai River Drainage Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would establish a new Kenai River riparian habitat area that is closed to fishing July 1–August 15 between river mile 22.0 and river mile 22.1 (Figure 234-1).

WHAT ARE THE CURRENT REGULATIONS? There are no regulations prohibiting sport fishing within the proposed riparian habitat area. For the purposes of this regulation, “riparian habitat” means all areas within 10 feet in either direction from the Kenai River waterline. The Kenai riverfront shoreline in this area is open to fishing per 5 AAC 57.121.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would add approximately 475 feet of riparian habitat area to the Kenai River, in which fishing within 10 feet of the water line would be prohibited from July 1 to August 15. It would have a negligible impact on the opportunity of sport anglers to fish from shore during this period of time.

BACKGROUND: Management rights of a state-owned parcel of land along the Kenai River were assigned to the department to implement the *Exxon Valdez* Oil Spill Trustee Council’s objective to restore, enhance, and rehabilitate natural resources injured by the oil spill. The parcel is also subject to a third-party conservation easement. The warranty deed and conservation easement include restrictive covenants that prohibit public access, including sport fishing, along the Kenai River shoreline of this parcel. Presently, 24 riparian fishery habitat closures of public lands are managed by the *Riparian Habitat Fishery Management Plan* in the Kenai River Special Management Area, encompassing approximately 17.5 river miles of riparian habitat. Within these riparian habitat closed areas, sport fishing is only allowed from a boat located more than 10 feet from shore and not connected to the shore in any way. Fishing from the bank or in the water within 10 feet of the Kenai River waterline is not allowed. In order to comply with the warranty deed and conservation easement for this parcel, the department issued an emergency order in 2013 to prohibit fishing within the riparian habitat area on this parcel from July 1–August 15.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. This proposal would implement warranty deed and conservation easement restrictions for the parcel through regulation rather than by annual issuance of an emergency order.

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 234.1—Map of the Kenai River showing proposed riparian habitat area between river mile 22.0 and 22.1.

PROPOSAL 235 – 5 AAC 56.180. Riparian Habitat Fishery Management Plan for the Kenai Peninsula Area; 5 AAC 57.180. Riparian Habitat Fishery Management Plan for the Kenai River Drainage Area; 5 AAC 59.180. Riparian Habitat Fishery Management Plan for the Anchorage Bowl Drainages Area; 5 AAC 60.180. Riparian Habitat Fishery Management Plan for the Knik Arm Drainages Area; 5 AAC 61.180. Riparian Habitat Fishery Management Plan for the Susitna River Drainage Area; 5 AAC 62.180. Riparian Habitat Fishery Management Plan for the West Cook Inlet Area; and 5 AAC 77.5XX. New Section.

PROPOSED BY: Todd Smith and Megan Smith.

WHAT WOULD THE PROPOSAL DO? This proposal would require the department to conduct habitat assessments on Upper Cook Inlet rivers related to sport and personal use fisheries.

WHAT ARE THE CURRENT REGULATIONS? Each management area within Cook Inlet contains a *Riparian Habitat Fishery Management Plan* with the following language:

(a) The Alaska Board of Fisheries (board) finds that freshwater fisheries in upper Cook Inlet, including the Kenai Peninsula Area, subject to access limitations of federal, state, and local landowners, are a recognized use of the fishery resources of upper Cook Inlet. The board also finds that, in some situations, freshwater fisheries negatively affect riparian habitats of upper Cook Inlet.

(b) The board recognizes the importance of maintaining the structural and functional integrity of upper Cook Inlet riparian habitats. Given this, the board will consider, as part of its deliberations, avoidable impacts to upper Cook Inlet riparian habitats related to sport fishing.

(c) If the commissioner determines that freshwater fisheries are likely to result in riparian habitat loss that could negatively affect the fishery resources of upper Cook Inlet, the commissioner may close, by emergency order, those riparian areas to fishing. This authority extends only to riparian areas in which there is a state, federal, or municipal property interest. The commissioner may reopen, by emergency order, those riparian areas to fishing if the commissioner determines that an opening will not compromise the integrity of the riparian habitats the emergency order is designed to protect. During seasons in areas opened by emergency order, the commissioner may establish fishing periods and may designate any or all of the following as locations from which fishing may occur:

- (1) boats;
- (2) boardwalks or similar structures;
- (3) docks;
- (4) gravel bars;
- (5) natural formations identified by the commissioner;
- (6) other areas identified by the commissioner as areas where use for fishing will not compromise the integrity of the habitat the closure is designed to protect.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The effects of this proposal are unknown.

BACKGROUND: The department manages fish stocks, but does not manage lands along river corridors. Under AS.16.05.871, *Protection of Fish and Game*, department authority extends from the riverbed to mean ordinary high water, and the department has permit jurisdiction over activities affecting anadromous streams and activities in streams frequented by fish.

In Cook Inlet there are many agencies and organizations currently conducting field surveys, assessments, and protection and restoration work concerning fish habitat. Entities such as the department, the U.S. Fish and Wildlife Service, boroughs, soil and water conservation districts, non-profit organizations and private consultants are some of the groups working on salmon and other fish habitat efforts. These efforts entail a considerable body of work and expertise from both within and outside of the department.

Recent work in Cook Inlet conducted directly by the department includes: fish passage (culvert) inventory and prioritization, *Anadromous Waters Catalog* (AWC) inventory, *Alaska Freshwater Fish Inventory*, Alaska Clean Water Actions (ACWA) database, and streambank restoration and outreach projects. Kenai River habitat research was first conducted by the department's Habitat Division in 1993. Further projects conducted by the Division of Sport Fish from 1996–2001 included angler distribution surveys, assessment of bank position change, assessment of vegetation changes and a pilot study using aerial photogrammetry techniques. Findings from these projects identified sensitive riverfront uplands that were closed to sport fishing under the previously-mentioned board-adopted plan.

In the lower Kenai River, the Alaska Department of Natural Resources (DNR) manages State of Alaska-owned Kenai River Special Management Area lands of which several parcels are subject to a conservation easement to protect them from development in perpetuity. The department was also given management authority to support protections for these DNR lands important to fish resources. Consequently, the board has adopted 5 AAC 57.180, *Riparian Habitat Fishery Management Plan for the Kenai River Drainage*, to complement land protection efforts where possible on public lands. Under this plan, 24 parcels representing approximately 17.5 miles of publically-owned riverfront shoreline are closed to all fishing within 10 feet of the shoreline from July 1–August 15.

The department actively supports the *National Fish Habitat Action Plan* (NFHAP) at the national, state, and local levels. In Cook Inlet, the department participates as a member of the Mat-Su Fish Habitat and Kenai Fish Habitat partnerships (FHP); this includes participating as a member of the partnership steering committees and providing key local, fish passage, fish survey, and other fish habitat expertise to partnership efforts. Through this collaboration, strategic plans for each FHP have been developed and are currently being updated to continue to guide and prioritize inventory and mitigation efforts. Following guidance provided by the NFHAP to “protect, restore, and enhance fish and aquatic communities,” the FHPs have implemented habitat assessment and restoration projects in the Mat-Su and Kenai areas with broad support.

DEPARTMENT COMMENTS: The department recommends **NO ACTION** on this proposal. The department conducts and participates in habitat assessment and mitigation efforts in Cook Inlet and is an active participant in local NFHAP partnerships. The board has no "administrative,

budgeting, or fiscal powers" that would require the department to administer this program (AS 16.05.241)."

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 236 – 5 AAC 21.360. Kenai River Late-Run Sockeye Salmon Management Plan.

PROPOSED BY: Todd Smith and Megan Smith.

WHAT WOULD THE PROPOSAL DO? This proposal is a placeholder proposal for possible regulatory changes and/or management plans based upon results of Kenai River habitat assessments.

WHAT ARE THE CURRENT REGULATIONS? The *Kenai River Late-Run Sockeye Salmon Management Plan* states the department will, to the extent practicable, conduct habitat assessments on a schedule that conforms to the Alaska Board of Fisheries (board) triennial meeting cycle.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? There is no specific action requested in which to determine any effect, if adopted.

BACKGROUND: The department manages Kenai River fish stocks, but does not manage lands along the Kenai River corridor that are within the Kenai River Special Management Area (KRSMA). Under AS.16.05.871, *Protection of Fish and Game*, department authority extends from the riverbed to mean ordinary high water, giving the department permit jurisdiction over activities affecting anadromous streams and activities in streams frequented by fish. The Alaska Department of Natural Resources (DNR) manages State of Alaska-owned KRSMA lands of which several parcels are subject to a conservation easement to protect them from development in perpetuity. The department was also given a management right to support the protections for these DNR lands important to fish resources. Consequently, the board has adopted 5 AAC 57.180, *Riparian Habitat Fishery Management Plan for the Kenai River Drainage*, to complement land protection efforts where possible on public lands. Under this plan, 24 parcels representing approximately 17.5 miles of publically-owned riverfront shoreline are closed to all fishing within 10 feet of the shoreline from July 1–August 15. Kenai River habitat research was first conducted by the department’s Habitat Division in 1993. Further projects conducted by the Division of Sport Fish from 1996–2001 included angler distribution surveys, assessment of bank position change, assessment of vegetation changes and a pilot study using aerial photogrammetry techniques. Findings from these projects identified sensitive riverfront uplands that were closed to sport fishing under the previously-mentioned board-adopted plan.

DEPARTMENT COMMENTS: The department has **NO COMMENT** on this proposal because it does not specify any regulatory changes. The department will present an overview of Kenai River habitat assessments as an oral report at the board meeting.

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 D: NORTHERN COOK INLET ESCAPEMENT GOALS, AND COMMERCIAL, SPORT, AND SUBSISTENCE FISHING (32 proposals)

Escapement Goals (6 proposals): 300–301, 309, 313, 315, 321

Northern District Commercial Salmon (4 proposals): 292–295

Susitna River Sport Fisheries (9 proposals): 296–299, 302–306

Subsistence – Susitna Salmon (2 proposals): 307–308

Sport Fisheries – Knik River and Anchorage Area (11 proposals): 310–312, 314, 316–317, 322–323, 376, 324–325

Escapement Goals: 300–301, 309, 313, 315, 321

PROPOSAL 300 – 5 AAC 61.112. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for Unit 1 of the Susitna River Drainage Area.

PROPOSED BY: Matanuska Valley Fish and Game Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would establish an optimal escapement goal (OEG) for Deshka River coho salmon.

WHAT ARE THE CURRENT REGULATIONS? 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 also defines escapement goal terms as follows:

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...; 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:...”

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 *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 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.”

In the Susitna River drainage, the department may, by emergency order (EO), increase or decrease the bag and possession limit for coho salmon based on abundance indices.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The department would use its EO authority to manage the Deshka coho fishery in order to stay within the established escapement goal range. Managing to achieve an escapement goal inseason would be difficult due to highly variable run timing on this system.

BACKGROUND: An SEG has not been developed for Deshka River coho salmon by the department because too few years of complete counts exist from which to derive a goal. A weir has been operated on the Deshka River since 1995. Coho salmon runs to the Deshka River have complete counts in 11 of 17 years at the current weir location. The weir program was originally developed to assess king salmon and was extended to assess coho salmon because the weir was already in place and Deshka coho salmon exhibit early run timing within the Susitna drainage. The Deshka weir has provided an opportunity to collect baseline escapement information that could possibly be used to assess the Deshka coho salmon stock status, or possibly, the status of coho salmon in the larger Susitna drainage if a relationship can be developed in the future. The sport fishery is currently managed under conservative regulations meant to ensure sustainable harvest over the long term, since inriver exploitation is relatively low.

The 1995–2012 average escapement for complete count years is 23,670 coho salmon, ranging from 6,825 in 2012 to 62,940 in 2004 (Table 300-1). Average sport harvest is 4,131 coho salmon and inriver exploitation is relatively low, averaging 18%. Inriver exploitation is dependent on the magnitude of the run and sport fishing success. On the Deshka, fishing success is greatly influenced by water level and/or water temperature. Inriver exploitation was highest at 35% in 2010 during a below-average run and favorable water conditions (level and temperature) for fishing. Fall flooding events have compromised weir operations and counts during some years. Coho salmon run timing is highly variable because upstream migration is oftentimes influenced by low water and warm water temperatures. This phenomenon is observed more often on the Deshka River than other coho-producing systems of the Susitna drainage.

DEPARTMENT COMMENTS: Department staff reviewed Deshka River coho salmon data as part of the 2013 escapement goal review and recommended no escapement goal be developed at this time. The department is continuing coho salmon studies in the Susitna drainage that will allow it to better evaluate the data gathered at the Deshka River weir. That evaluation will help to determine if Deshka River weir counts provide a reliable index of run strength to the Susitna drainage or whether a drainagewide goal might be more appropriate for management of the fishery.

Under the *Policy for Management of Sustainable Salmon Fisheries* and the *Policy for Statewide Salmon Escapement Goals*, the board can establish an OEG with the assistance of the department. However, we are unable to provide guidance to the board in setting an OEG in this case because of the lack of data. In addition, the definition for OEG relies on the idea that it differs from the BEG or SEG, and no BEG or SEG has been established for this stock.

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 300-1.—Deshka River coho salmon harvest, escapement, inriver exploitation, and run timing during years a weir has been operated at river mile 7.

Year	Harvest	Escapement	Inriver exploitation	Run timing
1997	1,169	8,063	13%	7 days late
1998	3,630	6,773 ^a		
1999	4,034	4,563 ^a		
2000	8,687	26,387	25%	5 days early
2001	6,556	29,927	18%	5 days early
2002	3,616	24,612 ^a		
2003	4,946	17,305	22%	7 days early
2004	4,440	62,940	7%	14 days late
2005	3,616	47,887	7%	10 days late
2006	6,042	59,419 ^a		
2007	2,550	10,575	19%	4 days early
2008	3,426	12,724	21%	12 days early
2009	4,060	27,348	13%	4 days late
2010	5,690	10,393	35%	11 days early
2011	2,282	7,508 ^a		
2012	1,358	6,825	17%	7 days early
2013		22,341 ^a		
Average	4,131	23,670 ^b	18%	

^a Incomplete count due to weir submersion during high water events.

^b Includes complete count years only.

PROPOSAL 301 – 5 AAC 61.114. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for Unit 2 of the Susitna River Drainage Area.

PROPOSED BY: Matanuska Valley Fish and Game Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would establish an optimal escapement goal (OEG) for Kashwitna River king salmon.

WHAT ARE THE CURRENT REGULATIONS? 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 also defines escapement goal terms as follows:

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...; 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:...”

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 *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 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 PROPOSAL WERE ADOPTED? This proposal would not affect inseason management. Since Kashwitna River king salmon escapement is assessed using an aerial index survey during the peak spawning period, the information is unavailable during the fishing season. A Kashwitna River OEG would be used to assess escapement postseason. Performance in achieving a new goal for this system would

contribute to overall management of streams within Unit 2 of the Susitna River since the fisheries within this area are traditionally managed as a unit due to their proximity to each other.

BACKGROUND: An SEG has not been developed for Kashwitna River king salmon by the department. The Kashwitna is within Unit 2 of the Susitna River (Figure 301-1) and is one of about 10 systems supporting king salmon fisheries, five of which have established SEGs. The Kashwitna River is a semi glacial river, so that sighting and counting salmon along its mainstem is not possible. An aerial survey is conducted on a north fork of the Kashwitna River, a small clearwater tributary. Similar to other area streams, the aerial count has been below an average of 580 (1979–2007) since 2007 (Table 301-1). The aerial survey may or may not be a good index of salmon returning to the Kashwitna drainage because the consistency of the proportion of king salmon utilizing the north fork of the Kashwitna River for spawning is unknown. Susitna-wide king salmon studies, ongoing since 2012, assess spawning distribution and may help determine whether the north fork Kashwitna River is a reliable index stream.

King salmon sport fisheries within Unit 2 of the Susitna River Drainage Management Area are managed together as a unit because of their use level and proximity to each other on the road system. Changes made on one Unit 2 stream can easily divert fishing pressure and affect harvest level on an adjacent stream. On the Kashwitna River, the sport fishery grew through a period of above average king salmon run years experienced 2001–2007. Harvest prior to 2001 averaged 47 fish, and since 2000, averaged 180 fish (Table 301-1).

DEPARTMENT COMMENTS: Department staff reviewed Kashwitna River king salmon data as part of its 2013 escapement goal review, and recommended no escapement goal be developed at this time.

Under the *Policy for Management of Sustainable Salmon Fisheries* and the *Policy for Statewide Salmon Escapement Goals*, the board can establish an OEG with the assistance of the department. However, we are unable to provide guidance to the board in setting an OEG in this case because of the lack of data. In addition, the definition for OEG relies on the idea that it differs from the BEG or SEG, and no BEG or SEG has been established for this stock.

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.

UNIT 2

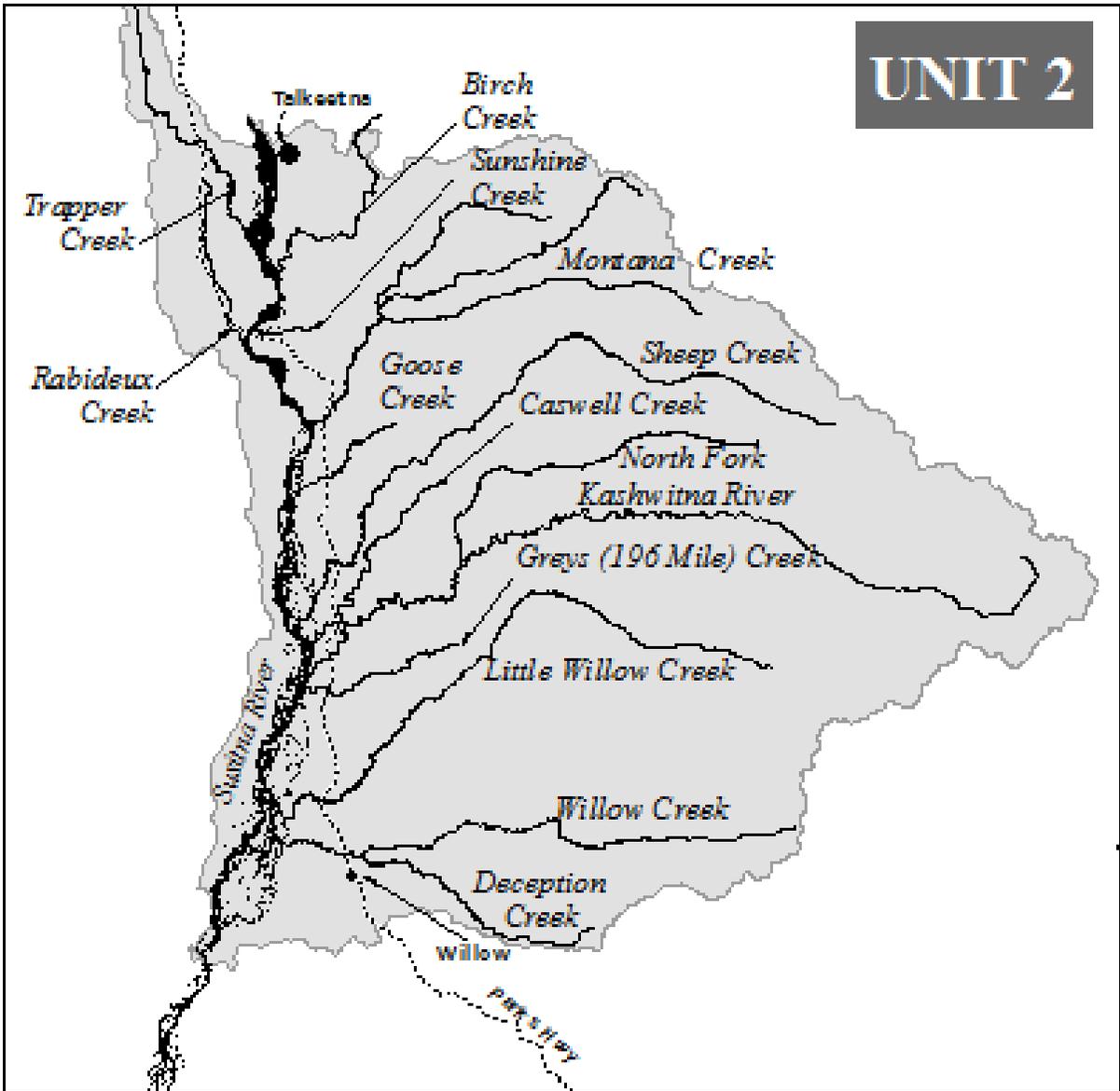


Figure 301-1.—Map showing location of Kashwitna River.

Table 301-1.-Kashwitna River king salmon harvest and escapement, 1994–2013.

Year	King Salmon	
	Harvest	Escapement
1994	78	430
1995	18	836
1996	21	782
1997	10	761
1998	15	619
1999	83	644
2000	160	329
2001	74	604
2002	217	1,049
2003	373	546
2004	125	342
2005	112	454
2006	210	613
2007	223	895
2008	237	no count
2009	212	317
2010	214	no count
2011	172	134
2012	8	85
2013	NA	234
Average	135	537

Note: Escapement is determined by a single aerial survey of an index area within the north fork of the Kashwitna River.

NA = Data not available.

PROPOSAL 309 – 5 AAC 62.122. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for the West Cook Inlet Area.

PROPOSED BY: Mark Glassmaker.

WHAT WOULD THE PROPOSAL DO? This proposal would establish a sustainable escapement goal (SEG) or an optimal escapement goal (OEG) for Big River and Kustatan River coho salmon.

WHAT ARE THE CURRENT REGULATIONS? 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 also defines escapement goal terms as follows:

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...; 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:...”

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 *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 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 PROPOSAL WERE ADOPTED? This proposal would not affect inseason management because escapement monitoring programs do not currently exist on these systems.

BACKGROUND: An SEG has not been developed for Big River and Kustatan River coho salmon by the department because no stock assessment is currently conducted on either stock. 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 department was unsuccessful in its attempt to place a video weir in Wolverine Creek (which drains into Big River Lake) in the early 2000's to assess sockeye salmon.

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 1980's.

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 309-1). The poor coho salmon runs of 2011 and 2012 likely affected sport harvest on WCI and other Cook Inlet streams.

Approximately 40 guides provide sport fishing guide services on each of these systems (Table 309-2). Guided clients fish about 1,100 days to harvest nearly 3,000 coho on the Kustatan River, while 3,300 client days have been expended to harvest an average of 4,800 coho salmon on Big River Lakes since 2006. The majority of guided effort is from three air charters providing service from the Kenai Peninsula. Other air charters are Anchorage based.

DEPARTMENT COMMENTS: The department does not have escapement data for Big River and Kustatan coho salmon from which to base an escapement goal. The department is currently considering programs to assess escapement and exploitation of these stocks.

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 309-1.–Effort and harvest of coho salmon on the Kustatan River and Big River Lakes, 1993–2012.

Year	Kustatan		Big River Lakes	
	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
<u>Average</u>				
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.

Table 309-2.–Guided effort and harvest of coho salmon from the Kustatan River and Big River Lakes, 2006–2012.

Year	Kustatan River			
	Guides	Trips	Client Days	Harvest
2006	43	253	1,110	2,841
2007	45	330	1,421	3,576
2008	42	309	1,375	3,648
2009	34	242	996	2,446
2010	32	215	914	2,421
2011	40	269	1,097	2,718
2012	36	240	1,004	2,408
Average	39	265	1,131	2,865

Year	Big River Lakes			
	Guides	Trips	Client Days	Harvest
2006	43	912	3,490	6,329
2007	44	956	3,624	4,613
2008	51	1,351	5,327	9,401
2009	40	822	3,094	3,081
2010	35	674	2,620	4,726
2011	32	749	2,838	2,937
2012	42	705	2,707	2,610
Average	41	881	3,386	4,814

PROPOSAL 313 – 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: Matanuska Valley Fish and Game Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would establish a sustainable escapement goal (SEG) or an optimal escapement goal (OEG) for Little Susitna River sockeye salmon.

WHAT ARE THE CURRENT REGULATIONS? 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 also defines escapement goal terms as follows:

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...; 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:...”

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 *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 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 PROPOSAL WERE ADOPTED? The department would use its emergency order (EO) authority to manage the Little Susitna sockeye fishery in order to stay within the established goal range.

BACKGROUND: An SEG has not been developed for Little Susitna River sockeye salmon by the department because the data set is insufficient to develop an escapement goal. The department has operated a weir on the Little Susitna River since 1986 to monitor coho salmon escapements and for king salmon during some years. Other fish species are counted, but many years these counts are incomplete due to the location of the weir or timing of installation. From 1996–2011, the weir was located upstream of Nancy Lake Creek, a tributary of the Little Susitna that the majority of sockeye salmon migrate up to spawn. The department has five years of complete sockeye salmon counts on the Little Susitna (1988–1989, 1994–1995, and 2013) from years in which the weir was operated in the lower river (river mile 32) and downstream of sockeye spawning destinations (Figure 313-1). The average weir count for the five years was 6,600 fish. The weir count in 2012 was incomplete, but was likely well below average, and the count in 2013 was 375 fish.

The Little Susitna River supports a modest sport fishery for sockeye salmon. Some sockeye are caught incidental to targeting coho salmon in the lower 30 miles of river; however, the main fishery targeting sockeye salmon occurs at the mouth of Nancy Lake Creek, a tributary entering the Little Susitna at about river mile 65. Average sport harvest (2003–2012) for Little Susitna River sockeye salmon is 1,800 fish (Table 313-1). Harvest dropped to 300 fish in 2011 and 500 fish in 2012. Harvest of Little Susitna River sockeye salmon also occurs in the commercial fishery, but the amount is unknown.

DEPARTMENT COMMENTS: Department staff reviewed Little Susitna River sockeye salmon data as part of the 2013 escapement goal review, and recommended no escapement goal be developed. The department does not have sufficient data for Little Susitna sockeye salmon from which to develop an escapement goal that meets criteria specified under existing regulatory policies.

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.

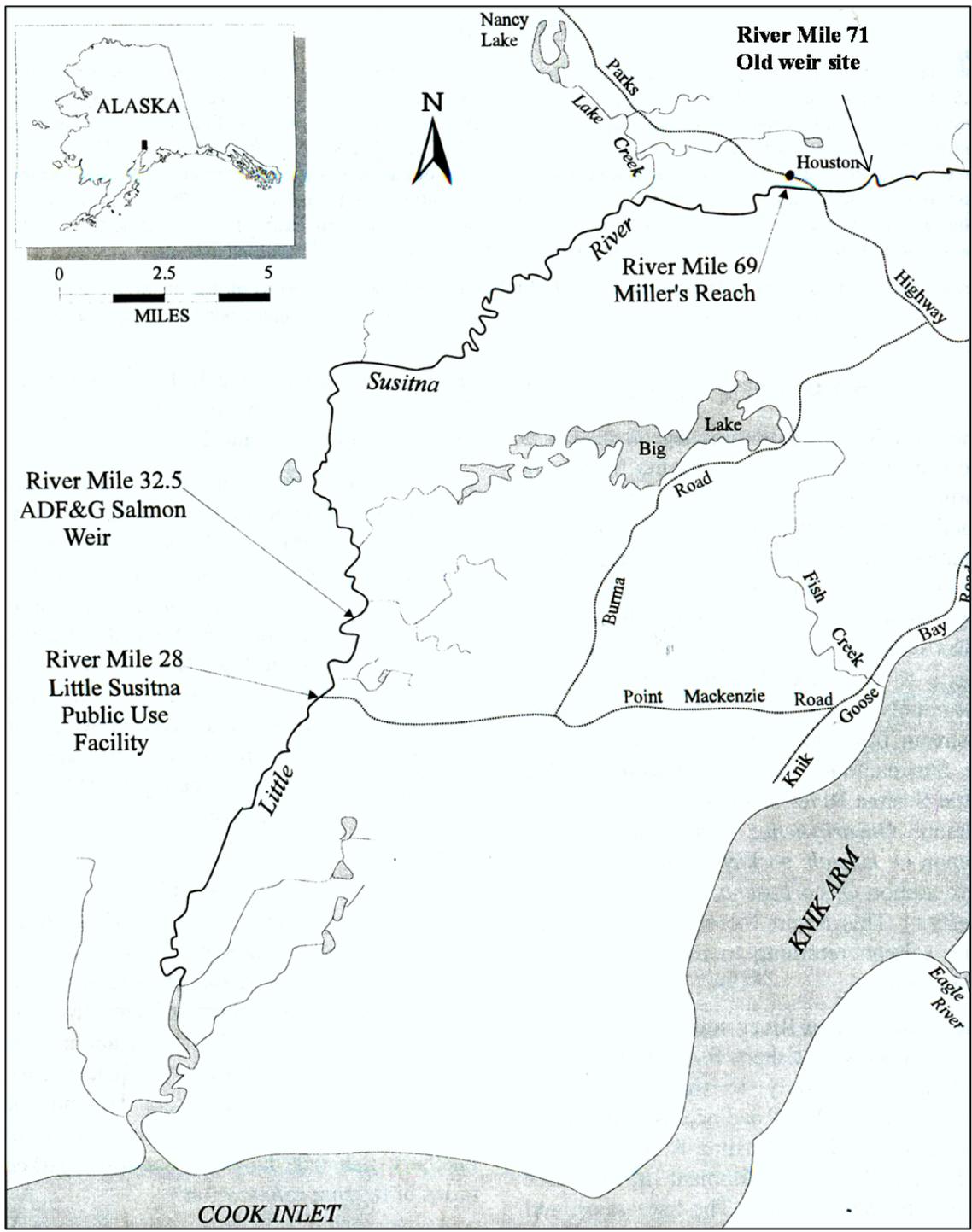


Figure 313-1.—Map of the Little Susitna drainage.

Table 313-1.—Sport harvest and escapement estimates of sockeye salmon on the Little Susitna River for years a weir was operated at river mile 32.5, 1988–2013.

Year	Sockeye Salmon	
	Harvest	Weir count
1988	2,310	3,824
1989	2,315	6,203
1990	891	1,045 ^a
1991	1,722	9,377 ^a
1992	1,274	4,827 ^a
1993	2,487	7,313 ^a
1994	1,809	15,328
1995	1,116	7,129
1996	2,286	ND
1997	1,845	ND
1998	872	ND
1999	1,282	ND
2000	3,661	ND
2001	1,959	ND
2002	2,133	ND
2003	3,337	ND
2004	2,776	ND
2005	1,442	ND
2006	1,556	ND
2007	2,387	ND
2008	1,699	ND
2009	1,152	ND
2010	1,257	ND
2011	295	ND
2012	506	249 ^a
2013	NA	375
Mean	1,775	6,572 ^b

NA = Data not available.

ND = No data

^a Partial count. Weir not operated during the first 33% of the historical run.

^b Complete count years only.

PROPOSAL 315 – 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: Matanuska Valley Fish and Game Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would establish a sustainable escapement goal (SEG) or an optimal escapement goal (OEG) for Little Susitna River chum salmon.

WHAT ARE THE CURRENT REGULATIONS? 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 also defines escapement goal terms as follows:

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...; 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:...”

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 *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 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 PROPOSAL WERE ADOPTED? The department would use its emergency order (EO) authority to manage the Little Susitna chum fishery in order to stay within the established goal range.

BACKGROUND: An SEG has not been developed for Little Susitna River chum salmon by the department because annual sport harvest is believed to be 2–3% of the inriver run. Chum salmon have been counted by weir eight years during the past 26 years, of which five years have been at the current lower site (river mile 32.5) and three have been at the upper site (river mile 71). Weir counts have ranged from 13,876 fish in 1989 to 41,265 fish in 2002.

The Little Susitna River supports a relatively small sport fishery for chum salmon. Most chum salmon are caught incidental to fishing for coho salmon. The average sport harvest for chum salmon on the Little Susitna is stable at about 550 fish (Table 315-1). Average sport catch has also remained stable at about 3,500 caught annually. Chum salmon are also harvested in commercial fisheries within Cook Inlet.

DEPARTMENT COMMENTS: Department staff reviewed Little Susitna River chum salmon data as part of the 2013 escapement goal review and recommended no escapement goal be developed at this time. The Little Susitna River supports a small sport fishery. The department does not have sufficient data for Little Susitna chum salmon from which develop an escapement goal that meets criteria specified under existing regulatory policies.

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 315-1.-Sport catch, harvest, weir count, and inriver harvest rate of chum salmon on the Little Susitna River, 1988–2013.

Year	Chum Salmon				Weir location
	Catch	Harvest	Weir count	Inriver harvest rate	
1988		673	23,678	2.76%	rm 32.5
1989		712	13,876	4.88%	rm 32.5
1990	746	170	a		rm 32.5
1991	997	425	a		rm 32.5
1992	1,777	319	a		rm 32.5
1993	2,922	500	a		rm 32.5
1994	2,883	690	27,228	2.47%	rm 32.5
1995	2888	620	14,296	4.16%	rm 32.5
1996	4,121	310	a		rm 71
1997	1,655	241	a		rm 71
1998	2,936	467	a		rm 71
1999	1,602	481	a		rm 71
2000	5,825	905	a		rm 71
2001	4,559	513	32,803	1.54%	rm 71
2002	6,909	1,227	41,265	2.89%	rm 71
2003	7,693	838	13,588	5.81%	rm 71
2004	7,871	326	a		rm 71
2005	2,923	602	a		rm 71
2006	6,508	720	a		rm 71
2007	1,862	278	a		rm 71
2008	2,835	370	a		rm 71
2009	1,322	387	a		rm 71
2010	3,351	455	a		rm 71
2011	2,745	538	a		rm 71
2012	3,904	722	a		rm 32.5
2013		ND	18,933	N/A	rm 32.5
Mean	3,515	540	23,208	2.27%	

^a Weir operated for coho salmon and only a portion of the chum salmon run was counted.

PROPOSAL 321 – 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: Matanuska Valley Fish and Game Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would establish a sustainable escapement goal (SEG) or an optimal escapement goal (OEG) for Moose Creek king salmon.

WHAT ARE THE CURRENT REGULATIONS? 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 also defines escapement goal terms as follows:

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...; 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:...”

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 *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 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 PROPOSAL WERE ADOPTED? There would be little, if any, effect because sport fishing is closed in Moose Creek. Even if an escapement goal were established, the run is small enough that it would not likely support a sport fishery.

BACKGROUND: An SEG has not been developed for Moose Creek king salmon by the department because the assessment of escapement may not reliably index escapement and there is no sport fishery. The department conducts an aerial index survey of spawning king salmon in Moose Creek on an annual basis. Moose Creek is characterized as a narrow corridor creek with large cottonwoods, overhanging alders, and many log jams. These conditions require surveys to be flown at higher elevations and make sighting fish more difficult than for other index streams in Northern Cook Inlet. Moose Creek has been closed to sport fishing for king salmon since 1964 because it supports a relatively small run of king salmon. The 15-year average index count of king salmon returning to Moose Creek is approximately 360 fish (Table 321-1); a more recent average (2009–2013) is approximately 190 fish. Even though there is no associated sport fishery, the survey is still conducted to monitor general trends in spawning abundance and distribution and as practice for other aerial surveys conducted during late July. Due to Moose Creek’s high gradient and high-velocity nature, most of the king salmon returning to this system hold for a few weeks at the confluence of Moose Creek and the Matanuska River until reaching a later state of maturation prior to ascending the creek to spawn.

DEPARTMENT COMMENTS: Moose Creek does not currently support a sport fishery, and is likely too small to support a fishery in the future.

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 321-1.-Aerial index counts of spawning king salmon on Moose Creek, 1994–2013.

Year	King salmon index count
1994	894
1995	488
1996	652
1997	652
1998	214
1999	744
2000	198
2001	275
2002	310
2003	471
2004	197
2005	254
2006	216
2007	330
2008	384
2009	201
2010	142
2011	175
2012	163
2013	257
Average	361
2009–2013	188

Northern District Commercial Salmon: 292–295

PROPOSAL 292 – 5 AAC 21.366. Northern District King Salmon Management Plan.

PROPOSED BY: Matanuska-Susitna Borough Fish and Wildlife Commission.

WHAT WOULD THE PROPOSAL DO? This proposal would modify the management plan to restrict commercial king salmon fishing in the Northern District if sport fishing in the Deshka River is restricted to artificial lures or close commercial king salmon fishing in the Northern District if sport fishing is restricted to catch and release or closed in Susitna River tributary streams upriver from the Deshka River.

Specifically, the proposal would add the following two sections to the management plan:

(1) if Deshka River sport fishing is restricted to artificial lures, the commissioner shall restrict Northern District commercial king salmon fishing periods to half of the regularly scheduled hours until bait is once again allowed in the sport fishery.

(2) if sport king salmon fishing is restricted to catch and release or closed, by emergency order, in Susitna River tributary streams upstream from Deshka River, the commissioner shall close the Northern District commercial king salmon fishery until these streams once again open to king salmon harvest.

WHAT ARE THE CURRENT REGULATIONS? The *Northern District King Salmon Management Plan* provides direction to the department regarding management of the directed commercial king salmon fishery in the Northern District of Upper Cook Inlet (UCI). The fishery opens on the first Monday on or after May 25, and continues through June 24, unless closed earlier by emergency order (EO). Fishing periods are from 7:00 a.m. to 7:00 p.m. on Mondays. Only one set gillnet per permit may be fished. Set gillnets may not exceed 35 fathoms in length and six inches in mesh size, and gillnets may not be set or operated within 1,200 feet of another set gillnet. The fishery is closed by EO if 12,500 king salmon are harvested during the season. The waters, from one mile south of the Theodore River to the mouth of the Susitna River, are open to fishing for the second regular Monday period only; however, if the Theodore, Ivan, or Lewis rivers are closed to sport fishing, the area from one mile south of the Theodore River to the Susitna River will be closed to commercial fishing. The plan further specifies that, if the Chuitna River is closed to sport fishing, commercial fishing shall close for the remainder of the directed king salmon fishery in that portion of the Northern District from a point at the wood chip dock (located approximately three miles south of Tyonek) to the Susitna River. Finally, if the Deshka River is closed to sport fishing, the king salmon fishery in the entire Northern District will close for all periods provided for under this plan.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would likely result in an increase in restrictions to the commercial fishery and decrease commercial king salmon harvest, by some unknown amount. King salmon escapement to Northern Cook Inlet streams would increase by an unknown, but likely small, amount.

BACKGROUND: The *Northern District King Salmon Management Plan* was first adopted in 1986 and has been changed at various board meetings. When the management plan was first

adopted in 1986, it was estimated that there were approximately 100,000–150,000 king salmon returning to the Susitna River. Based on these estimates, a commercial fishery harvest cap was set not to exceed 10% of the run, or 12,500 king salmon.

Prior to 2005, six-hour fishing periods were allowed on Mondays between May 25 and June 24. At the 2005 board meeting, the number of commercial fishing periods was reduced from four or five, to three per year, but the hours per period were increased from six to 12. At the 2008 UCI board meeting, Northern District commercial king salmon openings were increased from three openings to four or five per season, depending on the year. At the 2011 board meeting, Theodore, Lewis, and Chuitna rivers king salmon were found to be a stock of management concern (SOC), resulting in closure of the sport fishery on these rivers. This, in turn, prompted a closure of the commercial fishery from the wood chip dock to the Susitna River for the 2011–2013 commercial fishing seasons (Figure 292-1). Additional actions were taken effecting sport fisheries in response to SOC designations for Alexander, Willow, and Goose creeks; these included closing Alexander and Goose creeks, restricting Unit 2 streams of the Susitna River by removing the last three-day weekend of harvest, and restricting fishing time to 6:00 a.m.–11:00 p.m.

The Deshka River sport fishery was closed during the 2008 fishing season, but not until after the directed commercial king salmon fishery was complete. Prior to the 2009 season, the sport fishery was limited preseason to only harvest king salmon on the 3-day weekends. In response to this, an emergency petition was filed and the board adopted an emergency regulation that reduced the first two commercial fishing periods from 12 hours to six hours. During the season, the department closed the last two commercial periods (June 15 and 22) in response to closure of the Deshka River sport fishery. In 2010, commercial king salmon fishing was closed for the season in that area from an ADF&G regulatory marker located one mile south of the Chuitna River to the Susitna River for all of the fishing periods scheduled for the 2010 king salmon fishing season because the sport fishery was closed by EO. For the remainder of the Northern District, the June 14 period in 2010 was reduced from 12 hours to six hours in response to the Deshka sport fishery restriction to no bait from June 14 to June 19; this restriction was made outside the management plan.

Based on poor king salmon runs in 2011, the department took additional actions in 2012 beyond those implemented by the board in 2011, to reduce sport and commercial harvest by half of recent past years. All four commercial fishing periods were reduced from 12 hours to six hours. In 2013, the department closed the first scheduled commercial fishing period of the season, and reduced the remaining four periods to six hours.

