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ALASKA DEPARTMENT OF FISH AND GAME

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

FOR THE PRINCE WILLIAM SOUND AND UPPER COPPER/UPPER SUSITNA MANAGEMENT AREAS

ALASKA BOARD OF FISHERIES MEETING
CORDOVA, ALASKA

December 3–8, 2014

Regional Information Report No. 2A14-01

The following staff comments were prepared by the Alaska Department of Fish and Game for use at the Alaska Board of Fisheries (board) meeting, December 3–8, 2014 in Cordova, 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 (department) staff comments on commercial, sport, subsistence, and personal use finfish regulatory proposals for the Prince William Sound and Upper Copper/Upper Susitna Management Areas. These comments were prepared by the department for use at the Alaska Board of Fisheries (board) meeting, December 3–8 in Cordova, 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, Prince William Sound, Upper Copper/Upper Susitna, 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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Acronyms and Abbreviations

The following acronyms and abbreviations are used without definition in this report by the Divisions of Commercial Fisheries, Sport Fish, and Subsistence. All others, including deviations from definitions listed below, are noted in the text at first mention, as well as in the titles or footnotes of tables, and in figures or figure captions.

Acceptable Biological Catch	ABC
Alaska Board of Fisheries	board
Alaska Department of Fish and Game	department
Alaska Department of Law	DOL
Amount Necessary for Subsistence	ANS
Alaska Wildlife Troopers	AWT
Biological escapement goal	BEG
Central Gulf of Alaska	CGOA
Chitina Subdistrict personal use dip net salmon fishery	Chitina personal use fishery
Commercial Fisheries Entry Commission	CFEC
Copper River District	CRD
Copper River King Salmon Management Plan	CRKSP
Emergency Order	EO
Glennallen Subdistrict subsistence fishery	Glennallen subsistence fishery
Global Positioning System	GPS
Guideline Harvest Level	GHL
Native Village of Eyak	NVE
No data	ND
Optimal escapement goal	OEG
Prince William Sound	PWS
Prince William Sound Aquaculture Corporation	PWSAC
Sustainable escapement goal	SEG
Sustained escapement threshold	SET
Upper Copper River/Upper Susitna River Area	UCUSMA
Valdez Fisheries Development Association	VFDA

TABLE OF CONTENTS

Proposal No. & Subject **Page**

Summary of department positions vi

Prince William Sound (32 proposals)

COMMITTEE OF THE WHOLE–GROUP 1: SUBSISTENCE SALMON AND SPORT (9 PROPOSALS)

Subsistence Salmon (3 proposals): 1–3

1 Establish a weekly 36-hour subsistence fishing period until the two days after the closure of the commercial salmon season. 1
2 Establish subsistence fishing season that opens when commercial fishing opens in May and closes when the commercial fishery closes in September 1
3 Establish certain marking requirements for that portion of a commercial drift gillnet that is being used for subsistence fishing. 7

Sport (6 proposals): 4–9

4 Prohibit the release of king salmon in PWS. 8
5 Close a portion of Main Bay to sport fishing. 10
6 Prohibit the use of bait for all salmon once the bag limit has been achieved on drainages crossed by the Copper River Highway. 14
7 Modify the Copper River Delta Special Trout Management Area to allow retention of trout from June 15–April 14. 16
8 Reduce bag and possession limit for lingcod in PWS Area from 2 per day, 4 in possession to 1 per day, 2 in possession. 18
9 Allow an additional line to jig for bait when saltwater sport fishing in PWS. 22

COMMITTEE OF THE WHOLE–GROUP 2: COMMERICAL SALMON (13 PROPOSALS)

10 Change set gillnet component of PWS Management and Salmon Enhancement Allocation Plan. 23
11 Change PWS Management and Salmon Enhancement Allocation Plan to include Valdez Fisheries Development Association in calculation. 25
12 Change PWS Management and Salmon Enhancement Allocation Plan to exclude Gulkana Hatchery production in calculation. 27
13 Open certain waters of College Fjord to purse seine fishery before July 21. 29
14 Reestablish historic purse seine gear access to Coghill Lake sockeye salmon in Coghill River terminal area. 32
15 Establish standards to alleviate gear conflicts in Esther Subdistrict during the commercial pink salmon fishery. 33
16 Establish alternating purse seine and drift gillnet fishing periods in certain areas to alleviate gear conflicts in Esther Subdistrict during the commercial pink salmon fishery. 34
17 Allow use of monofilament mesh in PWS drift gillnet fishery. 36
18 Change drift gillnet gear specifications in the Copper River District. 37

TABLE OF CONTENTS (Continued)

Proposal No. & Subject **Page**

19 Allow use of spotter planes in PWS salmon purse seine fisheries. 39
20 Allow use of spotter planes in PWS salmon purse seine fisheries. 39
21 Allow use of spotter planes in PWS salmon purse seine fisheries. 39
22 Identify certain landmarks in description of the Wally Noerenberg Hatchery Terminal Harvest Area using latitude and longitude coordinates. 40

COMMITTEE OF THE WHOLE–GROUP 3: COMMERCIAL GROUNDFISH (10 PROPOSALS)

23 Close PWS management area to commercial lingcod harvest when inside and outside district guideline harvest levels are achieved, including lingcod caught as bycatch and directed harvest. 42
24 Clarify that lingcod may only be retained from July 1 through December 31. 45
25 Change PWS Inside District sablefish season opening and closing date for pot gear. 46
26 Establish a lower trip limit in PWS walleye pollock pelagic trawl fishery and disallow tendering during the fishery. 48
27 Establish directed commercial purse seine and jig pollock fisheries in PWS. 51
28 Change the amount of rockfish that may be retained as bycatch during Pacific cod and walleye pollock fisheries. 53
29 Require retention of all rockfish in the sablefish fishery on gear sets below 150 fathoms, remove rockfish bycatch limits and requirements, such that proceeds from rockfish bycatch are not surrendered to the state. 56
30 Eliminate closure of Pacific cod pot season at 90 percent of guideline harvest level and combine pot and jig allocations, provide a step up/step down allocation depending on achievement of guideline harvest level. 60
31 Change Pacific cod allocation to provide 10 percent for jig gear until June 10, after which it will then be available to pot gear, and designate the state-waters jig fishery as nonexclusive. 63
32 Correct coordinates within the described closed waters section for groundfish at Zaikof Point. 66