Harvest trends over the past 10 years reflect diminished returns and restrictive management actions within commercial and sport fisheries. Total harvest in sport and commercial fisheries in the Northern District of Cook Inlet averaged 33,838 king salmon from 2003–2007 and 13,051 king salmon from 2008–2012 (Table 292-1). The average annual commercial harvest in the directed king salmon set gillnet fishery for the 5-year period (2003–2007) was 2,632 (Table 292-1). The more recent average (2008–2012) was 2,002 king salmon. A total of 1,134 king salmon harvested in 2013. The average sport harvest for the 5-year period (2003–2007) was 28,104 king salmon. The more recent average (2008–2012) was 31,206 king salmon. Although sport harvest

for 2013 is not yet available, managers anticipate the harvest will be similar to the 2012 harvest of 3,190 king salmon. The commercial set gillnet harvest comprised 8% of the total harvest from 2003–2007 and 16% from 2008–2012, while the sport harvest comprised 92% of the harvest from 2003–2007 and 84% from 2008–2012.

Since 2007, the sustainable escapement goal (SEG) of 13,000–28,000 for king salmon in Deshka River has been achieved every year, with the exception of 2008 and 2009; through the continued period of below average runs (Figure 292-3). Since 1995, the Deshka River king salmon SEG has been exceeded nine years, within the goal range seven years, and below the minimum goal three years (Figure 292-3).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. In the previous two seasons, the department has restricted both commercial and sport fishing via EO preseason, endeavoring to achieve escapement goals. The improved escapements in 2013 are likely reflective of these actions.

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 292-1.—Number of king salmon harvested by sport fisheries in Northern District drainages and the commercial set gillnet directed king salmon fishery in the Northern District, 1986–2013.

Year	Sport Harvest ^a	% of Total	Commercial Harvest ^b	% of Total	Total
1996	24,232	93%	1,690	7%	25,922
1997	27,097	97%	894	3%	27,991
1998	24,949	92%	2,240	8%	27,189
1999	38,515	94%	2,259	6%	40,774
2000	37,661	95%	2,046	5%	39,707
2001	34,555	96%	1,616	4%	36,171
2002	28,566	94%	1,747	6%	30,313
2003	31,680	96%	1,172	4%	32,852
2004	30,548	94%	1,819	6%	32,367
2005	32,941	91%	3,150	9%	36,091
2006	32,389	89%	3,887	11%	36,276
2007	28,639	90%	3,132	10%	31,771
2008	18,897	83%	3,855	17%	22,752
2009	11,829	90%	1,266	10%	13,095
2010	11,260	87%	1,674	13%	12,934
2011	10,367	83%	2,187	17%	12,554
2012	3,190	76%	1,030	24%	4,220
2013			1,134		
Averages					
1986–2012	25,136	91%	2,098	9%	27,234
2003–2007	31,239	92%	2,632	8%	33,871
2008–2012	11,109	84%	2,002	16%	13,111

Note: Blank cells indicate no data.

^a Estimates are from the Statewide Harvest Survey (SWHS) and includes information from all West Cook Inlet, Susitna Drainage, Knik Arm, Anchorage Bowl, and Turnagain Arm streams that are within the Northern District.

^b Commercial harvest is from the directed Northern District king salmon fishery that occurs from May 25 to June 24.

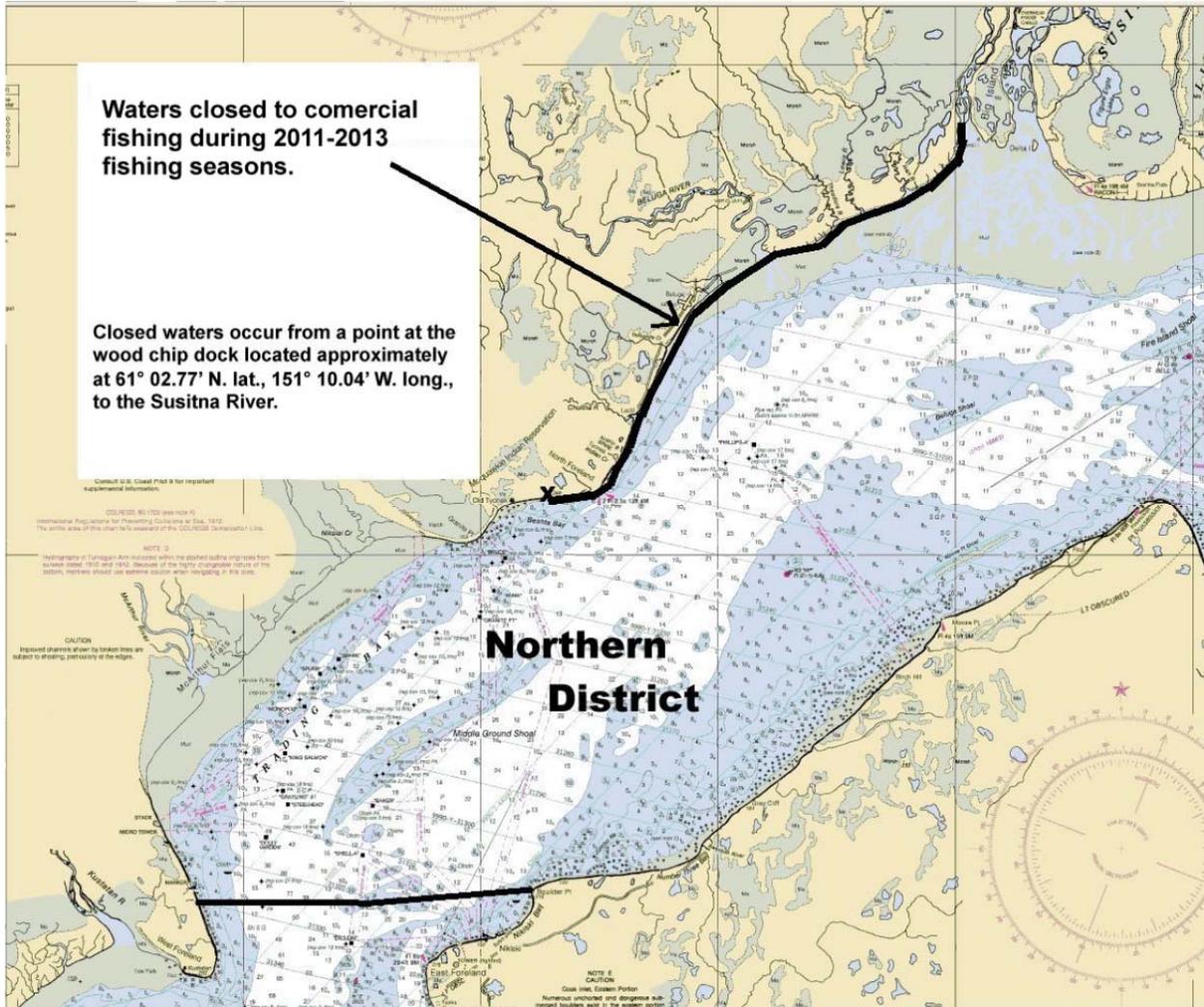


Figure 292-1.—Map of area closed to commercial fishing during 2011–2013 fishing seasons.

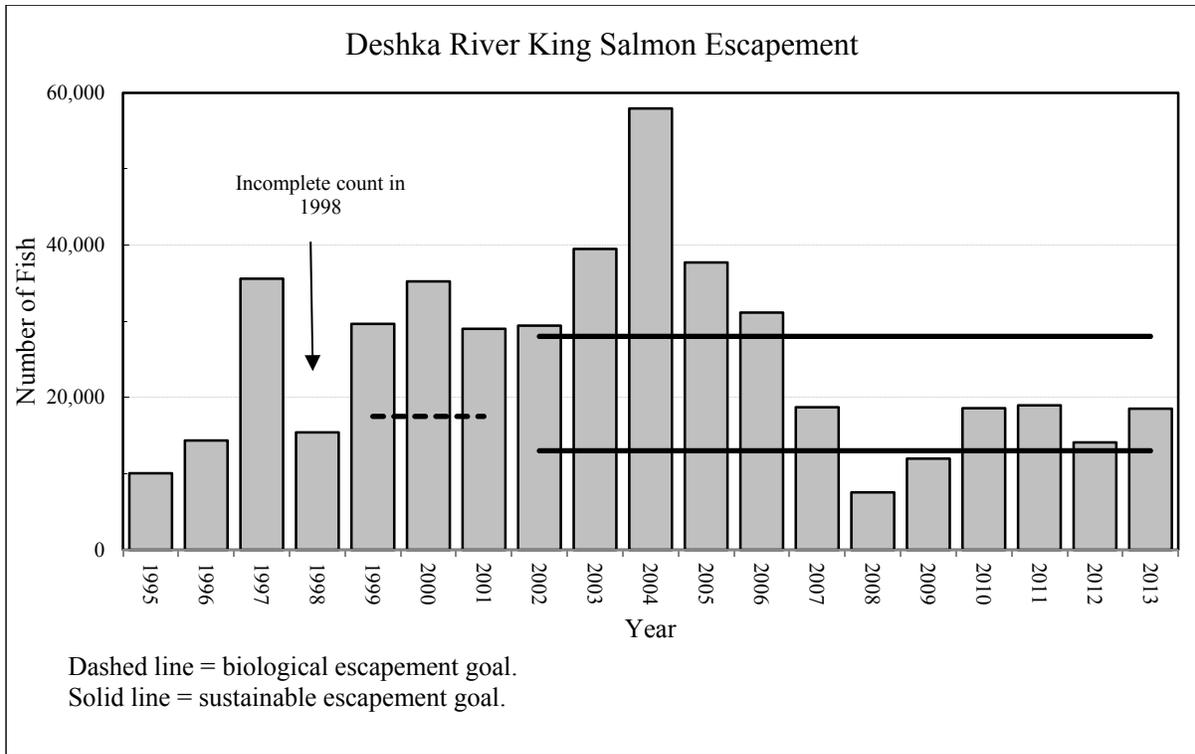


Figure 292-3.—Deshka River king salmon escapement, 1995–2013.

PROPOSAL 293 – 5 AAC 21.358. Northern District Salmon Management Plan.

PROPOSED BY: Andrew Couch.

WHAT WOULD THE PROPOSAL DO? This proposal would modify the management plan to restrict commercial set gillnet fishing to one regular 12-hour period per week in the Northern District if sport fishing for coho salmon in the Little Susitna River or Deshka River is restricted to artificial lures, or close the Northern District to commercial fishing if sport fishing for coho salmon is closed in the Little Susitna River, Fish Creek, Jim Creek, or Deshka River

WHAT ARE THE CURRENT REGULATIONS? In the Northern District set gillnet fishery (*Northern District Salmon Management Plan*), from June 25 until closed by emergency order (EO), salmon may be taken from 7:00 a.m. Monday until 7:00 p.m. Monday and from 7:00 a.m. Thursday until 7:00 p.m. Thursday. From July 20 through August 6, if the Alaska Department of Fish and Game’s (department) assessment of abundance indicates that restrictions are necessary to achieve the escapement goal, the department may limit the number of set gillnets. From July 31 through August 6, the department may allow the use of two set gillnets in that portion of the General District south of the Susitna River. Also, additional fishing periods, other than the weekly fishing periods, may not be provided when coho salmon are expected to be the most abundant species harvested during that period, and after August 15 the department shall limit the harvest of coho salmon in the Northern District by limiting commercial fishing time to the weekly fishing periods.

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 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.

In the Deshka River, the use of bait is allowed July 14–August 31. In the Little Susitna River, the use of bait is allowed August 6–September 30.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would likely result in a higher frequency of restrictions to the Northern District commercial set gillnet fishery and reduce harvest of sockeye, coho, pink, and chum salmon by an unknown amount during years when the inriver sport fisheries are restricted.

BACKGROUND: In 1996, the *Northern District Coho Salmon Management Plan* (5 AAC 21.358) was first adopted. 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.

In 1999, the plan was renamed *Northern District Salmon Management Plan*, and in the plan, the department receives direction on management of the commercial salmon fishery in the Northern District. In 1999, the plan stated, “The department shall manage the Northern District

commercial salmon fisheries based on the abundance of Yentna River sockeye salmon and the department's biological escapement goal, or other salmon indices as it deems appropriate.” In 2011, the plan was modified to reflect changes in sockeye salmon escapement monitoring and new sockeye salmon goals. The department now manages Northern District commercial fisheries based on the abundance of sockeye salmon counted through weirs on Larson, Chelatna, and Judd lakes, or other salmon abundance indices the department deems appropriate.

In 1999, the Alaska Board of Fisheries (board) instructed the department to minimize coho salmon harvest in the Northern District set gillnet fishery by not allowing additional fishing periods, other than the weekly fishing periods, when coho salmon are expected to be the most abundant species harvested during that period. After August 15, regular periods only may be fished. These provisions have not changed since that time.

In 2002, the board first provided limited authority to the department to reduce gear in the Northern District set gillnet fishery from July 20 through July 31. In 2008, the gear reduction authority time period was modified from July 20 through July 31 to July 20 through August 6. In 2011, the board modified the gear reduction provision, from July 31 through August 6 in that portion of the General Subdistrict south of the Susitna, to allow use of two set gillnets per permit.

Through the years, numerous discretionary and management plan-required restrictions and closures have been implemented in the Northern District commercial fishery to conserve coho and sockeye salmon that have resulted in reductions of commercial coho salmon harvest. (Table 293-1). The commercial set gillnet fishery has harvested an average of 70,795 coho salmon annually since 1977 (Table 293-2). The average annual coho salmon harvest in this fishery has decreased in recent years when compared to the historic average; coho salmon harvest was 29,483 from 2003–2012 and 30,647 from 2008–2012.

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. Additionally, exploitation rates by commercial fisheries of UCI 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).

Sport fisheries within Northern Cook Inlet (NCI) harvested an average of 82,000 coho salmon from 2003–2012 (Table 293-3). The Little Susitna River and Jim Creek of the Knik Arm management area support the largest sport fisheries in NCI. Since 1993, the average annual coho salmon sport harvest on the Little Susitna River is approximately 13,000 fish (Table 293-4). A more recent average annual harvest since 2003 is 9,900 fish. The coho salmon sport harvest in 2011 of 2,450 fish, and 1,680 fish in 2012, reflect poor run years when the sport fishery was closed midseason.

The sustainable escapement goal (SEG) for Little Susitna River coho salmon is 10,100–17,700 fish. The average escapement from 1994–2003 was 18,800 fish (Table 293-5). A more recent

escapement average since 2003 is 14,600 based on complete weir count years. The SEG was achieved in 6 of the past 10 years. The SEG was missed 2009–2012 despite inseason restrictions and closures in 2011 and 2012 to reduce sport harvest. The SEG was attained in 2013 with an incomplete weir count of 13,583 coho salmon. The average sport harvest on Jim Creek from 2003–2012 was 10,200 coho salmon. The SEG for the Jim Creek system was missed 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 293-1.--Management actions in the Northern District set gillnet and Central District drift gillnet commercial fisheries to conserve Susitna sockeye and coho salmon.

Year	Action	Date	Management Plan or Discretionary
1991	Closed ND set gillnet fishery	29-Jul	discretionary
1992	Closed ND set gillnet fishery	24-Jul	discretionary
	Closed ND set gillnet fishery	27-Jul	discretionary
1993	Closed ND set gillnet fishery	23-Jul	discretionary
1994	Closed ND set gillnet fishery	22-Jul	discretionary
1995	Closed ND set gillnet fishery	24-Jul	discretionary
1996	Closed ND set gillnet fishery	22-Jul	discretionary
1997	Closed ND set gillnet fishery	18-Jul	discretionary
	Closed ND set gillnet fishery	21-Jul	discretionary
1998	Closed ND set gillnet fishery	20-Jul	discretionary
	Closed ND set gillnet fishery	27-Jul	discretionary
	Closed ND set gillnet fishery	31-Jul	discretionary
1999	Closed ND set gillnet fishery	22-Jul	discretionary
	Closed ND set gillnet fishery	29-Jul	discretionary
2001	Closed ND set gillnet fishery	23-Jul	discretionary
	Closed ND set gillnet fishery	26-Jul	discretionary
2002	ND gear reduced to 1 net;	22-Jul	discretionary
	Closed ND set gillnet fishery	25-Jul	discretionary
	Closed ND set gillnet fishery	29-Jul	discretionary
2004	Reduce ND to 2 nets;	26-Jul	discretionary
	Reduce ND to 1 net;	29-Jul	discretionary
2005	Closed ND set gillnet fishery	2-Aug	discretionary
	Closed ND set gillnet fishery	21-Jul	discretionary
	Closed ND set gillnet fishery	25-Jul	discretionary
	Closed ND set gillnet fishery	28-Jul	discretionary
	Closed ND set gillnet fishery	1-Aug	discretionary
2006	Closed ND set gillnet fishery	4-Aug	discretionary
	Closed ND set gillnet fishery	10-Jul	discretionary
	Closed ND set gillnet fishery	13-Jul	discretionary
	Closed ND set gillnet fishery	17-Jul	discretionary
	Closed ND set gillnet fishery	20-Jul	discretionary
	Closed ND set gillnet fishery	24-Jul	discretionary
	Closed ND set gillnet fishery	27-Jul	discretionary
	Closed ND set gillnet fishery	31-Jul	discretionary
2007	Closed ND set gillnet fishery	3-Aug	discretionary
	ND reduced to 1 net	23-Jul	discretionary
	Closed ND set gillnet fishery	26-Jul	discretionary
	Closed ND set gillnet fishery	30-Jul	discretionary
	Closed ND set gillnet fishery	2-Aug	discretionary
	Closed ND set gillnet fishery	6-Aug	discretionary

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Table 293-1.-Page 2 of 2.

Year	Action	Date	Management Plan or Discretionary
2008	ND restricted to 1 net	21-Jul	discretionary
2009	ND restricted to 1 net	20-Jul	management plan
2010	ND restricted to 1 net	21-Jul	management plan
2011	ND restricted to 1 net	21-Jul	management plan
2012	ND restricted to 1 net	23-Jul	management plan
	Closed General Subdistrict of ND	9-Aug	discretionary
	Closed General Subdistrict of ND	13-Aug	discretionary
	Closed ND set gillnet fishery	16-Aug	discretionary
	Closed ND set gillnet fishery	20-Aug	discretionary
2013	ND restricted to 1 net	22-Jul	management plan

Table 293-2.-Number of coho salmon harvested in the commercial set gillnet fishery, 1996–2013.

Year	Commercial Harvest ^a
1996	78,105
1997	37,369
1998	34,387
1999	31,643
2000	71,475
2001	45,928
2002	50,292
2003	24,015
2004	44,819
2005	30,859
2006	20,368
2007	21,531
2008	42,177
2009	37,629
2010	38,111
2011	22,113
2012	13,206
2013	42,413
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Averages	
1986–2012	37,884
2003–2007	28,318
2008–2012	30,647

Note: Blank cells indicate no data.

^a Commercial harvest is from the Northern District set gillnet fishery.

Table 293-3.–Sport fish harvest of coho salmon in the Northern Cook Inlet, 2003–2012.

Year	Coho salmon harvest				Total
	Anchorage	WCI	Susitna R	Knik Arm	
2003	13,375	14,239	34,657	24,583	86,854
2004	13,447	16,179	38,269	34,298	102,193
2005	15,063	12,572	35,737	27,000	90,372
2006	19,863	11,940	43,193	39,953	114,949
2007	10,692	12,580	27,529	27,733	78,534
2008	17,996	14,673	39,337	35,996	108,002
2009	10,805	9,801	29,799	37,271	87,676
2010	4,466	9,030	30,536	26,369	70,401
2011	7,405	6,292	21,523	8,484	43,704
2012	4,187	7,813	17,063	5,014	34,077
<u>Average</u>					
2003–2012	11,730	11,512	31,764	26,670	81,676
2008–2012	8,972	9,522	27,652	22,627	68,772

Table 293-4.-Effort and harvest of coho salmon on the Little Susitna River and Jim Creek, 1994–2012.

Year	Coho salmon harvest	
	Little Susitna River	Jim Creek
1993	27,610	2,878
1994	17,665	3,946
1995	14,451	3,549
1996	16,753	3,911
1997	7,756	1,786
1998	14,469	4,197
1999	8,864	2,612
2000	20,357	5,653
2001	17,071	8,374
2002	19,278	14,707
2003	13,672	6,415
2004	15,307	11,766
2005	10,203	10,114
2006	12,399	19,259
2007	11,089	11,848
2008	13,498	17,545
2009	8,346	11,573
2010	10,662	8,442
2011	2,452	3,132
2012	1,681	1,858
<u>Average</u>		
1993–2012	13,179	7,678
2003–2012	9,931	10,195
2008–2012	7,328	8,510

Table 293-5.–Coho salmon counts on select streams within the Northern Cook Inlet, 1995–2013.

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
<u>Average</u>				
1994–2013	18,552 ^f	5,658 ^f	1,175	22,767 ^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 294 – 5 AAC 21.358. Northern District Salmon Management Plan.

PROPOSED BY: Alaska Outdoor Council.

WHAT WOULD THE PROPOSAL DO? This proposal would stipulate that the Northern District commercial fishery be managed to meet sockeye salmon escapement goals not only at weirs at Larson, Chelatna, and Judd lakes, but also managed to achieve sockeye salmon escapement goals enumerated by a weir at Fish Creek, and coho salmon escapement goals monitored by weirs at Fish Creek and Little Susitna River.

WHAT ARE THE CURRENT REGULATIONS? In the Northern District set gillnet fishery (*Northern District Salmon Management Plan*), from June 25 until closed by emergency order (EO), salmon may be taken from 7:00 a.m. Monday until 7:00 p.m. Monday and from 7:00 a.m. Thursday until 7:00 p.m. Thursday. From July 20 through August 6, if the department's assessment of abundance indicates that restrictions are necessary to achieve the escapement goal, the department may limit the number of set gillnets. From July 31 through August 6, the department may allow the use of two set gillnets in that portion of the General District south of the Susitna River. Also, additional fishing periods, other than the weekly fishing periods, may not be provided when coho salmon are expected to be the most abundant species harvested during that period, and after August 15, the department shall limit the harvest of coho salmon in the Northern District by limiting commercial fishing time to the weekly fishing periods.

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 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.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It is difficult to assess the effects of the proposal because this proposal does not identify specific actions to take in the Northern District commercial fishery if one of the goals listed was not being met. The department currently uses its EO authority to restrict sport and commercial fisheries, including modifying fishing times and areas, to meet established escapement goals.

BACKGROUND: Inseason management for sockeye salmon escapement at Judd, Chelatna, and Larson lakes for the most part is covered by restrictive provisions as part of the *Susitna River Sockeye Salmon Action Plan*. These provisions are contained in the *Northern District Salmon Management Plan* and the *Central District Drift Gillnet Fishery Management Plan* and are designed to conserve northern-bound salmon. The management plan restrictions to the commercial fishery not only reduce the harvest of Susitna River sockeye salmon, they also reduce the harvest of Fish Creek sockeye and coho salmon and Little Susitna River coho salmon.

In 1996, the *Northern District Coho Salmon Management Plan* (5 AAC 21.358) was first adopted. 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.

In 1999, the plan was renamed *Northern District Salmon Management Plan* and in the plan, the department receives direction on management of the commercial salmon fishery in the Northern District. In 1999, the plan stated “The department shall manage the Northern District commercial salmon fisheries based on the abundance of Yentna River sockeye salmon and the department's biological escapement goal, or other salmon indices as it deems appropriate.” In 2011, the plan was modified to reflect changes in sockeye salmon escapement monitoring and new sockeye salmon goals. The department now manages Northern District commercial fisheries based on the abundance of sockeye salmon counted through weirs on Larson, Chelatna, and Judd lakes, or other salmon abundance indices the department deems appropriate.

In 1999, the Alaska Board of Fisheries (board) instructed the department to minimize coho salmon harvest in the Northern District set gillnet fishery by not allowing additional fishing periods, other than the weekly fishing periods, when coho salmon are expected to be the most abundant species harvested during that period. After August 15, regular periods only may be fished. These provisions have not changed since that time.

In 2002, the board first provided limited authority to the department to reduce gear in the Northern District set gillnet fishery from July 20 through July 31. In 2008, the gear reduction authority time period was modified from July 20 through July 31 to July 20 through August 6. In 2011, the board modified the gear reduction provision, from July 31 through August 6 in that portion of the General Subdistrict south of the Susitna, to allow the use of two set gillnets per permit.

In January of 2009, the department determined the Yentna River sockeye salmon escapement estimates and escapement goal were inappropriate given the uncertainties associated with the species allocation of daily sonar estimates of salmon 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 in favor of three weir-based lake goals at Chelatna, Judd, and Larson lakes. Three sockeye salmon 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 (Table 294-1).

The Little Susitna River and Jim Creek of the Knik Arm management area support the largest sport fisheries in NCI. Since 1993, the average annual coho salmon sport harvest on the Little Susitna River is approximately 13,000 fish (Table 294-2). A more recent average annual harvest since 2003 is 9,900 fish. The coho salmon sport harvest in 2011 of 2,450 fish, and 1,680 fish in 2012, reflect poor run years when the sport fishery was closed midseason.

The sustainable escapement goal (SEG) for Little Susitna River coho salmon is 10,100–17,700 fish. The average escapement from 1994–2003 was 18,800 fish (Table 294-3). A more recent escapement average since 2003 is 14,600 based on complete weir count years. The SEG was achieved in 6 of the past 10 years. The SEG was missed 2009–2012 despite inseason restrictions and closures in 2011 and 2012 to reduce sport harvest inseason. The SEG was attained in 2013 with an incomplete weir count of 13,583 coho salmon. The average sport harvest on Jim Creek from 2003–2012 was 10,200 coho salmon. The SEG for the Jim Creek system was missed 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.

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 294-4). 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. The Fish Creek coho salmon escapement goal was first adopted in 1994 (Table 294-3). From 1994–2001, it was a point goal of 2,700 fish. In 2002, the goal was changed to an SEG of 1,200–4,400 fish and the SEG has been achieved every year since 2002 (Table 294-3).

Sport fisheries within Northern Cook Inlet (NCI) harvested an average of 82,000 coho salmon from 2003–2012 (Table 294-5). The Northern District commercial set gillnet fishery has harvested an average of 70,795 coho salmon per year since 1977 (Table 294-6). The average annual coho salmon harvest in this fishery has decreased in recent years when compared to the historic average; coho salmon harvest was 29,483 from 2003–2012 and 30,647 from 2008–2012.

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. Additionally, exploitation rates by commercial fisheries of UCI 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).

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 294-1.—Sockeye salmon 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 294-2.—Effort and harvest of coho salmon on the Little Susitna River and Jim Creek, 1994–2012.

Year	Coho salmon harvest	
	Little Susitna River	Jim Creek
1993	27,610	2,878
1994	17,665	3,946
1995	14,451	3,549
1996	16,753	3,911
1997	7,756	1,786
1998	14,469	4,197
1999	8,864	2,612
2000	20,357	5,653
2001	17,071	8,374
2002	19,278	14,707
2003	13,672	6,415
2004	15,307	11,766
2005	10,203	10,114
2006	12,399	19,259
2007	11,089	11,848
2008	13,498	17,545
2009	8,346	11,573
2010	10,662	8,442
2011	2,452	3,132
2012	1,681	1,858
<u>Average</u>		
1993–2012	13,179	7,678
2003–2012	9,931	10,195
2008–2012	7,328	8,510

Table 294-3.–Coho salmon counts on select streams within the Northern Cook Inlet, 1995–2013.

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
<u>Average</u>				
1994–2013	18,552 ^f	5,658 ^f	1,175	22,767 ^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.

Table 294-4.–Fish Creek personal use sockeye salmon harvest, and contribution of hatchery fish to the Fish Creek sockeye salmon escapement, 2002–2013.

Year	Escapement				Personal Use Harvest
	Total Escapement ^a	Hatchery Contribution		Total "Wild" Escapement	
		Percent	Total		
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	N/A	N/A		
Average	51,113	43%	22,013	32,030	

NA = Data not available.

^a Sustainable escapement goal = 20,000–70,000 sockeye salmon.

Table 293-5.-Sport fish harvest of coho salmon in the Northern Cook Inlet, 2003–2012.

Year	Coho salmon harvest				Total
	Anchorage	WCI	Susitna R	Knik Arm	
2003	13,375	14,239	34,657	24,583	86,854
2004	13,447	16,179	38,269	34,298	102,193
2005	15,063	12,572	35,737	27,000	90,372
2006	19,863	11,940	43,193	39,953	114,949
2007	10,692	12,580	27,529	27,733	78,534
2008	17,996	14,673	39,337	35,996	108,002
2009	10,805	9,801	29,799	37,271	87,676
2010	4,466	9,030	30,536	26,369	70,401
2011	7,405	6,292	21,523	8,484	43,704
2012	4,187	7,813	17,063	5,014	34,077
<u>Average</u>					
2003–2012	11,730	11,512	31,764	26,670	81,676
2008–2012	8,972	9,522	27,652	22,627	68,772

Table 293-6.—Commercial harvest of coho salmon in the Northern District set gillnet fishery 1977–2013.

Year	Harvest
1977	20,623
1978	47,089
1979	53,078
1980	90,098
1981	133,625
1982	85,352
1983	53,867
1984	114,786
1985	91,837
1986	88,108
1987	97,062
1988	149,742
1989	175,738
1990	140,506
1991	132,302
1992	91,133
1993	106,294
1994	144,064
1995	89,300
1996	78,105
1997	37,369
1998	34,387
1999	31,643
2000	71,475
2001	45,928
2002	50,292
2003	24,015
2004	44,819
2005	30,859
2006	20,368
2007	21,531
2008	42,177
2009	37,629
2010	38,111
2011	22,113
2012	13,206
2013	42,413
<u>Average</u>	
1977–2012	70,795
2003–2012	29,483
2008–2012	30,647

PROPOSAL 295 – 5 AAC 21.358. Northern District 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, late-run Kenai River king, and 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.

WHAT ARE THE CURRENT REGULATIONS? In the Northern District set gillnet fishery (*Northern District Salmon Management Plan*), from June 25 until closed by emergency order (EO), salmon may be taken from 7:00 a.m. Monday until 7:00 p.m. Monday and from 7:00 a.m. Thursday until 7:00 p.m. Thursday. From July 20 through August 6, if the department's assessment of abundance indicates that restrictions are necessary to achieve the escapement goal, the department may limit the number of set gillnets. From July 31 through August 6, the department may allow the use of two set gillnets in that portion of the General District south of the Susitna River. Also, additional fishing periods, other than the weekly fishing periods, may not be provided when coho salmon are expected to be the most abundant species harvested during that period, and after August 15 the department shall limit the harvest of coho salmon in the Northern District by limiting commercial fishing time to the weekly fishing periods.

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 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.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? It is not anticipated that there would be additional management effects if this proposal were adopted. It is unlikely this proposal would provide additional management flexibility to the department, as specific provisions for management of the various fisheries are already within the management plans and existing regulations (seasons, periods, and duration). The department relies on these management plans and use of its EO authority to manage all fisheries in Upper Cook Inlet to achieve escapement goals.

BACKGROUND: In 1996, the *Northern District Coho Salmon Management Plan* (5 AAC 21.358) was first adopted. 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.

In 1999, the plan was renamed *Northern District Salmon Management Plan* and in the plan, the department receives direction on management of the commercial salmon fishery in the Northern District. In 1999, the plan stated “The department shall manage the Northern District commercial salmon fisheries based on the abundance of Yentna River sockeye salmon and the department's biological escapement goal, or other salmon indices as it deems appropriate.” In 2011, the plan

was modified to reflect changes in sockeye salmon escapement monitoring and new sockeye salmon goals. The department now manages Northern District commercial fisheries based on the abundance of sockeye salmon counted through weirs on Larson, Chelatna, and Judd lakes, or other salmon abundance indices the department deems appropriate.

In 1999, the Alaska Board of Fisheries (board) instructed the department to minimize coho salmon harvest in the Northern District set gillnet fishery by not allowing additional fishing periods, other than the weekly fishing periods, when coho salmon are expected to be the most abundant species harvested during that period. After August 15, regular periods only may be fished. These provisions have not changed since that time.

In 2002, the board first provided limited authority to the department to reduce gear in the Northern District set gillnet fishery from July 20 through July 31. In 2008, the gear reduction authority time period was modified from July 20 through July 31 to July 20 through August 6. In 2011, the board modified the gear reduction provision, from July 31 through August 6 in that portion of the General Subdistrict south of the Susitna, to allow the use of two set gillnets per permit.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. The department already manages these fisheries, first to achieve escapement goals, then to provide opportunity for commercial, sport, guided sport, subsistence, and personal use 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.

Susitna River Drainage Sport Fisheries: 296–299, 302–306

PROPOSAL 296 – 5 AAC 21.366. Northern District King Salmon Management Plan and 61.XXX. New Section.

PROPOSED BY: Matanuska Valley Fish and Game Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would adopt a Deshka River king salmon management plan. Elements of the management plan include setting a threshold, below which preseason restrictions would be enacted in the Deshka River sport fishery. The threshold would be based on a preseason forecast for Deshka River king salmon. The management plan would also establish specific inseason projection thresholds, specific dates, and specific weir counts that would trigger various inseason actions in the Deshka River sport fishery.

WHAT ARE THE CURRENT REGULATIONS? The Deshka River is open to king salmon fishing January 1–July 13 from the mouth upstream 17 miles, and all waters within a one-half mile radius of its confluence with the Susitna River. The remainder of the drainage is closed to king salmon fishing. In the area open to king fishing, no bait is allowed January 1–May 14; beginning May 15 through July 13 bait is allowed; fishing is allowed only between 6:00 a.m. and 11:00 p.m. The bag and possession limit for king salmon, 20 inches or greater in length, is one per day. After retaining a king salmon 20 inches or greater in length, a person may not fish for king salmon on that same day.

An annual limit of five king salmon 20 inches or longer may be taken from fresh waters of Cook Inlet north of the latitude of Point Adam, and from Cook Inlet salt waters, except that king salmon harvested in Cook Inlet salt waters south of Anchor Point Light from October 1 to March 31, and king salmon longer than 20 inches, but less than 28 inches, harvested in the Kenai River from January 1 through June 30 are not included in the limit. Of these five total king salmon, no more than two may be taken from the Kenai River and no more than two may be taken from Deep Creek and Anchor River combined.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would reduce management flexibility when salmon runs experience conditions that fall outside of the parameters set by this plan. Adhering to the step-down measures proposed in the plan may increase the likelihood of failing to achieve the escapement goal; actual actions necessary to achieve the escapement goal could differ by severity and time. This proposal would not result in a more predictable fishery because it would likely increase the number of emergency orders (EO) issued each season.

BACKGROUND: The Deshka River, along with the rest of Northern Cook Inlet (NCI) streams, experienced a downturn in king salmon runs during the 1990s and years of good runs from 1999 through 2006. King salmon escapements in the Deshka River, as in many other systems in Alaska, started trending downward beginning in 2007 (Figure 296-1). In 2008, inseason information from the weir indicated a weak run; the use of bait was restricted by EO on June 14, followed by closure of the fishery on June 19. The final weir count of 7,533 was below the sustainable escapement goal (SEG) of 13,000–28,000 fish. Beginning in 2009, the department

issued a combination of preseason and inseason restrictions by EO to achieve the Deshka River SEG, as well as to provide for sport fishing opportunity throughout the king salmon season (Table 296-1). Preseason EOs have been based on run outlooks developed in January or February prior to the fishing season and uncertainty in the performance of those outlooks (Table 296-2), past performance in achieving goals, and anticipated sport harvest. The preseason outlook is only one index of expected run size, and the severity of a management action is related to past successes under similar circumstances, history of making past escapement goals in the Deshka River and adjacent streams, and, to a large degree, anticipated harvest.

Inseason EOs have been based on projections of escapement; the severity of restrictions have generally been guided by the magnitude of the projection and the level of harvest reduction needed to achieve the goal. Inseason actions are also influenced by intricacies or unique variables specific to the Deshka River. Each season can present a unique set of circumstances where weir counts alone are insufficient to manage the fishery. The manager's local knowledge of the fishery, such as fishing success by certain dates and areas, expectations of daily counts based on historical run timing, assessing how runs are building or not building in comparison to other similar years, and effect of water level and temperature on fish behavior at certain points throughout the run, are critical aspects of management decisions. Climatic conditions can affect fish behavior and therefore, run timing of salmon. This tends to be more prevalent on the Deshka River than other NCI systems due to the river being prone to high water temperatures and low water levels. Flexibility affords a greater chance at maximizing sport opportunity and achieving escapement goals. Most recently, during the 2013 season, a decision was made to delay closure of the Deshka River sport fishery, even though the projection was well below the SEG at the first quarter of the historical run. Warm water temperature was causing fish to stack and hold in the confluence area and fishing success was low. Had the sport fishery been closed, as would have typically occurred with such a poor projection of escapement at this point of the run, about 10 days of opportunity would have been lost during the middle portion of the season.

Since 2007, with the exception of 2008 and 2009, the SEG has been achieved in every year through the continued period of below average runs.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. During low runs, the Deshka River sport fishing regulations can be, and have been, adjusted by EO preseason and, if needed, inseason, to respond to anticipated shortfalls in king salmon escapement. A prescriptive management plan based upon the preseason forecast and weir counts alone could result in lost opportunity due to rigidity and not allowing for other variables important in the decision making process.

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.

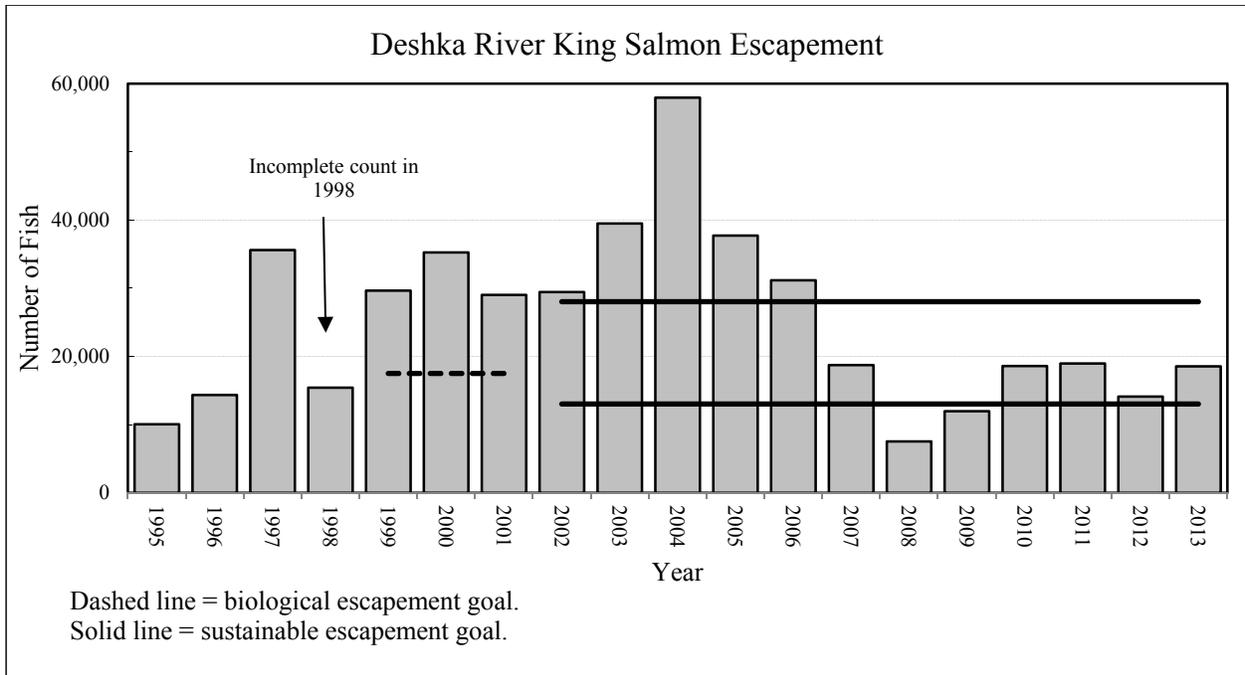


Figure 296-1.—Deshka River king salmon escapement, 1995–2013.

Table 296-1.—Emergency orders (EO) issued on the Deshka River king salmon fishery, 2009–2013.

Year	Preseason EO	Inseason EO
2009	no bait, harvest Sat-Mon only	closed June 11
2010	none	no bait June 9; rescinded June 19
2011	none	none
2012	annual limit of 2	no bait & closed above weir June 18; entire fishery closed June 22
2013	annual limit of 2; single hook; no bait	bait allowed June 29

Table 296-2.—Accuracy of the Deshka River king salmon outlook, 1999–2013.

Return year	Forecast Total Run	Actual Total Run	Forecast difference by major age class (forecast-actual)				Total difference	overall effect
			Age 4	Age 5	Age 6			
1999	26,810	33,371	-4,374	-363	-1,824	6,561	underforecast	
2000	33,337	42,273	3,508	-17,945	5,502	26,955	underforecast	
2001	40,753	33,210	385	-5,768	12,926	19,079	overforecast	
2002	43,805	32,955	994	5,640	4,216	10,850	overforecast	
2003	41,041	46,193	-8,524	-969	4,341	13,834	underforecast	
2004	60,833	66,383	-2,537	-933	-2,080	5,550	underforecast	
2005	48,687	44,134	-4,692	2,924	6,321	13,938	overforecast	
2006	49,071	38,451	-628	12,056	-808	13,491	overforecast	
2007	37,007	24,032	6,592	4,117	2,266	12,975	overforecast	
2008	20,268	9,656	6,428	2,060	2,124	10,612	overforecast	
2009	20,593	12,721	1,024	4,148	2,699	7,872	overforecast	
2010	30,775	22,207	4,864	2,742	962	8,568	overforecast	
2011	21,080	22,049	270	-4,306	3,068	7,644	underforecast	
2012	21,665	16,113	-4,181	9,419	983	14,583	overforecast	
2013	26,791	20,953	2,936	5,986	-2,262	11,184	overforecast	

PROPOSAL 297 – 5 AAC 21.366. Northern District King Salmon Management Plan and 5 AAC 61.XXX. New Section.

PROPOSED BY: Matanuska Valley Fish and Game Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would adopt a Deshka River king salmon management plan. Elements of the management plan include setting a threshold, below which preseason restrictions would be enacted in the Deshka River sport fishery. The threshold would be based on a preseason forecast for Deshka River king salmon. The management plan would also establish specific inseason projection thresholds, specific dates, and specific weir counts that would trigger various inseason actions in the Deshka River sport fishery and Northern District commercial setnet fishery.

WHAT ARE THE CURRENT REGULATIONS? The Deshka River is open to king salmon fishing January 1–July 13 from the mouth upstream 17 miles, and all waters within a one-half mile radius of its confluence with the Susitna River. The remainder of the drainage is closed to king salmon fishing. In the area open to king fishing: no bait is allowed January 1–May 14; beginning May 15 through July 13 bait is allowed; fishing is allowed only between 6:00 a.m. and 11:00 p.m. The bag and possession limit for king salmon 20 inches or greater in length is one per day. After retaining a king salmon 20 inches or greater in length, a person may not fish for king salmon on that same day.

An annual limit of five king salmon 20 inches or longer may be taken from fresh waters of Cook Inlet north of the latitude of Point Adam, and from Cook Inlet salt waters, except that king salmon harvested in Cook Inlet salt waters south of Anchor Point Light from October 1 to March 31, and king salmon longer than 20 inches, but less than 28 inches, harvested in the Kenai River from January 1 through June 30 are not included in the limit. Of these five total king salmon, no more than two may be taken from the Kenai River and no more than two may be taken from Deep Creek and Anchor River combined.

The Northern District king salmon fishery opens for the first fishing period beginning on the first Monday on or after May 25, and continues through June 24, unless closed earlier by emergency order (EO). Fishing periods are from 7:00 a.m. to 7:00 p.m. on Mondays and Thursdays. Set gillnets may not exceed 35 fathoms in length and six inches in mesh size, and gillnets may not be set or operated within 1,200 feet of another set gillnet. From May 25 through June 24, the area from a department regulatory marker located one mile south of the Theodore River to the Susitna River is open to fishing during the second regular Monday period only. If the Theodore, Lewis, or Ivan rivers are closed to sport fishing, the area from a department regulatory marker located one mile south of the Theodore River to the Susitna River shall be closed to commercial king salmon fishing for the remainder of the directed king salmon fishery. If the Deshka River is closed to sport fishing, the commercial king salmon fishery throughout the Northern District shall be closed for the remainder of the directed king salmon fishery. If the Chuitna River is closed to sport fishing, the area from a department regulatory marker located one mile south of the Chuitna River to the Susitna River shall be closed to commercial king salmon fishing for the remainder of the directed king salmon fishery. The commercial harvest may not exceed 12,500 king salmon.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would reduce management flexibility when salmon runs experience conditions that fall outside of the parameters set by this plan. Adhering to the step-down measures proposed in the plan may increase the likelihood of failing to achieve the escapement goal; actual actions necessary to achieve the escapement goal could differ by severity and time. This proposal would not result in a more predictable fishery because it would likely increase the number of EOs issued each season.

BACKGROUND: The Deshka River, along with the rest of Northern Cook Inlet (NCI) streams, experienced a downturn in king salmon runs during the 1990s and years of good runs from 1999 through 2006. King salmon escapements in the Deshka River, as in many other systems in Alaska, started trending downward beginning in 2007 (Figure 297-1). In 2008, inseason information from the weir indicated a weak run; the use of bait was restricted by EO on June 14, followed by closure of the fishery on June 19. The final weir count of 7,533 was below the sustainable escapement goal (SEG) of 13,000–28,000 fish. Beginning in 2009, the department issued a combination of preseason and inseason restrictions by EO to achieve the Deshka River SEG, as well as to provide for sport fishing opportunity throughout the king salmon season (Table 297-1). Preseason EOs have been based on run outlooks developed in January or February prior to the fishing season and uncertainty in the performance of those outlooks (Table 297-2), past performance in achieving goals, and anticipated sport harvest. The preseason outlook is only one index of expected run size, and the severity of a management action is related to past successes under similar circumstances, history of making past escapement goals in the Deshka River and adjacent streams, and, to a large degree, anticipated harvest.

Inseason EO's have been based on projections of escapement; the severity of restrictions have generally been guided by the magnitude of the projection and the level of harvest reduction needed to achieve the goal. Inseason actions are also influenced by intricacies or unique variables specific to the Deshka River. Each season can present a unique set of circumstances where weir counts alone are not sufficient to manage the fishery. The manager's local knowledge of the fishery, such as fishing success by certain dates and areas, expectations of daily counts based on historical run timing, assessing how runs are building or not building in comparison to other similar years, and effect of water level and temperature on fish behavior at certain points throughout the run, are critical aspects of management decisions. Climatic conditions can affect fish behavior and therefore, run timing of salmon. This tends to be more prevalent on the Deshka River than other NCI systems due to the river being prone to high water temperatures and low water levels. Flexibility affords a greater chance at maximizing sport opportunity and achieving escapement goals. Most recently, during the 2013 season, a decision was made to delay closure of the Deshka River sport fishery even though the projection was well below the SEG at the first quarter of the historical run. Warm water temperature was causing fish to stack and hold in the confluence area and fishing success to be low. Had the sport fishery been closed, as would have typically occurred with such a poor projection of escapement by this point of the run, about 10 days of opportunity would have been lost during the middle portion of the season.

Since 2007, with the exception of 2008 and 2009, the SEG has been achieved in every year through the continued period of below average runs.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal and is **NEUTRAL** on the allocative aspects. During low runs, the Deshka River sport fishing regulations can be, and have been, adjusted by EO preseason and, if needed, inseason, to respond to anticipated shortfalls in king salmon escapement. Harvest allocation between users as salmon migrate over a long period of time through various fisheries to the spawning grounds is already contained within the *Northern District King Salmon Management Plan*. Actions taken in various NCI sport fisheries trigger specific changes to how the Northern District setnet fishery is prosecuted. A prescriptive management plan within a sport fishery based upon the preseason forecast and weir counts alone could result in lost opportunity due to rigidity and not allowing for other variables important in the decision making process.

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.

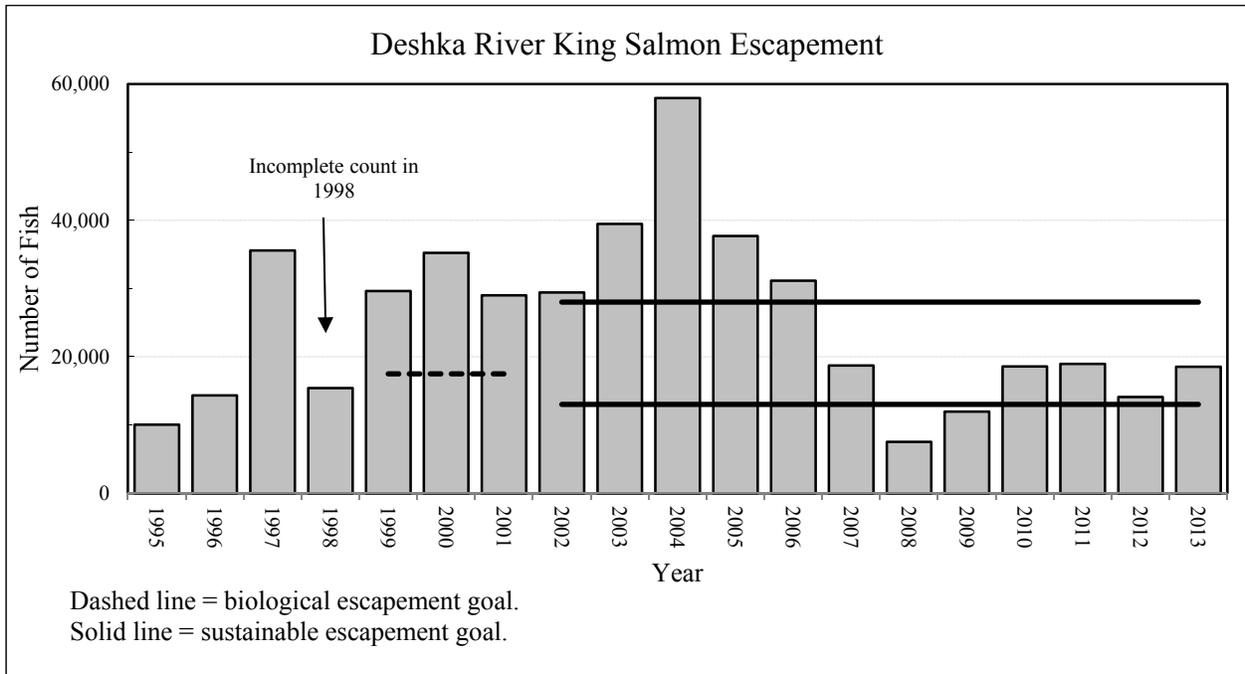


Figure 297-1.—Deshka River king salmon escapement, 1995–2013.

Table 297-1.—Emergency orders (EO) issued on the Deshka River king salmon fishery, 2009–2013.

Year	Preseason EO	Inseason EO
2009	no bait, harvest Sat-Mon only	closed June 11
2010	none	no bait June 9; rescinded June 19
2011	none	none
2012	annual limit of 2	no bait & closed above weir June 18; entire fishery closed June 22
2013	annual limit of 2; single hook; no bait	bait allowed June 29

Table 297-2.—Accuracy of the Deshka River king salmon outlook, 1999–2013.

Return year	Forecast Total Run	Actual Total Run	Forecast difference by major age class (forecast-actual)			Total difference	overall effect
			Age 4	Age 5	Age 6		
1999	26,810	33,371	-4,374	-363	-1,824	6,561	underforecast
2000	33,337	42,273	3,508	-17,945	5,502	26,955	underforecast
2001	40,753	33,210	385	-5,768	12,926	19,079	overforecast
2002	43,805	32,955	994	5,640	4,216	10,850	overforecast
2003	41,041	46,193	-8,524	-969	4,341	13,834	underforecast
2004	60,833	66,383	-2,537	-933	-2,080	5,550	underforecast
2005	48,687	44,134	-4,692	2,924	6,321	13,938	overforecast
2006	49,071	38,451	-628	12,056	-808	13,491	overforecast
2007	37,007	24,032	6,592	4,117	2,266	12,975	overforecast
2008	20,268	9,656	6,428	2,060	2,124	10,612	overforecast
2009	20,593	12,721	1,024	4,148	2,699	7,872	overforecast
2010	30,775	22,207	4,864	2,742	962	8,568	overforecast
2011	21,080	22,049	270	-4,306	3,068	7,644	underforecast
2012	21,665	16,113	-4,181	9,419	983	14,583	overforecast
2013	26,791	20,953	2,936	5,986	-2,262	11,184	overforecast

PROPOSAL 298 – 5 AAC 61.112. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for Unit 1 of the Susitna River Drainage Area.

PROPOSED BY: Matanuska-Susitna Borough Fish and Wildlife Commission.

WHAT WOULD THE PROPOSAL DO? This proposal would allow the use of bait in the Deshka River on June 1 instead of May 15.

WHAT ARE THE CURRENT REGULATIONS? In the Deshka River drainage, from its mouth upstream to department regulatory markers near Chijuk Creek (river mile 17), and in all waters within a one-half mile radius of its confluence with the Susitna River, king salmon may be taken from January 1–July 13; from September 1–May 14, only unbaited, artificial lures may be used; from May 15–August 31, bait may be used; the remainder of the drainage is closed from January 1–December 31 to sport fishing for king salmon.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal may reduce harvest by an unknown, but likely small, amount. Opportunity to fish with bait early in the season would be lost. During years of below average runs, savings would be negligible because typically the front end of a below-average run is small. It may also result in anglers having to fish longer to catch a fish, depending on water conditions, prior to June 1.

BACKGROUND: The use of bait has been allowed by regulation in the Deshka River king salmon fishery since 2002. In 2002, bait was allowed beginning June 8 (Table 298-1). King salmon returns trended upward through 2004, with a peak weir count of 57,934 recorded for that year. The Alaska Board of Fisheries (board) allowed the use of bait to begin May 15 in 2005. Based on historical run timing, May 15 represents less than 1% of the average run and June 1, about 1% (Figure 298-1).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on 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 298-1.–Deshka River king salmon regulatory changes, 1990–2013.

Year	Season dates	Area and time	Methods/Gear	Bag & possession	Seasonal NCI limit
1990	January 1–July 13	mouth to forks		over 16": 2/day & 4 possession, only 1/day & 2 possession over 28"	5 over 16"
1991	January 1–July 13	mouth to forks		over 16": 2/day & 4 possession, only 1/day & 2 possession over 28"	5 over 16"
1992	January 1–July 13	mouth to forks	no bait between Trapper Creek and forks on June 22 by EO	1/day over 16" & 1 possession. Release of fish over 16" between Trapper and forks on June 22 by EO	5 over 16"
1993	January 1–July 13	mouth to forks	artificial only until May 15	1/day over 16" & 2 possession	5 over 16"
1994	closed June 17 by EO	mouth to forks	artificial only until May 16	1/day over 16" & 2 possession	5 over 16"
1995	closed				
1996	closed				
1997	opened June 21 by EO	lower 2 miles of river	artificial only	1/day over 16" & 1 possession	5 over 16"
1998	January 1–July 13	lower 5 miles of river	artificial only	1/day over 16" & 1 possession	5 over 16", only 2 from Deshka
1999	January 1–July 13	mouth to Chijuk Creek, 6 am–11 pm	artificial only	1/day over 16" & 1 possession	5 over 16"
2000	January 1–July 13	mouth to Chijuk Creek, 6 am–11 pm	bait allowed June 8 by EO	1/day over 16" & 1 possession	5 over 16"
2001	January 1–July 13	mouth to Chijuk Creek, 6 am–11 pm	bait allowed June 12 by EO	1/day over 20" & 1 possession	5 over 20"
2002	January 1–July 13	mouth to Chijuk Creek, 6 am–11 pm	bait allowed June 8 by regulation	1/day over 20" & 2 possession	5 over 20"
2003	January 1–July 13	mouth to Chijuk Creek, 6 am–11 pm	bait allowed June 8 by regulation	2/day over 20" & 4 possession on June 18 by EO	5 over 20"
2004	January 1–July 13	mouth to Chijuk Creek, 6 am–11 pm	bait allowed May 28 by EO	2/day over 20" & 4 possession on June 12 by EO	5 over 20"
2005	January 1–July 13. Extended through July 31 by EO.	mouth to Chijuk Creek. Opened 24-hr May 27 by EO	bait allowed May 15 by regulation	2/day over 20" & 4 possession on May 27 by EO	5 over 20"
2006	January 1–July 13	mouth to Chijuk Creek. Opened 24-hr May 26 by EO.	bait allowed May 15 by regulation	2/day over 20" & 4 possession on May 26 by EO	5 over 20"
2007	January 1–July 13	mouth to Chijuk Creek. Opened 24-hr May 25 by EO.	bait allowed May 15 by regulation	2/day over 20" & 4 possession on May 25 by EO	5 over 20"
2008	January 1–July 13; fishery closed June 20 by EO.	mouth to Chijuk Creek, 6 am–11 pm;	bait not allowed June 14–July 13 by EO.	1/day over 20" & 1 possession	5 over 20"
2009	January 1–July 13; fishery closed June 13 by EO	mouth to Chijuk Creek, 6am–11pm Retention Sat, Sun Mon only by preseason EO	bait not allowed by preseason EO	1/day over 20" & 1 possession	5 over 20"
2010	January 1–July 13	mouth to Chijuk Creek, 6 am–11 pm;	Bait not allowed June 12–June 19 by EO	1/day over 20" & 1 possession	5 over 20"
2011	January 1–July 13	mouth to Chijuk Creek, 6 am–11 pm;	bait allowed May 15 by regulation	1/day over 20" & 1 possession	5 over 20"
2012	January 1–July 13; fishery closed June 25 by EO	mouth to Chijuk Creek, 6 am–11 pm;	bait not allowed after June 18 by EO	1/day over 20" & 1 possession	2 over 20" by preseason EO
2013	January 1–July 13	mouth to Chijuk Creek, 6 am–1 pm	single hook only by preseason EO; bait not allowed by preseason EO; bait reinstated June 18 by EO	1/day over 20" & 1 possession	2 over 20" by preseason EO

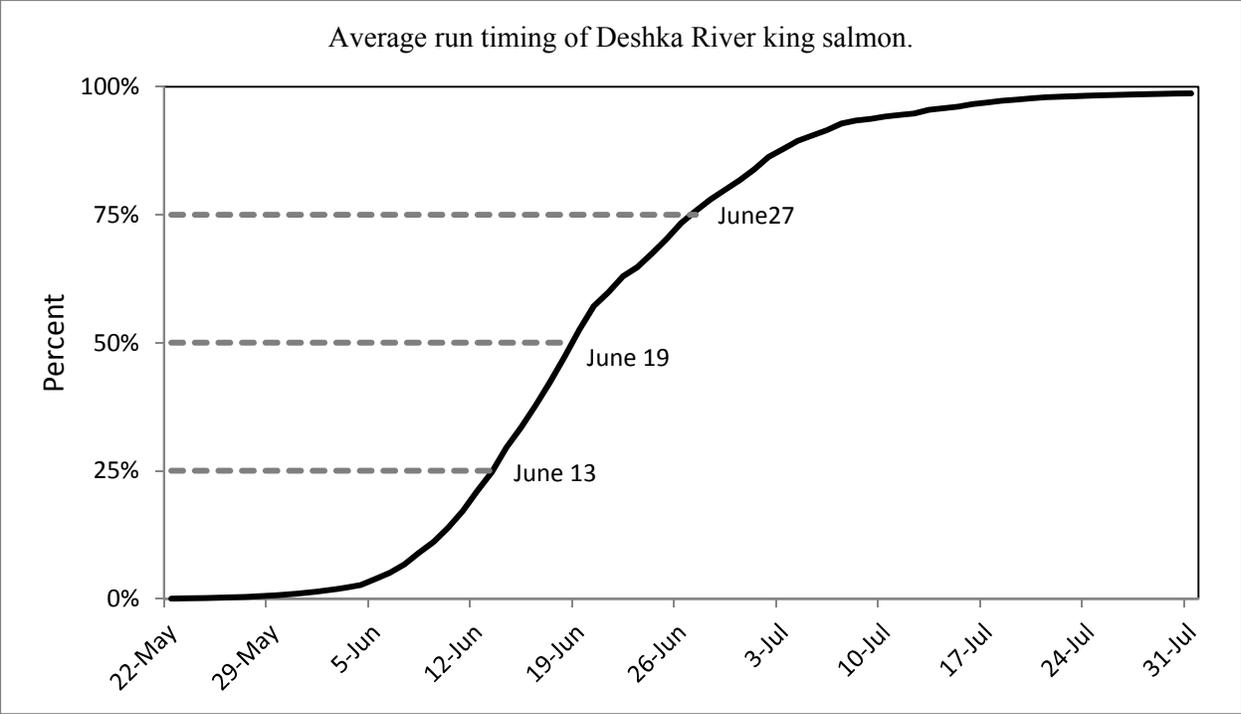


Figure 298-1.—Average run timing of Deshka River king salmon, 1997 and 1999-2012.

PROPOSAL 299 – 5 AAC 61.XXX. New Section.

PROPOSED BY: John McCombs.

WHAT WOULD THE PROPOSAL DO? This proposal seeks to stock the Deshka River with king salmon.

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 Deshka 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 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. Putting the Cook Inlet Aquaculture Association's Eklutna Hatchery back into production is another possibility for expanding rearing space.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. The department already has the authority to stock the Deshka River if it chose to do so. Cost to the department to implement this proposal could be substantial, depending on the level of stocking. 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.

PROPOSAL 302 – 5 AAC 61.120. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for Unit 5 of the Susitna River Drainage Area.

PROPOSED BY: United Cook Inlet Drift Association.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit sport fishing for all salmon in Larson Creek and its confluence with the Talkeetna River from June 1–September 30.

WHAT ARE THE CURRENT REGULATIONS? The Larson Creek drainage, and all waters within one-quarter mile of its confluence with the Talkeetna River, is closed to sport fishing for king salmon, but open to fishing for other salmon. The Larson Creek drainage upstream of an ADF&G regulatory marker, located approximately one-quarter mile upstream of its confluence with the Talkeetna River, is closed to sport fishing for all salmon.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would eliminate the sport fishery at the mouth of Larson Creek; this fishery targets sockeye salmon returning to Larson Lake during July and, to a small degree, coho salmon in August. Sport harvest savings would not likely affect achievement of the escapement goal during the majority of years.

BACKGROUND: Larson Creek, a tributary of the Talkeetna River (Figure 302-1), supports one of the few, and also one of the most popular, sockeye salmon fisheries in the Mat–Su Valley area. It is a relatively small fishery. Average sport harvest of sockeye salmon in the Talkeetna River is approximately 2,500 fish, of which approximately two-thirds can be attributed to Larson Creek (Table 302-1). Nearly all of the sport fishing effort takes place within a quarter-mile radius of its confluence with the Talkeetna River. Sockeye salmon escapements to this system averaged about 30,000 fish from 2005–2013. A sustainable escapement goal (SEG) of 15,000–50,000 was set for this system in 2008. Since the SEG has been in place, the goal has been achieved during all years except for one (2011). During the 2001 Alaska Board of Fisheries (board) meeting, the board adopted a proposal to close a portion of Larson Creek (Talkeetna River drainage) and Larson Lake to fishing for sockeye salmon. This was done in an effort to stop illegal snagging that occurred on Larson Creek upstream of the mouth and to eliminate the targeting of spawning sockeye salmon in Larson Lake. This effort was successful toward its intent and the current fishery is now confined to the mouth area where regulatory compliance is better.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspect of this proposal. However, it **OPPOSES** this proposal as a conservation measure. Sport fishing effort and harvest estimates for this fishery are low and variable. In addition, the department has emergency order authority to manage the sport fishery to achieve the SEG.

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.

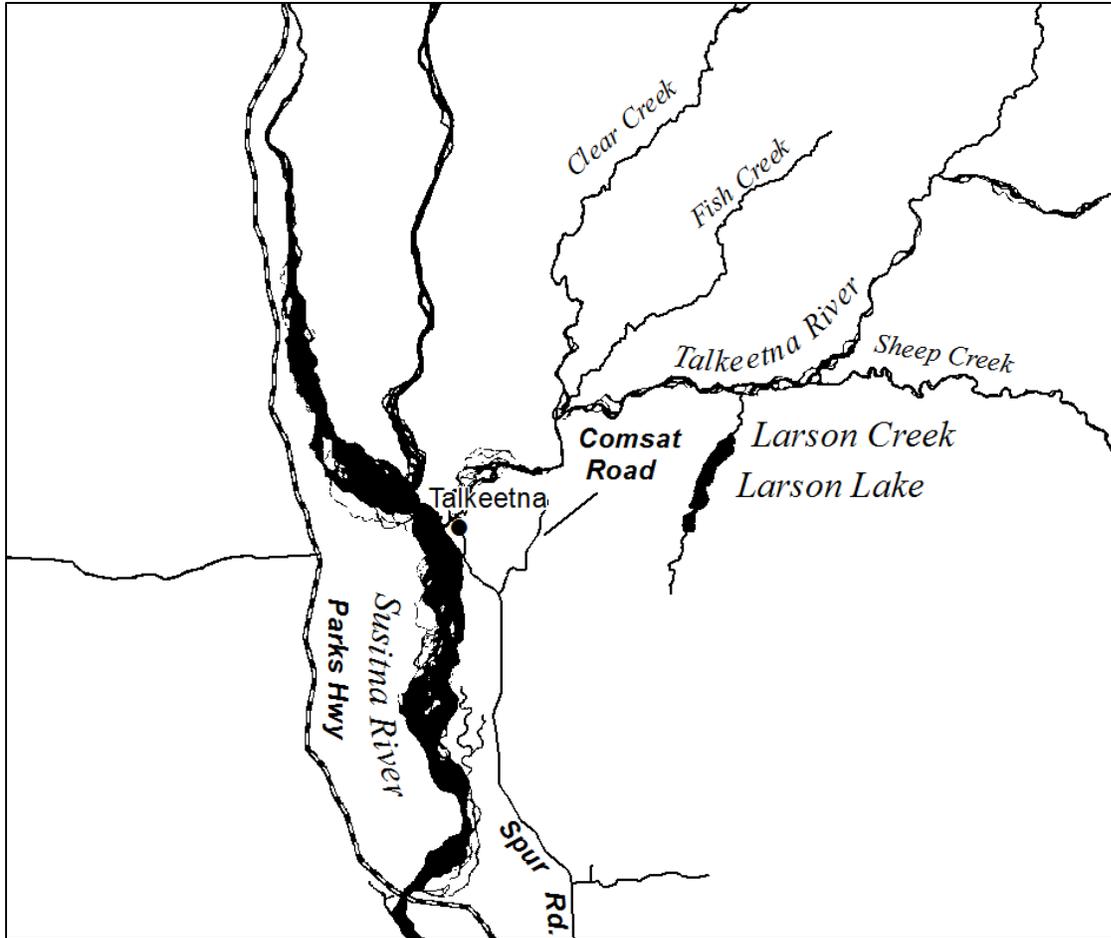


Figure 302-1.—Map showing location of Larson Creek.

Table 302-1.—Larson Creek sockeye salmon angler days, catch, harvest, and escapement, 2005–2012.

Year	Angler Days	Sockeye salmon		
		Catch	Harvest	Escapement
2005	395	403	403	9,751
2006	56	0	0	57,411
2007	70	62	62	47,736
2008	117	623	259	35,040
2009	671	1,797	993	40,933
2010	703	1,867	1,634	20,324
2011	202	464	373	12,413
2012	674	1,123	982	16,708
2013	<i>Not available</i>			21,810

Sustainable Escapement Goal established in 2008 = 15,000–50,000

PROPOSAL 303 – 5 AAC 61.120. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for Unit 5 of the Susitna River Drainage Area.

PROPOSED BY: Steve Vanek.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit sport fishing for all salmon in Larson Creek and its confluence with the Talkeetna River from June 15–August 15.

WHAT ARE THE CURRENT REGULATIONS? The Larson Creek drainage, and all waters within one-quarter mile of its confluence with the Talkeetna River, is closed to sport fishing for king salmon, but open to fishing for other salmon. The Larson Creek drainage upstream of an ADF&G regulatory marker, located approximately one-quarter mile upstream of its confluence with the Talkeetna River, is closed to sport fishing for all salmon.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would eliminate the sport fishery at the mouth of Larson Creek; this fishery targets sockeye salmon returning to Larson Lake during July and, to a small degree, coho salmon in August. Sport harvest savings would not likely affect achievement of the escapement goal during the majority of years.

BACKGROUND: Larson Creek, a tributary of the Talkeetna River, supports one of the few, and also one of the most popular, sockeye salmon fisheries in the Mat–Su Valley area. It is a relatively small fishery. Average sport harvest of sockeye salmon in the Talkeetna River is approximately 2,500 fish, of which approximately two-thirds can be attributed to Larson Creek. Nearly all of the sport fishing effort takes place within a quarter-mile radius of its confluence with the Talkeetna River. Sockeye salmon escapements to this system averaged about 30,000 fish from 2005–2013. A sustainable escapement goal (SEG) of 15,000–50,000 was set for this system in 2008. Since the SEG has been in place, the goal has been achieved during all years except for one (2011). During the 2001 Alaska Board of Fisheries (board) meeting, the board adopted a proposal to close a portion of Larson Creek (Talkeetna River drainage) and Larson Lake to fishing for sockeye salmon. This was done in an effort to stop illegal snagging that occurred on Larson Creek upstream of the mouth and to eliminate the targeting of spawning sockeye salmon in Larson Lake. This effort was successful toward its intent and the current fishery is now confined to the mouth area where regulatory compliance is better.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspect of this proposal. However, it **OPPOSES** this proposal as a conservation measure. Sport fishing effort and harvest estimates for this fishery are low and variable. In addition, the department has emergency order authority to manage the sport fishery to achieve the SEG.

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 304 – 5 AAC 61.120. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for Unit 5 of the Susitna River Drainage Area.

PROPOSED BY: John McCombs.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit sport fishing at the outlet of Larson Lake.

WHAT ARE THE CURRENT REGULATIONS? The Larson Creek drainage, and all waters within one-quarter mile of its confluence with the Talkeetna River, is closed to sport fishing for king salmon, but open to fishing for other salmon. The Larson Creek drainage upstream of an ADF&G regulatory marker, located approximately one-quarter mile upstream of its confluence with the Talkeetna River, is closed to sport fishing for all salmon.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? There would be no effect because this area is already closed to fishing for all salmon.

BACKGROUND: During the 2001 Alaska Board of Fisheries (board) meeting, the board adopted a proposal to close a portion of Larson Creek (Talkeetna River drainage) and Larson Lake to fishing for salmon. This was done in an effort to stop illegal snagging that was reported on Larson Creek upstream of the mouth.

DEPARTMENT COMMENTS: The department recommends **NO ACTION** be taken on this proposal. The outlet of Larson Lake is already closed to salmon fishing.

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 305 – 5 AAC 61.120. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for Unit 5 of the Susitna River Drainage Area.

PROPOSED BY: Max Schwab.

WHAT WOULD THE PROPOSAL DO? This proposal would close Fish Creek (within the Susitna River drainage) upstream of its confluence with Talkeetna River to sport fishing for salmon.

WHAT ARE THE CURRENT REGULATIONS? Fish Creek drainage is open to sport fishing for salmon; only one unbaited, single-hook, artificial lure is allowed.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Harvest of salmon would be reduced by a small and likely immeasurable amount. Harvest of sockeye salmon within Papa Bear Lake would continue unless included in this closure.

BACKGROUND: Fish Creek is a small clearwater tributary of the Talkeetna River, located upstream of Clear Creek, a much larger tributary of the Talkeetna River (Figure 305-1). The creek drains from Mama and Papa Bear lakes, a distance of about one mile to its confluence with the Talkeetna River, and is semi-glacial to glacial in nature much of the summer months. Several years ago, Fish Creek flowed into an upstream fork of Clear Creek, instead of flowing directly into the Talkeetna River. Fish Creek now maintains its own confluence with the Talkeetna River and no longer flows into or is influenced by Clear Creek. The lower one-half mile is now a wide, relatively shallow section with low water flow (about 75 ft across and about two feet of water depth).

A relatively small population of sockeye salmon ascends the creek to spawn in Mama and Papa Bear lakes. Other species of salmon may be found in its lower reaches. Most salmon destined for Fish Creek are likely harvested in the mainstem of the Talkeetna River downstream of the mouth of Clear Creek, but within the influence of Fish and Clear creeks freshwater plumes. Sockeye salmon are mostly harvested incidentally to coho salmon. Sockeye salmon are also harvested at the outlet of Papa Bear Lake.

Sockeye salmon can be more difficult to target with sport gear because the shallow, low flow allow them to easily be spooked. Observations from local anglers in the area suggest sockeye salmon fishing within lower Fish Creek has not increased from past levels and may actually be less due to the recent morphologic changes to the lower creek. The department does not monitor salmon escapement in Fish Creek and little harvest information is available for this small system. Sockeye salmon harvest information is reported for the larger Talkeetna River area, however, most of these fish are attributed to the fishing effort occurring at the confluence with Larson Creek.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. Although sockeye salmon harvest is likely minimal in its lower reaches and it is unknown what the spawning escapements have been, a closure to salmon fishing in Fish Creek approximately one-

quarter mile upstream of its confluence with the Talkeetna River would be consistent with Larson Creek regulations and protect spawners in Mama Bear and Papa Bear lakes.

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.

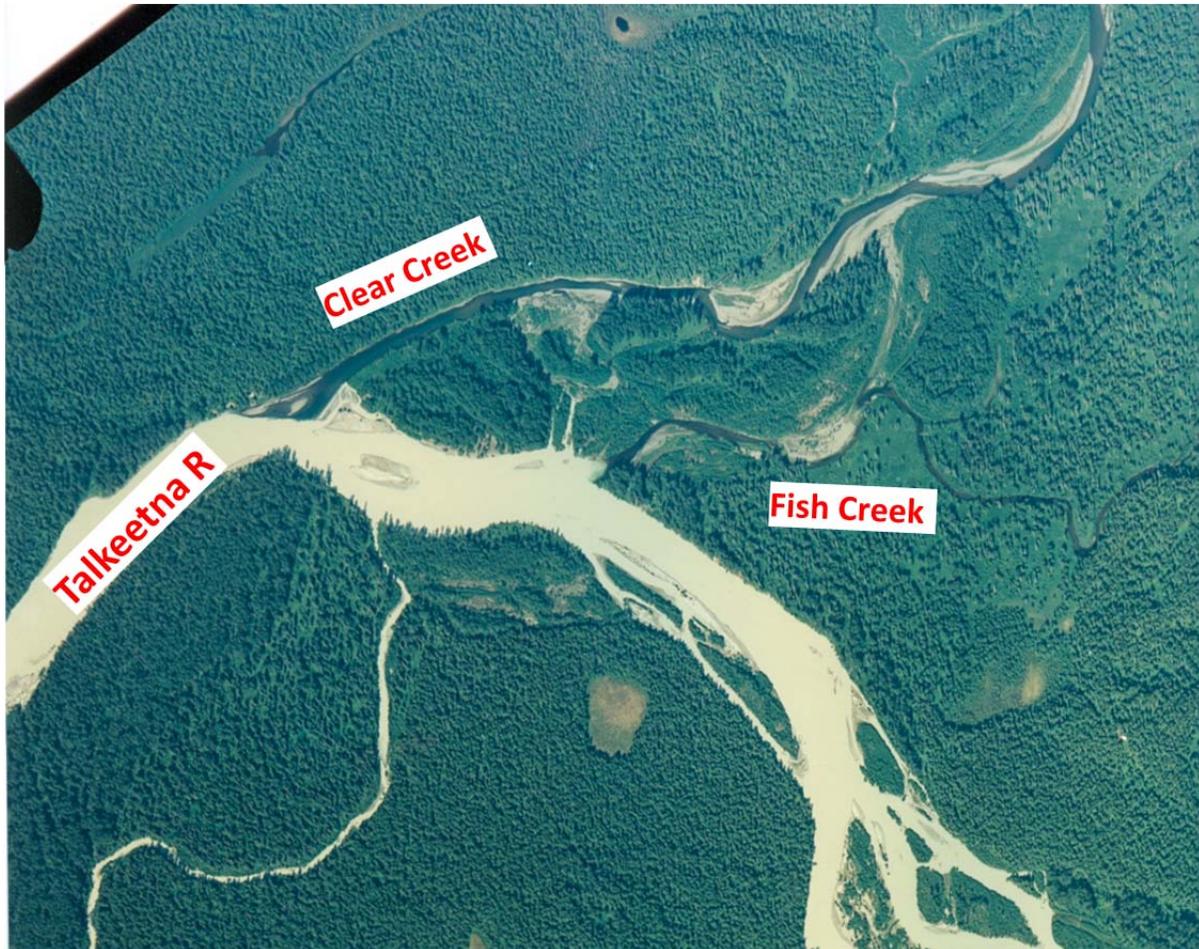


Figure 305-1.—Map of Fish Creek within the Talkeetna River drainage.

PROPOSAL 306 – 5 AAC 61.112. Special provisions and localized additions for seasons, bag, possession, and size limits, and methods and means for Unit 1 of the Susitna River Drainage Area and 5 AAC 61.118. Special provisions and localized additions for seasons, bag, possession, and size limits, and methods and means for Unit 4 of the Susitna River Drainage Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would move several lakes from Unit 4 of the Susitna River drainage to Unit 1.

WHAT ARE THE CURRENT REGULATIONS? Upper and Lower Vern and Lockwood lakes are currently listed as lakes located in Unit 4 of the Susitna River management unit.

In Whiskey, Hewitt, Donkey, Upper and Lower Vern, No Name (Cabin), One Stone, and Lockwood lakes, and the flowing waters of Indian Creek, five lines may be used to fish for northern pike through the ice; allowable gear is limited to standard ice fishing gear as specified in 5 AAC 61.110(8)(B); fishing gear must be closely attended as specified in 5 AAC 75.033; all other species of fish caught must be released immediately.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? These lakes would be listed under the correct management unit. There would be no effect to the regulations that apply to these lakes.

BACKGROUND: Recent cartographical work has revealed these lakes as being incorrectly listed under an adjacent management unit. The location of these lakes are listed correctly in the department's 2013 *Southcentral Regulations Summary* booklet and appear on a map provided in the booklet (Figure 306-1).

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.

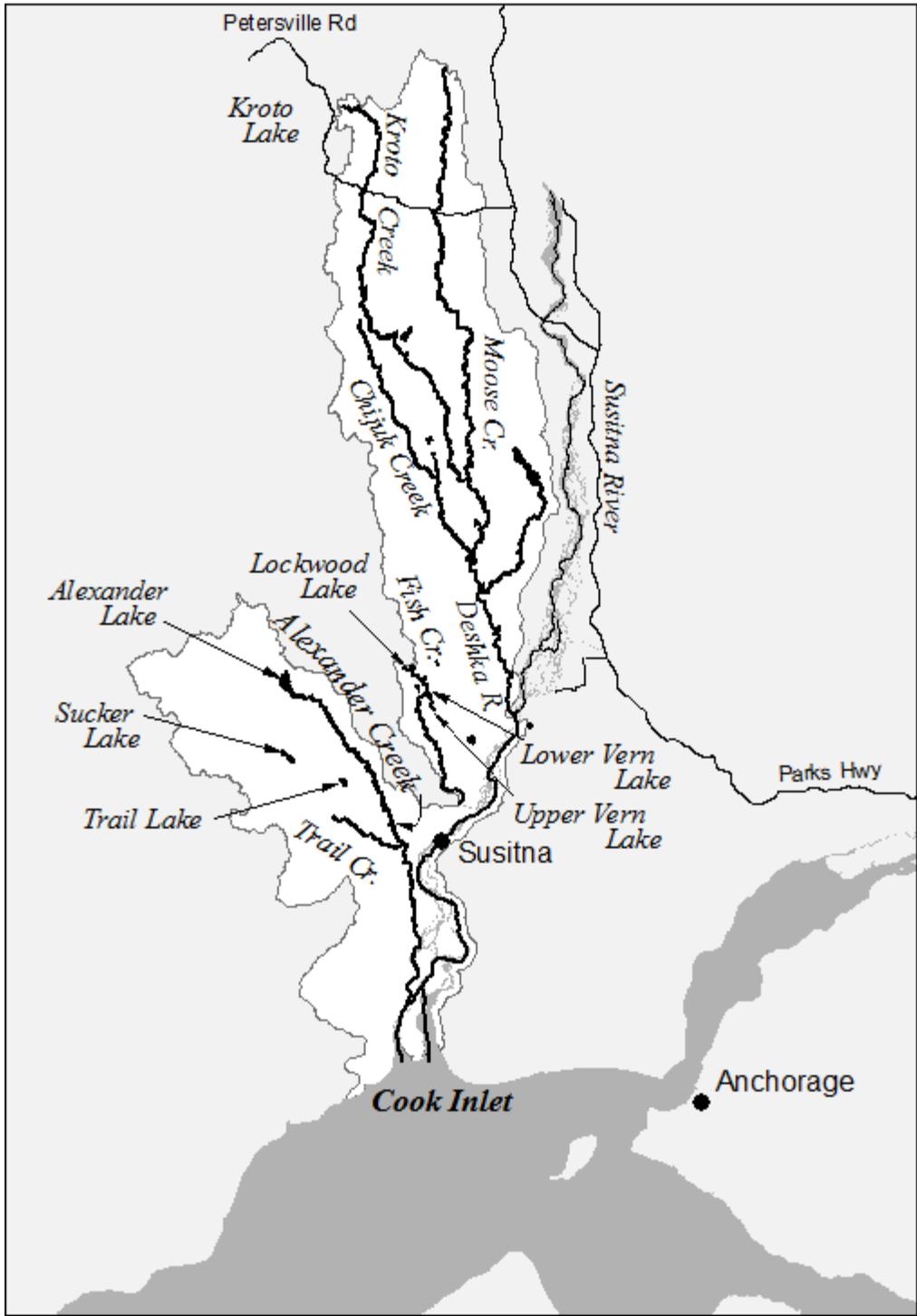


Figure 306-1.—Map showing location of Lower Vern Lake and Upper Vern Lake.