Copper River (25 proposals)

COMMITTEE OF THE WHOLE–GROUP 4: ESCAPEMENT GOAL AND SUBSISTENCE/PERSONAL USE SALMON (11 PROPOSALS)

Escapement Goal (1 proposal)

33 Establish a biological escapement goal of 28,000 king salmon for the Copper River drainage. 67

Subsistence/Personal Use Salmon (10 proposals)

34 Amend the Copper River King Salmon Management Plan to provide additional management measures for king salmon in the Glennallen Subdistrict subsistence fishery. 72

TABLE OF CONTENTS (Continued)

Proposal No. & Subject **Page**

35 Prohibit the use of monofilament mesh in dip net bag webbing in subsistence and personal use fisheries. 76
36 In subsistence and personal use fisheries, prohibit removing a king salmon from the water if it is to be released. 79
37 Require a department operated check station to monitor subsistence and personal use harvest and permit compliance in the Chitina and Glennallen subdistricts. 82
38 Change the opening date for the Chitina Subdistrict personal use salmon fishery to open as early as June 1, but not later than June 11. 85
39 Change the Chitina Subdistrict personal use annual limit to be based on household size. 87
40 Require charter operators that transport personal use fishermen keep a daily logbook. 89
41 Repeal reduction of the Chitina Subdistrict personal use allocation if the commercial salmon fishery is closed for 13 or more consecutive days. 90
42 Change the maximum harvest level for the Chitina Subdistrict personal use fishery to 100,000 salmon. 93
43 Establish an allocation of 3,000 king salmon to the Chitina Subdistrict personal use fishery. 95

COMMITTEE OF THE WHOLE–GROUP 5: COMMERCIAL SALMON (5 PROPOSALS)

44 Prohibit commercial salmon fishing until a salmon is recorded at the Copper River sonar. 98
45 Repeal mandatory inside-waters closure in Copper River King Salmon Management Plan. 102
46 Restrict retention of commercially caught king salmon for a person's own use to not exceed the king salmon sport bag limit in area caught. 106
47 Allows use of dip nets for commercial salmon fishing during emergency order closures of the commercial drift gillnet fishery. 110
48 Mark district boundaries. 111

COMMITTEE OF THE WHOLE–GROUP 6: SPORT (9 PROPOSALS)

49 Change the sport fishing season opening date for king salmon on the Klutina River from July 1 to June 1. 112
50 Prohibit use of barbed hooks, multiple hooks, and bait when fishing for king salmon in the Upper Copper/Upper Susitna Area. 115
51 Prohibit use of barbed and multiple hooks for king salmon once an angler has taken a bag limit or annual limit of king salmon. 115
52 Prohibit use of barbed and multiple hooks with or without bait if the sport fishery is restricted to catch-and-release. 115
53 Clarify that a single-hook artificial lure is an artificial lure with one single-hook or one fly. 120

TABLE OF CONTENTS (Continued)

Proposal No. & Subject **Page**

54 Increase the Arctic grayling bag and possession limit in the Gulkana River drainage. 121
55 Amend special regulations for rainbow trout in Bridge Creek of the Tebay River drainage. 125
56 Update the Upper Copper/Upper Susitna Area stocked waters regulation. 127
57 Amend methods and means for burbot in a portion of the Copper River drainage to reference statewide regulations. 128

Summary of Department Positions, PWS Board of Fisheries Meeting, December, 2014 (page 1 of 3).

Proposal No.	Dept. Position	Issue	Page No.
1	N	Establish a weekly 36-hour subsistence fishing period until the two days after the closure of the commercial salmon season.	1
2	N	Establish subsistence fishing season that opens when commercial fishing opens in May and closes when the commercial fishery closes in September.	1
3	O/N	Establish certain marking requirements for that portion of a commercial drift gillnet that is being used for subsistence fishing.	7
4	O	Prohibit the release of king salmon in PWS.	8
5	N/S	Close a portion of Main Bay to sport fishing.	10
6	O	Prohibit the use of bait for all salmon once the bag limit has been achieved on drainages crossed by the Copper River Highway.	14
7	S/N	Modify the Copper River Delta Special Trout Management Area to allow retention of trout from June 15–April 14.	16
8	N	Reduce bag and possession limit for lingcod in PWS Area from 2 per day, 4 in possession to 1 per day, 2 in possession.	18
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11	N	Change PWS Management and Salmon Enhancement Allocation Plan to include Valdez Fisheries Development Association in calculation.	25
12	N	Change PWS Management and Salmon Enhancement Allocation Plan to exclude Gulkana Hatchery production in calculation.	24
13	N	Open certain waters of College Fjord to purse seine fishery before July 21.	29
14	N	Reestablish historic purse seine gear access to Coghill Lake sockeye salmon in Coghill River terminal area.	32
15	NP	Establish standards to alleviate gear conflicts in Esther Subdistrict during the commercial pink salmon fishery.	33
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17	N	Allow use of monofilament mesh in PWS drift gillnet fishery.	36
18	N	Change drift gillnet gear specifications in the Copper River District.	37
19	N	Allow use of spotter planes in PWS salmon purse seine fisheries.	39
20	N	Allow use of spotter planes in PWS salmon purse seine fisheries.	39
21	N	Allow use of spotter planes in PWS salmon purse seine fisheries.	39
22	S	Identify certain landmarks in description of the Wally Noerenberg Hatchery Terminal Harvest Area using latitude and longitude coordinates.	40
23	N	Close PWS management area to commercial lingcod harvest when inside and outside district guideline harvest levels are achieved, including lingcod caught as bycatch and directed harvest.	42
24	S	Clarify that lingcod may only be retained from July 1 through December 31.	45
25	N	Change PWS Inside District sablefish season opening and closing date for pot gear.	46

N = Neutral; S = Support; O = Oppose; NP = No position; W = Withdrawn support

Summary of Department Positions, PWS Board of Fisheries Meeting, December, 2014 (page 2 of 3).