Subsistence – Susitna Salmon: 307–308

PROPOSAL 307 – 5 AAC 01.593. Upper Yentna River subsistence salmon fishery.

PROPOSED BY: Tom Payton.

WHAT WOULD THE PROPOSAL DO? This proposal would add three additional fishing periods for the Upper Yentna River subsistence salmon fishery. These additional fishing periods would be the first Monday, Wednesday, and Friday in August.

WHAT ARE THE CURRENT REGULATIONS? The Alaska Board of Fisheries (board) has found that salmon, other than king salmon, are customarily and traditionally taken or used for subsistence in the Yentna River drainage outside the Anchorage-Matsu-Kenai nonsubsistence area, and that 400–700 salmon, other than king salmon, is the amount reasonably necessary for 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 (Figure 301-1) from July 15 through July 31 from 4:00 a.m. to 8:00 p.m. Monday, 4:00 a.m. to 8:00 p.m. Wednesday, and 4:00 a.m. to 8:00 p.m. Friday. A permit is required; legal gear is a fish wheel, which must be equipped with a live box, be marked with the permittee’s name and address, and be attended at all times while the wheel is in operation. No king salmon are allowed to be kept; king salmon and rainbow trout must be returned alive to the water; fish must be marked by clipping the tail fins, and there is an annual limit of 25 salmon for the head of a household and 10 salmon for each dependent of the permit holder.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would provide additional opportunity for subsistence fishing and likely increase the harvest of salmon by an unknown amount. If adopted, the board would need to determine a time for the additional fishing periods.

BACKGROUND: The board first considered proposals to provide subsistence salmon fishing opportunities in a portion of the Yentna or Skwentna rivers in 1988, and made a negative customary and traditional (C&T) use finding¹, which focused on the lack of transmission of traditions about the fishery within multigenerational families and the relative short length of residency in the area by potential participants in the fishery, who were expected to be mostly residents of the Skwentna area. The board affirmed this negative finding in 1992 following passage of the present state subsistence statute (AS 16.05.258). In response to another proposal in 1996, the board again affirmed its negative C&T finding, but adopted regulations establishing a personal use fish wheel fishery in a portion of the Yentna River. In 1997, in *Payton et al. v. State*, the Alaska Supreme Court ruled that the board had erred in requiring transmission of fishing traditions through family lines, in focusing on the short length of time that current local residents had lived in the area, and in requiring that salmon be preserved by methods similar to those used in Alaska Native communities in the Cook Inlet area. The court remanded the issue to the board with additional instruction to review information about transmission of knowledge

¹ FB-124-88; see the Alaska Board of Fisheries website.

about the fishery across generations (but not necessarily within families who still resided in the area) that had been included in interviews and archival data collected and organized by the department. During its meeting in February 1998, the board reviewed this and other information and made a positive C&T finding for Yentna River salmon stocks (other than king salmon). The personal use fish wheel fishery established in 1996 became a subsistence fishery as a result of these board actions. In 2011, a harvest cap of 2,500 salmon, other than king salmon, was removed and an ANS of 400-700 salmon, other than king salmon, was set. A bag and possession limit of 25 salmon for the head of a household and 10 salmon for each dependent of the permit holder remains intact.

Sockeye salmon of the Yentna River drainage are produced in a number of small- to moderate-sized lakes and within the mainstem Yentna and Skwentna rivers. Drainage-wide abundance in the Yentna River ranged from approximately 110,000–311,000 from 2006–2013 (Table 307-1). Over 40% of fish utilize mainstem areas within the upper Yentna and Skwentna rivers and smaller tributaries for spawning. Other spawning takes place in lake systems, with Judd and Chelatna lakes (>40%) supporting the largest escapements (Table 307-1). The Yentna subsistence fishery occurs downstream of Judd Lake and major mainstem spawning areas, particularly those within the Skwentna River. On average (2006–2013), 25% to 75% of the run passes through Judd Lake weir between July 31 and August 10 (Figure 307-2). The earliest run timing when 25% of escapement has passed through the weir is July 29 (in 2009 and 2011), and the latest date that escapement reached 25% is August 3(2007). Escapement has reached 75% at the earliest on August 8 (2011) and the latest on August 15 (2007; Figure 307-2).

The five-year average harvest was 586 salmon, the 10-year average was 567 salmon, and the historical average (1996–2011) was 571 salmon (Table 307-2). There are two fish wheels that are shared by participants in this fishery. The most recent harvest information in the Alaska Subsistence Fisheries Database is for the 2012 season. In 2012 there were 21 permits issued and returned for the Yentna River subsistence fish wheel fishery (tables 307-1 and 307-2). The harvest in 2012 was the third lowest annual harvest; far below the 1,046 salmon harvested in 2011, the highest reported annual recorded harvest. Participants in the subsistence fish wheel fishery note that harvest can be affected by high water in the river as well as late run timing of sockeye, particularly into Judd Lake.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. Although the 5-year and 10-year average salmon harvest levels are within the level determined to be reasonably necessary for subsistence, there have been several years that harvest levels have fallen below that amount, including 2012, when the total harvest was 343 salmon.

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

SUBSISTENCE REGULATION REVIEW:

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

2. Is this stock customarily and traditionally taken or used for subsistence? Yes; the board has found that salmon, other than king salmon, in the Yentna River drainage outside the Anchorage-Matsu-Kenai Nonsubsistence Area described in 5 AAC 99.015(a)(3) are customary and traditionally taken or used for subsistence (5 AAC 01.566).
3. Can a portion of the stock be harvested consistent with sustained yield? Yes.
4. What amount is reasonably necessary for subsistence uses? The board has established that a range of 400–700 salmon, other than king salmon, are reasonably necessary for subsistence uses in the Yentna River drainage described in 5 AAC 01.593(2) (5 AAC 01.566(b)).
5. Do the regulations provide a reasonable opportunity for subsistence uses? This is a board determination.
6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence uses? This is a board determination.

Table 307-1.—Summary of Susitna River drainage sockeye salmon total run and escapement estimates at Chelatna, Judd, and Larson lakes, 2006–2013.

Year	Inriver Abundance		Weir Counts		
	Estimate	Yentna	Chelatna	Judd	Larson
2006		311,197 ^a	18,433 ^d	40,633	57,411
2007		239,849 ^a	41,290 ^d	57,392	47,924
2008		233,677 ^b	74,469	53,681	34,595
2009		139,168 ^b	17,721	44,616	40,929
2010		151,744 ^b	37,784	18,446	20,324
2011		290,801 ^b	70,353	39,984	12,190
2012		109,981 ^b	36,736	18,715	16,566
2013		191,934 ^c	70,555	14,088	21,821

^a Radio tag mark-recapture abundance estimate.

^b Bayesian genetic mark-recapture abundance estimates.

^c Expanded Chelatna & Judd weir counts assuming these weirs are 0.441 of total Yentna escapement (Mean 2007-2012 MR).

^d Escapements were interpolated weir counts based upon the number of radio tags that passed the weir when it was flooded.

Table 307-1.—Historical estimated subsistence and personal use salmon harvests, Upper Yentna River, 1996–2012.

Year	Permits		Estimated salmon harvest					Total
	Issued	Returned	King ^b	Sockeye	Coho	Chum	Pink	
1996 ^a	17	17	0	242	46	51	115	454
1997 ^a	24	21	0	549	83	10	30	672
1998	21	18	0	495	113	15	30	653
1999	18	16	0	516	48	13	18	595
2000	19	19	0	379	92	7	4	482
2001	16	15	0	545	50	4	10	608
2002	25	22	0	454	133	31	14	632
2003	19	15	0	553	67	8	2	630
2004	21	19	0	441	146	3	36	625
2005	18	17	0	177	42	25	24	268
2006	22	22	0	368	175	26	14	583
2007	22	22	0	367	66	18	17	468
2008	16	16	0	310	57	7	23	397
2009	17	17	0	253	14	6	0	273
2010	32	32	0	642	50	18	38	748
2011	25	25	0	598	90	21	337	1,046
2012	21	21	0	279	24	19	21	343
5-year average (2007–2011)	22	22	0	434	55	14	83	586
10-year average (2002–2011)	22	21	0	416	84	16	50	567
Historical average (1996–2011)	21	20	0	431	79	16	44	571

Source ADF&G Division of Subsistence, ASFDB 2013 (ADF&G 2013).

a. This fishery was classified as personal use in 1996 and 1997; it has been a subsistence fishery since 1998.

b. Regulations prohibit the retention of king salmon in this fishery (5 AAC 01.593).

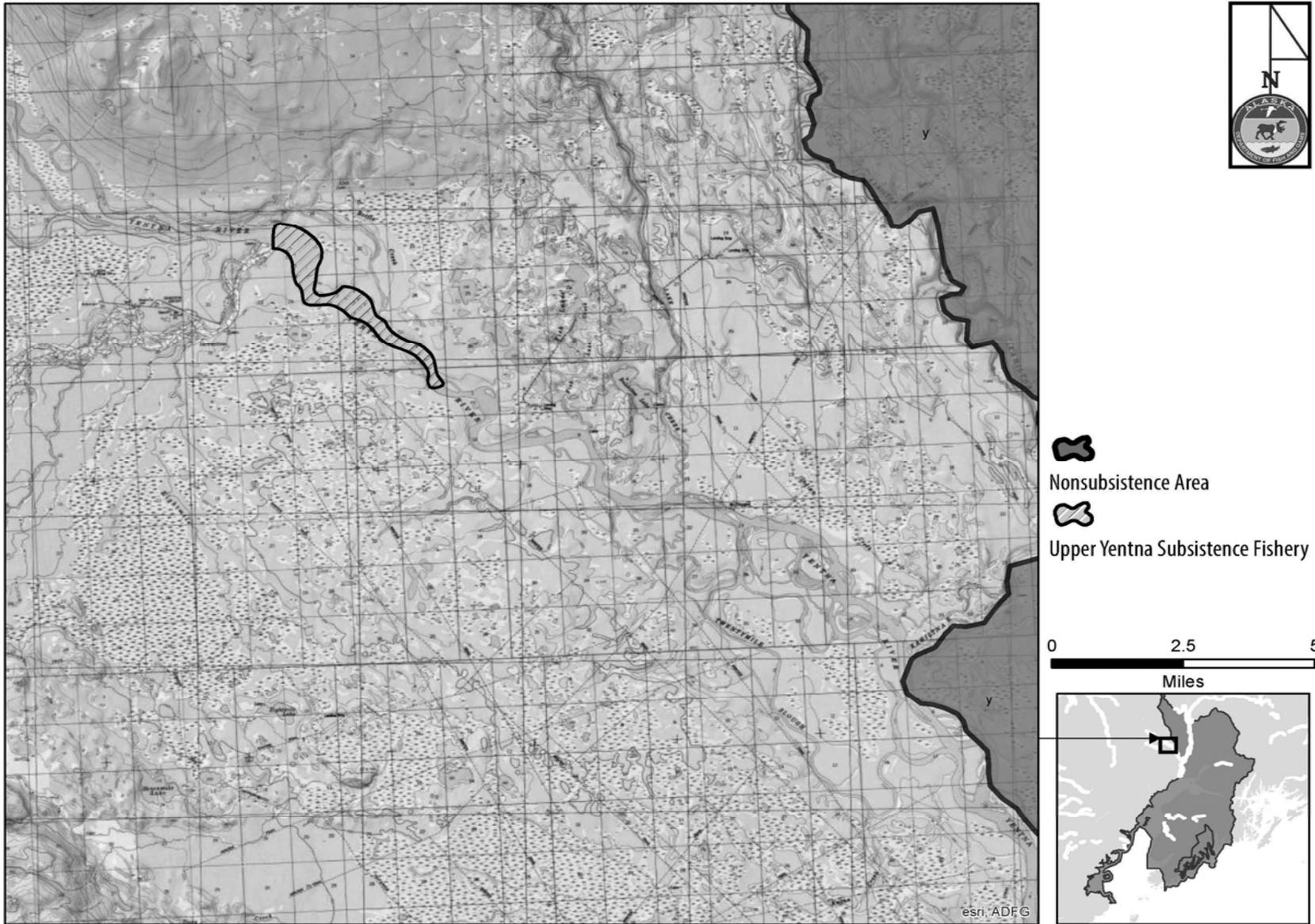


Figure 307-1—Map of Yentna River subsistence fish wheel fishery.

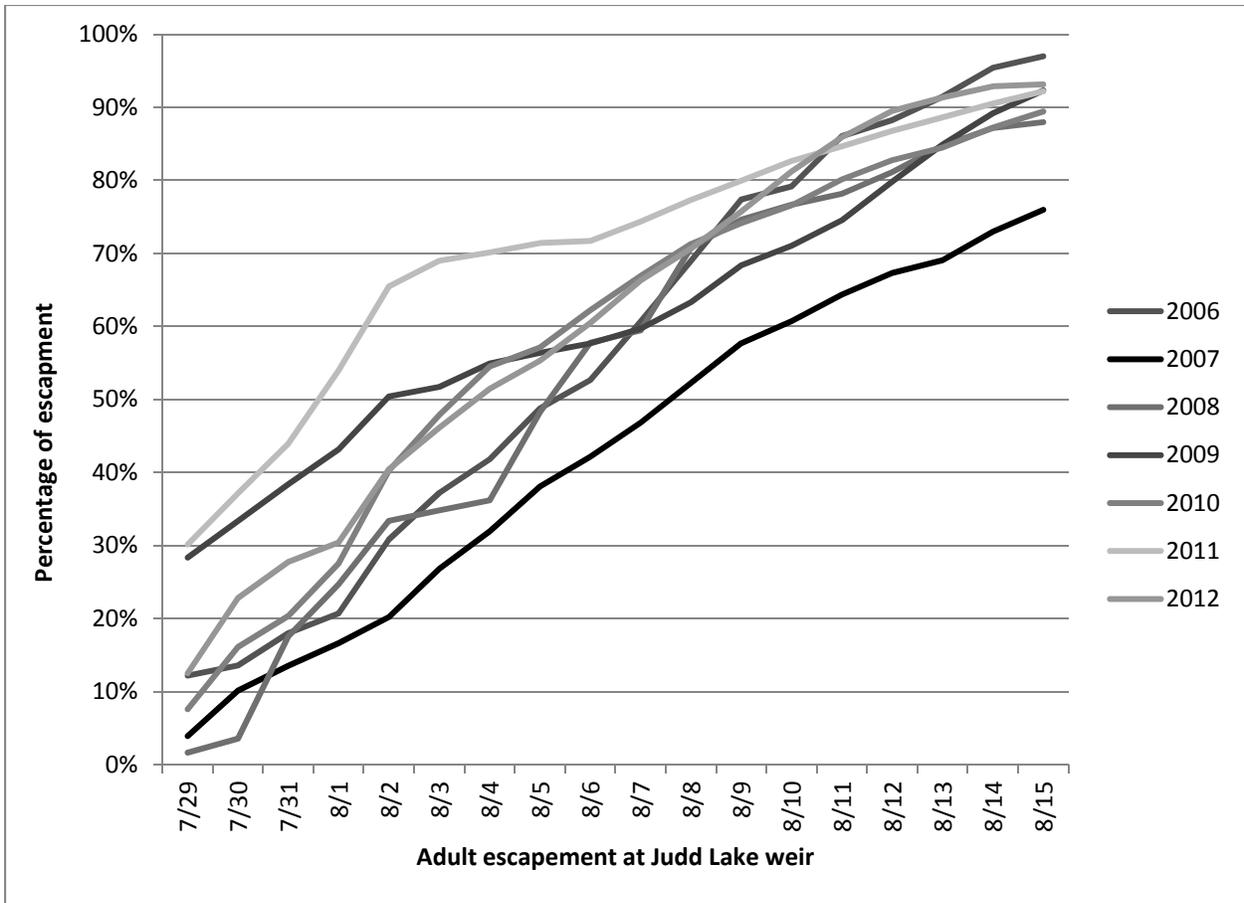


Figure 307-2.-Adult escapement of sockeye salmon, Judd Lake weir, 2006-2013.

PROPOSAL 308 – 5 AAC 01.593. Upper Yentna River subsistence salmon fishery.

PROPOSED BY: South Central Alaska Dipnetters Association.

WHAT WOULD THE PROPOSAL DO? This proposal would create a new subsistence salmon dip net fishery in Upper Cook Inlet (UCI). The fishery would occur on the lower Yentna River from the confluence of the Susitna River upstream to a marker located 300 feet downstream of the department’s Yentna River sonar (Figure 308-1).

WHAT ARE THE CURRENT REGULATIONS? The Alaska Board of Fisheries (board) has found that salmon, other than king salmon, are customarily and traditionally taken or used for subsistence in the Yentna River drainage outside the Anchorage-Matsu-Kenai Nonsubsistence Area, and that 400–700 salmon, other than king salmon, is the amount reasonably necessary for subsistence (ANS).

Currently, the only subsistence salmon fishing opportunity available in the area is the Yentna subsistence salmon fish wheel fishery. A permit is required to participate in this subsistence fishery. The open area is the mainstem Yentna River from its confluence with Martin Creek upstream to its confluence with the Skwentna River. The fish wheel must be equipped with a live box. Permit holders must be present at the fish wheel while the wheel is fishing. King salmon and rainbow/steelhead trout must be returned alive to the water. Household limits are 25 salmon for a household of one, plus 10 salmon for each additional household member. The fishery occurs from July 15 through July 31. Fishing periods are from 4:00 a.m. to 8:00 p.m. Mondays, Wednesdays, and Fridays.

The proposed area is adjacent to a portion of the Anchorage-Matsu-Kenai Nonsubsistence Area (5 AAC 99.015 (a)(3)). The nonsubsistence area includes only Game Management subunit (GMU) 16A, which is defined as “that portion of Unit 16 east of the east bank of the Yentna River from its mouth upstream to the Kahiltna River, east of the east bank of the Kahiltna River, and east of the Kahiltna Glacier” (5 AAC 92.450(16)(A)).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would provide additional subsistence opportunity for Alaska residents by creation of a new subsistence salmon dip net fishery in the Upper Cook Inlet region. The new fishery would be on the mainstem of the Yentna River from the department sonar site to the confluence of the Yentna and Susitna rivers (Figure 308-1). This proposed fishery would be accessible from only the west bank of the Yentna River (GMU 16B), because the east bank is within the nonsubsistence area (see Figure 308-1).

BACKGROUND: The only local subsistence fishery is the Upper Yentna subsistence salmon fishery, which began in 1996 as a personal use fishery and was reclassified as a subsistence fishery by the board in 1998 following a positive customary and traditional use (C&T) finding for Yentna River salmon stocks (other than king salmon). In 2011, an ANS of 400–700 salmon, other than king salmon, was set for the subsistence fish wheel fishery.

DEPARTMENT COMMENTS: 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.

SUBSISTENCE REGULATION REVIEW:

1. Is this stock in a nonsubsistence area? No.
2. Is this stock customarily and traditionally taken or used for subsistence? Yes; the board has found that salmon, other than king salmon, in the Yentna River drainage outside the Anchorage-Matsu-Kenai Nonsubsistence Area described in 5 AAC 99.015(a)(3) are customarily and traditionally taken or used for subsistence (5 AAC 01.566).
3. Can a portion of the stock be harvested consistent with sustained yield? Yes.
4. What amount is reasonably necessary for subsistence uses? The board has established that a range of 400-700 salmon, other than king salmon, are reasonably necessary for subsistence uses in the Yentna River drainage described in 5 AAC 01.593(2) (5 AAC 01.566 (b)).
5. Do the regulations provide a reasonable opportunity for subsistence uses? This is a board determination.
6. Is it necessary to reduce or eliminate other uses to provide a reasonable opportunity for subsistence uses? This is a board determination.



Figure 308-1.—Proposed subsistence dipnet fishery, Yentna River.

Sport Fisheries – Knik River and Anchorage Area: 310–312, 314, 316–317, 322-323, 376, 324-325

PROPOSAL 310 – 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: United Cook Inlet Drift Association.

WHAT WOULD THE PROPOSAL DO? This proposal would limit the days allowed to harvest king and coho salmon from seven days a week to three, on Tuesdays, Wednesdays, and Thursdays in the Little Susitna River. This proposal would also reduce the annual limit of king salmon to one king salmon, and reduce the bag and possession limit for coho salmon to one fish.

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 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; a person, after taking a bag limit of salmon, other than king salmon, 16 inches or greater in length from the Little Susitna River, may not sport fish that same day for any species of fish in waters open to sport fishing for salmon on the Little Susitna River.

From January 1–July 13, in flowing waters from its mouth upstream to the Parks Highway sport fishing is open for king salmon with a bag and possession limit of one fish 20 inches or greater in length; there is an annual limit of five king salmon 20 inches or greater in length and a harvest record is required. From October 1–August 5, in the flowing waters from its mouth upstream to the Parks Highway, only unbaited, artificial lures may be used. From May 15–July 13, in waters open to sport fishing for king salmon, fishing is not allowed from 11:00 p.m. to 6:00 a.m. In waters open to sport fishing for king salmon, a person may not sport fish for any species of fish on the same day after taking and retaining a king salmon 20 inches or greater in length.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Harvest would be reduced by over 80% for both king and coho salmon within the sport fishery. The sport fishery would likely be liberalized by emergency order (EO) to seven days per week and/or increased harvest limits during average or above-average run years so long as the weir was operable to gauge run strength. During years when the weir was not used or a count was lost due to flooding, liberalizations would not be possible and the potential for foregone harvests would be greater. Effort expended by private anglers would be reduced by 60–70% since the majority of fishing occurs during the weekend (Fridays–Sundays).

BACKGROUND: The Little Susitna River supports large fisheries on a modestly sized king salmon run and a large coho salmon run relative to other Northern Cook Inlet salmon producing

streams. Anglers fish an average of 27,000 days annually during the last 10 years; over half is directed at coho salmon and the rest is directed at king salmon (Table 310-1). Effort was stable until 2009, and then it declined as a result of low king and coho salmon, and restrictive actions taken to reduce harvests during those years.

The sustainable escapement goal (SEG) of 900–1,800 king salmon is based on a postseason aerial index count. Prior to 2009, harvest for king salmon was stable and averaged approximately 2,600 fish (1999–2008; 10 year). Escapements across the same time period were also stable with an average of 1,500 king salmon. The inriver harvest rate can be estimated only from years of weir counts (1988–1989 and 1994–1995) since the aerial index count only represents 40–60% of the actual escapement. The inriver harvest rate ranged from 28% to 59% during 1988, 1989, 1994, and 1995. The harvest rate of 38% in 1995 was likely due to restrictive regulations that were adopted that included prohibiting the use of bait, and limiting fishing to the hours of 6:00 a.m. to 6:00 p.m. The inriver harvest rate has not been estimated since 1995 because the king salmon weir program did not operate between 1996 and 2012. In 2013, the department began operating a weir, in addition to continued aerial surveys, to assess king salmon escapement. The 2013 estimate was incomplete due to high water compromising the weir through the first half of the season. The king salmon SEG has been achieved eight of the past 10 years.

The SEG of 10,100–17,700 coho salmon is based on weir counts. Average harvest for the 10-year period preceding the poor runs of 2011–2012 was 13,100 coho salmon and average escapement for the same period was 21,000 coho salmon. The inriver harvest rate for the same 10-year period was 41%; however, harvest rates can vary widely (29–56%) due to large variations in run size, while fishing power is more constant. The SEG was achieved in six of the past 10 years. Poor runs were observed in 2011 and 2012, and the SEG was not achieved each year despite actions taken to reduce sport harvest inseason. The SEG was attained in 2013 with a count of 13,583 coho salmon. The 2013 count was considered a minimum count because the weir was flooded and coho salmon likely passed undetected for several days until the weir could be restored.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal as a means of conserving Little Susitna coho salmon, and is **NEUTRAL** on the allocative aspects. The current sport harvest level appears to be sustainable across the majority of years. Little Susitna king and coho salmon sport 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.

Table 310-1.—Effort, harvest, and escapement of king and coho salmon on the Little Susitna River, 1988–2013.

Year	Angler days	King			Coho		
		Harvest	Escapement (aerial index) ^a	Escapement (weir count)	Harvest Rate	Harvest	Escapement (weir count) ^b
1988	49,731	2,822	3,197	7,374	0.28	19,009	20,491
1989	54,708	4,204	no count	4,367	0.49	14,129	15,232
1990	40,159	1,965	922			7,497	14,310
1991	50,838	2,102	892			16,450	37,601
1992	49,304	3,920	1,441			20,030	20,393
1993	42,249	3,441	no count			27,610	33,378
1994	45,149	4,204	1,221	2,981	0.59	17,665	27,820
1995	41,119	1,698	1,714	2,809	0.38	14,451	11,817
1996	24,575	1,484	1,079			16,753	15,803
1997	27,883	2,938	no count			7,756	9,894 ^c
1998	22,108	2,031	1,091			14,469	15,159
1999	30,437	2,713	no count			8,864	3,017
2000	39,556	2,802	1,094			20,357	15,436
2001	33,521	2,243	1,238			17,071	30,587
2002	40,346	3,144	1,660			19,278	47,938
2003	31,993	2,138	1,114			13,672	10,877
2004	33,819	2,362	1,694			15,307	40,199
2005	27,490	2,724	2,095			10,203	16,839 ^c
2006	28,547	3,303	1,855			12,399	8,786 ^c
2007	35,636	3,210	1,731			11,089	17,573
2008	31,989	2,219	1,297			13,498	18,485
2009	28,151	1,653	1,028			8,346	9,523
2010	24,846	889	589			10,662	9,214
2011	12,779	828	887			2,452	4,826
2012	10,115	216	1154			1,681	6,779 ^c
2013	NA	NA	1,651	2,383 ^c		NA	13,583 ^c
Mean	34,282	2,450	1,393	4,383		13,628	19,985 ^d

Blank cells = No data.

^a BEG of 850 from 1994–2001; SEG of 900–1,800 king salmon from 2002–2013.

^b BEG of 7,500 king salmon from 1994 to 1998; BEG 9,600–19,200 from 1999 to 2001; SEG 10,100–17,700 from 2002 to 2013.

^c Incomplete count due to high water and weir submersion.

^d Includes complete count years only.

PROPOSALS 311 and 312 – 5 AAC 60.XXX. New Section.

PROPOSED BY: Jack B. Harrison (Proposal 311) and Thane Humphrey (Proposal 312).

WHAT WOULD THESE PROPOSALS DO? These proposals would direct the department to begin stocking coho salmon into the Little Susitna River by collecting eggs beginning in 2013 and releasing juveniles beginning in 2015. Proposal 312 seeks reform through legislation to eliminate the distinction between subsistence, sport, and personal use fishing, and combine these under one definition of “personal consumption.” Personal consumption would be given first priority in any allocative decisions.

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 THESE PROPOSALS WERE ADOPTED? The effects of these proposals are unknown. The department would need to reconsider the current *Statewide Stocking Policy* as it would apply to the resulting regulation, and cost may be substantial. If the department were to stock coho salmon into the Little Susitna River, the board could adopt regulations that would 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. Alaska salmon hatchery programs are generally designed so that supplemental production and harvest is focused away from natural stocks. With careful design and planning, 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 public input. The *Statewide Stocking Plan* (SSP), in accordance with the *Statewide Stocking Policy*, is a five-year department 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 pursuant to 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 genetic 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 Little Susitna River sport fishery has averaged about 27,000 angler days annually during the last 10 years, about half of which is associated with coho salmon fishing. Average harvest for the 10-year period preceding the poor runs of 2011–2012 was 13,100 coho salmon and average escapement for the same period was 21,000 coho salmon. The sustainable escapement goal of 10,100–17,700 coho salmon is based on weir counts. Boat and bank angling is accommodated by two major access sites, primary of which is the Little Susitna Public Use Facility, which is owned by the department and operated by Division of Parks and Outdoor Recreation of the

Alaska Department of Natural. Although no hatchery fish currently return to this system, coho salmon have been stocked into the Little Susitna River in the past (1982–1995; Table 311-1). Returns from smolt releases contributed an average of 5,200 fish to the sport harvest 1986–1996. The stocking program was terminated in 1995 after it was determined that enhancement had not resulted in a significant increase in angler participation and the natural run was sufficient to support the sport fishery over the majority of years. Nancy Lake (Lilly Creek) was recognized early on to be the best suited location for releasing smolt and for collecting brood. Nancy Lake Creek drains from Nancy Lake to the Little Susitna River (Figure 311-1). A stocking project today would require beaver dam removal and annual northern pike suppression in Nancy Lake if Nancy Lake and its tributaries were to be used for releases or broodstock collection as was done in the past.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on these proposals. A portion of Proposal 312 seeks legislative action. The department already has the authority to stock the Little Susitna River. Initiation of a 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 these proposals is not expected to result in an additional direct cost for a private person to participate in this fishery.

Table 311-1.-Coho salmon stocking history for the Little Susitna River, 1982–1996.

Year Stocked	Fingerling Release ^a		Smolt Release ^a		Total Released	Sport harvest of hatchery fish ^b	% of total harvest
	Released	Marked	Released	Marked			
1982	2,950				2,950		
1983	216,508	20,835			216,508		
1984	426,216	10,000			426,216		
1985	1,225,000	10,004	54,394	12,151	1,279,394		
1986	316,270		580,065	24,401	580,065	109	18%
1987			301,167	24,650	301,167	3,407	26%
1988	3,374,126	3,126	446,016	24,628	3,820,142	9,638	51%
1989			354,897	25,631	354,897	10,597	75%
1990	473,327	72,327	308,356	45,220	781,683	2,242	30%
1991			277,762	46,358	277,762	7,699	47%
1992			312,925	38,786	312,925	3,406	17%
1993			279,873	40,242	279,873	7,703	28%
1994			126,694	43,818	126,694	6,165	35%
1995			151,985	45,245	151,985	2,991	21%
1996					0	3,418	23%
Mean						5,216	34%

^a Brood source = Little Susitna coho salmon stock.

^b Fish harvested in a given year were from previous broodyear or broodyears.

Blank cells = No data.

PROPOSAL 314 – 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: Andrew Couch.

WHAT WOULD THE PROPOSAL DO? This proposal would open the Little Susitna River sockeye salmon sport fishery by emergency order (EO) when an escapement of 2,500 sockeye salmon can be projected.

WHAT ARE THE CURRENT REGULATIONS? Salmon, other than king salmon, 16 inches or greater in length may be taken from January 1–December 31; bag and possession limit is three fish, of which no more than two per day and two in possession may be coho salmon.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would likely result in no fishery occurring for sockeye salmon during years of low abundance. During years of higher abundance, disproportionate harvest of sockeye salmon could occur in the Little Susitna River, with the latter part of the run being targeted.

BACKGROUND: The department has operated a weir on the Little Susitna River since 1986 to monitor coho salmon escapements and to monitor king salmon escapement during some years. Other fish species are counted, but counts are often incomplete due to the location of the weir or timing of installation. From 1996–2011, the weir was located well upstream of Nancy Lake Creek, a tributary of the Little Susitna that the majority of sockeye salmon migrate up to spawn. The department has five years of complete sockeye salmon counts on the Little Susitna (1988–1989, 1994–1995, and 2013) from years in which the weir was operated in the lower river and downstream of sockeye spawning destinations (Table 314-1). The average weir count for the five years was 6,800 fish. The weir count in 2012 was incomplete, but was likely well below average. The count in 2013 was 375 fish.

The Little Susitna River supports a modest sport fishery for sockeye salmon. Some sockeye are caught incidental to targeting coho salmon in the lower 30 miles of river; however, the main fishery targeting sockeye salmon occurs at the mouth of Nancy Lake Creek, a tributary entering the Little Susitna at about river mile 65. Average sport harvest (2003–2012) for Little Susitna River sockeye salmon is 1,800 fish (Table 314-1). Harvest dropped to 300 fish in 2011 and 500 fish in 2012.

The weir in its present location (river mile 32), is not an accurate measure of escapement because the majority of harvest occurs near the mouth of Nancy Lake Creek, which is about 30 miles upstream of the weir. Assuming the weir counts represent the majority of the inriver run, and harvest reported by the Statewide Harvest Survey (SWHS) represents the majority of harvest upstream of the weir, then escapements of sockeye salmon on the Little Susitna River have varied from approximately 1,500 to 13,500 fish during 1988–1995 (complete count years only).

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. Insufficient escapement data exist from which to assess a level necessary for sustainability of the stock. The

department believes abundance has been low since 2011 based on the SWHS, recent weir counts, and reports from anglers fishing the mouth of Nancy Lake Creek. Recent runs may be influenced by periodic blockage of passage due to beaver dams on Nancy Lake Creek, northern pike predation in Nancy Lake, and poaching. The department is developing plans to initiate a project aimed at evaluating and removing passage barriers and suppressing northern pike in Nancy Lake. The goal would be to restore lost areas of salmon production by reducing or eliminating these potential threats.

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 314-1.—Sport harvest and escapement estimates of sockeye salmon on the Little Susitna River for years a weir was operated at river mile 32.5, 1988–2013.

Year	Sockeye Salmon	
	Harvest	Weir count
1988	2,310	3,824
1989	2,315	6,203
1990	891	1,045 ^a
1991	1,722	9,377 ^a
1992	1,274	4,827 ^a
1993	2,487	7,313 ^a
1994	1,809	15,328
1995	1,116	7,129
1996	2,286	ND
1997	1,845	ND
1998	872	ND
1999	1,282	ND
2000	3,661	ND
2001	1,959	ND
2002	2,133	ND
2003	3,337	ND
2004	2,776	ND
2005	1,442	ND
2006	1,556	ND
2007	2,387	ND
2008	1,699	ND
2009	1,152	ND
2010	1,257	ND
2011	295	ND
2012	506	249 ^a
2013	NA	375
Mean	1,775	6,572 ^b

NA = Data not available.

ND = No data

^a Partial count. Weir not operated during the first 33% of the historical run.

^b Complete count years only.

PROPOSAL 316 – 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: Central Peninsula Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would require the use of four-stroke outboard motors on the Little Susitna River and limit the number of outboards on the river each day.

WHAT ARE THE CURRENT REGULATIONS? There are currently no power boat restrictions on the Little Susitna.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, the levels of total aromatic hydrocarbon (TAH) and turbidity would likely decrease. It is unknown what effect requiring four-stroke motors would have on improving fish production. It is difficult to determine what effect limiting motor type would have on fishing effort and harvest. In the short term, effort and harvest would likely decrease until boating anglers who use two-stroke motors would come into compliance by purchasing four-stroke motors. Some anglers would fish elsewhere if unwilling or unable to come into compliance.

Limiting the number of outboard motors would decrease fishing effort and harvest of all species in proportion to the decrease in the number of outboards because the majority of fishing occurs from powerboats. A method to limit participation and enforce the limit would need to be developed.

BACKGROUND: The Little Susitna River is a fairly small, twisting river system located within the Matanuska-Susitna Valley. There are two boat access points to the Little Susitna River. One is located immediately downstream of the Parks Highway bridge and the other is a department-owned site located 40 miles downstream of the Parks Highway bridge in the vicinity of Point MacKenzie (Figure 316-1). The river is shallow, and jet-equipped boats are nearly exclusively used on the 40-mile stretch of river between the lower access and the Parks Highway bridge. Some propeller-driven boats are used downstream of the lower access.

This river system receives about 27,000 angler days of effort annually during the last ten years. The majority of this fishing effort is expended by anglers using power boats because foot access is limited to within the vicinity of the above access points, while power boating allows access to roughly 50 miles of river. Float trips from the upper to lower access points require a minimum of two days of travel time between access points. Power boats on the river range in size from 10 to 30 feet and use both outboard and inboard engines ranging from 2 to 250 HP for outboard motors, or, for inboard engines, as large as 460 cubic inches.

According to the Alaska Department of Natural Resources, Division of Parks and Outdoor Recreation, who manages the lower access site, approximately 1,500 boats use the lower access each year; the average boat length is 17 feet, and average horsepower about 55. Approximately one-third of the boats using the facility in 2013 were powered by two-stroke motors, and there

has been an upward trend in the use of four-stroke motors in recent years. The majority of boat use occurs during June and August, corresponding to the king and coho salmon fishing season. Approximately one-third more boats are used during August than in June.

The Alaska Department of Environmental Conservation (DEC) collected water samples during a study conducted 2007–2012. DEC has not yet listed the Little Susitna River as impaired, although DEC is considering new impairments for public notice in their Draft 2014 Integrated Report scheduled for early 2014. DEC has collected data showing water quality for turbidity and petroleum levels have been exceeded for some periods and some locations during summer months. DEC has implemented a riverside educational campaign directed at promoting cleaner burning four-stroke and direct fuel injected motors, and minimizing gas leakage or spillage in an effort to reduce the amount of petroleum.

The sport harvest has averaged approximately 2,400 king salmon and 13,600 coho salmon annually since 1988 (Table 316-1). A weir has been operated annually since 1988 to enumerate coho salmon and has operated to enumerate king salmon sporadically in the past. The weir was located at river mile 32.5 from 1988–1995, then moved to river mile 71 where it operated from 1996–2011. The weir was moved back down to the lower site in 2012 and is currently operating for both species, allowing timely inseason management of the fishery. Escapement goals have been set for both species. The king salmon goal was not achieved in 2010 and 2011, and the coho salmon goal not achieved in 2009–2012. Both king and coho salmon escapement goals were achieved in 2013.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. If DEC includes the Little Susitna River on the list of impaired waters in their Draft 2014 Integrated Report, and it is approved by the Environmental Protection Agency, a recovery plan would likely be developed.

COST ANALYSIS: Approval of this proposal is expected to result in an additional direct cost for a private person to participate in this fishery. New motors would need to be purchased to participate in fishing the Little Susitna River from a vessel.

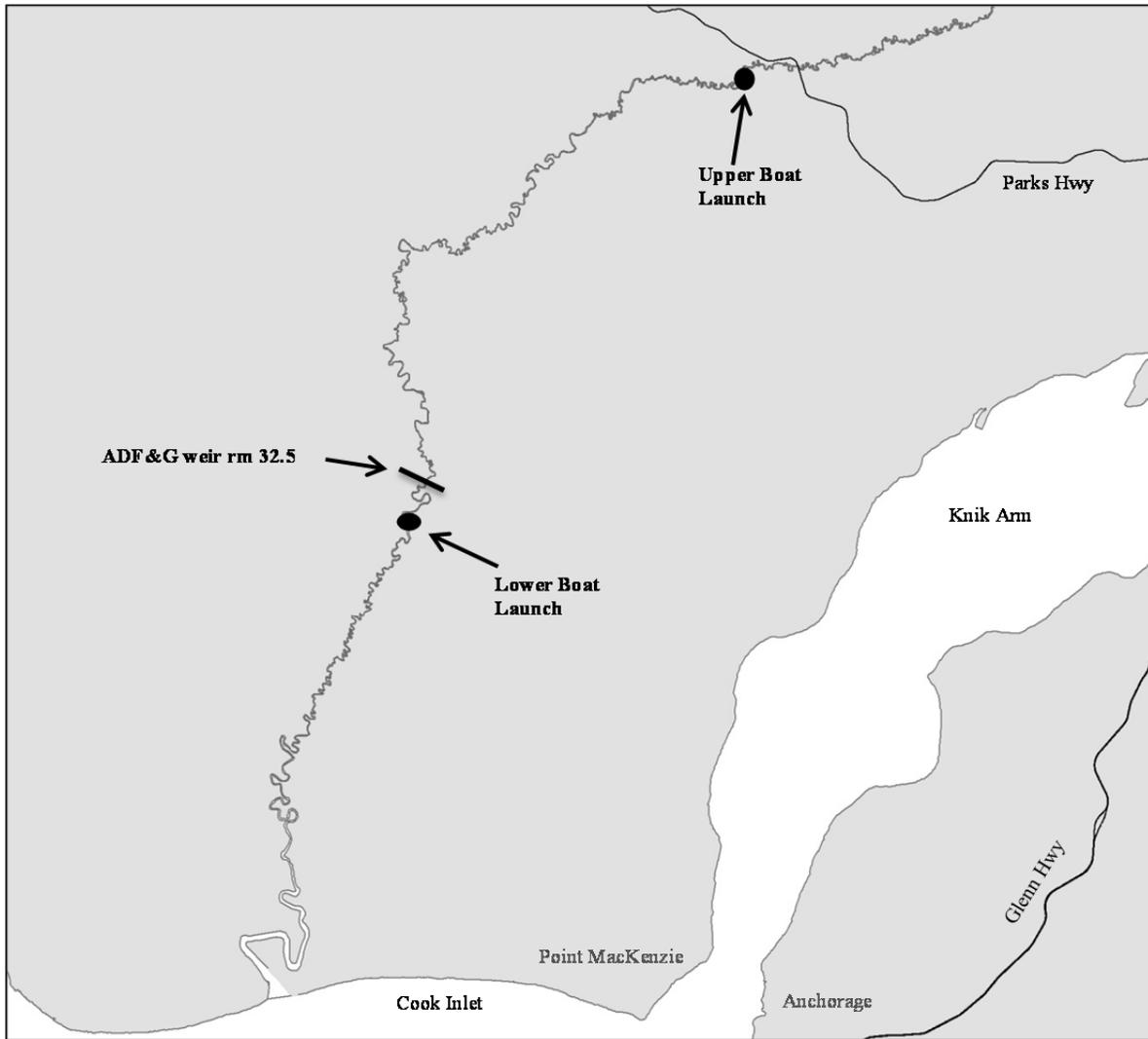


Figure 316-1.—Map depicting the location of boat launches and fish counting weir on the Little Susitna River.

Table 316-1.—Effort, harvest, and escapement of king and coho salmon on the Little Susitna River, 1988–2013.

Year	Angler days	King			Coho		
		Harvest	Escapement (aerial index) ^a	Escapement (weir count)	Harvest Rate	Harvest	Escapement (weir count) ^b
1988	49,731	2,822	3,197	7,374	0.28	19,009	20,491
1989	54,708	4,204	no count	4,367	0.49	14,129	15,232
1990	40,159	1,965	922			7,497	14,310
1991	50,838	2,102	892			16,450	37,601
1992	49,304	3,920	1,441			20,030	20,393
1993	42,249	3,441	no count			27,610	33,378
1994	45,149	4,204	1,221	2,981	0.59	17,665	27,820
1995	41,119	1,698	1,714	2,809	0.38	14,451	11,817
1996	24,575	1,484	1,079			16,753	15,803
1997	27,883	2,938	no count			7,756	9,894 ^c
1998	22,108	2,031	1,091			14,469	15,159
1999	30,437	2,713	no count			8,864	3,017
2000	39,556	2,802	1,094			20,357	15,436
2001	33,521	2,243	1,238			17,071	30,587
2002	40,346	3,144	1,660			19,278	47,938
2003	31,993	2,138	1,114			13,672	10,877
2004	33,819	2,362	1,694			15,307	40,199
2005	27,490	2,724	2,095			10,203	16,839 ^c
2006	28,547	3,303	1,855			12,399	8,786 ^c
2007	35,636	3,210	1,731			11,089	17,573
2008	31,989	2,219	1,297			13,498	18,485
2009	28,151	1,653	1,028			8,346	9,523
2010	24,846	889	589			10,662	9,214
2011	12,779	828	887			2,452	4,826
2012	10,115	216	1154			1,681	6,779 ^c
2013	NA	NA	1,651	2,383 ^c		NA	13,583 ^c
Mean	34,282	2,450	1,393	4,383		13,628	19,985 ^d

Blank cells = No data.

^a BEG of 850 from 1994–2001; SEG of 900–1,800 king salmon from 2002–2013.

^b BEG of 7,500 king salmon from 1994 to 1998; BEG 9,600–19,200 from 1999 to 2001; SEG 10,100–17,700 from 2002 to 2013.

^c Incomplete count due to high water and weir submersion.

^d Includes complete count years only.

PROPOSAL 317 – 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: Steve Tyler.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit sport fishing from a boat during the coho salmon season on the Little Susitna River from 5:00 p.m. on Fridays until 7:00 a.m. on Mondays each week. Alternatively, the proposal would open the sport fishery every other day, except that sport fishing on Sundays would be closed.

WHAT ARE THE CURRENT REGULATIONS? Sport fishing is allowed for all species, except king salmon, 24 hours per day, seven days per week, year-round. Open season for king salmon sport fishing is January 1–July 13.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, the levels of total aromatic hydrocarbon (TAH) and turbidity would likely decrease primarily during August. However, if adopted, only fishing from a vessel would be affected; powerboats of any motor type would be allowed on the river in general. It is unknown what effect requiring four-stroke use would have on improving fish production. Sport effort, catch, and harvest for coho, chum, and pink salmon would be reduced by greater than 50% with either option.

BACKGROUND: The Little Susitna River is a fairly small, twisting river system located within the Matanuska-Susitna Valley. There are two boat access points to the Little Susitna River. One is located immediately downstream of the Parks Highway bridge and the other is a department-owned site located 40 miles downstream of the Parks Highway bridge in the vicinity of Point MacKenzie. The river is shallow, and jet-equipped boats are nearly exclusively used on the 40-mile stretch of river between the lower access and the Parks Highway bridge. Some propeller-driven boats are used downstream of the lower access.

This river system receives about 27,000 angler days of effort annually during the last ten years. The majority of this fishing effort is expended by anglers using power boats because foot access is limited to within the vicinity of the above access points, while power boating allows access to roughly 50 miles of river. Float trips from the upper to lower access points require a minimum of two days of travel time between access points. Power boats on the river range in size from 10 to 30 feet and use both outboard and inboard engines ranging from 2–250 HP for outboard motors, or, for inboard engines, as large as 460 cubic inches.

According to the Alaska Department of Natural Resources, Division of Parks and Outdoor Recreation, who manages the lower access site, approximately 1,500 boats use the lower access each year; the average boat length is 17 feet, and average horsepower about 55. Approximately one-third of the boats using the facility in 2013 were powered by two-stroke motors, and there has been an upward trend in the use of four-stroke motors in recent years. The majority of boat use occurs during June and August, corresponding to the king and coho salmon fishing season. Approximately one-third more boats are used during August than in June.

The Alaska Department of Environmental Conservation (DEC) collected water samples during a study conducted 2007–2012. DEC has not yet listed the Little Susitna River as impaired, although DEC is considering new impairments for public notice in their Draft 2014 Integrated Report scheduled for early 2014. DEC has collected data showing water quality for turbidity and petroleum levels have been exceeded for some periods and some locations during summer months. DEC has implemented a riverside educational campaign directed at promoting cleaner burning four-stroke and direct fuel injected motors, and minimizing gas leakage or spillage in an effort to reduce the amount of petroleum.

The sport harvest has averaged 13,600 coho salmon annually since 1988 (Table 317-1). A weir has been in operation to enumerate coho salmon since 1988. A weir has been operated annually since 1988 to enumerate coho salmon. The weir was located at river mile 32.5 from 1988–1995, then moved to river mile 71 where it operated from 1996–2011. The weir was moved back down to the lower site in 2012 and is currently operating for both coho and king salmon, allowing timely inseason management of the fishery. The coho salmon sustainable escapement goal (SEG) of 10,100–17,700 fish was achieved in six of the past ten years (2004–2008 and 2013). The SEG was not achieved in 2009–2012, but was achieved in 2013.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. If DEC includes the Little Susitna River on the list of impaired waters in their Draft 2014 Integrated Report, and it is approved by the Environmental Protection Agency, a recovery plan would likely be developed.

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 317-1.–Effort, harvest, and escapement of king and coho salmon on the Little Susitna River, 1988–2013.

Year	Angler days	King			Coho		
		Harvest	Escapement (aerial index) ^a	Escapement (weir count)	Harvest Rate	Harvest	Escapement (weir count) ^b
1988	49,731	2,822	3,197	7,374	0.28	19,009	20,491
1989	54,708	4,204	no count	4,367	0.49	14,129	15,232
1990	40,159	1,965	922			7,497	14,310
1991	50,838	2,102	892			16,450	37,601
1992	49,304	3,920	1,441			20,030	20,393
1993	42,249	3,441	no count			27,610	33,378
1994	45,149	4,204	1,221	2,981	0.59	17,665	27,820
1995	41,119	1,698	1,714	2,809	0.38	14,451	11,817
1996	24,575	1,484	1,079			16,753	15,803
1997	27,883	2,938	no count			7,756	9,894 ^c
1998	22,108	2,031	1,091			14,469	15,159
1999	30,437	2,713	no count			8,864	3,017
2000	39,556	2,802	1,094			20,357	15,436
2001	33,521	2,243	1,238			17,071	30,587
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2003	31,993	2,138	1,114			13,672	10,877
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2005	27,490	2,724	2,095			10,203	16,839 ^c
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2007	35,636	3,210	1,731			11,089	17,573
2008	31,989	2,219	1,297			13,498	18,485
2009	28,151	1,653	1,028			8,346	9,523
2010	24,846	889	589			10,662	9,214
2011	12,779	828	887			2,452	4,826
2012	10,115	216	1154			1,681	6,779 ^c
2013	NA	NA	1,651	2,383 ^c		NA	13,583 ^c
Mean	34,282	2,450	1,393	4,383		13,628	19,985 ^d

Blank cells = No data.

^a BEG of 850 from 1994–2001; SEG of 900–1,800 king salmon from 2002–2013.

^b BEG of 7,500 king salmon from 1994 to 1998; BEG 9,600–19,200 from 1999 to 2001; SEG 10,100–17,700 from 2002 to 2013.

^c Incomplete count due to high water and weir submersion.

^d Includes complete count years only.

PROPOSAL 322 – 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 increase the area open to sport fishing for king salmon in the Eklutna Tailrace.

WHAT ARE THE CURRENT REGULATIONS? In the Eklutna Tailrace, from its confluence with the Knik River upstream to a department regulatory marker located approximately 100 feet downstream of the Old Glenn Highway, and in the waters within a one-half mile radius and downstream a distance of two miles from its confluence with the Knik River, from January 1–December 31, the bag and possession limit for king salmon 20 inches or greater in length is one fish; after taking a bag limit of one king salmon 20 inches or greater in length, a person may not sport fish for any species of finfish on that same day; bait is allowed; annual limit of five fish; a harvest record is required as specified in 5 AAC 60.124.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Regulations would be simplified to reflect changes in brookstock collection and how the current fishery is conducted. The result would be less confusion for both anglers and enforcement officials.

BACKGROUND: A terminal king salmon fishery has been in existence at the Eklutna Tailrace since the department began stocking it in 2002. In 2005, the area open to fishing for king salmon was set in regulation to accommodate the collection of coho salmon broodstock (the tailrace had long supported a terminal fishery for coho salmon). The section in which broodstock were collected (between the Old Glenn Highway and a department marker) was closed to fishing because a weir was installed annually during a time of low flows in the spring and fishing is not allowed within 300 feet of a weir by regulation (Figure 322-1). The weir is no longer used because coho broodstock are collected at a different location.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. This is meant to simplify regulatory language to reflect the way in which the king salmon fishery is currently conducted.

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 322-1.—Area closed to king salmon fishing at the Eklutna Tailrace.

PROPOSAL 323 – 5 AAC 60.120. General provisions for seasons, bag, possession, and size limits, and methods and means for the Knik Arm Drainages Area.

PROPOSED BY: Jehnifer and Butch Ehmann – Ehmann Outdoors.

WHAT WOULD THE PROPOSAL DO? This proposal would create a youth-only fishery in the Eklutna Tailrace between the confluence with the Knik River and upstream to the pedestrian bridge (Figure 323-1) from 6:00 a.m. to 6:00 p.m. on the third Saturday in June to target king salmon.

WHAT ARE THE CURRENT REGULATIONS The Eklutna Tailrace is open year-round and 24 hours per day to fishing for all species. Bag and possession limit for king salmon 20 inches or greater in length is one fish; after taking a bag limit of one king salmon 20 inches or greater in length, a person may not sport fish for any species of finfish on that same day; bait is allowed; annual limit of five fish and a harvest record is required.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Anglers, 15 years and younger, would have one day during the peak of the hatchery king salmon run when they could fish unimpeded by competition from adults in the most productive fishing area within the Eklutna Tailrace. Adults would be excluded from this designated area during that day but could fish for king salmon outside of the area.

BACKGROUND: In 2004, the Alaska State Legislature enacted HB 98, which gave authority to the Alaska Board of Fisheries to create youth-only fisheries. These fisheries are designed to allow young anglers, aged 15 and younger, an opportunity to fish without having to compete with more skilled adult anglers. Youth-only salmon fisheries are now in regulation on Campbell Creek in Anchorage for king salmon, on Fish Creek in Knik Arm for coho salmon, at the Nick Dudiak Fishing Lagoon in Homer for both king and coho salmon, and at two locations in Seward for stocked trout, king salmon, and coho salmon.

The department began a terminal king salmon fishery at this site in 2002. One of the primary objectives of this program was to take pressure off wild king salmon through supplemental hatchery fish returning to a terminal harvest area. The harvest area was chosen to maximize the potential for harvest of only stocked hatchery fish. No broodstock are collected here, so all returning fish may be harvested. Three annual objectives of this stocking program are to: 1) stock the tailrace with 200,000 king salmon smolt, 2) produce a run of 4,000 fish, and 3) provide for 10,000 angler days.

In the past decade, since king salmon stocking was initiated, angler participation has doubled from about 8,000 to 18,000 angler days; about 10,000 of those days are attributed to fishing for king salmon. The first complete king salmon run, including all age classes, occurred in 2006. In that year, 500 king salmon were harvested (Table 323-1). Harvest peaked the next year at 1,100 fish before declining. Low returns following 2007 were likely partially due to stocking of undersized smolt as a result of mechanical problems at the existing hatchery which required rearing fish without heated water. A newly-built hatchery has made it possible to once again stock target-sized fish, which began in 2012. The department plans to increase the smolt release

in 2014 to more than double current levels: 424,000 smolt are planned for release in an effort to meet the objective of providing a 4,000 fish adult return (assuming poor marine survival).

During most years, fishing success rates increase through the second week in June and peak during the third week in June.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of this proposal, but **SUPPORTS** providing increased opportunity for youth to fish at the Eklutna Tailrace in the area and during the time and date described in 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 323-1.–Map of Eklutna Tailrace and proposed area for a youth-only fishery.

Table 323-1.--King salmon smolt stocked and adult sport fish harvest at Eklutna Tailrace from 2002–2013, and planned smolt release in 2014.

Year	Brood Year	Total		Mark Type ^a	Mean Weight (g)	Release Date	Brood		Harvest
		Smolt Released					Stock	Hatchery	
2002	2001	106,991		TM	11.3	5/20	Ship Creek	Elmendorf	0
2003	2002	218,492		TM	12.8 (50.05%) 12.0 (49.95%)	6/3, 6/4	Ship Creek	Fort Richardson	399
2004	2002 ^b	215,165		TM	13.4	5/19	Ship Creek	Fort Richardson	23
2005	2003 ^b	164,586		TM	14.0	6/1	Ship Creek	Fort Richardson	941
2006	2004 ^b	213,250		TM	10.6	5/31, 6/1	Ship Creek	Fort Richardson	484
2007	2005 ^b	110,978		TM	8.9	5/30	Ship Creek	Fort Richardson	1,084
2008	2006 ^b	114,136		TM	9.1	5/27	Ship Creek	Fort Richardson	594
2009	2007 ^b	77,785		TM	7.1	6/8	Ship Creek	Fort Richardson	499
2010	2008 ^b	152,014		TM	9.1	6/19	Ship Creek	Fort Richardson	168
2011	2009 ^b	122,962		TM	11.0	5/31	Ship Creek	Fort Richardson	184
2012	2011	160,347		TM	13.5	5/29	Ship Creek	WJHSFH	76
2013	2012	94,609		TM	15.9	6/18	Ship Creek	WJHSFH	NA
2014	2013	424,000 ^c		TM	14.0	6/15	Deception Creek	WJHSFH	NA

^a TM = Thermal Mark.

^b Cold water rearing conditions required growth over two winters to reach optimal release size.

^c Planned smolt release.

NA = Data not available.

WJHSFH = William Jack Hernandez Sport Fish Hatchery.

PROPOSAL 376 – 5 AAC 60.120. General provisions for seasons, bag, possession, and size limits, and methods and means for the Knik Arm Drainages Area.

PROPOSED BY: Jehnifer and Butch Ehmann – Ehmann Outdoors.

WHAT WOULD THE PROPOSAL DO? This proposal would create a youth-only fishery in the Eklutna Tailrace from the confluence with the Knik River upstream to the pedestrian bridge (Figure 376-1). The fishery would take place from 6:00 a.m. to 6:00 p.m. on the third Saturday in August to target coho salmon.

WHAT ARE THE CURRENT REGULATIONS? The Eklutna Tailrace is open year-round and 24 hours per day to fishing for all species. Bag and possession limit for salmon, other than king salmon, within the tailrace is three fish, of which all three may be coho salmon.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Anglers, 15 years and younger, would have one day during the peak of the hatchery coho salmon run when they could fish unimpeded by competition from adults in the most productive fishing area within the Eklutna Tailrace. Adults would be excluded from this designated area during that day but could fish for coho salmon outside of the area.

BACKGROUND: In 2004, the Alaska State Legislature enacted HB 98, which gave authority to the Alaska Board of Fisheries to create youth-only fisheries. These fisheries are designed to allow young anglers, aged 15 and younger, an opportunity to fish without having to compete with more skilled adult anglers. Youth-only salmon fisheries are now in regulation on Campbell Creek in Anchorage for king salmon, on Fish Creek in Knik Arm for coho salmon, at the Nick Dudiak Fishing Lagoon in Homer for both king and coho salmon, and at two locations in Seward for stocked trout, king salmon, and coho salmon.

The department began a terminal coho salmon fishery at this site in 1981 to provide additional fishing opportunity to harvest coho salmon. Broodstock are collected from Ship Creek, and all fish returning to the tailrace may be harvested. Three annual objectives of this stocking program are to: 1) stock the tailrace with 120,000 coho salmon smolt, 2) produce a run of 7,500 fish, and 3) provide for 6,000 angler days.

About 18,000 angler days of effort are expended at the tailrace annually (Table 376-1), of which about 6,000–8,000 days can be attributed to the coho salmon fishery. The long-term harvest averages 2,700 fish. A more recent harvest from 2006–2010 was about 4,300 fish. On most years, fishing success rates increase through the second week in August and peak during the third week in August.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on the allocative aspects of this proposal, but **SUPPORTS** providing increased opportunity for youths to fish at the Eklutna Tailrace in the area and during the time and date described in 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 376-1.—Map of Eklutna Tailrace and proposed area for a youth-only fishery.

Table 376-1.—Coho salmon smolt stocked and adult sport fish harvest and effort at Eklutna Tailrace from 2005–2013, and planned smolt release in 2014.

Year ^a	Smolt		
	Released	Harvest	Effort
2005	132,149	4,899	19,339
2006	132,212	6,104	20,465
2007	118,054	3,298	22,619
2008	118,139	2,253	20,586
2009	120,200	6,767	22,625
2010	131,123	3,233	14,708
2011	97,087	1,350	5,972
2012	40,921	394	5,475
2013	132,661		
2014	101,151 ^b		

^a Eggs are taken 2 years prior to being released.

^b Planned smolt release.

PROPOSAL 324 – 5 AAC 60.120. General provisions for season, bag, possession, and size limits, and methods and means for the Knik Arm Drainage Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would update the stocked lakes list for the Knik Arm drainage area.

WHAT ARE THE CURRENT REGULATIONS? The bag and possession limit for stocked lakes in Northern Cook Inlet (NCI) is five each for rainbow trout (only one over 20 inches per day with an annual limit of two per year), Arctic grayling, and Dolly Varden/Arctic char. The bag and possession limits in other nonstocked lakes allow two per day and in possession for each of these species. The bag and possession limit for stocked salmon in lakes is ten fish.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Anglers fishing lakes newly added to the list of stocked lakes would be able to harvest more fish. Regulations would accurately reflect the current stocking program.

BACKGROUND: Currently, 85 lakes in the NCI are stocked on an annual or biennial basis. These lakes are stocked with a variety of sizes and species, including rainbow trout, coho salmon, king salmon, Arctic grayling, and Arctic char. In most cases, stocked lakes represent new fisheries because game fish were not present before stocking occurred. Anglers and related businesses benefit from these diverse, year-round fishing opportunities that divert angling pressure from wild stocks. Stocked lakes are managed for full utilization and therefore regulations are more liberal than in nonstocked lakes.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. Aligning regulations with the current stocking program would ensure consistency in management of stocked lakes across NCI and prevent confusion among anglers or law enforcement officials.

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 325 – 5 AAC 59.120. General provisions for seasons, bag, possession, and size limits, and methods and means for the Anchorage Bowl Drainage Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would reduce the bag limit for landlocked salmon in stocked lakes from ten per day to five per day, aligning them with the bag and possession limit for other stocked fish in the Anchorage Management Area.

WHAT ARE THE CURRENT REGULATIONS? Bag and possession limits in Anchorage area stocked lakes are five rainbow trout (only one over 20 inches per day with an annual limit of two per year); five Arctic char; five Arctic grayling; and ten landlocked salmon.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Daily harvest of stocked salmon would likely decrease leaving more of these stocked landlocked salmon available to anglers later in the ice fishing season. The bag and possession limit for Anchorage area stocked lakes would be simplified, with all species of stocked fish having the same limits.

BACKGROUND: The *Statewide Stocking Plan* calls for stocking Anchorage area lakes with 110,000 rainbow trout, 50,000 landlocked salmon, 5,000 Arctic char, and 2,500 Arctic grayling. Stocked fish are produced at the William Jack Hernandez Hatchery and released into area lakes at about 8 to 10 inches in length. The catchable landlocked salmon are stocked just prior to ice up to provide ice fishing opportunity throughout the winter. They are aggressive feeders and, in these popular fisheries, are typically harvested in one season; very few survive to the following winter.

Landlocked salmon are also an important component of the department's education program. In addition to incubating salmon eggs in the classroom and visiting classrooms to teach salmon life history and conduct salmon dissections, program staff organize a four-day ice fishing event for elementary school students. An abundance of stocked fish is important to the success of this event that introduces many young Alaskans to ice fishing and, in many cases, their first fishing experience. Children as young as two years old can independently hook and land these fish with no assistance from their parents. In some years, the catch rate has been as high as 4,500 stocked fish over the four-day event, cultivating enthusiasm and stewardship in these young anglers. Landlocked king salmon are the same size and of similar appearance to rainbow trout stocked into local lakes. This can confuse anglers who mistake rainbow trout for landlocked salmon and can lead to anglers unintentionally exceeding their bag limit.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. Aligning the bag limit of this easily caught fish with all other stocked species in Anchorage area lakes will simplify regulations, and make more of these stocked landlocked salmon available to anglers later in the ice fishing season.

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 E: UPPER COOK INLET/KENAI/KASILOF SPORT (27 proposals)

Cook Inlet - Areawide Sport Fisheries (13 proposals): 47–50, 52–54, 183, 55–56, 184–185, 57

Sport - Kenai River Vessel Restrictions (7 proposals): 237–243

Sport - Kenai and Kasilof rivers Salmon (7 proposals): 244–247, 249–251

Cook Inlet – Areawide Sport Fisheries: 47–50, 52–54, 183, 55–56, 184–185, 57

PROPOSAL 47 – 5 AAC 56.120. General provisions for seasons, bag, possession, and size limits, and methods and means for the Kenai Peninsula Area; 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 59.120. General provisions for seasons, bag, possession, and size limits, and methods and means for the Anchorage Bowl Drainages Area; 5 AAC 60.120. General provisions for seasons, bag, possession, and size limits, and methods and means for the Knik Arm Drainages Area; 5 AAC 61.110. General provisions for seasons, bag, possession, and size limits, and methods and means for the Susitna River Drainage Area; and 5 AAC 62.120. General provisions for seasons, bag, possession, and size limits, and methods and means for the West Cook Inlet Area. *(This proposal will be considered at the Lower Cook Inlet and Upper Cook Inlet (UCI) Finfish meetings, but deliberated at the UCI meeting.)*

PROPOSED BY: Central Peninsula Fish and Game Advisory Committee.

WHAT WOULD THE PROPOSAL DO? All anglers would be required to use barbless hooks when fishing for salmon in Cook Inlet freshwater systems.

WHAT ARE THE CURRENT REGULATIONS? 5 AAC 75.020(a), *Sport fishing gear*, states unless otherwise provided, sport fishing may only be conducted by use of a closely attended, single line having no more than one plug, spinner, or series of spinners or two flies or two hooks.

There are no regulations prohibiting barbed hooks in Alaska.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would affect many anglers. Based on recent Statewide Harvest Survey data an estimated 187,000 anglers participate in Cook Inlet freshwater fisheries. Prohibiting the use of barbed hooks in Cook Inlet salmon fisheries would reduce angler efficiency by some amount. A 2010 study by California Department of Fish and Game examined the capture efficiency of artificial flies fished with barbed and barbless hooks in trout fisheries in California. The study found angler efficiency decreased by 11–24%, with young and inexperienced anglers disproportionately affected. The prohibition of barbed hooks would apply to fisheries on many hatchery stocked lakes and streams in Anchorage, Matanuska–Susitna Valley, and Kenai Peninsula, in addition to wild stocks. 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 not reduce mortality of released fish by a measurable amount.

Requiring all anglers to use barbless hooks only in Cook Inlet fresh waters and only for salmon would add complexity to the regulations, increasing the likelihood of violations.

BACKGROUND: The proposal implies that high numbers of salmon released by anglers experience mortality and seeks to reduce mortality of released fish by prohibiting barbed hooks. Some salmon anglers currently use barbless hooks voluntarily. In 2012, the total number of salmon harvested in commercial, sport and personal fisheries in the waters of Cook Inlet was approximately 5,710,500 salmon. In the sport fishery, anglers harvested an estimated 622,200 of 1,160,000 salmon caught in Cook Inlet freshwater fisheries, indicating a release of 537,800 salmon. Studies indicate estimates of release mortality vary greatly depending on a number of factors, but conservatively fall between 9–20%. Using these parameters, salmon mortality attributed to released fish in Cook Inlet fresh waters would be approximately 0.9–2.0% of total removals.

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. The department is **NEUTRAL** on allocative aspects of this proposal.

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 48 – 5 AAC 56.XXX. New Section; 5 AAC 57.XXX. New Section; 5 AAC 58.XXX. New Section; 5 AAC 59.XXX. New Section; 5 AAC 60.XXX. New Section; 5 AAC 61.XXX. New Section; and 5 AAC 62.XXX. New Section. (This proposal will be considered at the Lower Cook Inlet and Upper Cook Inlet (UCI) Finfish meetings, but deliberated at the UCI meeting.)

PROPOSED BY: United Cook Inlet Drift Association.

WHAT WOULD THE PROPOSAL DO? This proposal would designate all waters where catch-and-release fishing occurs on salmon as “single, unbaited, barbless hook waters.” In those waters, it would thereby prohibit the use of multiple hooks, single hooks with a gap between point and shank greater than one-half inch, barbed hooks, and bait when fishing for any species year-round.

WHAT ARE THE CURRENT REGULATIONS? 5 AAC 75.023. Gear for single-hook waters.

- (a) In waters designated as single-hook waters, sport fishing is permitted only as follows:
- (1) with not more than one single hook with gap between point and shank one-half inch or less;
 - (2) hooks or lures (including those of standard manufacture) may not have additional weight attached to them; weights may be used only ahead of the hook or lure.
- (b) Multiple hooks are prohibited in waters designated as single-hook waters.

5 AAC 75.020(a), *Sport fishing gear*, states unless otherwise provided, sport fishing may only be conducted by use of a closely attended, single line having no more than one plug, spinner, or series of spinners or two flies or two hooks.

Alaska fishing regulations allow, but do not require, barbless hooks. There are no regulations prohibiting barbed hooks in Alaska. Although there is a regulatory definition, the Alaska Board of Fisheries (board) has not designated waters in Alaska as “single-hook waters”. The board has required the use of single hooks in some waters in Cook Inlet, such as fly-fishing-only waters (one unweighted, single-hook fly with a gap between point and shank of 3/8 inch or less), and many rainbow trout and king salmon fisheries where the harvest potential was reduced in order to provide opportunity.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Since salmon may be released in all waters of Alaska, this proposal could apply in all waters of Cook Inlet that produce salmon. It would affect many anglers; based on recent Statewide Harvest Survey data, an estimated 187,000 anglers participate in Cook Inlet freshwater fisheries. Prohibiting the use of barbed hooks in Cook Inlet salmon fisheries would reduce angler efficiency by some amount. A 2010 study by California Department of Fish and Game examined the capture efficiency of artificial flies fished with barbed and barbless hooks in trout fisheries in California. The study found angler efficiency decreased by 11–24%, with young and inexperienced anglers disproportionately affected. The prohibition of barbed hooks would apply to fisheries on many hatchery stocked lakes and streams in Anchorage, Matanuska–Susitna Valley, and Kenai Peninsula, in addition to wild stocks. 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 not reduce mortality of released fish by a measurable amount.

Requiring all anglers to use barbless, single-hooks only in Cook Inlet fresh waters and only for salmon would add complexity to the regulations. The divergent regulations and lack of clarity for which waters the regulation would apply would increase the likelihood of violations.

BACKGROUND: The proposal implies that high numbers of salmon released by anglers experience mortality and seeks to reduce mortality of released fish by prohibiting barbed hooks. Some salmon anglers currently use barbless hooks voluntarily. In 2012, the total number of salmon harvested in commercial, sport, and personal use fisheries in the waters of Cook Inlet was approximately 5,710,500 salmon. In the sport fishery, anglers harvested an estimated 622,200 of 1,160,000 salmon caught in Cook Inlet freshwater fisheries, indicating a release of 537,800 salmon. Studies indicate estimates of release mortality vary greatly depending on a number of factors, but conservatively fall between 9–20%. Using these parameters, salmon mortality attributed to released fish in Cook Inlet fresh waters would be approximately 0.9–2.0% of total removals.

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 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 single 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 use of single, unbaited, barbless hooks because of the negative effects it would cause to sport fishing opportunity in the absence of a measurable biological benefit. The department is **NEUTRAL** on allocative aspects of this proposal.

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 49 -- **5 AAC 56.XXX. New Section; 5 AAC 57.XXX. New Section; 5 AAC 58.XXX. New Section; 5 AAC 59.XXX. New Section; 5 AAC 60.XXX. New Section; 5 AAC 61.XXX. New Section; and 5 AAC 62.XXX. New Section.** (*This proposal will be considered at the Lower and Upper Cook Inlet Finfish meetings.*)

PROPOSED BY: United Cook Inlet Drift Association.

WHAT WOULD THE PROPOSAL DO? This proposal would modify the existing gear for waters designated as “single-hook waters” to require the use of single, unbaited, barbless circle hooks.

WHAT ARE THE CURRENT REGULATIONS? 5 AAC 75.023. Gear for single-hook waters.

- (a) In waters designated as single-hook waters, sport fishing is permitted only as follows:
- (1) with not more than one single hook with gap between point and shank one-half inch or less;
 - (2) hooks or lures (including those of standard manufacture) may not have additional weight attached to them; weights may be used only ahead of the hook or lure.
- (b) Multiple hooks are prohibited in waters designated as single-hook waters.

5 AAC 75.020(a), *Sport fishing gear*, states unless otherwise provided, sport fishing may only be conducted by use of a closely attended, single line having no more than one plug, spinner, or series of spinners or two flies or two hooks.

Alaska fishing regulations allow, but do not require, barbless hooks. There are no regulations prohibiting barbed hooks or requiring the use of circle hooks in Alaska. The Alaska Board of Fisheries (board) has not designated waters in Alaska as “single-hook waters”. The board has required the use of single hooks in some waters in Cook Inlet, such as fly-fishing-only waters (one unweighted, single-hook fly with a gap between point and shank of 3/8 inch or less), and many rainbow trout and king salmon fisheries where the harvest potential was reduced in order to provide opportunity.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If this proposal is to be applied to waters currently designated as “single-hook waters” it would have no effect because no waters have been designated as such. However, if the board designated “single-hook waters” in the future, or, alternately, if the intent of the proposal is to apply to waters in which single hooks are required, this proposal would affect several fisheries.

Prohibiting the use of barbed hooks in Cook Inlet salmon fisheries would reduce angler efficiency by some amount. A 2010 study by California Department of Fish and Game examined the capture efficiency of artificial flies fished with barbed and barbless hooks in trout fisheries in California. The study found angler efficiency decreased by 11–24%, with young and inexperienced anglers disproportionately affected. The prohibition of barbed hooks would apply to fisheries on many hatchery stocked lakes and streams in Anchorage, Matanuska–Susitna Valley, and Kenai Peninsula, in addition to wild stocks. 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 not reduce mortality of released fish by a measurable amount.

Requiring all anglers to use single, unbaited, barbless, circle hooks only in Cook Inlet fresh waters and only for salmon would add complexity to the regulations. The divergent regulations and lack of clarity for which waters the regulation would apply would increase the likelihood of violations.

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 broad based 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 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 uses the commissioner's emergency order authority to reduce mortality when necessary to achieve goals or provide sustainability by prohibiting use of bait, multiple hooks, or closing fisheries. 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.

For circle hooks to perform as designed, anglers must alter the method by which they set the hook relative to the method used for standard hooks. Instead of "setting" the hook by jerking the rod, the angler must apply gentle, steady pressure to the hook. To function properly, the entire circle hook needs to be ingested by a fish. The angler must provide the fish with sufficient time to actually ingest the entire hook. If the angler jerks the rod to set the hook, the circle hook will often be pulled out of the fish's mouth. This is why the use of circle hooks is generally combined with bait.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. Anglers may currently use barbless and circle hooks. The department encourages anglers to use best practices through outreach efforts. However, we do not support a regulation requiring the use of unbaited, barbless circle hooks where single hooks are required because of the negative effects to sport fishing opportunity in the absence of a measurable biological benefit. The department is **NEUTRAL** on allocative aspects of this proposal.

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

PROPOSAL 50 -- **5 AAC 56.XXX. New Section; 5 AAC 57.XXX. New Section; 5 AAC 59.XXX. New Section; 5 AAC 60.XXX. New Section; 5 AAC 61.XXX. New Section; and 5 AAC 62.XXX. New Section.** *(This proposal will be considered at the Lower Cook Inlet and Upper Cook Inlet (UCI) Finfish meetings, but deliberated at the UCI meeting.)*

PROPOSED BY: Central Peninsula Fish and Game Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit the release of coho salmon caught while sport fishing in Cook Inlet fresh waters.

WHAT ARE THE CURRENT REGULATIONS? In Cook Inlet, a coho salmon 16 inches or longer 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.

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 coho salmon alive, including anglers targeting other species, to harvest coho salmon. Anglers with a limit of coho salmon would be unable to fish for other species without the risk of committing a violation if they caught another coho salmon. They would be prohibited from releasing the coho salmon and retaining it would exceed their bag limit. This proposal would also create additional regulation and thereby increase regulatory complexity.

This proposal would likely reduce overall mortality of coho salmon caught in the Cook Inlet freshwater sport fishery. However, the effect to total mortality would be relatively small. Since salmon fisheries are managed for sustained yields by ensuring escapement goals are achieved, effects to salmon production would also be minimal.

BACKGROUND: The proposal implies that high numbers of salmon released by anglers experience mortality, and it seeks to reduce mortality of released fish by prohibiting releasing fish. In the 2012 sport fishery, Cook Inlet anglers (excluding North Gulf/Resurrection Bay) harvested an estimated 89,850 of 133,900 coho salmon caught in fresh waters, indicating a release of 44,000 coho salmon. Studies indicate estimates of release mortality vary greatly depending on a number of factors, but conservatively fall between 9–20%. Using these parameters, salmon mortality attributed to released fish in Cook Inlet would be approximately 3,960–8,800 coho salmon.

The mortality of released fish is attributed mostly to hook placement. Hooking mortality is often higher for fish that have been 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.

Two studies have been conducted in Alaska to estimate release mortality of coho salmon. A study in the late 1980s on the Little Susitna River estimated a mortality rate of 69% for coho salmon caught and released within the intertidal portion of the river. The same study reported

that coho salmon released above tidal influence experienced a 12% mortality rate. A 2001 study on the Unalakleet River in Western Alaska estimated a release mortality rate for coho salmon of 15%. That study found location in the river made no difference in coho salmon mortality. Both studies concluded that hook placement was the major factor affecting the fate of an individual fish.

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. Some anglers prefer to release fish rather than harvest them. Anglers also choose to release a fish because it is not the targeted species, is not legal size, is snagged, or is not edible. The department encourages anglers to use best practices through outreach efforts. Sport fishing regulations for coho salmon in Cook Inlet, recently adopted by the board, are some of the most restrictive regulations in the state for coho salmon.

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

PROPOSAL 52 -- **5 AAC 56.XXX. New Section; 5 AAC 57.XXX. New Section; 5 AAC 59.XXX. New Section; 5 AAC 60.XXX. New Section; 5 AAC 61.XXX. New Section; and 5 AAC 62.XXX. New Section.** *(This proposal will be considered at the Lower Cook Inlet and Upper Cook Inlet (UCI) Finfish meetings, but deliberated at the UCI meeting.)*

PROPOSED BY: Central Peninsula Fish and Game Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit anglers from releasing any salmon caught, up to the bag limit, while fishing in all Cook Inlet fresh waters.

WHAT ARE THE CURRENT REGULATIONS? The limit for king salmon 20 inches or greater in length is one per day, one in possession, with an annual limit of five from Cook Inlet waters. A king salmon 20 inches or greater intended for release may not be removed from the water. The limit of king salmon less than 20 inches is 10 per day. A coho salmon may not be removed from the water before release.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would affect many anglers; based on recent Statewide Harvest Survey data, an estimated 187,000 anglers participate in Cook Inlet freshwater sport fisheries. Under this proposal, all sport anglers who fish for salmon in Cook Inlet freshwater systems would be required to retain all salmon caught, up to the bag limit for that species.

This proposal would reduce fishing opportunity for salmon because it would prohibit anglers who would otherwise intend to release salmon alive from doing so. Anglers fishing for resident species like rainbow trout, Dolly Varden, and Arctic grayling would be required to keep all the salmon they caught up to their limit. Anglers with a limit of salmon would be unable to fish for other species without the risk of committing a violation if they caught another salmon. They would be prohibited from releasing the salmon and retaining it would exceed their bag limit.

Prohibiting anglers from releasing any salmon, and only in Cook Inlet fresh waters, would add complexity to the regulations, increasing the likelihood of violations.

This proposal would reduce overall mortality of salmon caught in the Cook Inlet freshwater sport fisheries. However, the effect on total mortality due to savings in release mortality would be relatively small. Since salmon fisheries are managed for sustained yields by ensuring escapement goals are achieved, effects on salmon production would also be small.

BACKGROUND: The proposal implies that high numbers of salmon released by anglers experience mortality, and it seeks to reduce mortality of released fish by prohibiting releasing salmon. In 2012, the total number of salmon harvested in commercial, sport and personal use fisheries in the waters of Cook Inlet was approximately 5,710,500 salmon. In the sport fishery, anglers harvested an estimated 622,200 of 1,160,000 salmon caught in Cook Inlet fresh waters, indicating a release of 537,800 salmon. Studies indicate estimates of release mortality vary greatly depending on a number of factors but conservatively fall between 9–20%. Using these parameters, salmon mortality attributed to released fish in Cook Inlet fresh waters would be approximately 0.9–2.0% of the total removals.

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.