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26	N	Establish a lower trip limit in PWS walleye pollock pelagic trawl fishery and disallow tendering during the fishery.	48
27	N	Establish directed commercial purse seine and jig pollock fisheries in PWS.	51
28	S	Change the amount of rockfish that may be retained as bycatch during Pacific cod and walleye pollock fisheries.	53
29	O	Require retention of all rockfish in the sablefish fishery on gear sets below 150 fathoms, remove rockfish bycatch limits and requirements, such that proceeds from rockfish bycatch are not surrendered to the state.	56
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32	W	Correct coordinates within the described closed waters section for groundfish at Zaikof Point.	66
33	NP	Establish a biological escapement goal of 28,000 king salmon for the Copper River drainage.	67
34	S	Amend the Copper River King Salmon Management Plan to provide additional management measures for king salmon in the Glennallen Subdistrict subsistence fishery.	72
35	O	Prohibit the use of monofilament mesh in dip net bag webbing in subsistence and personal use fisheries.	76
36	O	In subsistence and personal use fisheries, prohibit removing a king salmon from the water if it is to be released.	79
37	O	Require a department operated check station to monitor subsistence and personal use harvest and permit compliance in the Chitina and Glennallen subdistricts.	82
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39	N	Change the Chitina Subdistrict personal use annual limit to be based on household size.	87
40	O	Require charter operators that transport personal use fishermen keep a daily logbook.	89
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42	N	Change the maximum harvest level for the Chitina Subdistrict personal use fishery to 100,000 salmon.	93
43	N	Establish an allocation of 3,000 king salmon to the Chitina Subdistrict personal use fishery.	95
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46	N	Restrict retention of commercially caught king salmon for a person's own use to not exceed the king salmon sport bag limit in area caught.	106
47	O/N	Allows use of dip nets for commercial salmon fishing during emergency order closures of the commercial drift gillnet fishery.	110
48	O	Mark district boundaries.	111

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54	O	Increase the Arctic grayling bag and possession limit in the Gulkana River drainage.	121
55	S	Amend special regulations for rainbow trout in Bridge Creek of the Tebay River drainage.	125
56	S	Update the Upper Copper/Upper Susitna Area stocked waters regulation.	127
57	W	Amend methods and means for burbot in a portion of the Copper River drainage to reference statewide regulations.	128

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COMMITTEE OF THE WHOLE–GROUP 1: SUBSISTENCE SALMON AND SPORT (9 PROPOSALS)

Subsistence salmon (3 proposals): 1–3

PROPOSALS 1 and 2 – 5 AAC 01.610. Fishing seasons.

PROPOSED BY: George Covel (Proposal 1) and Native Village of Eyak (Proposal 2).

WHAT WOULD THE PROPOSALS DO?
Proposal 1 would establish a weekly 36-hour subsistence fishing period beginning 7:00 a.m. Friday and ending 7:00 p.m. Saturday for the entire season.

Proposal 2 would establish a subsistence fishing season that opens when commercial fishing opens in May and remains open until the commercial fishery closes in September.

WHAT ARE THE CURRENT REGULATIONS? A subsistence salmon permit is required by all users in the PWS Management Area. Fishermen must declare their intent to fish in the Copper River/Bering River/PWS, Tatitlek, or Chenega subsistence fishing areas since the permit is valid for only one of the specified locations. Annual limits for subsistence salmon are 15 salmon for a household of one; 30 salmon for a household of two or more; and 10 salmon for each additional person in the household. There is a limit of 5 king salmon per permit.

Salmon may be taken for subsistence in the districts described in 5 AAC 01.605(b) only from May 15 through October 31 during fishing periods as follows: 1) from May 15 until two days before the commercial opening of that salmon district, seven days per week; or 2) during the commercial salmon season, only during open commercial salmon fishing periods in that district; and 3) from two days following the closure of the commercial salmon fishing season in that district through October 31, seven days a week.

WHAT WOULD BE THE EFFECT IF THE PROPOSALS WERE ADOPTED?
These proposals may increase subsistence salmon harvest and the overall sockeye and king salmon harvest. Commercially-caught salmon that would have been retained for a person's own use would likely be sold instead. The amount of commercially-caught salmon retained by nonresidents for their own use would likely continue on a trend similar to current usage patterns.

Alaska residents participating in the subsistence fishery in the Copper River District would have additional opportunity to harvest salmon outside of commercial openings. These proposals would likely make it challenging to enforce the prohibition on the sale of subsistence-caught salmon in the commercial fishery. Commercial fishery participants could continue to fish after a commercial closure and hold their catch on board until the next commercial period.

BACKGROUND: The board has found that the ANS for the Copper River District is 3,000–5,000 salmon in a year when there is harvestable surplus that allows for a commercial fishery. The 10-year average harvest (1994–2013) according to subsistence permit returns is 3,934 salmon, and the 5-year average harvest of salmon is 3,509 salmon (Table 1-1). Residents also harvest fish in the commercial fishery for their own use (Table 1-2), which must be reported on fish tickets, in the sport fishery, which is estimated via Statewide Harvest Survey, or under federal subsistence fishing regulations.

The ANS has not been achieved in four out of the last 10 years. Cordova residents held 78% of permits issued for the Copper River District subsistence fishery in 2012, while 22% had been issued to residents of other Alaska communities.

Current management practice has been to open the commercial salmon season on or about May 15. Subsistence opening dates do not generally allow subsistence harvesters the opportunity to harvest salmon outside of the commercial fishing season. During extended closures of the commercial fishery, additional subsistence opportunity has been provided through the department's EO authority. Commercial harvesters who wish to obtain salmon for home use either retain salmon from their commercial catch, or they forgo commercial fishing to participate in the subsistence fishery (if they are Alaska residents). Copper River king salmon abundance has recently declined (Table 1-3), and these fish are vulnerable to harvest during mid-May to early June in the Copper River District.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on these allocative proposals. The department intentionally links subsistence and commercial fishing periods in order to eliminate potential violations (specifically, selling subsistence-caught fish in the commercial fishery).

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

SUBSISTENCE REGULATION REVIEW:

1. Is this stock in a non-subsistence area? No.
2. Is this stock customarily and traditionally taken or used for subsistence? The board has determined under 5 AAC 01.616(a)(4) that salmon in the Copper River District, as described in 5 AAC 24.200(a), are customarily and traditionally taken or used for subsistence.
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 3,000–5,000 salmon is reasonably necessary for subsistence purposes in a year when there is a harvestable surplus that allows for a commercial fishery, and 19,000–32,000 in a year when there is no commercial fishery (5 AAC 01.616(b)(2)).
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 1-1.–Historical subsistence salmon harvest, permit returns, Copper River District, 1994–2013.