The Alaska Board of Fisheries 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. The mortality of released salmon in Cook Inlet fresh waters is relatively low. Anglers release fish for a number of reasons. Some anglers prefer to release fish rather than harvest them. Anglers also choose to release a fish because it is not the targeted species, is not legal size, is snagged, or is not edible. 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 these fisheries.

PROPOSAL 53 – 5 AAC 56.120. General provisions for seasons, bag, possession, and size limits, and methods and means for the Kenai Peninsula Area. *(This proposal will be considered at the Lower Cook Inlet and Upper Cook Inlet (UCI) Finfish meetings, but deliberated at the UCI meeting.)*

PROPOSED BY: Homer Fish and Game Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit anglers who are releasing a fish in fresh water from removing the fish's head from the water.

WHAT ARE THE CURRENT REGULATIONS? A coho salmon 16 inches or longer 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.

A king salmon 20 inches or longer that is removed from salt or 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 king salmon 20 inches or longer from the water before releasing it.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Prohibiting anglers from removing a fish's head from the water before releasing it would unnecessarily complicate an existing regulation to promote best practices for releasing fish without measurable biological benefit. Requiring anglers to keep a fish's head in the water when removing the hook could increase stress and handling time.

BACKGROUND: Best practices for releasing fish are promoted through a combination of regulation and education. In fisheries where handling mortality was an issue, the Alaska Board of Fisheries (board) implemented regulations prohibiting removing king and coho salmon, and rainbow/steelhead trout, from the water before releasing them. These regulations are enforceable and effectively prohibit anglers from landing their catch on the shore, or holding a fish out of the water for a photo. Current regulations allow anglers to keep a fish in the water while providing the best opportunity to quickly remove the hook from its mouth.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal as a conservation measure. The department encourages anglers to use best practices through outreach efforts. Approval of the proposal would unnecessarily complicate an existing regulation and be difficult to enforce.

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 54 – **5 AAC 56.XXX. New Section; 5 AAC 57.XXX. New Section; 5 AAC 59.XXX. New Section; 5 AAC 60.XXX. New Section; 5 AAC 61.XXX. New Section; and 5 AAC 62.XXX. New Section.** *(This proposal will be considered at the Lower Cook Inlet and Upper Cook Inlet (UCI) Finfish meetings, but deliberated at the UCI meeting.)*

PROPOSED BY: Central Peninsula Fish and Game Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit sport fishing in major Cook Inlet spawning areas when spawning fish are present.

WHAT ARE THE CURRENT REGULATIONS? There are many area and date closures in place intended to protect stocks that are easily accessible in tributary streams and vulnerable stocks lacking inseason assessment. Many streams on the Kenai Peninsula, Anchorage, and the Mat-Su Valley are closed each spring to all fishing during rainbow trout spawning. Sections of streams at the head of Turnagain Arm are closed each year to all fishing after July 14 to provide additional protection to coho and king salmon stocks vulnerable in tributaries with no inseason assessment.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The department would need to identify “major spawning areas” for all species of fish. Regulations would become more complex and fishing opportunity would be reduced or eliminated in many Cook Inlet waters.

BACKGROUND: Throughout much of the open-water season in Southcentral Alaska, the freshwater systems host spawning salmon of one species or another. Spawning can take place throughout a system: from the intertidal reaches, where pink salmon spawn, throughout a river system, and into lakes where sockeye salmon spawn.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. It would require the department to establish criteria to define “major” spawning sites throughout Cook Inlet. Current closures in many Cook Inlet streams are in place to protect king, coho, and sockeye salmon and rainbow trout. These closures adequately protect stocks that are easily accessible in tributary streams.

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 183 – 5 AAC 56.XXX. New Section; 5 AAC 57.XXX. New Section; 5 AAC 59.XXX. New Section; 5 AAC 60.XXX. New Section; 5 AAC 61.XXX. New Section; and 5 AAC 62.XXX. New Section.

PROPOSED BY: David Chessik.

WHAT WOULD THE PROPOSAL DO? This proposal would adopt a policy that implements a call for proposals to prohibit sport fishing within 50% of identified salmon spawning areas in all Upper Cook Inlet (UCI) salmon waters.

WHAT ARE THE CURRENT REGULATIONS? There are many area and date closures in place intended to protect stocks easily accessible in tributary streams and vulnerable stocks that lack inseason assessment. Many streams in the Kenai Peninsula, Anchorage, and the Mat–Su Valley areas are closed each spring to all fishing during rainbow trout spawning. Sections of streams at the head of Turnagain Arm are closed each year to all fishing after July 14 to provide additional protection to coho and king salmon stocks vulnerable in tributaries with no inseason assessment.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The Alaska Board of Fisheries (board) would need to implement a new call for proposals. If a new specific call is made within the context of an existing call, it may cause considerable confusion for the public. If the call is made separately, it will sustain additional costs for the department. It is not clear from the proposal whether it would require a separate board meeting.

The department would need to define “major” spawning sites for all species of fish throughout Cook Inlet, which would also cause a substantial cost to the department. Regulations would become more complex, and fishing opportunity would be reduced or eliminated in many UCI waters.

BACKGROUND: The board of fish and game regulatory process is among the most open and transparent in the country. As currently crafted, the process is wholly supportive of the Alaska Constitution, Article 8.2 that calls for the utilization, development, and conservation of all natural resource belonging to the State for the maximum benefit of its people. The board currently solicits proposals on an area and fishery, rather than issue, basis.

Throughout much of the open-water season in Southcentral Alaska, freshwater systems host spawning salmon of one species or another. Spawning can take place throughout a system: from the intertidal reaches, where pink salmon spawn, throughout a river system, and into lakes where sockeye salmon spawn.

DEPARTMENT COMMENTS: The department is **OPPOSED** to this proposal due to administrative, budgetary, and policy considerations. Current calls for proposals already allow for proposals which suit the narrow preference of this submission. Calling out a narrowly defined use and action is redundant. While costs are modest for one additional public notice, costs for single topic meetings can be relatively high. This proposal seeks the board expressly call for proposals that limit opportunity. This is inconsistent with two of the three directives of Article

8.2 and reduces the objectivity of the current process. Current closures in many Cook Inlet streams are in place to protect king, coho, and sockeye salmon, and rainbow trout easily accessible in tributary streams.

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 55 -- 5 AAC 56.124. Harvest record required; annual limits for the Kenai Peninsula Area; 5 AAC 57.124. Harvest record required; annual limits for the Kenai River Drainage Area; 5 AAC 58.024. Harvest record required; annual limits; 5 AAC 59.124. Harvest record required; annual limits for the Anchorage Bowl Drainages Area; 5 AAC 60.124. Harvest record required; annual limits for the Knik Arm Drainages Area; 5 AAC 61.124. Harvest record required; annual limits for the Susitna River Drainage Area; and 5 AAC 62.124. Harvest record required; annual limits for the West Cook Inlet Area. *(This proposal will be considered at the Lower Cook Inlet and Upper Cook Inlet (UCI) Finfish meetings, but deliberated at the UCI meeting.)*

PROPOSED BY: Mary J. Adami.

WHAT WOULD THE PROPOSAL DO? This proposal would decrease the Cook Inlet king salmon annual limit of king salmon 20 inches or greater in length to two, of which only one can be from the Kenai River.

WHAT ARE THE CURRENT REGULATIONS? An annual limit of five king salmon 20 inches or longer may be taken from fresh waters of Cook Inlet north of the latitude of Point Adam, and from Cook Inlet salt waters, with two exceptions. King salmon harvested in Cook Inlet salt waters south of Anchor Point Light from October 1 to March 31 and king salmon longer than 20 inches, but less than 28 inches harvested in the Kenai River from January 1 through June 30, are not included in the limit.

Of these five total king salmon:

- No more than two may be taken from the Kenai River.
- No more than two may be taken from Deep Creek and Anchor River combined.

There are no king salmon annual limits in effect for North Gulf Coast waters.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Opportunity for anglers to harvest wild and hatchery-released king salmon would be reduced. The sport harvest of king salmon would be reduced

BACKGROUND: The department has an escapement-based management system and monitors major king salmon streams throughout Cook Inlet. There are currently 23 streams in Cook Inlet with escapement goals for king salmon. The department's emergency order authority is used to reduce the bag limit or close fishing in each system to achieve escapement goals. Stocked king salmon fisheries are also part of this five fish annual limit. In 2014, king salmon smolts will be stocked into Ship Creek (365,000 annual stocking goal), Eklutna Tailrace (424,000), Nick Dudiak Fishing Lagoon (210,000), Deception Creek (212,000), and Crooked Creek (150,000), and all are part of the annual Cook Inlet bag limit.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal because limiting opportunity is not needed to achieve escapement goals and is **NEUTRAL** on the allocative aspects.

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

PROPOSAL 56 – 5 AAC 58.022. Waters; seasons; bag, possession, and size limits; and special provisions for Cook Inlet-Resurrection Bay Saltwater Area. *(This proposal will be considered at the Lower Cook Inlet and Upper Cook Inlet (UCI) Finfish meetings, but deliberated at the UCI meeting.)*

PROPOSED BY: Mary J. Adami.

WHAT WOULD THE PROPOSAL DO? This proposal would decrease the Cook Inlet saltwater king salmon bag and possession limit to one king salmon, reduce the annual limit to two king salmon, and provide that no portion of a fish may be removed from the water before release.

WHAT ARE THE CURRENT REGULATIONS? The Cook Inlet saltwater bag and possession limit for king salmon is two fish. A total annual limit of five king salmon 20 inches or longer may be taken from fresh waters of Cook Inlet north of the latitude of Point Adam, and from Cook Inlet salt waters, with two exceptions. King salmon harvested in Cook Inlet salt waters south of Anchor Point Light from October 1 to March 31 and king salmon longer than 20 inches, but less than 28 inches harvested in the Kenai River from January 1 through June 30, are not included in the limit.

Of these five total king salmon:

- No more than two may be taken from the Kenai River.
- No more than two may be taken from Deep Creek and Anchor River combined.

There are no king salmon annual limits in effect for North Gulf Coast waters.

A king salmon 20 inches or longer that is removed from salt or 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 king salmon 20 inches or longer from the water before releasing it.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Opportunity for anglers to harvest wild and hatchery-released king salmon would be reduced. The sport harvest of king salmon would be reduced. Prohibiting removing any part of a fish from the water before releasing it would unnecessarily complicate a regulation to promote best practices for releasing fish without measurable biological benefit.

BACKGROUND: The department has an escapement-based management system and monitors major king salmon streams throughout Cook Inlet. There are currently 23 streams in Cook Inlet with escapement goals for king salmon. The department's emergency order authority is used to reduce the bag limit or close fishing in each system to achieve escapement goals. Stocked king salmon fisheries are also part of this five fish annual limit. In 2014, king salmon smolts will be stocked into Ship Creek (365,000 annual stocking goal), Eklutna Tailrace (424,000), Nick Dudiak Fishing Lagoon (210,000), Deception Creek (212,000), and Crooked Creek (150,000), and all are part of the annual Cook Inlet bag limit.

Best practices for releasing fish are promoted through a combination of regulation and education. In fisheries where handling mortality was potentially an issue, the Alaska Board of Fisheries implemented regulations prohibiting removing king and coho salmon, and rainbow/steelhead trout, from the water before releasing them. These regulations are enforceable and effectively prohibit anglers from landing their catch on the shore, or holding a fish out of the water for a photo. The current regulations allow anglers to keep a fish in the water while providing the best opportunity to quickly remove the hook from its mouth.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal because limiting opportunity is not needed to achieve escapement goals and is **NEUTRAL** on the allocative aspects.

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 184 – 5 AAC 01.530. Subsistence fishing permits; 5 AAC 56.124. Harvest record required; annual limits for the Kenai Peninsula Area; 5 AAC 57.124. Harvest record required; annual limits for the Kenai River Drainage Area; 5 AAC 58.024. Harvest record required; annual limits; 5 AAC 59.124. Harvest record required; annual limits for the Anchorage Bowl Drainages Area; 5 AAC 60.124. Harvest record required; annual limits for the Knik Arm Drainages Area; 5 AAC 61.124. Harvest record required; annual limits for the Susitna River Drainage Area; 5 AAC 62.124. Harvest record required; annual limits for the West Cook Inlet Area; and 5 AAC 77.525. Personal use salmon fishery.

PROPOSED BY: Bruce Morgan.

WHAT WOULD THE PROPOSAL DO? This proposal would require sport, personal use, and subsistence fishermen to report king salmon harvest information within a 24-hour period via online or electronic means.

WHAT ARE THE CURRENT REGULATIONS? In the sport fishery, immediately upon harvesting a fish that has an annual limit, anglers must record the harvest immediately on the back of their sport fish license or harvest record card.

All freshwater and saltwater sport fishing guide operators are required to maintain a department-issued logbook of their clients' catch and harvest. All freshwater and saltwater sport fishing guides are required to record the Alaska sport fishing license number, permanent license number, or disabled veteran license number of each client in the logbook. The logbook must be completed at the end of each day of fishing or at the end of each trip, with a day as described in the guide logbook instructions. Logbook reports must be submitted weekly beginning in April each year.

In personal use fisheries, harvest must be recorded on a permit before leaving the fishing site, and all Cook Inlet personal use salmon permits must be turned in to the department by August 15 each year.

Permits are required for the subsistence fisheries that take place in Cook Inlet. Salmon have to be recorded on a daily basis, and permit conditions state that permits are due at the end of the subsistence fishing season.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Requiring additional harvest reporting for sport, personal use, and subsistence fishermen would provide an additional method of tracking, and in some cases, more detailed harvest information than is currently available. However, this proposal would affect a large number of people and require fishermen to find some means of getting phone or internet access to report their daily harvest. This proposal would have a substantial budgetary impact on the department due to the cost of developing and administrating an online or electronic harvest reporting program.

BACKGROUND: The department collects salmon harvest information from sport, personal use, and subsistence fishermen in a variety of ways. When more detailed harvest information is needed for sustainable management of fisheries resources, the department may modify existing

sampling programs to meet those objectives, pending available funding. The department has an escapement-based management strategy not a harvest-based strategy. Knowing the harvest of some species of salmon from some small streams would be beneficial, but can also be done by creel survey, if necessary, to manage that resource. The department's emergency order authority provides the ability to restrict fisheries during times of low abundance and liberalize during times of excess abundance.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. Existing harvest monitoring programs provide sufficient levels and accuracy of information for management. A new electronic or online reporting program of this magnitude would create a widespread burden on the public, a substantial budgetary impact to the department, and would, in some cases, duplicate current data collection programs. Without an immediate, written recording requirement, there is no method of documenting whether or not an individual complied with the proposed reporting requirement.

COST ANALYSIS: Approval of this proposal would result in an additional direct cost for a private person to participate in any fishery. Anglers fishing in remote areas would have to find access to phone or internet service to report their harvest each day.

PROPOSAL 185 – 5 AAC 01.5XX. New Section; 5 AAC 21.3XX. New Section; 5 AAC 56.XXX. New Section; 5 AAC 57.XXX. New Section; 5 AAC 58.XXX. New Section; 5 AAC 59.XXX. New Section; 5 AAC 60.XXX. New Section; 5 AAC 61.XXX. New Section; 5 AAC 62.XXX. New Section; and 5 AAC 77.5XX. New Section.

PROPOSED BY: Todd Smith, Megan Smith, Amber Every, and Travis Every.

WHAT WOULD THE PROPOSAL DO? This proposal would require daily reporting of all salmon harvested in Upper Cook Inlet fisheries by all user groups.

WHAT ARE THE CURRENT REGULATIONS? In the sport fishery, immediately upon harvesting a fish that has an annual limit, anglers must record the harvest immediately on the back of their sport fish license or harvest record card.

All freshwater and saltwater sport fishing guide operators are required to maintain a department-issued logbook of their clients' catch and harvest. All freshwater and saltwater sport fishing guides are required to record the Alaska sport fishing license number, permanent license number, or disabled veteran license number of each client in the logbook. The logbook must be completed at the end of each day of fishing or at the end of each trip, with a day as described in the guide logbook instructions. Logbook reports must be submitted weekly beginning in April each year.

In personal use fisheries, harvest must be recorded on a permit before leaving the fishing site, and all Cook Inlet personal use salmon permits must be turned in the department by August 15 each year.

Permits are required for the subsistence fisheries that take place in Cook Inlet. Salmon have to be recorded on a daily basis, and permit conditions state that the permit is due at the end of the subsistence fishing season.

Commercial fishermen report their catch on fish tickets by species and are required to report all fish taken as home-pack. These fish tickets are recorded for each delivery by permit holder.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Requiring additional harvest reporting for sport, personal use, commercial, and subsistence fishermen would provide more detailed harvest information than is currently available. However, this proposal would affect a large number of people and require fishermen to find some means of getting to a phone or the internet to report their harvest each day. This proposal would have a substantial budgetary impact on the department due to the cost of developing and administering such a harvest reporting program.

BACKGROUND: The department collects salmon harvest information from all users in a variety of ways. When more detailed harvest information is needed for sustainable management of fisheries resources, the department may modify existing sampling programs to meet those objectives, pending available funding. The department has an escapement-based management strategy not a harvest-based strategy. Knowing the harvest of some species of salmon from some small streams would be beneficial, but can also be done by creel survey if deemed necessary to

manage that resource. The department's emergency order authority provides the ability to restrict fisheries during times of low abundance and liberalize during times of excess abundance.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. Existing harvest monitoring programs provide sufficient levels and accuracy of information for management. A new reporting program of this magnitude would create a widespread burden on the public, a substantial budgetary impact to the department, and would, in some cases, duplicate current data collection programs. Without an immediate, written recording requirement, there is no method of documenting whether or not an individual complied with the proposed reporting requirement.

COST ANALYSIS: Approval of this proposal would result in an additional direct cost for a private person to participate in any fishery. Anglers, and personal use, subsistence, and commercial fishermen fishing in remote areas would have to find access to phone or internet service to report their harvest each day.

PROPOSAL 57 – 5 AAC 56.XXX. New Section; 5 AAC 57.XXX. New Section; 5 AAC 58.XXX. New Section; 5 AAC 59.XXX. New Section; 5 AAC 60.XXX. New Section; 5 AAC 61.XXX. New Section; and 5 AAC 62.XXX. New Section. *(This proposal will be considered at the Lower Cook Inlet and Upper Cook Inlet (UCI) Finfish meetings, but deliberated at the UCI meeting.)*

PROPOSED BY: John McCombs.

WHAT WOULD THE PROPOSAL DO? This proposal would limit the amount of sport-caught fish that can be exported to one hundred pounds of fillets.

WHAT ARE THE CURRENT REGULATIONS? There are no regulations limiting the export of fish harvested by any user group in Cook Inlet.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? An export limit of sport-caught fish in Cook Inlet would be an exception to regulations statewide, and a mechanism for recording the harvest of every fish and enforcing an export limit would have to be established. A means of inspecting all sport-caught harvest leaving the state would have to be developed, including establishing check stations on major roads, border crossings, airports, ferry terminals, freight shipping companies, etc. Which agency or group of agencies would be responsible for enforcing this limit would have to be determined. The Alaska Board of Fisheries would need to determine appropriate export limits for whole or processed fish.

BACKGROUND: The department manages sport fishery harvests by bag, possession, and annual limits; methods and means; and time and area closures that are established in regulation or by emergency order. Where and how fish are transported, and in what quantity, do not affect the department's ability to achieve escapement objectives or manage for sustained yield.

Estimates from the Statewide Harvest Survey indicate that between 2001 and 2012, resident sport anglers expended an average of 746,405 angler days of effort annually in Cook Inlet salt and fresh waters, while nonresident anglers fished an average of 501,579 angler days of effort annually in these waters. Between 2001 and 2012, resident sport anglers harvested, in the fresh and salt waters of Cook Inlet, an average of 30,602 king salmon, 155,544 coho salmon, 177,528 sockeye salmon, 12,512 pink salmon, and 2,626 chum salmon annually. During this same timeframe and area, nonresident anglers harvested an average of 29,992 king salmon, 128,302 coho salmon, 206,418 sockeye salmon, 15,287 pink salmon and 2,346 chum salmon annually. Resident anglers also harvest several hundred thousand salmon each year in personal use fisheries in Cook Inlet.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. Extensive logistical concerns, a need for additional enforcement personnel, and the requirement to construct a new recordkeeping system integrating all exporting sources make this proposal virtually untenable and expensive.

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

Sport - Kenai River Vessel Restrictions: 237–243

PROPOSALS 237 and 238 – 5 AAC 21.359. Kenai River Late-Run King Salmon Management Plan 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: City of Kenai (Proposal 237) and Kenai Area Fisherman's Coalition (Proposal 238).

WHAT WOULD THE PROPOSALS DO? These proposals would add an additional drift boat-only day on the Kenai River for both guided and unguided anglers, occurring each Thursday in May, June, and July.

WHAT ARE THE CURRENT REGULATIONS? Downstream from the outlet of Skilak Lake, no one may fish from a Department of Natural Resources (DNR) -registered guide vessel on any Sunday or Monday during May, June, and July (except Memorial Day).

In the Kenai River, downstream from the outlet of Skilak Lake to the Sterling Highway Bridge, no one may fish from any motorized vessel on Mondays (except Memorial Day) during May, June, and July. For purposes of this regulation, a motorized vessel is one that has a motor on board.

From the Sterling Highway Bridge downstream to the mouth of the Kenai River, no one may fish on Mondays (except Memorial Day) during May, June, and July from a vessel that has on board no more than one motor that does not exceed 10 horsepower (HP), and it may only be used between the mouth of the Kenai River and ADF&G regulatory markers located at Cunningham Park, and only after fishing from the vessel has ceased for that day; a person may not deploy sport fishing gear from a vessel after a motor has been used to propel that vessel on the same day.

WHAT WOULD BE THE EFFECT IF THE PROPOSALS WERE ADOPTED? These proposals would decrease fishing opportunity for power boat anglers by an additional day. These proposals could reduce the level of participation in Kenai River sport fisheries, especially the early- and late-run king salmon fisheries, by an unknown amount. Conflict related to issues such as congestion on the river, bank erosion, and poor quality of the angling experience could be reduced at the expense of king salmon harvest opportunity for anglers that fish from power boats. King salmon fishing effort and harvest would be lower initially. Effort and harvest may increase in the future if more anglers adapt to the new drift boat regulations.

BACKGROUND: There are a number of seasonal and reach-specific boat fishing restrictions that have been implemented over the past 20 years in response to many of the issues described in these proposals. Prior to the 2002 season, fishing on Mondays in May and June was prohibited from any vessel. In February 2002, the Alaska Board of Fisheries (board) allowed fishing on Mondays from unguided nonmotorized vessels. These proposals ask for additional relief from erosion and turbidity caused by boat wakes and hydrocarbon pollution caused by outboard motor

emissions, and for increased fishing opportunity from nonmotorized vessels without the presence of power boats in the fishery.

Power boats, often in high numbers, are transiting on the river each Monday even though fishing from a motorized vessel is restricted each Monday downstream of Skilak Lake. In July, for example, shore-based anglers (particularly those targeting sockeye salmon) travel to various shore locations and fish from shallow waters or riverbanks throughout the lower river. From July 10–31, personal use dip net anglers transit the lower river both to and from the lower river area downstream of the Warren Ames Bridge open to dipnetting. Point of origin for river users transiting the river on Mondays in July include state-, city-, and privately-owned boat launches and campgrounds, commercial businesses (e.g., lodges), as well as privately-owned residences throughout the lower river.

The DNR and U.S. Army Corps of Engineers have completed studies to better understand the effect of boat wakes on Kenai River channel morphology and also between boat hull design, engine horsepower, weight loading, and the size and speed of the wake generated by the configurations of these variables. Results of these studies concluded that the Kenai River was maintaining a natural channel and that boats of v-hull configuration with heavy loads generated the largest waves, as well as wave energy, while boats of flat-bottomed configuration produced small waves with less wave energy. In addition, it was concluded that increasing engine horsepower may slightly reduce wave size from boats of v-hull configuration.

Presently, under DNR regulations, no one may operate a boat on the Kenai River (except Skilak and Kenai lakes) upstream of mile 4.2 with a motor or combination of motors with a propeller shaft rating greater than 50 HP. No one may operate a boat on the Kenai River upstream of river mile 4.2 unless the motor is a four-stroke motor or a direct fuel injection motor. This includes boats operated on both Kenai and Skilak lakes. The maximum length of vessels for the Kenai River (except Skilak and Kenai lakes) is 21 feet.

In 2008, the board adopted a regulation prohibiting the taking of fish in the Kenai River personal use dip net fishery from a boat powered by a two-stroke motor, other than direct fuel injection. In 2008–2010, these new outboard motor type restrictions reduced hydrocarbon concentrations in the Kenai River that had been in excess of the Department of Environmental Conservation standard of 10 parts per billion during peak use in July.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on these allocative proposals. The board has viewed drift boat-only days as an allocative issue.

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

PROPOSAL 239 – 5 AAC 21.359. Kenai River Late-Run King Salmon Management Plan 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: John McCombs.

WHAT WOULD THE PROPOSAL DO? This proposal would add an additional drift boat-only day on the Kenai River for both guided and unguided anglers in May, June, and July.

WHAT ARE THE CURRENT REGULATIONS? Downstream from the outlet of Skilak Lake, no one may fish from a Department of Natural Resources (DNR) -registered guide vessel on any Sunday or Monday during May, June, and July (except Memorial Day).

In the Kenai River, downstream from the outlet of Skilak Lake to the Sterling Highway Bridge, no one may fish from any motorized vessel on Mondays (except Memorial Day) during May, June, and July. For purposes of this regulation, a motorized vessel is one that has a motor on board. From the Sterling Highway Bridge downstream to the mouth of the Kenai River, no one may fish on Mondays (except Memorial Day) during May, June, and July from a vessel that has on board no more than one motor that does not exceed 10 horsepower (HP), and it may only be used between the mouth of the Kenai River and ADF&G regulatory markers located at Cunningham Park, and only after fishing from the vessel has ceased for that day; a person may not deploy sport fishing gear from a vessel after a motor has been used to propel that vessel on the same day.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would decrease fishing opportunity for power boat anglers by an additional day. This proposal could reduce the level of participation in Kenai River sport fisheries, especially the early- and late-run king salmon fisheries by an unknown amount. Conflict related to issues such as congestion on the river, bank erosion, and poor quality of the angling experience could be reduced at the expense of king salmon harvest opportunity for anglers that fish from power boats. King salmon fishing effort and harvest would be lower initially. Effort and harvest may increase in the future if more anglers adapt to the new drift boat regulations.

BACKGROUND: There are a number of seasonal and reach-specific boat fishing restrictions that have been implemented over the past 20 years in response to many of the issues described in this proposal. Prior to the 2002 season, fishing on Mondays in May and June was prohibited from any vessel. In February 2002, the Alaska Board of Fisheries (board) allowed fishing on Mondays from unguided nonmotorized vessels. This proposal is asking for additional relief from erosion and turbidity caused by boat wakes and hydrocarbon pollution caused by outboard motor emissions, and for increased fishing opportunity from nonmotorized vessels without the presence of power boats in the fishery.

Power boats, often in high numbers, are transiting on the river each Monday even though fishing from a motorized vessel is restricted each Monday downstream of Skilak Lake. In July, for example, shore-based anglers (particularly those targeting sockeye salmon) travel to various

shore locations and fish from shallow waters or riverbanks throughout the lower river. From July 10–31, personal use dip net anglers transit the lower river both to and from the lower river area downstream of the Warren Ames Bridge open to dipnetting. Point of origin for river users transiting the river on Mondays in July include state-, city-, and privately-owned boat launches and campgrounds, commercial businesses (e.g., lodges), as well as privately-owned residences throughout the lower river.

The DNR and U.S. Army Corps of Engineers have completed studies to better understand the effect of boat wakes on Kenai River channel morphology and also between boat hull design, engine horsepower, weight loading, and the size and speed of the wake generated by the configurations of these variables. Results of these studies concluded that the Kenai River was maintaining a natural channel and that boats of v-hull configuration with heavy loads generated the largest waves, as well as wave energy, while boats of flat-bottomed configuration produced small waves with less wave energy. In addition, it was concluded that increasing engine horsepower may slightly reduce wave size from boats of v-hull configuration.

In 2008, the board adopted a regulation prohibiting the taking of fish in the Kenai River personal use dip net fishery from a boat powered by a two-stroke motor, other than direct fuel injection. In 2008–2010, these new outboard motor type restrictions reduced hydrocarbon concentrations in the Kenai River that had been in excess of the Department of Environmental Conservation standard of 10 parts per billion during peak use in July.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. The board has viewed drift boat only days as an allocative issue.

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 240 – 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: Shaun Jensen.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit sport fishing from a drift boat on Mondays in the Kenai River downstream of Skilak Lake during May, June, and July.

WHAT ARE THE CURRENT REGULATIONS? On any Monday in May through July, except for Memorial Day, a person may not fish from a boat in the portion of the Kenai River from the outlet of Skilak Lake to the mouth of the river, except that unguided sport fishing from a nonmotorized vessel is allowed on Mondays in May through July.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would reduce unguided fishing opportunity from vessels during May through July by 24 hours a week, and approximately 312 hours (13 days) per year. This reduction would reduce the number of king salmon caught and harvested by unguided anglers by an unknown amount. The disparity between guided and unguided king salmon harvest numbers would likely increase above current levels (tables 240-1 and 240-2). It may also increase crowding on the remaining six days open to fishing from vessels.

BACKGROUND: The Alaska Board of Fisheries (board) has adopted management plans structured to constrain the harvest of both early- and late-run king salmon stocks to sustainable levels while still providing for fishing opportunity. The management guidelines that the board has adopted through the years have closed specific areas of the river to all fishing, restricted certain areas of the river to shore fishing-only, and imposed time and date closures for all guided and unguided boat anglers. In addition, the board has continued to address the harvest disparity that exists between guided and unguided anglers within the Kenai River king salmon sport fishery by reducing the number of hours and days guided anglers may fish, limiting the number of clients allowed to fish from a guided vessel, and prohibiting guides from fishing while clients are present/fishing. Prior to the 2002 season, fishing on Mondays in May and June was prohibited from any vessel. In February 2002, the board allowed fishing on Mondays from unguided, nonmotorized vessels.

Guided effort, catch, and harvest by anglers fishing in guided vessels in the early-run Kenai River king salmon fishery has exceeded that of unguided anglers from 1996–2013 (Table 240-1), whereas unguided effort, catch, and harvest by anglers fishing in the late-run Kenai River king salmon fishery has exceeded that of guided anglers every year since 1981, except four years (1998, 2008, 2012, and 2013) (Table 240-2). Historically, exploitation rates for both early and late runs have been relatively stable and have averaged less than 40% since 1986 (tables 240-3 and 240-4). Since 2009, the number of fish in early and late runs has been well below average (tables 240-3 and 240-4).

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal as a conservation measure for king salmon. The department currently has the tools necessary to manage inseason. Emergency order authority can effectively be used to achieve king salmon escapement goals through time, area, and methods and means restrictions without the need for additional regulations restricting fishing from unguided drift boat vessels. The department is **NEUTRAL** on the allocative aspects of this proposal between guided and unguided users, as well as power boat, drift boat, and shore-based 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 240-1.—Effort, catch, and harvest of early-run king salmon as estimated from a creel survey of both guided and unguided anglers on the Kenai River from the mouth upstream to the Soldotna Bridge from May 16 through June 30, 1981–2013.

Year	Unguided			Guided		
	Effort	Catch	Harvest	Effort	Catch	Harvest
1981	47,913	ND	1,618	19,857	ND	1,846
1982	76,329	ND	2,144	22,799	ND	1,797
1983	64,651	ND	1,729	43,823	ND	3,526
1984	89,549	ND	1,695	40,610	ND	2,211
1985	87,199	ND	2,591	50,339	ND	4,181
1986	100,371	ND	2,958	41,724	ND	3,379
1987	122,876	ND	5,806	48,078	ND	5,418
1988	134,807	ND	5,601	66,636	ND	6,348
1989	104,702	ND	1,833	93,927	ND	4,878
1990	33,807	ND	153	38,992	ND	570
1991	24,320	ND	298	23,279	ND	593
1992	28,217	ND	653	26,113	ND	712
1993	76,500	ND	2,784	46,773	ND	4,062
1994	72,433	2,259	1,524	61,766	4,140	3,198
1995	90,073	4,679	3,009	75,917	6,681	4,724
1996	58,551	1,461	981	71,629	4,091	3,185
1997	37,792	1,991	1,282	64,451	4,791	3,660
1998	17,506	736	157	38,631	1,133	491
1999	40,816	1,634	993	69,972	5,562	4,541
2000	27,371	562	289	54,248	1,747	860
2001	24,215	257	148	45,988	1,580	1,280
2002	5,232	125	91	9,780	294	285
2003	23,840	973	628	35,218	1,840	1,320
2004	30,523	1,168	773	34,768	2,633	1,512
2005	32,492	1,176	651	47,000	3,254	2,226
2006	27,985	1,419	833	44,786	3,104	2,564
2007	25,460	917	710	44,796	3,027	1,934
2008	28,838	1,408	900	43,736	2,145	1,702
2009	23,703	388	334	29,336	670	564
2010	16,345	286	193	23,394	918	645
2011	16,255	309	155	28,108	782	661
2012	7,205	124	86	13,476	348	227
2013	1,196	15	0	1,948	25	0
Average						
2003–2013	21,258	744	478	31,506	1,704	1,214
Average Percent						
2003–2013	40%	30%	28%	60%	70%	72%
Average						
1981–2002	62,056	1,523	1,743	47,970	3,335	2,807
Average Percent						
1987–2002	56%	31%	38%	44%	69%	62%

ND = No Data

Table 240-2.—Effort, catch, and harvest of late-run king salmon as estimated from a creel survey of both guided and unguided anglers on the Kenai River from the mouth upstream to the Soldotna Bridge from July 1 through July 31, 1981–2013.

Year	Unguided			Guided		
	Effort	Catch	Harvest	Effort	Catch	Harvest
1981	66,309	ND	1,988	30,351	ND	2,162
1982	92,931	ND	2,083	34,897	ND	2,257
1983	110,172	ND	3,405	54,756	ND	4,919
1984	208,309	ND	3,888	42,062	ND	2,614
1985	171,109	ND	4,395	40,398	ND	2,705
1986	159,943	ND	4,855	47,379	ND	3,198
1987	193,630	ND	5,573	69,622	ND	5,194
1988	235,043	ND	8,042	88,331	ND	8,393
1989	186,382	ND	3,281	86,507	ND	4,727
1990	161,071	ND	2,269	85,477	ND	3,544
1991	147,293	ND	2,985	82,706	ND	3,864
1992	112,091	ND	2,504	75,324	ND	4,176
1993	201,695	ND	7,413	92,213	ND	7,866
1994	244,729	10,502	7,760	110,049	8,037	6,628
1995	200,397	7,126	4,914	123,585	6,773	5,211
1996	128,438	2,631	2,131	110,057	4,352	3,853
1997	137,226	5,740	4,480	126,416	6,796	5,856
1998	89,854	10,502	2,406	98,872	8,037	3,575
1999	134,264	6,613	4,422	118,196	10,584	7,605
2000	134,020	6,907	5,480	114,362	8,228	6,585
2001	127,395	8,458	5,496	109,238	11,294	8,240
2002	100,808	7,282	4,917	90,868	9,584	6,436
2003	115,688	12,652	6,200	91,768	16,117	7,637
2004	127,725	8,185	5,003	110,690	14,329	9,491
2005	125,235	12,248	6,893	105,550	13,416	8,420
2006	140,490	9,516	5,895	117,210	10,272	7,295
2007	112,575	5,273	2,853	106,644	8,135	6,405
2008	98,903	4,437	3,525	99,597	6,491	5,748
2009	99,938	4,786	3,124	77,238	5,566	4,254
2010	88,995	3,141	2,748	69,194	2,898	2,627
2011	81,005	5,000	3,080	67,208	4,581	3,378
2012	11,520	553	44	20,834	697	59
2013	21,730	689	334	38,180	1,855	1,243
Average						
2003–2013	93,073	6,044	3,609	82,192	7,669	5,142
Average Percent						
2003–2013	53%	44%	41%	47%	56%	59%
Average						
1981–2002	151,960	7,307	4,304	83,258	8,187	4,982
Average Percent						
1987–2002	65%	47%	46%	35%	53%	54%

ND = No Data

Table 240-3.–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
<u>Average</u>									
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 240-4.—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		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	0 ⁹⁹⁷	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 Kaslof River terminal fishery which occurred 2005–2008.

^j 2013 estimates are preliminary until biometrically reviewed and published.

PROPOSAL 241 – 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: Shaun Jensen.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit fishing from a vessel on the Kenai River from 10:00 p.m. to 4:00 a.m. during May, June, and July.

WHAT ARE THE CURRENT REGULATIONS? Sport fishing in Alaska is generally allowed during any hour of the day, with few exceptions. During May, June, and July, sport fishing from a registered guide vessel downstream of Skilak Lake is permitted only from 6:00 a.m. to 6:00 p.m. Sport fishing in the Kenai River is allowed 24 hours a day for unguided anglers, for the entire year.

In addition, downstream of the outlet of Skilak Lake, a person may not sport fish from a registered guide vessel on any Sunday from May 1 through July 31. On any Monday in May through July, except for Memorial Day, a person may not fish from a boat in the portion of the Kenai River from the outlet of Skilak Lake to the mouth of the river, except that unguided sport fishing from a nonmotorized vessel is allowed on Mondays in May through July.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would reduce effort, harvest, and catch of king salmon (and other fish species to a lesser extent) by some unknown amount for unguided anglers only. Unguided fishing opportunity, in number of hours per day, would be reduced by 25% for king salmon fishing while guided king salmon fishing opportunity would not be reduced. The closure of king salmon fishing from 10:00 p.m. to 4:00 a.m. for unguided anglers would likely increase congestion during the remaining open hours for both guided and unguided anglers.

BACKGROUND: The Alaska Board of Fisheries (board) has adopted management plans structured to constrain the harvest of both early- and late-run king salmon stocks to sustainable levels while still providing for fishing opportunity. The management guidelines that the board has adopted through the years have closed specific areas of the river to all fishing, restricted certain areas of the river to shore fishing-only, and imposed time and date closures for all guided and unguided boat anglers. In addition, the board has continued to address the harvest disparity that exists between guided and unguided anglers within the Kenai River king salmon sport fishery by reducing the number of hours and days guided anglers may fish, limiting the number of clients allowed to fish from a guided vessel, and prohibiting guides from fishing while clients are present.

Regulations prohibiting overnight sport fishing by all anglers for a particular species in the Kenai River have not been adopted. In 2003 and 2004, nonresidents were prohibited from fishing from a vessel from 6:00 p.m. to 6:00 a.m. An emergency order (EO) issued in 2003 closed an area around the Russian River to all sport fishing from 11:00 p.m. to 6:00 a.m. over a five-day period due to public safety concerns that resulted from a bear mauling.

Since 1985, during June and July, sport fishing from registered guide vessels has been permitted only from 6:00 a.m. to 6:00 p.m. (except for the years 1986–1988, when, during July, the time was 7:00 a.m. to 7:00 p.m.). In 2000, the daily time restrictions were extended to include the month of May. Guided anglers are also restricted from fishing on the Kenai River downstream of Skilak Lake from a registered guide vessel on Sundays or Mondays in May through July (except Memorial Day). These regulations are intended to restrict sport harvest of king salmon by reducing guided angling effort. They also are intended to provide unguided anglers with hours free of competition with guided anglers and control angler congestion on the Kenai River.

Guided effort, catch, and harvest by anglers fishing in guided vessels in the early-run Kenai River king salmon fishery has exceeded that of unguided anglers from 1996–2013 (Table 241-1), whereas unguided effort, catch, and harvest by anglers fishing in the late-run Kenai River king salmon fishery has exceeded that of guided anglers every year since 1981 except four years (1998, 2008, 2012, and 2013) (Table 241-2). Historically, exploitation rates for both early and late runs have been relatively stable and have averaged less than 40% since 1986 (tables 241-3 and 241-4). Since 2009, the number of fish in early and late runs has been well below average (tables 241-3 and 241-4).

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal as a conservation measure for king salmon. The department can effectively use EO authority to restrict time, area, methods, and means to conserve king salmon without the need for an additional regulation. The department is **NEUTRAL** on the allocative and social 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 241-1.—Effort, catch, and harvest of early-run king salmon as estimated from a creel survey of both guided and unguided anglers on the Kenai River from the mouth upstream to the Soldotna Bridge from May 16 through June 30, 1981–2013.