	Permits		Estimated salmon harvest					
Year	Issued	Returned	King	Sockeye	Coho	Chum	Pink	Total
1994	101	97	171	494	70	0	0	734
1995	126	112	173	779	35	0	0	987
1996	176	157	309	1,086	53	0	0	1,448
1997	269	243	223	1,144	1,967	0	0	3,333
1998	245	230	314	905	724	0	0	1,944
1999	294	275	377	1,422	729	0	0	2,528
2000	416	400	717	4,534	46	18	3	5,318
2001	468	439	881	3,275	75	2	0	4,232
2002	355	331	589	3,289	30	2	0	3,910
2003	384	367	730	1,655	37	0	16	2,439
2004	511	487	1,163	1,910	48	5	3	3,129
2005	237	224	260	830	15	0	1	1,106
2006	421	399	779	4,355	1	0	0	5,135
2007	469	445	1,211	6,458	16	2	6	7,694
2008	506	482	495	4,161	55	0	21	4,732
2009	323	293	232	1,916	23	1	0	2,173
2010	325	314	276	1,980	27	22	0	2,305
2011	273	263	212	1,783	34	2	0	2,031
2012	378	357	237	4,270	0	18	0	4,525
2013	531	492	854	5,639	1	2	17	6,513
5-year average (2009–2013)	366	344	362	3,118	17	9	3	3,509
10-year average (2004–2013)	397	376	572	3,330	22	5	5	3,934

Table 1-2.–Copper River Commercial District harvest by year, species, and harvest type.

King salmon	Commercial, sold	Commercial, home pack	Copper River District, subsistence permits
2003	47,721	1,073	710
2004	38,191	539	1,106
2005	34,624	760	260
2006	30,278	779	779
2007	39,095	1,019	1,145
2008	11,437	537	470
2009	9,457	876	212
2010	9,645	906	276
2011	18,500	1,282	212
2012	11,764	853	237
2013	8,826	564	854
10-year average	25,071	862	541
Sockeye salmon			
2003	1,188,052	4,077	1,607
2004	1,048,004	525	1,822
2005	1,331,664	1,785	830
2006	1,496,754	1,539	4,355
2007	1,901,773	2,023	6,148
2008	320,815	2,172	3,969
2009	896,621	6,528	1,764
2010	636,214	7,064	1,980
2011	2,052,432	9,070	1,783
2012	1,866,541	7,985	4,270
2013	1,608,117	9,448	5,639
10-year average	1,273,887	4,277	2,853

Table 1-3.–Copper River king salmon inriver abundance, total Upper Copper River (UCR) harvest, and spawning escapement, 1999–2013.

		Inriver abundance				Total UCR harvest [b, c, d]			Estimated spawning escapement [e]			
Run year	Estimator [a]	Point estimate	SE	L 95%	U 95%	Point estimate	L 95%	U 95%	Point estimate	L 95%	U 95%	Sustainable escapement goal (SEG)
1999	Department	32,090	3,814	24,615	39,565	15,933	ND	ND	16,157	ND	ND	ND
2000	Department	38,047	7,675	23,004	53,090	13,555	ND	ND	24,492	ND	ND	28,000–55,000
2001	Department	39,778	8,262	23,585	55,971	11,570	10,765	12,375	28,208	11,995	44,421	28,000–55,000
2002	Department	32,873	8,863	15,502	50,244	11,371	10,399	12,343	21,502	4,104	38,900	28,000–55,000
2003	NVE	44,764	12,506	20,253	69,275	10,730	9,766	11,694	34,034	9,504	58,564	24,000 or greater
2004	NVE	40,564	4,650	31,450	49,678	9,919	9,229	10,609	30,645	21,505	39,785	24,000 or greater
2005	NVE	30,333	1,529	27,336	33,330	8,805	7,829	9,781	21,528	18,525	24,709	24,000 or greater
2006	NVE	67,789	4,779	58,422	77,156	9,335	8,475	10,195	58,454	49,714	67,603	24,000 or greater
2007	NVE	46,349	3,283	39,914	52,784	11,774	10,566	12,982	34,575	27,214	40,868	24,000 or greater
2008	NVE	41,343	2,166	37,098	45,588	8,858	7,937	9,779	32,485	28,056	36,854	24,000 or greater
2009	NVE	32,400	2,365	27,765	37,035	4,614	4,213	5,015	27,786	23,028	32,326	24,000 or greater
2010	NVE	22,323	2,492	17,439	27,207	5,559	4,991	6,127	16,764	11,961	21,718	24,000 or greater
2011	NVE	33,889	3,329	27,364	40,414	5,895	ND	ND	27,994	ND	ND	24,000 or greater
2012 [f]	NVE	31,452	5,242	21,178	41,726	3,617	ND	ND	27,835	ND	ND	24,000 or greater
2013 [g]	NVE	32,581	4,425	23,908	41,254	3,569	ND	ND	29,012	ND	ND	24,000 or greater

Note: ND indicates no data.

[a] In a few years there were estimates from both the Division of Sport Fish and NVE/LGL Consulting. The "Estimator" listed was considered by both ADF&G and NVE/LGL to have the best estimate for a given year.

[b] The total Upper Copper River (UCR) harvest estimate includes the 1) State Batzulnetas subsistence fishery, 2) State Glennallen subsistence fishery, 3) Federal Glennallen subsistence fishery, 4) State Chitina personal use fishery, 5) Federal Chitina Subdistrict Subsistence Fishery, and 6) the State sport fishery. 1999–2013 data provided by Mark Somerville, ADF&G.

[c] Federal subsistence harvests in the Glennallen and Chitina subdistricts began in 2002; however, no estimates of the standard error (SE) are available until 2005.

[d] SE estimates of state harvests are not available until 2001.

[e] Uncertainty of harvests and spawning escapement for 2002–2004 is underestimated because of correlated harvest and inriver abundance estimates and no SE estimates for federal harvests. The 2005–2010 SE values used to construct the confidence intervals were bootstrapped because the harvests and inriver abundance values were positively correlated.