Year	Unguided			Guided		
	Effort	Catch	Harvest	Effort	Catch	Harvest
1981	47,913	ND	1,618	19,857	ND	1,846
1982	76,329	ND	2,144	22,799	ND	1,797
1983	64,651	ND	1,729	43,823	ND	3,526
1984	89,549	ND	1,695	40,610	ND	2,211
1985	87,199	ND	2,591	50,339	ND	4,181
1986	100,371	ND	2,958	41,724	ND	3,379
1987	122,876	ND	5,806	48,078	ND	5,418
1988	134,807	ND	5,601	66,636	ND	6,348
1989	104,702	ND	1,833	93,927	ND	4,878
1990	33,807	ND	153	38,992	ND	570
1991	24,320	ND	298	23,279	ND	593
1992	28,217	ND	653	26,113	ND	712
1993	76,500	ND	2,784	46,773	ND	4,062
1994	72,433	2,259	1,524	61,766	4,140	3,198
1995	90,073	4,679	3,009	75,917	6,681	4,724
1996	58,551	1,461	981	71,629	4,091	3,185
1997	37,792	1,991	1,282	64,451	4,791	3,660
1998	17,506	736	157	38,631	1,133	491
1999	40,816	1,634	993	69,972	5,562	4,541
2000	27,371	562	289	54,248	1,747	860
2001	24,215	257	148	45,988	1,580	1,280
2002	5,232	125	91	9,780	294	285
2003	23,840	973	628	35,218	1,840	1,320
2004	30,523	1,168	773	34,768	2,633	1,512
2005	32,492	1,176	651	47,000	3,254	2,226
2006	27,985	1,419	833	44,786	3,104	2,564
2007	25,460	917	710	44,796	3,027	1,934
2008	28,838	1,408	900	43,736	2,145	1,702
2009	23,703	388	334	29,336	670	564
2010	16,345	286	193	23,394	918	645
2011	16,255	309	155	28,108	782	661
2012	7,205	124	86	13,476	348	227
2013	1,196	15	0	1,948	25	0
Average						
2003–2013	21,258	744	478	31,506	1,704	1,214
Average Percent						
2003–2013	40%	30%	28%	60%	70%	72%
Average						
1981–2002	62,056	1,523	1,743	47,970	3,335	2,807
Average Percent						
1987–2002	56%	31%	38%	44%	69%	62%

ND = No Data

Table 241-2.—Effort, catch, and harvest of late-run king salmon as estimated from a creel survey of both guided and unguided anglers on the Kenai River from the mouth upstream to the Soldotna Bridge from July 1 through July 31, 1981–2013.

Year	Unguided			Guided		
	Effort	Catch	Harvest	Effort	Catch	Harvest
1981	66,309	ND	1,988	30,351	ND	2,162
1982	92,931	ND	2,083	34,897	ND	2,257
1983	110,172	ND	3,405	54,756	ND	4,919
1984	208,309	ND	3,888	42,062	ND	2,614
1985	171,109	ND	4,395	40,398	ND	2,705
1986	159,943	ND	4,855	47,379	ND	3,198
1987	193,630	ND	5,573	69,622	ND	5,194
1988	235,043	ND	8,042	88,331	ND	8,393
1989	186,382	ND	3,281	86,507	ND	4,727
1990	161,071	ND	2,269	85,477	ND	3,544
1991	147,293	ND	2,985	82,706	ND	3,864
1992	112,091	ND	2,504	75,324	ND	4,176
1993	201,695	ND	7,413	92,213	ND	7,866
1994	244,729	10,502	7,760	110,049	8,037	6,628
1995	200,397	7,126	4,914	123,585	6,773	5,211
1996	128,438	2,631	2,131	110,057	4,352	3,853
1997	137,226	5,740	4,480	126,416	6,796	5,856
1998	89,854	10,502	2,406	98,872	8,037	3,575
1999	134,264	6,613	4,422	118,196	10,584	7,605
2000	134,020	6,907	5,480	114,362	8,228	6,585
2001	127,395	8,458	5,496	109,238	11,294	8,240
2002	100,808	7,282	4,917	90,868	9,584	6,436
2003	115,688	12,652	6,200	91,768	16,117	7,637
2004	127,725	8,185	5,003	110,690	14,329	9,491
2005	125,235	12,248	6,893	105,550	13,416	8,420
2006	140,490	9,516	5,895	117,210	10,272	7,295
2007	112,575	5,273	2,853	106,644	8,135	6,405
2008	98,903	4,437	3,525	99,597	6,491	5,748
2009	99,938	4,786	3,124	77,238	5,566	4,254
2010	88,995	3,141	2,748	69,194	2,898	2,627
2011	81,005	5,000	3,080	67,208	4,581	3,378
2012	11,520	553	44	20,834	697	59
2013	21,730	689	334	38,180	1,855	1,243
Average						
2003–2013	93,073	6,044	3,609	82,192	7,669	5,142
Average Percent						
2003–2013	53%	44%	41%	47%	56%	59%
Average						
1981–2002	151,960	7,307	4,304	83,258	8,187	4,982
Average Percent						
1987–2002	65%	47%	46%	35%	53%	54%

ND = No Data

Table 241-3.–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
<u>Average</u>									
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 241-4.—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		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	0 ⁹⁹⁷	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 Kaslof River terminal fishery which occurred 2005–2008.

^j 2013 estimates are preliminary until biometrically reviewed and published.

PROPOSAL 242 – 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 restrict outboard motor use on the Kenai River to 10 horsepower (HP) or less.

WHAT ARE THE CURRENT REGULATIONS? Downstream from the outlet of Skilak Lake, no one may fish from a Department of Natural Resources (DNR)-registered guide vessel on any Sunday or Monday during May, June, and July (except Memorial Day).

In the Kenai River, downstream from the outlet of Skilak Lake to the Sterling Highway Bridge, no one may fish from any motorized vessel on Mondays (except Memorial Day) during May, June, and July. For purposes of this regulation, a motorized vessel is one that has a motor on board. From the Sterling Highway Bridge downstream to the mouth of the Kenai River, no one may fish on Mondays (except Memorial Day) during May, June, and July from a vessel that has on board no more than one motor that does not exceed 10 horsepower (HP), and it may only be used between the mouth of the Kenai River and ADF&G regulatory markers located at Cunningham Park, and only after fishing from the vessel has ceased for that day; a person may not deploy sport fishing gear from a vessel after a motor has been used to propel that vessel on the same day.

Under DNR regulations, no one may operate a boat on the Kenai River (except Skilak and Kenai lakes) upstream of mile 4.2 with a motor or combination of motors with a propeller shaft rating greater than 50 HP. No one may operate a boat on the Kenai River upstream of river mile 4.2 unless the motor is a four-stroke motor or a direct fuel injection motor. This includes boats operated on both Kenai and Skilak lakes. The maximum length of vessels for the Kenai River (except Skilak and Kenai lakes) is 21 feet.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would change the vessels used on the Kenai River. It would include vessels used by anglers to sport fish on the Kenai River and affect traditional fishing patterns, as well as methods. This proposal would either necessitate a reduction in the vessel size to smaller and lighter boats, which may in turn reduce the number of anglers that can be carried or cause a lack of ability to get on step with the current boats used, causing even larger boat wakes. Participation (effort), catch, and harvest would change as anglers adapt to the new regulation.

BACKGROUND: There are a number of seasonal and reach-specific boat fishing restrictions that have been implemented over the past 20 years in response to the issues described in this proposal. Prior to the 2002 season, fishing on Mondays in May and June was prohibited from any vessel. In February 2002, the Alaska Board of Fisheries (board) allowed fishing on Mondays from unguided, nonmotorized vessels.

Power boats, often in high numbers, are transiting on the river each Monday even though fishing from a motorized vessel is restricted each Monday downstream of Skilak Lake. For example, shore-based anglers (particularly those targeting sockeye salmon) in July travel to various shore locations and fish from shallow waters or riverbanks throughout the lower river. From July 10–31, personal use dip net anglers transit the lower river both to and from the lower river area downstream of the Warren Ames Bridge open to dip netting. Point of origin for river users transiting the river on Monday's in July include state-, city-, and privately-owned boat launches and campgrounds, commercial businesses (e.g., lodges), as well as privately-owned residences throughout the lower river.

The DNR and Army Corps of Engineers have completed studies to better understand the effect of boat wakes on Kenai River channel morphology and also between boat hull design, engine HP, weight loading, and the size and speed of the wake generated by the configurations of these variables. Results of these studies concluded that the Kenai River was maintaining a natural channel and that boats of v-hull configuration with heavy loads generated the largest waves, as well as wave energy, while boats of flat-bottomed configuration produced small waves with less wave energy. In addition, it was concluded that increasing engine horsepower may slightly reduce wave size from boats of v-hull configuration.

Presently, under DNR regulations, no one may operate a boat on the Kenai River (except Skilak and Kenai lakes) upstream of mile 4.2 with a motor or combination of motors with a propeller shaft rating greater than 50 HP. No one may operate a boat on the Kenai River upstream of river mile 4.2 unless the motor is a four-stroke motor or a direct fuel injection motor. This includes boats operated on both Kenai and Skilak lakes. The maximum length of vessels for the Kenai River (except Skilak and Kenai lakes) is 21 feet.

In 2008, the board adopted a regulation prohibiting the taking of fish in the Kenai River personal use dip net fishery from a boat powered by a two-stroke motor, other than direct fuel injection. In 2008–2010, these new outboard motor type restrictions reduced hydrocarbon concentrations in the Kenai River that had been in excess of the Department of Environmental Conservation standard of 10 parts per billion during peak use in July.

The department has not conducted studies to assess the impact of outboard motor sound on the spawning success of Pacific salmon in the Kenai River. The department also does not have data or information on motors 10 HP or smaller; motors examined relative to boat wake impacts were 25 HP and larger.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal as a conservation measure for king salmon. The department has emergency order authority to restrict time, area, methods, and means to conserve king salmon. The department does not have data or information on motors 10 HP or smaller; motors examined relative to boat wake impacts were 25 HP and larger.

COST ANALYSIS: Approval of this proposal is expected to result in an additional direct cost for a private person to participate in this fishery. New boats and motors would need to be purchased to participate in fishing the Kenai River from a vessel.

PROPOSAL 243 – 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 outboard motor exhaust from being discharged into the waters of the Kenai River, beginning in 2015.

WHAT ARE THE CURRENT REGULATIONS? Downstream from the outlet of Skilak Lake, no one may fish from a Department of Natural Resources (DNR)-registered guide vessel on any Sunday or Monday during May, June, and July (except Memorial Day).

In the Kenai River, downstream from the outlet of Skilak Lake to the Sterling Highway Bridge, no one may fish from any motorized vessel on Mondays (except Memorial Day) during May, June, and July. From the Sterling Highway Bridge downstream to the mouth of the Kenai River, no one may fish on Mondays (except Memorial Day) during May, June, and July from a vessel that has on board no more than one motor that does not exceed 10 horsepower (HP), and it may only be used between the mouth of the Kenai River and ADF&G regulatory markers located at Cunningham Park, and only after fishing from the vessel has ceased for that day; a person may not deploy sport fishing gear from a vessel after a motor has been used to propel that vessel on the same day.

Under DNR regulations, no one may operate a boat on the Kenai River (except Skilak and Kenai lakes) upstream of mile 4.2 with a motor or combination of motors with a propeller shaft rating greater than 50 HP. No one may operate a boat on the Kenai River upstream of river mile 4.2 unless the motor is a four-stroke motor or a direct fuel injection motor. This includes boats operated on both Kenai and Skilak lakes. The maximum length of vessels for the Kenai River (except Skilak and Kenai lakes) is 21 feet.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would change the vessels used on the Kenai River. It would include vessels used by anglers to sport fish on the Kenai River and affect traditional fishing patterns, as well as methods. Participation (effort), catch, and harvest would change as anglers adapt to the new regulation. This proposal may necessitate a reduction in the vessel size to very small and light boats, which may in turn reduce the number of anglers that can safely be carried.

BACKGROUND: There are a number of seasonal and reach-specific boat fishing restrictions that have been implemented over the past 20 years in response to the issues described in this proposal. Prior to the 2002 season, fishing on Mondays in May and June was prohibited from any vessel. In February 2002, the Alaska Board of Fisheries (board) allowed fishing on Mondays from unguided, nonmotorized vessels.

Power boats, often in high numbers, are transiting on the river each Monday even though fishing from a motorized vessel is restricted each Monday downstream of Skilak Lake. In July, for example, shore-based anglers (particularly those targeting sockeye salmon) travel to various

shore locations and fish from shallow waters or riverbanks throughout the lower river. From July 10–31, personal use dip net anglers transit the lower river both to and from the lower river area downstream of the Warren Ames Bridge open to dipnetting. Point of origin for river users transiting the river on Monday's in July include state-, city-, and privately-owned boat launches and campgrounds, commercial businesses (e.g., lodges), as well as privately-owned residences throughout the lower river.

The DNR and the U.S. Army Corps of Engineers have completed studies to better understand the effect of boat wakes on Kenai River channel morphology and also between boat hull design, engine horsepower, weight loading, and the size and speed of the wake generated by the configurations of these variables. Results of these studies concluded that the Kenai River was maintaining a natural channel and that boats of v-hull configuration with heavy loads generated the largest waves, as well as wave energy, while boats of flat-bottomed configuration produced small waves with less wave energy. In addition, it was concluded that increasing engine horsepower may slightly reduce wave size from boats of v-hull configuration.

Presently under DNR regulations, no one may operate a boat on the Kenai River (except Skilak and Kenai lakes) upstream of mile 4.2 with a motor or combination of motors with a propeller shaft rating greater than 50 HP. No one may operate a boat on the Kenai River upstream of river mile 4.2 unless the motor is a four-stroke motor or a direct fuel injection motor. This includes boats operated on both Kenai and Skilak lakes. The maximum length of vessels for the Kenai River (except Skilak and Kenai lakes) is 21 feet.

In 2008, the board adopted a regulation prohibiting the taking of fish in the Kenai River personal use dip net fishery from a boat powered by a two-stroke motor, other than direct fuel injection. In 2008–2010, these new outboard motor type restrictions reduced hydrocarbon concentrations in the Kenai River that had been in excess of the Department of Environmental Conservation standard of 10 parts per billion during peak use in July.

The department has not conducted studies to assess the impact of outboard motor exhaust on the life history of Pacific salmon in the Kenai River.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal as a conservation measure for king salmon. The department has emergency order authority to restrict time, area, methods, and means to conserve king salmon. The department does not have data to conclude that vessel engine exhaust is causing a significant sustainability concern.

COST ANALYSIS: Approval of this proposal is expected to result in an additional direct cost for a private person to participate in this fishery. New boats and motors would need to be purchased to participate in fishing the Kenai River from a vessel.

Kenai and Kasilof Rivers Salmon: 244–247, 249–251

PROPOSAL 244 – 5 AAC 57.122. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for the Middle Section of the Kenai River Drainage Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would close Hidden Lake Creek and Jean Lake Creek to salmon fishing.

WHAT ARE THE CURRENT REGULATIONS? See Background section.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Alaska Board of Fisheries action on this proposal will resolve a discrepancy between codified regulations and the department regulation summary booklet.

BACKGROUND: Hidden Lake Creek and Jean Lake Creek have been closed to salmon sport fishing since 1962, but that prohibition is not reflected in the current codified regulations. Between 2001 and 2002, codified language pertaining to the closure of these streams to salmon fishing was lost when the codified regulation format changed from a matrix format to a text format. Hidden Lake and Jean Lake creeks salmon closures have been printed in the department’s *Southcentral Alaska Sport Fishing Regulations Summary* every year since 1962 and the public has complied with the salmon closure (figures 244-1 and 244-2).

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal and considers it a clarification of existing practice.

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.

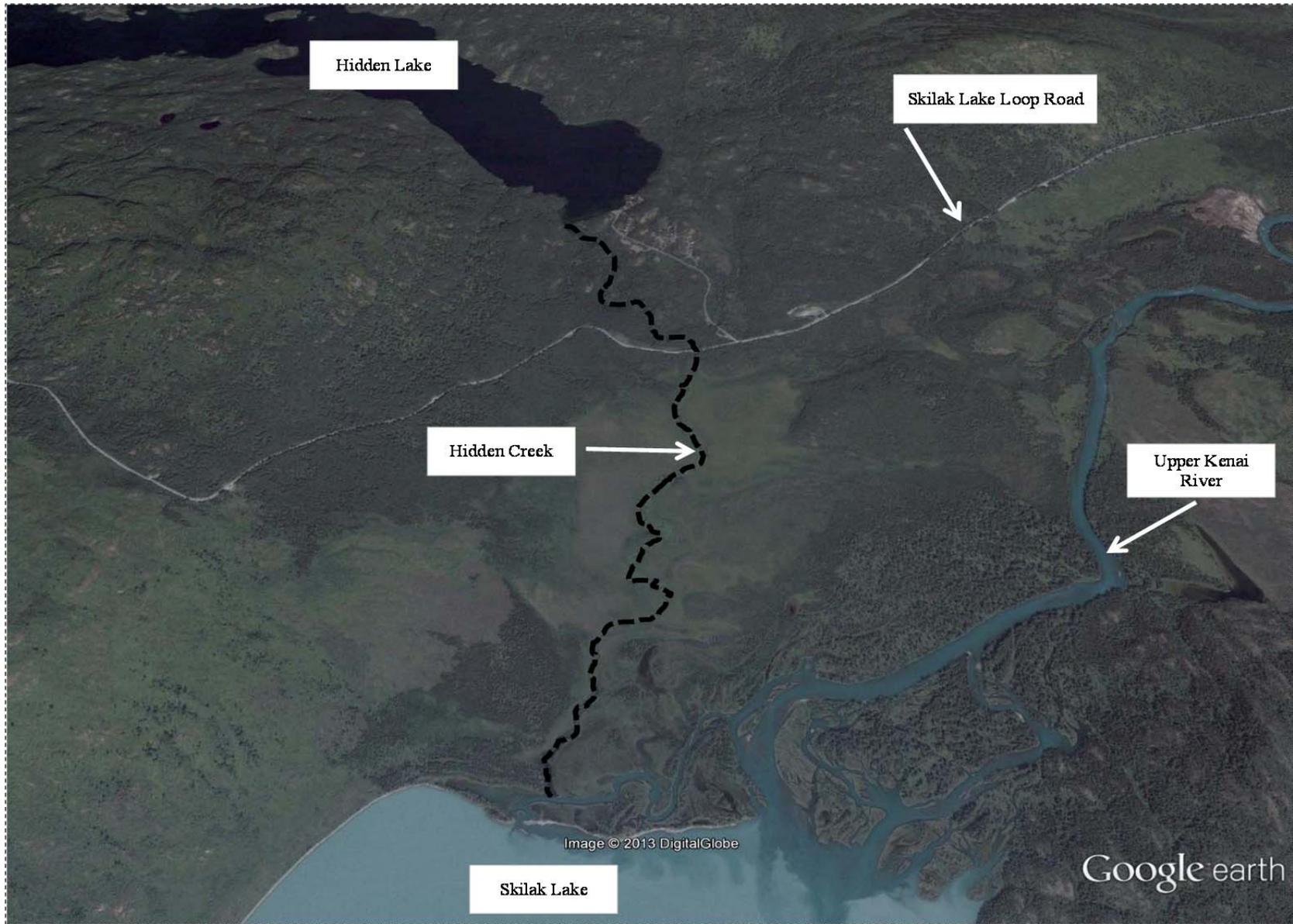


Figure 244.1.—Map of Kenai River showing location of Hidden Lake Creek.

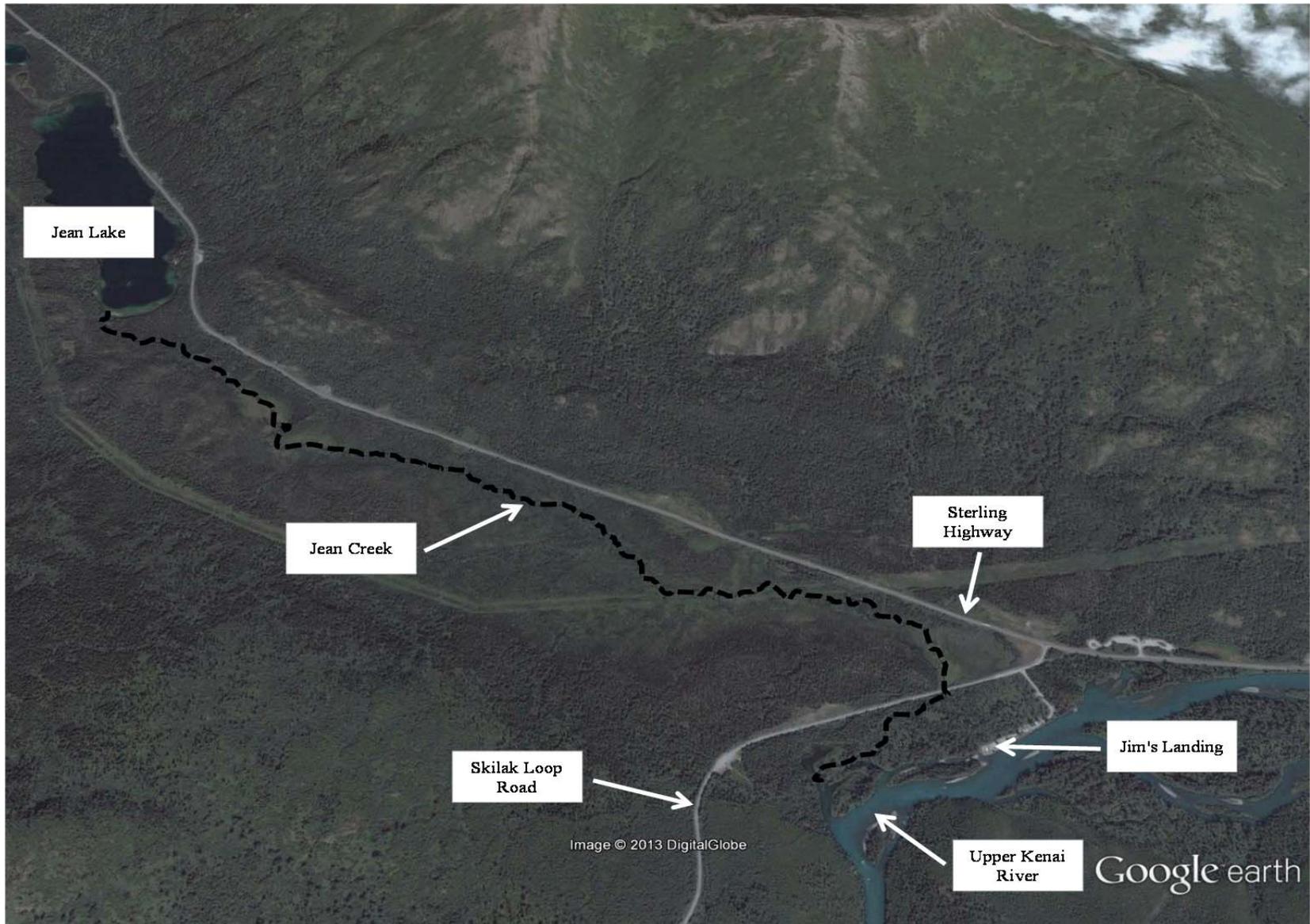


Figure 244.2.—Map of Kenai River showing location of Jean Lake Creek.

PROPOSAL 245 – 5 AAC 57.122. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for the Middle Section of the Kenai River Drainage Area.

PROPOSED BY: Robin Collman.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit sport fishing for salmon in the Russian River upstream of the powerline.

WHAT ARE THE CURRENT REGULATIONS? The waters of the Russian River, from its mouth upstream to an ADF&G regulatory marker located approximately 600 yards downstream from the falls, are open to sport fishing for sockeye salmon from June 11–August 20, and coho salmon from July 1–September 30.

The Russian River drainage (except Upper Russian/Goat Creek), downstream to the confluence of the Upper Kenai River, is open to rainbow trout/Dolly Varden fishing from June 11 to May 1.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would close approximately half of the area of the Russian River open to salmon fishing (Figure 245-1). It would reduce salmon fishing and harvest opportunity. It would increase effort and congestion of salmon anglers in the remaining open area of the Russian River and Kenai River near the confluence with the Russian River. The proposal would likely decrease harvest of Russian River sockeye salmon and reduce harvest efficiency of anglers in the area downstream of the powerline that would remain open to salmon fishing. It could result in sockeye salmon escapements above the upper bound of the escapement goal range, particularly during the early run.

BACKGROUND: The area being proposed to prohibit fishing for salmon on the Russian River has been open to salmon fishing since 1966. The early run of sockeye salmon does not spawn in the lower Russian River below the falls. Late-run sockeye salmon spawn in both Upper Russian Lake above the falls and the Lower Russian River below the falls. The biological escapement goal for the early run is 22,000–42,000 sockeye salmon. The sustainable escapement goal for the late-run is 30,000–110,000 sockeye salmon. Escapements for both early-and late-runs stocks that originate above the falls have been met or exceeded every year since 1990 (Table 245-1). Foot survey counts of the number of sockeye salmon spawning in the Lower Russian River conducted annually after the close of the fishery are relatively stable and have been high in recent years (Table 245-1).

The catch of rainbow trout on the Russian River has decreased since early 2000s, but is commensurate with the decrease in effort (Table 245-2). The catch of rainbow trout in 2012 was near the mean number of rainbow trout caught since 1984. Department assessments of rainbow trout in the Upper Kenai River area indicate that spawning occurs in the mainstem Kenai River, as well as the Russian River. Spawning rainbow trout are present in the Lower Russian River from May through mid-June. After spawning, some fish emigrate back into the mainstem Kenai River while other fish remain in the Russian River. Historical foot survey counts of spawning rainbow trout conducted annually sometime during May to June 10 downstream of the powerline

in the lower section of the Russian River indicate a general decline in the peak count of rainbow trout from 1994 to 2012. However, the 2013 count of 104 was slightly higher than the lowest count in 2012 (Table 245-3).

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. Russian River sockeye salmon stocks consistently exceed the lower end of escapement goals and the catch of rainbow trout that frequent the river remains relatively stable. Closing a large section of the Russian River to salmon fishing may result in lost opportunity to harvest available sockeye salmon in excess of the escapement goal.

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.

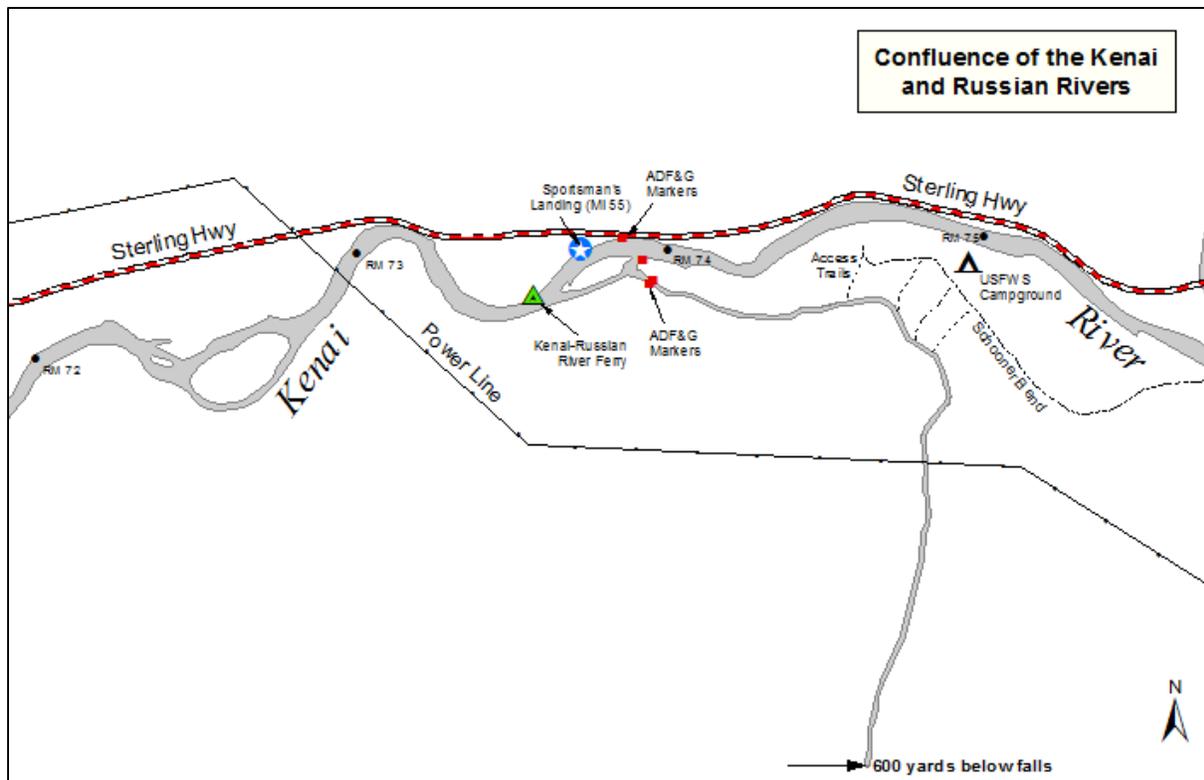


Figure 245.1.—Map of the Russian River.

Table 245-1.—Angler effort, harvest, and escapement, Russian River early-run (ER) and late-run (LR) sockeye salmon, plus estimated number of spawners downstream of the weir to the confluence of the Russian/Kenai rivers, 1963–2010.

Year	Subsistence									
	Effort ^a	Sport Harvest		Harvest ^b		Escapement		Local Run ^c		LR Spawners Below Weir
		ER	LR	ER	LR	ER	LR	ER	LR	
1963	7,880	3,670	1,390	ND	ND	14,380	51,120	18,050	52,510	Unknown
1964	5,330	3,550	2,450	ND	ND	12,700	46,930	16,250	49,380	Unknown
1965	9,720	10,030	2,160	ND	ND	21,514	21,820	31,544	23,980	Unknown
1966	18,280	14,950	7,290	ND	ND	16,658	34,430	31,608	41,720	Unknown
1967	16,960	7,240	5,720	ND	ND	13,710	49,480	20,950	55,200	Unknown
1968	17,280	6,920	5,820	ND	ND	9,192	48,880	16,112	54,700	4,200
1969	14,930	5,870	1,150	ND	ND	5,000	28,872	10,870	30,022	1,100
1970	10,700	5,750	600	ND	ND	5,451	26,200	11,201	26,800	220
1971	15,120	2,810	10,730	ND	ND	2,654	54,421	5,464	65,151	10,000
1972	25,700	5,040	16,050	ND	ND	9,273	79,115	14,313	95,165	6,000
1973	30,690	6,740	8,930	ND	ND	13,120	25,068	19,860	33,998	6,680
1974	21,120	6,440	8,500	ND	ND	13,164	24,904	19,604	33,404	2,210
1975	16,510	1,400	8,390	ND	ND	5,645	31,961	7,045	40,351	690
1976	26,310	3,380	13,700	ND	ND	14,736	31,939	18,116	45,639	3,470
1977	69,510	20,400	27,440	ND	ND	16,061	21,362	36,461	48,802	17,090
1978	69,860	37,720	24,530	ND	ND	34,240	34,334	71,960	58,864	18,330
1979	55,000	8,400	26,840	ND	ND	19,749	87,852	28,149	114,692	3,920
1980	56,330	27,220	33,500	ND	ND	28,624	83,984	55,844	117,484	3,220
1981	51,030	10,720	23,720	ND	ND	21,142	44,523	31,862	68,243	4,160
1982	51,480	34,500	10,320	ND	ND	56,106	30,800	90,606	41,120	45,000
1983	31,860	8,360	16,000	ND	ND	21,272	33,734	29,632	49,734	44,000
1984	49,550	35,880	21,970	ND	ND	28,908	92,659	64,788	114,629	3,000
1985	50,770	12,300	58,410	ND	ND	30,605	136,969	42,905	195,379	8,650
1986	52,250	35,100	30,810	ND	ND	36,338	40,281	71,438	71,091	15,230
1987	113,010	154,200	40,580	ND	ND	61,513	53,932	215,713	94,512	76,530
1988	72,030	54,780	19,540	ND	ND	50,406	42,476	105,186	62,016	30,360
1989	60,570	11,290	55,210	ND	ND	15,278	138,377	26,628	193,587	28,480
1990	84,710	30,215	56,180	ND	ND	25,144	83,434	56,931	139,614	11,760
1991	85,741	65,390	31,450	ND	ND	31,660	78,175	97,779	109,625	22,270
1992	60,499	30,512	26,101	ND	ND	37,117	62,584	67,629	88,685	4,980
1993	58,093	37,261	26,772	ND	ND	39,857	99,259	77,118	126,031	12,258
1994	64,134	48,923	26,375	ND	ND	44,872	122,277	93,795	148,652	15,211
1995	48,185	23,572	11,805	ND	ND	28,603	61,982	52,175	73,787	12,479
1996	69,032	39,075	19,136	ND	ND	52,905	34,691	91,980	53,827	31,601
1997	60,923	36,788	12,910	ND	ND	36,280	65,905	73,068	78,815	11,337
1998	56,121	42,711	25,110	ND	ND	34,143	113,480	76,854	138,590	19,593
1999	64,536	34,283	32,335	ND	ND	36,607	139,863	70,890	172,198	19,514
2000	69,864	40,732	30,229	ND	ND	32,736	56,580	73,468	86,809	13,930
2001	55,972	35,400	18,550	ND	ND	78,255	74,964	113,655	93,514	17,044
2002	68,263	52,139	31,999	ND	ND	85,943	62,115	138,082	94,114	6,858
2003	50,448	22,986	28,085	ND	ND	23,650	157,469	46,636	185,554	27,474
2004	60,784	32,727	22,417	ND	ND	56,582	110,244	89,309	132,661	30,458
2005	55,801	37,139	18,503	ND	ND	52,903	59,473	90,042	77,976	29,048
2006	70,804	51,167	29,694	ND	ND	80,524	89,160	131,691	118,854	18,452
2007 ^d	57,755	36,805	16,863	380	298	27,298	53,068	64,483	70,229	4,504
2008	55,444	42,492	23,680	928	478	30,989	46,638	74,409	70,796	9,750
2009	64,518	59,097	33,935	543	431	52,178	80,088	111,818	114,454	10,740
2010	39,866	23,411	9,331	615	246	27,074	38,848	51,100	48,425	16,656
2011	47,264	22,697	14,412	642	311	29,129	41,529	52,468	56,252	35,415
2012	41,152	15,231	15,074	867	461	24,115	54,911	40,213	70,446	25,471
2013	ND	ND	ND	698	372	35,776	31,364	ND	ND	18,972
Mean	48,360	28,280	21,110	620	360	31,100	64,310	59,480	85,450	15,780

Source: Mills 1979 - 1994, Howe et al. 1995, 1996, 2001a-d, Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b, 2011a-b; G. B. Jennings, Sport Fish Program Coordinator, ADF&G, Anchorage, personal communication; Pappas and Marsh 2004; Subsistence data, USFWS.

^a Effort is combined early and late run fisheries. 1963–1996 estimated from an in-season creel survey, 1997–2009 estimated from SWHS.

^b Federal subsistence fishery started in 2007.

^c Escapement above weir plus harvest; 1989–1991 includes 60 fish (in 1989) used to test brood source for disease, 1,572 fish (in 1990) and 729 fish (in 1991) used as brood source for stocking in Resurrection Bay.

Note: ND = no data collected.

Table 245-2.—Angler effort and rainbow trout catch and harvest for Russian River, Quartz Creek, Ptarmigan Creek, Skilak Lake, and Kenai Lake, 1984–2011.

Year	Russian River			Quartz Creek			Skilak Lake			Kenai Lake			Ptarmigan Creek		
	Effort ^a	Catch	Harvest	Effort ^a	Catch	Harvest	Effort ^a	Catch	Harvest	Effort ^a	Catch	Harvest	Effort ^a	Catch	Harvest
1984	55,861	ND	324	3,413	ND	87	67	ND	12	502	ND	25	1,857	ND	237
1985	80,054	ND	0	451	ND	69	121	ND	0	607	ND	ND	988	ND	295
1986	70,729	ND	0	4,146	ND	122	413	ND	0	2,722	ND	15	1,483	ND	474
1987	91,600	ND	91	5,361	ND	54	4,129	ND	145	580	ND	36	942	ND	18
1988	76,180	ND	91	3,965	ND	54	3,838	ND	72	855	ND	36	1,946	ND	18
1989	53,598	ND	96	4,893	ND	67	2,810	ND	67	377	ND	20	790	ND	29
1990	68,861	4,789	198	5,655	500	198	2,817	458	115	1,042	73	42	2,041	906	260
1991	76,433	7,221	230	5,354	648	94	4,120	637	125	1,064	1,400	115	1,200	700	115
1992	67,443	8,312	253	7,906	1,314	237	3,820	522	95	1,536	135	87	1,750	499	24
1993	61,018	12,377	284	9,152	2,182	174	3,289	857	68	2,586	1,306	615	1,742	1,709	415
1994	65,996	11,744	134	7,241	2,088	268	1,805	614	35	2,524	1,189	356	1,425	912	311
1995	58,090	15,381	151	5,179	780	66	2,957	1,335	56	3,240	654	233	1,914	574	131
1996	50,122	23,041	127	3,018	914	53	1,780	1,536	21	878	90	90	336	464	40
1997	46,914	30,852	130	3,422	1,539	0	2,346	3,042	14	1,745	504	152	758	1,461	0
1998	47,942	20,088	351	3,166	2,252	0	1,645	625	209	520	183	43	701	2,053	0
1999	64,536	37,764	83	4,708	2,132	0	1,182	1,904	119	1,462	1,753	93	883	3,382	0
2000	69,864	34,948	44	2,423	1,212	0	2,072	2,578	181	1,033	327	117	732	1,026	0
2001	55,972	16,007	215	3,105	1,814	0	1,701	568	65	2,509	762	153	430	625	0
2002	68,263	29,484	16	4,245	2,617	0	1,668	939	63	2,502	1,312	58	888	3,268	0
2003	50,448	21,204	182	4,357	3,359	0	2,068	1,009	0	1,097	386	0	899	424	0
2004	60,784	42,875	49	6,589	7,939	0	2,460	911	436	497	140	93	687	3,027	0
2005	55,801	20,026	232	6,106	2,897	0	594	851	32	2,072	252	55	599	1,253	0
2006	70,804	28,059	256	5,582	5,698	0	1,152	1,045	0	619	52	52	1,061	3,612	0
2007	57,755	25,718	261	8,694	6,193	0	1,462	484	0	648	494	49	896	1,291	0
2008	55,444	20,333	219	7,105	5,900	0	1,692	962	18	728	313	88	389	1,087	0
2009	64,518	21,047	214	6,217	8,770	0	1,126	998	0	687	28	18	441	1,750	0
2010	39,873	14,710	97	4,859	2,859	0	1,085	372	15	955	263	63	317	1,366	0
2011	47,264	17,817	108	2,184	1,457	0	918	345	0	869	116	0	389	744	0
2012	41,152	21,275	216	1,238	644	0	538	11	0	1,179	147	0	227	518	11
Mean	61,149	21,090	160	4,818	2,857	53	1,920	983	68	1,298	516	97	990	1,420	82

Source: Statewide Harvest Surveys from Mills 1985-1994; Howe et al. 1995, 1996, 2001a-d; Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b; G. B. Jennings, Sport Fish Program Coordinator, ADF&G, Anchorage, personal communication.

^a Effort (angler days) directed toward all species.

Note: ND = no data available

Table 245-3.—Russian River spawning rainbow trout foot survey data, 1991–2013.

Year	Number of Surveys	Peak Count	Peak Date
1991	6	303	6/3
1992	None	ND	ND
1993	4	526	5/25
1994	4	606	5/24
1995	None	ND	ND
1996	3	519	5/29
1997	5	447	5/28
1998	4	394	5/28
1999	6	228	5/25
2000	5	330	6/1
2001	8	376	6/1
2002	6	217	5/31
2003	7	204	5/22
2004	2	96	6/1
2005	6	250	5/23
2006	7	271	6/2
2007	6	140	5/21
2008	6	207	6/5
2009	7	186	6/1
2010	4	138	5/24
2011	4	116	5/25
2012	5	84	6/4
2013	5	104	6/10
Mean	5	273	5/29

Source: ADF&G, Soldotna, AK

PROPOSAL 246 – 5 AAC 57.122. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for the Middle Section of the Kenai River Drainage Area.

PROPOSED BY: Robin Collman.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit barbed hooks when sport fishing in the Middle Section of the Kenai River drainage, including the Russian River.