[f] The 2012 estimate is a preliminary Darroch estimate. The final estimate has not been released as of September 2014.

[g] The 2013 estimate is for 6/5/13 through 7/9/13 because of early season river conditions and equipment issues (fish > 600 mm).

PROPOSAL 3 – 5 AAC 01.620. Lawful gear and gear specifications.

PROPOSED BY: George Covel.

WHAT WOULD THE PROPOSAL DO? This proposal would allow commercial fishermen to use a portion of their commercial gear during subsistence periods established by EO and establish marking requirements for that portion of a commercial drift gillnet that is being used for subsistence fishing, as follows:

5 AAC 01.620(b)
if a subsistence permit holder is using a 50 fathom portion of a longer gillnet, the deployed net shall be clearly marked at 50 fathoms with a cork, permanently fixed to the corkline, of contrasting color and size, that is plainly visible when the gear is in the water.

WHAT ARE THE CURRENT REGULATIONS? Permit requirements, open seasons, and annual limits are the same as described for proposals 1 and 2, above.

Legal subsistence salmon gear in the Copper River District is a drift gillnet no longer than 50 fathoms in length, unless participating in a commercial and subsistence fishery at the same time. When participating in both fisheries, the amount of combined fishing gear may not exceed 150 fathoms. A salmon fishing vessel may only have one legal limit of salmon fishing gear on board.

WHAT WOULD BE THE EFFECT IF THE PROPOSALS WERE ADOPTED? This proposal may increase subsistence salmon harvest and the overall sockeye and king salmon harvest. Alaska resident commercial fishermen without a dedicated subsistence gillnet would be allowed to use their commercial gear to subsistence fish, likely increasing participation in the subsistence fishery. Resident participants in the commercial fishery would be able to subsistence fish without changing nets on their boats. Time would be saved without the requirement to change nets. Illegal deployment of gear beyond the legal limit may also result in additional harvest.

BACKGROUND: See background for proposals 1 and 2, above.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal because of increased potential for violating gear length standards. When using a section of commercial gear, deploying additional net longer than the 50 fathom limit would be easy to do and difficult to enforce. 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: See proposals 1 and 2, above.

Sport (6 proposals): 4–9

PROPOSAL 4 – 5 AAC 55.023 Special provisions for seasons, bag, possession, and size limits, and methods for the Prince William Sound.

PROPOSED BY: Seward Charter Boat Association.

WHAT WOULD THE PROPOSAL DO? This proposal would require anglers to retain the first two king salmon caught while sport fishing in PWS salt waters, and make releasing a king salmon illegal.

WHAT ARE THE CURRENT REGULATIONS? Sport fishing for king salmon in PWS salt waters is open year-round with a bag limit of two and a possession limit of four fish. There is no annual limit or recording requirement for king salmon caught in PWS.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would reduce fishing opportunity by requiring anglers to harvest king salmon otherwise intended to be released. It would also create additional regulation and increase regulatory complexity. Anglers with a limit of king salmon would be unable to fish for other species without the risk of committing a violation. This proposal may increase the overall mortality of king salmon caught in PWS.

BACKGROUND: The proposal implies that high numbers of king salmon released by anglers experience mortality, and it seeks to reduce mortality by prohibiting releasing these salmon. Harvest estimates provided by the Statewide Harvest Survey for PWS average (2009–2013) approximately 3,000 king salmon; an additional 2,400 king salmon are caught and released in PWS saltwater. The department annually stocks 300,000 king salmon smolt in waters near the communities of Cordova, Valdez, and Whittier to create additional king salmon fishing opportunity.

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 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.

The board has adopted regulations to reduce 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 EO 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 PWS salt waters is likely low and this proposal would

potentially increase overall mortality of king salmon. 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 the legal size, is small in size, is snagged, or is not edible. The department encourages anglers to use the best practices through outreach efforts.

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

PROPOSAL 5 – 5AAC 55.023. Special provisions for seasons, bag limits, and methods and means for the Prince William Sound Area.

PROPOSED BY: Prince William Sound Aquaculture Corporation (PWSAC).

WHAT WOULD THE PROPOSAL DO? This proposal would close waters to sport fishing inside regulatory markers placed approximately 100 feet seaward of the Main Bay Hatchery broodstock barrier seine.

WHAT ARE THE CURRENT REGULATIONS? The marine waters of PWS are open to sport fishing except within 300 feet of a fish ladder, and there is a fish ladder at the head of Main Bay. The broodstock barrier seine is located approximately 400 feet from the head of the bay. Snagging is legal in the marine waters of PWS.

Waters seaward of PWSAC broodstock barrier seine are open to fishing by sport and commercial fishermen. Commercial fishermen can only fish in the area adjacent to the barrier seine as provided under emergency orders as outlined in 5 AAC 24.367.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Interference with hatchery broodstock and equipment by anglers would be prevented. The sport harvest opportunity and harvest of sockeye salmon would decrease by some unknown amount, and it would prohibit sport anglers from fishing in an area that would be available to commercial fishermen by emergency order (Figure 5-1).

BACKGROUND: PWSAC operates a sockeye salmon hatchery in Main Bay. This hatchery, located in western PWS, is about two hours by boat from Whittier and provides opportunity for both sport and commercial sockeye salmon fisheries in the waters of the Main Bay Special Harvest Area (Figure 5-2).

The Main Bay Hatchery egg-take goal requires approximately 5,360 female and 3,580 male sockeye salmon for broodstock. As per the department's Sockeye Salmon Culture Protocol, the hatchery must cull any broodstock with signs of external wounds to reduce risk of infectious hematopoietic necrosis virus (IHNV) transmission. The 5-year average (2009–2013) number of sockeye salmon passed through the barrier seine to be used for broodstock was nearly 28,000 salmon (Figure 5-3). These fish include excess males, excess females, inviable broodstock, holding mortality, and jacks not used for broodstock (Figure 5-3). These excess fish are generally not sold.

The 5-year (2009–2013) average commercial harvest of sockeye salmon in the Main Bay fishery is greater than 1 million fish per year. While the sport fishery is popular due to high angler success, participation is relatively low, and estimates of sport harvest and effort specific to Main Bay are not available. The 5-year average annual sockeye salmon harvest for western PWS (2009–2013) is 5,372 fish. Between 2010 and July 2014, saltwater guide logbooks recorded 30 trips to the statistical area that includes Main Bay (area 486031). No sockeye salmon were reported as caught or harvested.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. Because this 100-foot closure is within the Alternating Gear Zone (AGZ) established in 5 AAC 24.367(d), it may at times be open to commercial fishing but closed to sport fishing. The board has adopted regulations in other areas that closed angling activities in small areas adjacent to hatchery operations. The department would **SUPPORT** additional clarity on fishing boundaries with respect to the hatchery barrier seine.

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 5-1.–Main Bay hatchery and barrier seine. The white dot at the head of the bay is the location of the fish ladder.

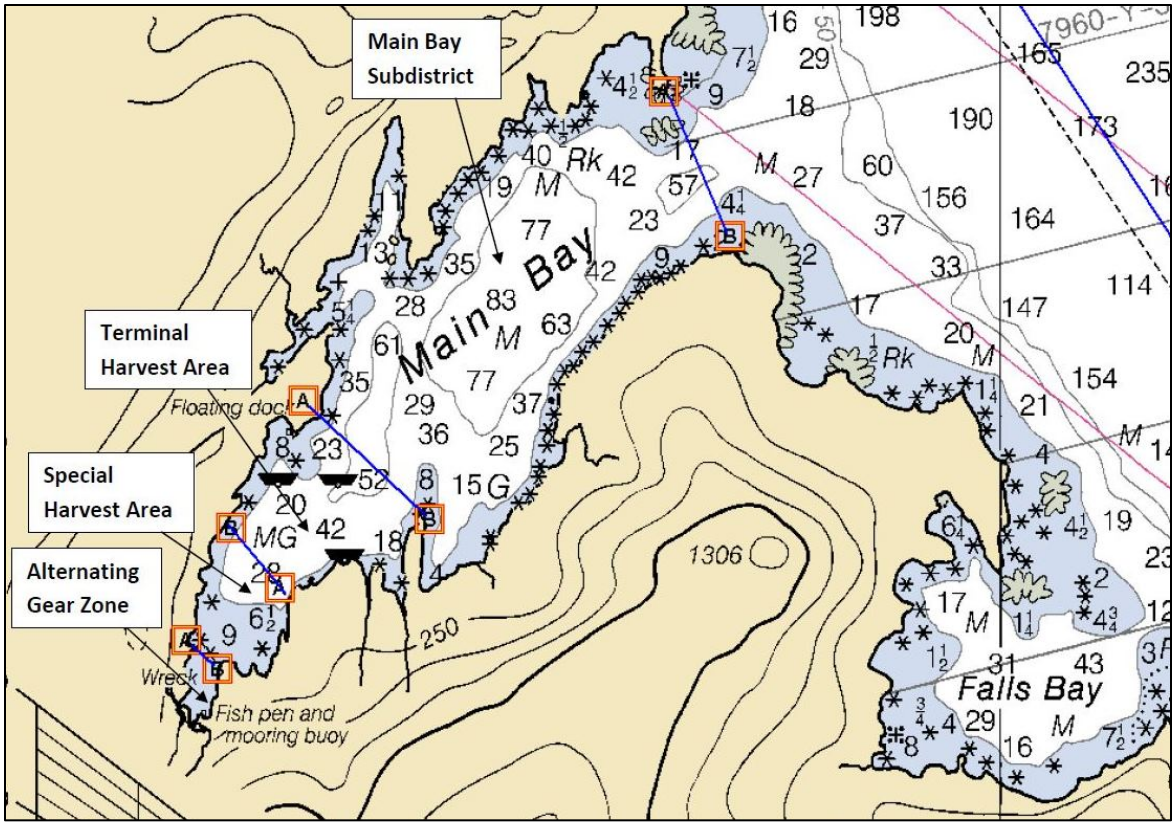

Figure 5-2.–Main Bay Subdistrict, Terminal Harvest Area, Special Harvest Area, Alternating Gear Zone (AGZ). The broodstock barrier seine is located approximately where the arrow defining the "Alternating Gear Zone" points.