WHAT ARE THE CURRENT REGULATIONS? In the Upper Kenai River upstream of Skilak Lake, only one unbaited, single-hook, artificial lure is allowed year-round, with the gap between point and shank of three-eighths inch or less. In the Russian River and in the Kenai River, from ADF&G markers about 300 yards upstream of the public boat launch at Sportsman’s Landing downstream to the powerline crossing on the Kenai River, is fly-fishing-only water from June 11 through August 20. Legal gear in fly-fishing-only waters is:

- One single-hook, unbaited fly with gap between point and shank of 3/8” or less. The fly must weigh less than ¼ oz, and
- If weights are used, they must be 18 inches ahead of the fly, and
- Beads not attached to the fly are not allowed in fly-fishing-only waters.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Prohibiting the use of barbed hooks would reduce angler efficiency by some amount. A 2010 study by California Department of Fish and Game examined the capture efficiency of artificial flies fished with barbed and barbless hooks in trout fisheries in California. The study found angler efficiency decreased by 11–24%, with young and inexperienced anglers disproportionately affected. Reduced angler efficiency would result in either anglers fishing longer in order to achieve their bag limits for salmon, or a reduced harvest. Prohibiting barbed hooks would not reduce mortality of released fish by a measurable amount. Requiring all anglers to use barbless hooks only for only a portion of the Kenai River would add complexity to the regulations and thereby increase the likelihood of violations.

BACKGROUND: 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 middle section of the Kenai River supports major fisheries for salmon (primarily sockeye), as well as resident species (Table 246-1). Angler participation in rainbow trout fishing measured by catch of rainbow trout in the Kenai River has increased greatly since 1990. Catch averaged 22,227 rainbow from 1984–1992 and increased to an average of about 82,806 from 1993–2002, and then 166,663 rainbow from 2003–2012 (Table 246-2). The reported catch for 2012, the most recent year available, was 169,443 rainbow trout. Similar catch trends in the Dolly Varden fishery are also evident as catch averaged 72,439 fish from 1990–2000 and increased to an average of 121,272 Dolly Varden from 2001–2012 (Table 246-3). In 2012, an estimated 122,514 Dolly Varden were caught in the Kenai River.

The department does not have an estimate of the release mortality rate for rainbow trout or Dolly Varden in the Kenai River fisheries. The department does know that the catch estimates of rainbow trout in the upper and middle Kenai River areas are high in relation to the numbers of rainbow trout thought to inhabit these river sections. Research to estimate the abundance of rainbow trout in a portion of the upper Kenai River was undertaken during the mid-1980s, 1995, 2001, and in 2009, and in the middle Kenai River during 1987 and 1999. Research findings show that the abundance of rainbow trout in both areas increased over time. In the upper river, the population estimate increased from 2,250 rainbow trout in 1986 to 6,364 rainbow trout 1999 (Table 246-4). The preliminary population estimate in 2009 was 5,083 rainbow trout. In the middle river, the population was estimated to be 1,750 rainbow trout in 1986 and increased to 7,882 rainbow trout by 1999 (Table 246-5). These data point out that the catch rate for the population is high; in other words, most individual rainbow trout are caught and released numerous times over a life span. Presence of visible hooking injuries from these same studies support assumptions that many individuals in the population survive release events and survive to be caught again (Table 246-6).

In the Kenai River drainage area, both rainbow trout and Dolly Varden are managed more conservatively than the statewide standard through seasonal closures, conservative size limits, a one-fish bag limit, and methods and means restrictions. Flowing waters are closed to rainbow trout fishing and/or all fishing from May 2 through June 10. The bag and possession limit is one for both species throughout the drainage. In upper Kenai River from the Kenai Lake outlet downstream to Skilak Lake, harvested fish must be less than 16 inches in total length, while downstream of Skilak Lake, fish must be less than 18 inches in total length. In flowing waters of the drainage, bait is prohibited the entire year upstream of Skilak Lake and allowed only seasonally downstream of Skilak Lake.

Overall, the literature points to findings that fishing with bait for rainbow trout is not commensurate with conservative management objectives. Additional regulations that control hook type are not considered as major factors that contribute to achieving conservative management objectives because the efficacy of these regulations can be difficult to measure. The current management objectives for rainbow trout and Dolly Varden fisheries of the Kenai River are:

1. Provide opportunity for angler participation at a level that can be supported by the fisheries resource and associated habitat.
2. Ensure, through appropriate management and research programs, that rainbow trout and Dolly Varden populations do not decline below levels necessary to ensure sustained yield.

Based upon increases in abundance of rainbow trout, as well as high catch rates of both rainbow trout and Dolly Varden that has been sustained for several years, the management objectives for these fisheries are being met.

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 added complexity to regulations and the negative effects it would cause to sport fishing harvest and opportunity in the absence of a measurable biological benefit.

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 246-1.—Kenai River harvest of sockeye salmon by river section, 1981–2012.

Year	Cook Inlet to Soldotna Bridge		Soldotna Bridge to Moose River		Moose River to Skilak Lake		Skilak Lake to Kenai Lake		Kenai River Reach Not Specified ^a		Total	Total Effort for All Species (Angler-days)
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
1981	5,270	26.7	5,336	27.1	4,266	21.6	4,849	24.6	ND	ND	19,721	178,716
1982	11,706	23.4	14,829	29.6	12,136	24.2	11,432	22.8	ND	ND	50,103	231,948
1983	22,961	32.2	22,454	31.5	15,180	21.3	10,672	15.0	ND	ND	71,267	229,228
1984	4,419	28.1	2,183	13.9	2,300	14.6	6,800	43.3	ND	ND	15,702	270,422
1985	14,941	26.1	13,025	22.7	13,299	23.2	15,948	27.8	124	0.2	57,337	323,045
1986	21,177	29.3	13,846	19.1	13,533	18.7	23,842	32.9	ND	ND	72,398	335,051
1987	85,020	35.3	65,841	27.3	39,926	16.6	50,032	20.8	ND	ND	240,819	289,165
1988	49,627	32.5	43,494	28.5	29,178	19.1	30,452	19.9	0	0.0	152,751	374,630
1989	111,889	40.3	90,550	32.6	45,844	16.5	28,942	10.4	681	0.2	277,906	377,892
1990	33,213	27.5	37,201	30.8	22,083	18.3	28,291	23.4	0	0.0	120,788	342,711
1991	53,331	33.0	56,059	34.7	24,768	15.3	27,444	17.0	76	0.0	161,678	323,662
1992	80,535	33.2	85,942	35.4	40,616	16.7	35,398	14.6	ND	ND	242,491	332,573
1993	46,873	34.2	41,466	30.2	18,724	13.6	30,116	22.0	0	0.0	137,179	324,355
1994	30,363	32.4	24,307	26.0	12,374	13.2	26,572	28.4	ND	ND	93,616	340,904
1995	49,806	39.7	38,602	30.8	17,606	14.0	19,414	15.5	ND	ND	125,428	377,710
1996	67,324	36.1	51,866	27.8	29,391	15.8	37,710	20.2	ND	ND	186,291	265,986
1997	73,805	41.7	56,784	32.1	23,626	13.3	22,918	12.9	ND	ND	177,133	247,898
1998	57,464	34.9	61,763	37.5	24,315	14.8	20,994	12.8	ND	ND	164,536	216,650
1999	77,865	38.8	61,344	30.6	27,569	13.7	33,796	16.8	ND	ND	200,574	307,446
2000	98,048	42.4	74,132	32.1	30,825	13.3	27,978	12.1	ND	ND	230,983	358,569
2001	86,880	43.3	73,841	36.8	19,616	9.8	20,425	10.2	ND	ND	200,762	298,817
2002	78,964	35.0	79,608	35.2	23,488	10.4	40,115	17.8	3,742	1.7	225,917	312,815
2003	102,689	35.9	116,383	40.7	30,914	10.8	25,771	9.0	10,332	3.6	286,089	321,044
2004	105,521	35.8	111,048	37.7	42,489	14.4	29,185	9.9	6,550	2.2	294,793	376,313
2005	98,114	33.3	115,270	39.2	32,655	11.1	34,779	11.8	13,469	4.6	294,287	388,677
2006	52,364	30.2	71,854	41.4	22,177	12.8	19,941	11.5	7,089	4.1	173,425	329,122
2007	102,521	33.2	116,719	37.8	47,448	15.4	35,248	11.4	6,914	2.2	308,850	410,381
2008	77,882	33.9	82,061	35.7	33,461	14.5	28,803	12.5	7,823	3.4	230,030	360,344
2009	77,568	30.7	88,668	35.1	36,831	14.6	42,247	16.7	7,005	2.8	252,319	337,217
2010	100,878	33.1	125,606	41.2	45,969	15.1	23,359	7.7	8,823	2.9	304,635	347,938
2011	155,964	39.4	158,797	40.1	52,040	13.1	23,322	5.9	5,717	1.4	395,840	365,863
2012	173,143	38.0	202,429	44.4	55,414	12.2	20,856	4.6	3,612	0.8	455,454	374,732
Mean	69,004	34.0	68,853	32.7	27,814	15.4	26,177	16.9	4,821	1.8	194,409	320,995

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 Prep* a-b.

^a SWHS began consistently reporting in 2002.

Note: ND = no data available

Table 246-2.—Kenai River rainbow trout catch and harvest by river section, 1984–2012.

Year	Cook Inlet to Soldotna			Soldotna Bridge to Moose			Moose River to Skilak Outlet			Skilak Inlet to Kenai Lake			Kenai River Reach Not Specified ^a			Kenai River Total		
	Bridge		%	River		%	Catch	Harvest	%	Catch	Harvest ^b	%	Catch	Harvest	%	Catch	Harvest	%
	Catch	Harvest		Catch	Harvest													
1984 ^c	3,464	766	22.1	2,911	644	22.1	5,112	1,130	22.1	4,200	928	22.1	ND	ND	ND	15,687	3,468	22.1
1985 ^c	3,398	880	25.9	2,653	850	32.0	5,410	1,500	27.7	3,520	710	20.2	ND	0	ND	14,981	3,940	26.3
1986	2,570	623	24.2	2,380	168	7.1	1,750	901	51.5	2,020	733	36.3	ND	ND	ND	8,720	2,425	27.8
1987	2,220	522	23.5	3,450	670	19.4	6,430	629	9.8	3,870	364	9.4	ND	ND	ND	15,970	2,185	13.7
1988	2,780	295	10.6	1,560	216	13.8	5,880	1,063	18.1	7,580	559	7.4	ND	0	ND	17,800	2,133	12.0
1989	2,020	481	23.8	2,230	354	15.9	6,470	829	12.8	6,870	253	3.7	ND	10	ND	17,590	1,927	11.0
1990	2,624	510	19.4	3,571	943	26.4	5,366	937	17.5	11,995	1,145	9.5	0	0	0.0	23,556	3,535	15.0
1991	3,672	516	14.1	3,844	1,123	29.2	7,930	940	11.9	18,108	740	4.1	31	10	32.3	33,585	3,329	9.9
1992	4,448	427	9.6	3,879	411	10.6	15,127	736	4.9	28,702	403	1.4	ND	ND	ND	52,156	1,977	3.8
1993	6,190	1,149	18.6	5,556	580	10.4	12,651	653	5.2	37,755	192	0.5	0	0	0.0	62,152	2,574	4.1
1994	3,796	506	13.3	3,980	364	9.1	10,968	543	5.0	35,089	163	0.5	ND	ND	ND	53,833	1,576	2.9
1995	4,516	620	13.7	4,087	440	10.8	13,072	780	6.0	33,475	310	0.9	ND	ND	ND	55,150	2,150	3.9
1996	5,513	304	5.5	4,777	646	13.5	8,650	373	4.3	45,471	237	0.5	ND	ND	ND	64,411	1,560	2.4
1997	7,411	739	10.0	6,641	539	8.1	20,047	632	3.2	61,053	0	0.0	ND	ND	ND	95,152	1,910	2.0
1998	5,502	608	11.1	5,380	670	12.5	12,158	737	6.1	42,224	0	0.0	ND	ND	ND	65,264	2,015	3.1
1999	11,415	1,516	13.3	8,325	695	8.3	32,050	1,573	4.9	50,189	0	0.0	ND	ND	ND	101,979	3,784	3.7
2000	16,477	1,292	7.8	9,428	1,083	11.5	18,990	1,084	5.7	78,836	0	0.0	ND	ND	ND	123,731	3,459	2.8
2001	11,216	987	8.8	7,473	868	11.6	22,392	567	2.5	51,130	0	0.0	ND	ND	ND	92,211	2,422	2.6
2002	12,641	995	7.9	8,157	944	11.6	19,355	864	4.5	71,753	0	0.0	2,269	216	9.5	114,175	3,019	2.6
2003	12,844	1,026	8.0	10,913	700	6.4	41,204	372	0.9	54,552	0	0.0	3,536	180	5.1	123,049	2,278	1.9
2004	15,080	1,452	9.6	13,310	978	7.3	34,026	831	2.4	91,443	0	0.0	5,651	50	0.9	159,510	3,311	2.1
2005	14,119	953	6.7	11,585	647	5.6	34,675	607	1.8	57,936	267	0.5	7,949	43	0.5	126,264	2,517	2.0
2006	13,168	588	4.5	13,683	1,109	8.1	33,222	472	1.4	67,741	289	0.4	4,005	41	1.0	131,819	2,499	1.9
2007	11,829	542	4.6	18,832	769	4.1	52,701	684	1.3	90,757	661	0.7	4,851	10	0.2	178,970	2,666	1.5
2008	26,385	696	2.6	20,943	794	3.8	47,956	772	1.6	103,095	941	0.9	4,496	11	0.2	202,875	3,214	1.6
2009	11,502	625	5.4	16,165	543	3.4	67,940	828	1.2	102,745	399	0.4	3,280	59	1.8	201,632	2,454	1.2
2010	9,397	553	5.9	16,944	786	4.6	63,655	696	1.1	79,663	237	0.3	3,642	131	3.6	173,301	2,403	1.4
2011	19,849	571	2.9	27,305	464	1.7	80,908	318	0.4	71,088	374	0.5	615	0	0.0	199,765	1,727	0.9
2012	16,119	843	5.2	23,866	878	3.7	47,253	396	0.8	81,349	386	0.5	856	37	4.3	169,443	2,540	1.5
Average																		
2003–2012	15,030	780	5.5	17,350	770	4.9	50,350	600	1.3	80,040	360	0.4	3,890	60	1.8	166,660	2,560	1.6
Average																		
1984–2012	9,040	740	11.7	9,100	690	11.5	25,290	770	8.2	48,080	350	4.2	ND	ND	ND	92,920	2,590	6.5

Source: Statewide Harvest Surveys from Mills 1979–1994; Howe et al. 1995, 1996, 2001a-d; Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b; G. B. Jennings, Sport Fish Program Coordinator, ADF&G, Anchorage, personal communication. Catch estimates from 1984–1989 are unpublished estimates from the SWHS data base M.J. Mills, Sport Fish Biometrician, ADF&G, Anchorage; personal communication.

^a SWHS began consistently reporting in 2002.

^b Retention of rainbow trout was prohibited from 1997 through 2004.

^c In 1984 and 1985, catch estimates were mistakenly reported as harvest in Mills (1985–1986). Corrected harvest numbers are presented here.

Note: ND = no data available

Table 246-3.—Kenai River Dolly Varden, catch and harvest by river section, 1984–2012.

Year	Cook Inlet to Soldotna			Soldotna Bridge to Moose			Moose River to Skilak			Kenai River Reach Not						Kenai River Total			
	Bridge		%	River		%	Outlet		%	Skilak Inlet to Kenai Lake			Specified ^a						%
	Catch	Harvest		Catch	Harvest		Catch	Harvest		Catch	Harvest	Harvest	Catch	Harvest	Harvest	Catch	Harvest	Harvest	
1984 ^b	ND	7,506	ND	ND	1,966	ND	ND	11,211	ND	ND	10,724	ND	ND	ND	ND	ND	ND	31,407	ND
1985 ^b	ND	7,560	ND	ND	3,277	ND	ND	8,930	ND	ND	6,468	ND	ND	52	ND	ND	ND	26,287	ND
1986	ND	1,249	ND	ND	771	ND	ND	1,928	ND	ND	1,827	ND	ND	ND	ND	ND	ND	5,775	ND
1987	ND	2,429	ND	ND	1,671	ND	ND	2,139	ND	ND	1,391	ND	ND	ND	ND	ND	ND	7,630	ND
1988	ND	3,531	ND	ND	1,266	ND	ND	3,527	ND	ND	2,653	ND	ND	0	ND	ND	ND	10,977	ND
1989	ND	3,414	ND	ND	1,371	ND	ND	3,649	ND	ND	1,630	ND	ND	19	ND	ND	ND	10,083	ND
1990	7,795	2,738	35%	5,094	2,424	48%	7,537	2,741	0.4	14,151	4,079	29%	0	0	0%	34,577	11,982	0.3	
1991	10,665	4,211	39%	8,116	3,285	40%	19,363	4,268	0.2	30,601	2,740	9%	52	13	25%	68,797	14,517	0.2	
1992	11,822	3,777	32%	5,899	2,516	43%	26,348	4,900	0.2	34,754	3,269	9%	ND	ND	ND	78,823	14,462	0.2	
1993	13,019	4,599	35%	6,079	1,539	25%	20,778	3,503	0.2	36,451	3,057	8%	26	26	ND	76,353	12,724	0.2	
1994	8,752	3,276	37%	5,185	1,107	21%	14,584	2,051	0.1	33,168	2,052	6%	ND	ND	ND	61,689	8,486	0.1	
1995	10,146	4,069	40%	5,399	1,732	32%	12,447	2,113	0.2	27,103	1,609	6%	ND	ND	ND	55,095	9,523	0.2	
1996	9,787	2,411	25%	5,973	1,797	30%	14,506	1,995	0.1	26,245	1,281	5%	ND	ND	ND	56,511	7,484	0.1	
1997	9,955	2,518	25%	5,268	1,042	20%	22,266	2,824	0.1	48,883	573	1%	ND	ND	ND	86,372	6,957	0.1	
1998	7,560	1,977	26%	5,961	1,787	30%	11,732	1,847	0.2	35,659	468	1%	ND	ND	ND	60,912	6,079	0.1	
1999	14,752	3,867	26%	6,316	1,086	17%	20,053	1,932	0.1	31,826	683	2%	ND	ND	ND	72,947	7,568	0.1	
2000	18,261	3,916	21%	9,122	1,759	19%	21,291	1,403	0.1	56,375	349	1%	ND	ND	ND	105,049	7,427	0.1	
2001	16,304	3,763	23%	8,367	1,613	19%	28,312	789	0.0	54,802	363	1%	ND	ND	ND	107,785	6,528	0.1	
2002	16,414	2,191	13%	7,751	1,431	18%	13,384	1,105	0.1	38,481	766	2%	1,324	288	22%	77,354	5,781	0.1	
2003	15,520	2,996	19%	9,765	1,318	13%	25,972	1,066	0.0	50,969	487	1%	1,459	246	17%	103,685	6,113	0.1	
2004	14,386	1,759	12%	13,591	2,129	16%	23,833	1,220	0.1	89,318	452	1%	5,072	285	6%	146,200	5,845	0.0	
2005	13,501	1,548	11%	9,629	934	10%	27,398	1,243	0.0	62,798	565	1%	5,615	26	0%	118,941	4,316	0.0	
2006	11,405	971	9%	8,135	1,061	13%	24,499	515	0.0	52,048	414	1%	2,211	257	12%	98,298	3,218	0.0	
2007	8,048	1,201	15%	10,261	764	7%	52,701	687	0.0	90,757	584	1%	4,851	40	1%	166,618	3,276	0.0	
2008	19,177	1,154	6%	17,063	961	6%	30,579	604	0.0	78,489	1,003	1%	2,293	44	2%	147,601	3,766	0.0	
2009	8,278	1,003	12%	7,825	842	11%	34,973	384	0.0	91,815	412	0%	1,053	77	7%	143,944	2,718	0.0	
2010	7,732	956	12%	9,298	825	9%	30,930	777	0.0	63,254	402	1%	851	36	4%	112,065	2,996	0.0	
2011	11,377	928	8%	13,356	539	4%	34,250	172	0.0	50,768	150	0%	507	0	0%	110,258	1,789	0.0	
2012	11,398	843	7%	15,330	614	4%	28,715	372	0.0	66,323	304	0%	748	11	1%	122,514	2,144	0.0	
Average																			
2003–2012	12,080	1,340	11%	11,430	1,000	9%	31,390	700	2%	69,650	480	1%	2,470	100	5%	127,010	3,620	3%	
Average																			
1984–2012	12,000	2,840	17%	8,640	1,500	16%	23,760	2,410	8%	50,650	1,750	3%				96,190	8,550	7%	

Source: Statewide Harvest Surveys from Mills 1985–1994; Howe et al. 1995, 1996, 2001a–d; Walker et al. 2003; Jennings et al. 2004, 2006a–b, 2007, 2009a–b, 2010a–b; G. B. Jennings, Sport Fish Program Coordinator, ADF&G, Anchorage, personal communication.

^a SWHS began consistently reporting in 2002.

^b In 1984 and 1985, catch estimates were mistakenly reported as harvest in Mills 1985, 1986. Corrected harvest numbers are presented here.

Note: ND = no data available

Table 246-4.–Number of rainbow trout \geq 300 mm FL in the upper Kenai River, Sportsman's Landing to Jim's Landing, 1986–2009.

Year	Abundance	SE
1986	2,520	363
1987	3,472	482
1995	5,598	735
2001 ^a	6,364 ^a	606 ^a
2009 ^b	5,083 ^b	908 ^b

^a 2001 data reanalyzed using program MARK. Estimate differs slightly from published estimate.

^b 2009 data is preliminary.

Table 246-5.–Number of rainbow trout $>$ 200 mm fork length in the middle Kenai River, Naptowne Rapids to Skilak Lake outlet, 1987–1999.

Year	Abundance	SE
1987	1,750	453
1999	7,833	1,276

Table 246-6.–Proportion of Kenai River rainbow trout with hooking injuries, 1999–2010.

Length group (mm)	Upper Kenai River		Middle Kenai River	
	2001 ^a	2009 ^a	1999 ^b	2010 ^c
200-249	0.19	0.21	0.16	0.18
250-299	0.45	0.39	0.37	0.23
300-349	0.75	0.61	0.43	0.33
350-399	0.77	0.74	0.52	0.39
400-449	0.86	0.85	0.58	0.77
450-499	0.93	0.92	0.64	0.61
500-549	0.96	0.94	0.61	0.79
550-599	1.00	0.90	0.64	0.67
600-649	ND	1.00	0.80	0.64
650-700	ND	1.00	ND	1.00
Total	0.74	0.77	0.46	0.54

^a Sampling area was from Jim's Landing (rm 69.8) to Sportsman's Landing (rm 73.6).

^b Sampling area was from Naptowne Rapids (rm 39.5) to Skilak Lake outlet (rm 50.0).

^c Sampling area was from Slikok Creek Confluence (rm 18.9) to Naptowne Rapids (rm 39.5).

PROPOSAL 247 – 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: Joe Hanes.

WHAT WOULD THE PROPOSAL DO? This proposal would allow snagging of sockeye salmon in the Kenai River when the bag limit is increased by emergency order.

WHAT ARE THE CURRENT REGULATIONS? Statewide regulations state that it is unlawful to intentionally snag or attempt to snag any fish in fresh water. Fish unintentionally hooked elsewhere than in the mouth must be released immediately. “Snag” means to hook a fish elsewhere than in the mouth.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would increase the harvest of sockeye salmon by increasing angler efficiency and may attract additional participants to the fishery. Release mortality of nontarget species may increase by an unknown amount.

BACKGROUND: In 1964, the Alaska Board of Fisheries (board) prohibited the use of treble hooks on the Russian River in an effort to reduce snagging sockeye salmon, as snagging accounted for roughly 50% of the effort. Catch-per-unit-effort data revealed both fly/snag methods had similar rates of success. In 1965, 61% of harvested sockeye salmon were snagged, and in 1966, 41% harvested were snagged. In 1965, the board adopted a flies-only regulation for the Russian River. In 1966, the board adopted an anti-snagging regulation. The goal was to create a more acceptable method of harvest, as the public expressed dismay to the unethical aspects of snagging. Information collected about the same time through marking and release of snagged sockeye salmon indicated nearly all fish hooked, landed, marked, and released that were hooked elsewhere than the mouth survived to pass through the Russian River weir. Snagging has been prohibited in the fresh waters of Alaska since 1975.

In 2005, the board adopted a regulation requiring use of a single hook with a gap between the shank and point of 3/8 inch or less year-round in those waters within a one-half mile radius of the Kenai River inlet at Skilak Lake extending upstream, including the flowing waters of the Russian River, to the outlet of Kenai Lake. This regulation has a beneficial effect of reducing the types of hooking injuries caused to incidentally hooked sockeye salmon, as well as to resident species.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. The prohibition of snagging in fresh waters is a longstanding practice in Alaska sport fisheries. The department has had a longstanding position of opposing snagging in fresh waters statewide and continues to maintain that position. The department is **NEUTRAL** on the allocative aspects of this proposal. Increasing the sport harvest of sockeye salmon is an allocation issue since the fishery is considered fully allocated among various user groups.

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 249 – 5 AAC 56.122. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for the Kenai Peninsula Area.

PROPOSED BY: Christine Brandt.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit the use of eggs for bait in the Kasilof River king salmon sport fishery, which is open from May 16 to July 31.

WHAT ARE THE CURRENT REGULATIONS? In the Kasilof River (excluding Crooked Creek, Coal Creek, and Tustumena Lake and its tributaries), from its mouth upstream to the Sterling Highway Bridge, bait is allowed May 16–August 31, and from September 16–May 15 only one unbaited, single-hook, artificial lure is allowed. From the Sterling Highway Bridge upstream to department markers located at the outlet of Tustumena Lake, only unbaited, artificial lures are allowed September 16–December 31.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal may lower the catch rate of king salmon on the Kasilof 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, but most likely it would not.

BACKGROUND: Bait has been allowed in the Kasilof River to fish for king salmon for many years. In years of low abundance, specifically when king salmon restrictions are taken in the Kenai River king salmon fishery, the Kasilof River is jointly restricted as well, and many times the use of bait is the first restriction to take place. During the past few years, when the Kenai River king salmon fishery was restricted, the use of bait and multiple hooks in the Kasilof River was prohibited. 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** this proposal. The department’s emergency order authority already allows the department to prohibit bait when 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.

PROPOSAL 250 – 5 AAC 56.122. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for the Kenai Peninsula Area.

PROPOSED BY: Christine Brandt.

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

WHAT ARE THE CURRENT REGULATIONS? In the Kasilof River (excluding Crooked Creek, Coal Creek, and Tustumena Lake and its tributaries), king salmon 20 inches or greater in length may be taken from January 1–June 30, upstream of Sterling Highway Bridge, and from January 1–July 31, downstream of the Sterling Highway Bridge; bag and possession limit of one fish; annual limit of five king salmon 20 inches or greater in length, except from January 1–June 30, the bag and possession limit for king salmon 20 inches or greater in length is two fish, of which only one fish may be a naturally-produced king salmon; a naturally-produced king salmon may be retained on Tuesdays, Thursdays, and Saturdays only.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal may reduce harvest of Kasilof River king salmon by an unknown amount. It 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 Kasilof River that restricted retention of king salmon based on total length and sex. The early-run Kasilof River king salmon minimum escapement goal of 650 naturally-produced fish has been achieved eight out of the past 10 years (Table 250-1). There is no inseason assessment or escapement goal for late-run Kasilof River king salmon. The annual estimates of harvests for the late run are available since 1996 (Table 250-2). The annual exploitation rate of late-run king salmon by sport anglers is estimated to be relatively low.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal as the department's emergency order authority already allows the department to prohibit retention of king salmon when necessary to achieve escapement goals, without the need to create a new regulatory exception. Also, determination of the sex of the fish can be difficult for anglers and may lead to unintended violations.

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 250-1.—Historical summary of early-run Kasilof River/Crooked Creek king salmon stocks, 1996–2012.

Year	Sport Harvest ^a			Run to Weir ^b			Total Run			Spawning Escapement ^b		
	Total	Naturally-Produced	Hatchery-Produced	Total	Naturally-Produced	Hatchery-Produced	Total	Naturally-Produced	Hatchery-Produced	Total	Naturally-Produced	Hatchery-Produced
1996	5,295	ND	ND	2,224	ND	ND	7,519	ND	ND	764	ND	ND
1997 ^c	5,627	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1998 ^c	4,202	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1999	7,597	ND	ND	1,791	1,559	232	9,388	ND	ND	1,397	ND	ND
2000	8,815	ND	ND	1,416	1,224	192	10,231	ND	ND	1,077	ND	ND
2001	7,488	ND	ND	2,586	2,122	464	10,074	ND	ND	2,315	ND	ND
2002 ^d	4,791	ND	ND	3,326	2,526	800	8,117	ND	ND	2,708	ND	ND
2003 ^d	3,090	0	3,090	4,127	2,923	1,204	7,217	2,923	4,294	3,597	ND	ND
2004 ^d	2,407	0	2,407	4,873	2,641	2,232	7,280	2,641	4,639	4,356	2,196	2,160
2005 ^e	2,665	572	2,093	3,168	2,108	1,060	5,833	2,680	3,153	2,936	1,909	1,027
2006 ^e	2,489	1,057	1,432	2,646	1,589	1,057	5,135	2,646	2,489	2,569	1,516	1,053
2007 ^e	2,654	1,107	1,547	1,527	1,038	489	4,181	2,145	2,036	1,452	965	487
2008 ^e	1,984	832	1,129	1,414	1,018	396	3,398	1,850	1,525	1,181	879	302
2009 ^e	1,532	576	956	929	674	255	2,461	1,250	1,211	734	617	117
2010 ^{e,i}	1,333	273	1,060	1,352	1,090	262	2,685	1,363	1,322	1,348	1,088	260
2011 ^{e,g}	2,054	ND	ND	933	677	256	2,987	ND	ND	782	654	128
2012 ^h	872	ND	ND	796	633	163	1,668	ND	ND	731	631	100
2013 ⁱ	<i>not avail.</i>	ND	ND	1,409	1,211	198	<i>not avail.</i>	ND	ND	1,213	1,102	111
Mean (2008–2012)	1,726	560	1,048	1,085	818	266	2,883	1,488	1,353	955	774	181

Source: Cope, J. 2011; J. L. Cope, Sport Fish Biologist, ADF&G, Soldotna, personal communication; Howe et al. 2001a-d, Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b; G. B. Jennings, Sport Fish Program Coordinator, ADF&G, Anchorage, personal communication.

Note: ND = no data collected.

^a 1996–2003, 2011 data from Statewide Harvest Survey; 2004–2010 data from inseason creel survey. Data does not include harvest from Kasilof River personal use fishery.

^b Excludes age-0.1 fish 1999–2012; Return includes broodstock, facility morts, and escapement.

^c Weir not operational.

^d Retention of naturally-produced king salmon prohibited by EO for part of the 2002 season. The hatchery contribution to the harvest was not estimated for 2002 due to non-representative sampling and an unmarked fraction of fish, and for 2003 because the creel sampling design did not allow for harvest estimates to be generated. Prior to 2004, hatchery returns were not marked

^e Retention of naturally-produced king salmon limited to Tuesdays and Saturdays in 2005, then changed by EO in 2006–2007 to include Thursdays; in 2008 regulations were changed to allow retention of naturally-produced king salmon on Tuesdays, Thursdays, and Saturdays only, with a limit of 2 king salmon per day of which only one may be naturally-produced ~ annual limits

^f Retention of naturally-produced king salmon prohibited by EO from 6/5/10–6/17/10.

^g Creel survey discontinued in 2011.

^h Retention of naturally-produced king salmon prohibited by EO from 6/15/12–6/30/12. Bait and multiple hooks prohibited by EO from 6/22/12–6/30/12.

ⁱ Retention of naturally-produced king salmon prohibited by EO from 5/1/13–6/30/13. Bait and multiple hooks prohibited by EO from 6/22/12–6/30/12.

Table 250-2.–Late-run Kasilof River king salmon harvest and abundance, 1996–2012.

Year	ESSN Harvest ^a	Inriver Sport Harvest	Inriver Abundance ^b
1996	3,469	833	ND
1997	3,398	1,101	ND
1998	1,526	637	ND
1999	2,839	658	ND
2000	1,105	1,086	ND
2001	1,803	1,378	ND
2002	2,843	451	ND
2003	4,443	1,144	ND
2004	6,505	1,038	ND
2005	6,630	1,052	12,097
2006	2,987	883	8,611
2007	3,686	1,062	8,522
2008	2,272	793	8,276
2009	1,676	2,164	ND
2010	2,337	1,310	ND
2011	2,055	1,660	ND
2012	211	55	ND
Min	211	55	8,276
Max	6,630	2,164	12,097
Mean	2,929	1,018	9,377

Source: Statewide Harvest surveys from 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.

Note: ND = no data collected.

^a Uses 2010 & 2011 Eastside setnet (ESSN) genetic stock allocation estimates to calculate Kasilof River king salmon harvest component, found in McKinley and Fleischman 2013, FMS 13-02.

^b Mark Recapture tagging abundance estimates. Source: Reimer and Fleishman 2012.

PROPOSAL 251 – 5 AAC 56.122. Special provisions and localized additions and exceptions to the seasons, bag, possession, and size limits, and methods and means for the Kenai Peninsula Area.

PROPOSED BY: Homer Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would reduce the bag limit for king salmon on the Kasilof River from two fish, of which only one may be a naturally-produced king salmon, to one fish, either hatchery- or naturally-produced.

WHAT ARE THE CURRENT REGULATIONS? In the Kasilof River drainage, excluding Crooked Creek and Tustumena Lake and its tributaries, from January 1–June 30, bag and possession limit for king salmon 20 inches or greater in length is two fish, of which only one fish may be a naturally-produced king salmon. A naturally-produced king salmon may be retained on Tuesdays, Thursdays, and Saturdays only.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would reduce harvest and harvest opportunity for hatchery-produced king salmon in the Kasilof River that are surplus to escapement and broodstock needs. It would also increase the number of hatchery-produced king salmon in the escapement.

BACKGROUND: 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.

Retention of naturally-produced early-run king salmon from the Kasilof River was first prohibited by emergency order (EO) in 2002. Angler participation had increased due a closure to sport fishing in the Kenai River and presented a concern for not meeting the escapement goal. The Kasilof action resulted in an escapement of an estimated 800 naturally-produced king salmon and an estimated harvest of 4,791 king salmon (Table 251-2).

In 2003, the Alaska Board of Fisheries (board) passed regulations prohibiting retention of naturally-produced fish from the Kasilof River. During the 2003 and 2004 seasons, when the harvest of naturally-produced king salmon was prohibited, a total of 3,090 and 2,407 hatchery king salmon were harvested, and the escapement goal for naturally-produced fish was exceeded by 698 and 496 fish, respectively. An additional escapement of 1,097 and 2,160 hatchery king salmon also occurred, indicating there was still a surplus of hatchery and naturally-produced king salmon.

Due to increasing escapements of naturally-produced fish and the fact that the natural production could likely sustain some level of harvest, the board adopted regulations in 2005 to allow retention of naturally-produced fish two days each week, and provide the department with authority to allow an additional third day by EO. In 2006 and 2007, retention of naturally-

produced fish was allowed by EO on Thursday as the third day of the week naturally-produced fish could be retained.

In 2008, the board adopted two new regulations for the Kasilof River. The first added a third day naturally-produced fish could be retained, and the second increased the bag limit for hatchery-produced fish to two per day and two in possession.

The numbers of naturally-produced king salmon in the escapement exceeded the goal in 2004 and 2005, and achieved the goal in 2006, 2007, 2008, 2010, 2011, and 2013; the goal was not achieved in 2009 and 2012. Over this same time period, escapement of surplus hatchery king salmon ranged from 100 to 1,027 king salmon.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. The current bag limit provides the opportunity to harvest surplus hatchery king salmon and ensure broodstock goals are achieved. The bag limit for hatchery-produced early-run king salmon in the Kasilof River is a component of the enhancement program design that, to the maximum extent possible, maintains the genetic diversity of and reduces the adverse impacts from the enhancement efforts on naturally-produced Kasilof River early-run 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.

Table 251-1.—Historical releases of adipose fin-clipped (AFC) Crooked Creek king salmon, 1994–2013.

Release year	Broodstock Origin	Hatchery	Number of smolt released	Number of AFC smolt released	% AFC
1994	Crooked Creek	Elmendorf	224,784	43,609	19.4%
1995	Homer (Crooked Creek) ^a	Elmendorf	184,049	40,903	22.2%
1996	Homer (Crooked Creek) ^a	Elmendorf	193,180	40,827	21.1%
1997	Homer (Crooked Creek) ^a	Elmendorf	223,201	41,049	18.4%
1998	Homer (Crooked Creek) ^a	Elmendorf	137,338	42,874	31.2%
1999	Homer (Crooked Creek) ^a	Elmendorf	192,304	43,431	22.6%
2000	Crooked Creek	Elmendorf	108,507	108,507	100.0%
2001	Crooked Creek	Elmendorf	109,201	109,201	100.0%
2002	Crooked Creek	Elmendorf	99,547	99,547	100.0%
2003	Crooked Creek	Ft. Richardson	98,800	98,800	100.0%
2004	Crooked Creek	Ft. Richardson	80,601	80,601	100.0%
2005	Crooked Creek	Ft. Richardson	113,613	113,071	99.5%
2006	Crooked Creek	Ft. Richardson	111,705	111,705	100.0%
2007	Crooked Creek	Ft. Richardson	111,382	111,271	99.9%
2008	Crooked Creek	Ft. Richardson	114,588	114,588	100.0%
2009	Crooked Creek	Ft. Richardson	115,035	114,734	99.7%
2010	Crooked Creek	Ft. Richardson	106,145	106,145	100.0%
2011	Crooked Creek	Ft. Richardson	64,578	64,578	100.0%
2012	Crooked Creek	WJHSFH ^b	52,759	52,759	100.0%
2013	Crooked Creek	WJHSFH	0	0	0
Average (1994–1999)			192,476	42,116	
Average (2000–2012)			106,284	106,197	

^a Broodstock collection occurred at the Nick Dudiak Fishing Lagoon. Broodstock at this collection site were Crooked Creek progeny.

^b William Jack Hernandez Sport Fish Hatchery

Table 251-2.—Historical summary of early-run Kasilof River/Crooked Creek king salmon stocks, 1996–2012.

Year	Sport Harvest ^a			Run to Weir ^b			Total Run			Spawning Escapement ^b		
	Total	Naturally-Produced	Hatchery-Produced	Total	Naturally-Produced	Hatchery-Produced	Total	Naturally-Produced	Hatchery-Produced	Total	Naturally-Produced	Hatchery-Produced
1996	5,295	ND	ND	2,224	ND	ND	7,519	ND	ND	764	ND	ND
1997 ^c	5,627	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1998 ^c	4,202	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1999	7,597	ND	ND	1,791	1,559	232	9,388	ND	ND	1,397	ND	ND
2000	8,815	ND	ND	1,416	1,224	192	10,231	ND	ND	1,077	ND	ND
2001	7,488	ND	ND	2,586	2,122	464	10,074	ND	ND	2,315	ND	ND
2002 ^d	4,791	ND	ND	3,326	2,526	800	8,117	ND	ND	2,708	ND	ND
2003 ^d	3,090	0	3,090	4,127	2,923	1,204	7,217	2,923	4,294	3,597	ND	ND
2004 ^d	2,407	0	2,407	4,873	2,641	2,232	7,280	2,641	4,639	4,356	2,196	2,160
2005 ^e	2,665	572	2,093	3,168	2,108	1,060	5,833	2,680	3,153	2,936	1,909	1,027
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Mean (2008–2012)	1,726	560	1,048	1,085	818	266	2,883	1,488	1,353	955	774	181

Source: Cope, J. 2011; J. L. Cope, Sport Fish Biologist, ADF&G, Soldotna, personal communication; Howe et al. 2001a-d, Walker et al. 2003; Jennings et al. 2004, 2006a-b, 2007, 2009a-b, 2010a-b; G. B. Jennings, Sport Fish Program Coordinator, ADF&G, Anchorage, personal communication.

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^b Excludes age-0.1 fish 1999–2012; Return includes broodstock, facility morts, and escapement.

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^d Retention of naturally-produced king salmon prohibited by EO for part of the 2002 season. The hatchery contribution to the harvest was not estimated for 2002 due to non-representative sampling and an unmarked fraction of fish, and for 2003 because the creel sampling design did not allow for harvest estimates to be generated. Prior to 2004, hatchery returns were not marked

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