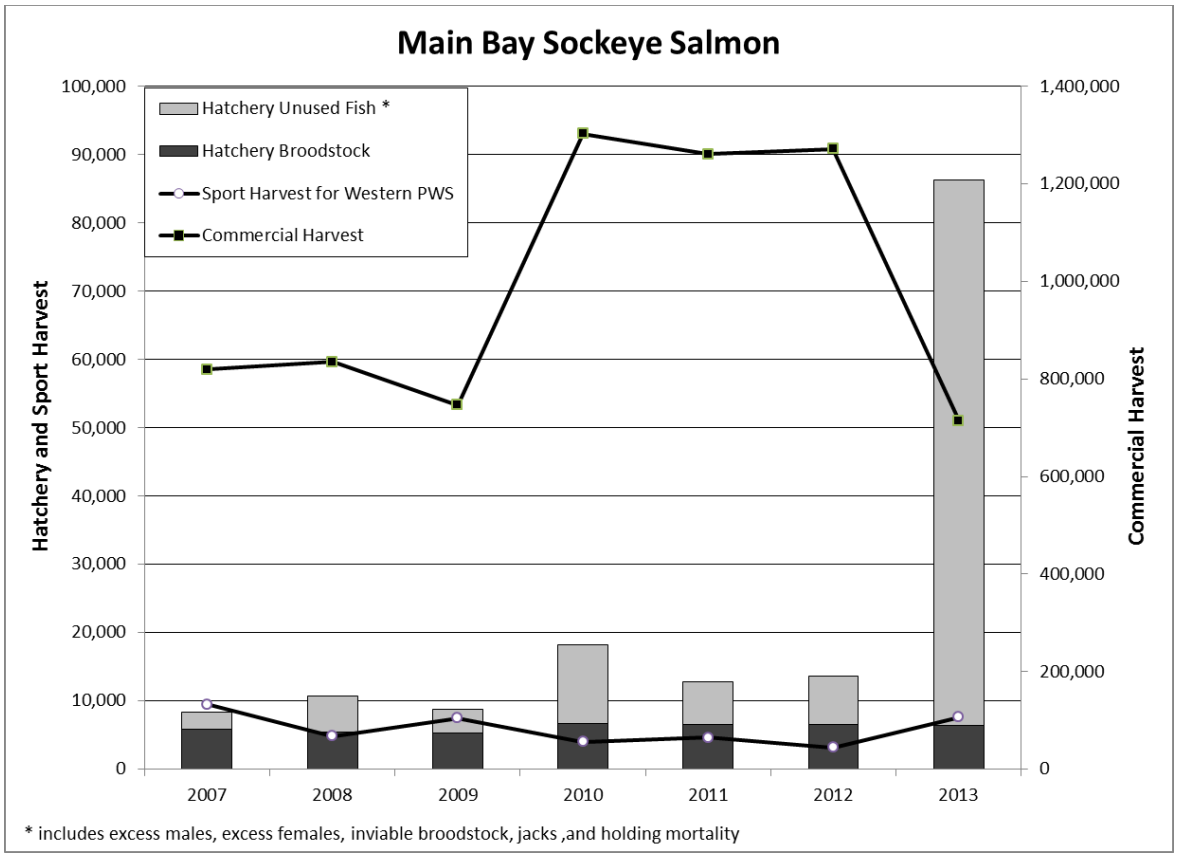

Figure 5-3.–Main Bay hatchery and commercial take of sockeye salmon, along with the sport harvest of sockeye salmon reported from Western PWS. During 2013, thousands of jack sockeye salmon returned and many gilled themselves in the barrier seine.

PROPOSAL 6 – 5 AAC 55.023 Special provisions for seasons, bag, possession and size limits, and methods and means for the Prince William Sound Area.

PROPOSED BY: Copper River/Prince William Sound Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit the use of bait to fish for salmon once the bag limit has been achieved on drainages crossed by the Copper River Highway.

WHAT ARE THE CURRENT REGULATIONS? Bait is allowed when fishing for salmon on all the drainages crossed by the Copper River Highway. However, from April 15–June 14 only unbaited, artificial lures are allowed. Salmon (other than king salmon) fishing is open all year with a limit of six per day with 12 in possession, of which three per day and three in possession may be coho salmon. A person may not remove a coho salmon from the water before releasing it. A coho salmon that is removed from the water must be retained and becomes part of the bag limit of the person originally hooking the fish.

There are currently no regulations in the PWS Management Area that require anglers to use different terminal gear once they have reached the bag limit for a species.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal may result in a change in angler practice in that some anglers may choose to fish with bait for longer periods before harvesting their "last" fish of the day. In addition, those choosing to harvest a limit of salmon could continue to use bait all day while fishing for Dolly Varden or cutthroat trout. As a result, the proposal would likely have little effect on the release mortality of salmon.

However, this proposal would increase regulatory complexity on the road-accessible Copper River Highway streams. Anglers fishing next to each other on the same stream would be subject to different gear restrictions depending upon how many salmon each have harvested and what species they are fishing for. This proposal could make law enforcement difficult.

BACKGROUND: Use of salmon eggs as bait is an integral component of Alaska salmon sport fisheries and is utilized by many anglers within the drainages affected by this proposal. Copper River streams are often high, with poor visibility during fall coho salmon returns due to large amounts of rain. Fishing with salmon eggs in these conditions is often preferred because the lack of visibility makes artificial lures ineffective.

Escapement for the Copper River Delta coho salmon is monitored through peak aerial survey indices. The department manages commercial, subsistence, and sport fisheries that harvest Copper River Delta coho salmon for a SEG range of 32,000-67,000 coho salmon. The coho salmon SEG has been met or exceeded every year since 1989. In light of this success, no EOs to restrict Copper River Delta coho salmon sport fisheries have

been warranted or issued. The department does, however, have EO authority to prohibit bait or otherwise restrict this fishery when necessary to achieve escapement goals.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. There is no biological need to add a regulation to restrict this 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 7 – 5 AAC 55.033 Copper River Delta Special Management Area for Trout.

PROPOSED BY: Copper River/Prince William Sound Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would establish bag limits for rainbow/steelhead trout and cutthroat trout in the Copper River Delta Special Trout Management Area at two fish per day with one fish over 20 inches from June 15 through April 14.

WHAT ARE THE CURRENT REGULATIONS? Current regulations for the Copper River Delta Special Management Area for Trout prohibit retention of any rainbow/steelhead trout or cutthroat trout (Figure 7-1). Additionally, only unbaited, single-hook, artificial lures are allowed year round, and this area is to be managed to maintain historical size and age distribution of all trout species.

Trout fishing regulations for the rest of the PWS Area have a bag and possession limit of two fish from June 15 through April 14 with a slot limit of 11 inches minimum and 16 inches maximum. Fishing for rainbow/steelhead and cutthroat trout is closed during their spawning season (April 15–June 14), and during this time only unbaited, artificial lures are allowed in PWS fresh waters.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would increase the harvest opportunity and harvest of rainbow/steelhead trout and cutthroat trout in the Copper River Delta Special Trout Management Area by an unknown amount. While unknown, this additional harvest is expected to be low and sustainable to streams within the management area. This proposal would make the harvest limits for trout consistent with the rest of PWS and establish size limits for trout that differ from the rest of the PWS.

BACKGROUND: In 1998, Chugach Alaska Corporation began construction of an access road that was proposed to extend 45 miles, from Mile 41 of the Copper River Highway to the Bering River area (Figure 7-1). This road would have required approximately 250 stream and river crossings, 48 of which had been identified as anadromous fish streams. Presence/absence surveys identified the presence of rainbow/steelhead trout and cutthroat trout in many of these streams.

PWS is generally recognized as the most northern range of cutthroat trout in Alaska. Aware of the vulnerability of species at the extent of their range, and mindful of the stipulations described in 5 AAC 75.222. *Policy for the management of sustainable wild trout fisheries*, the board established the Copper River Special Management Area for Trout in 2000.

Shortly after the Special Management Area was created, construction of the road was halted. Approximately 1.5 miles of road were eventually constructed and it has since

been severely degraded from subsequent flooding. Currently this area can only be accessed by aircraft or by airboat.

DEPARTMENT COMMENTS: The department **SUPPORTS** additional opportunity to fish for trout in this area and reducing regulatory complexity, as this proposal would partially do. Allowing harvest of rainbow, steelhead, and cutthroat trout is not expected to present a concern for the sustainability of these stocks due to the lack of any development plans in the near future and remote nature of the area. However, the department is **NEUTRAL** on this proposal, since size limits and gear restrictions would differ from the rest of the PWS management area and statewide standards.

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.

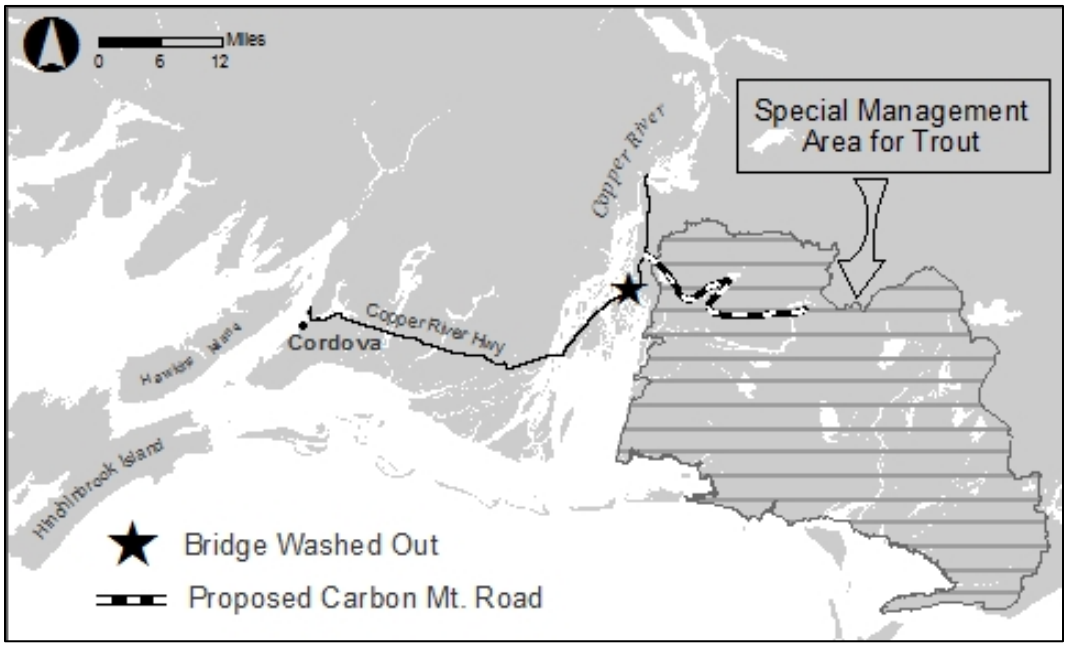

Figure 7-1.–Copper River Delta Special Management Area for Trout.

PROPOSAL 8 – 5 AAC 55.022. General provisions for seasons, bag, possession, and size limits, and methods and means for the Prince William Sound Area.

PROPOSED BY: Seward Charter Boat Association.

WHAT WOULD THE PROPOSAL DO? This proposal would decrease the lingcod bag limit from two to one fish and would reduce the possession limit from four to two.

WHAT ARE THE CURRENT REGULATIONS? In the salt waters of PWS, lingcod may be taken from July 1 through December 31 with a limit of two fish per day and four in possession. Harvested fish must be a minimum of 35 inches long with head attached or 28 inches long with head removed. It is illegal to gaff a lingcod that is released.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Based on angler interviews and bag limit analysis, guided and unguided harvest opportunity would be reduced by approximately 20 %. Anglers may increase the targeting and harvest of rockfish and other groundfish to compensate for lost lingcod harvest opportunity.

This proposal would align the lingcod bag limit with the adjacent North Gulf Coast lingcod bag limit, but the possession limit would still differ from the one-fish possession limit in the North Gulf Coast area.

BACKGROUND: Most lingcod are caught in state waters and are often targeted by jigging near underwater pinnacles or reefs. Few anglers target lingcod exclusively; most lingcod are taken by anglers targeting other species or targeting lingcod in conjunction with other species (combination trip). The sport fishery accounts for the majority of lingcod harvest in PWS. Annual sport harvests have increased since 1991. However, the past three years have shown a decrease in harvest (Figure 8-1). The decrease in harvest is consistent with the decline in total fishing effort in PWS.

Lingcod are found throughout PWS but are relatively more abundant in the outside waters and around Montague Strait and Hinchinbrook Entrance. While adult lingcod can be found to depths of 1,200 feet, they more typically inhabit nearshore rocky reefs from 30-300 feet in depth. Tagging studies in other areas indicate that while most lingcod make localized movements, some move up to hundreds of miles. Females generally make greater movements than males. The preference of lingcod for rocky reefs, which are easily located using charts, sonar, and GPS, makes them susceptible to localized overharvest. Popular fishing spots can potentially become depressed more rapidly and take longer to rebuild. Localized depletion of lingcod has not been studied or documented in PWS or anywhere in Southcentral Alaska.

Lingcod are a relatively fast-growing fish and can live up to about 30 years. Females grow faster and attain larger sizes than males. Female lingcod begin to mature at about 30 inches and 50% are mature at an age of seven years and length of 33 inches in Southeast and Southcentral Alaska. Maturity information is not available for male

lingcod in Alaska, but nearly all males in southern British Columbia are sexually mature at a length of 28 inches.

The department collects biological data from sport harvested lingcod through port sampling, but does not estimate lingcod abundance in PWS. Biological data collected by department port samplers provide information about the population characteristics of sport harvested fish. Over the last several years, the age composition data for lingcod harvested in PWS, across all ports of landing and across both sexes, show fewer young fish recruiting into this fishery (Figures 8-2, 8-3, 8-4). This is not the first time the department has detected a pattern of weaker age class recruitment, and the cause is unclear.

Current precautionary measures for the management of lingcod include a minimum size limit, which allows most fish to spawn at least once prior to recruitment into the fishery. A seasonal closure to fishing January 1 through June 30 protects both spawning females and nest-guarding males. There is also a prohibition on gaffing any lingcod that are released.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. Proposal 8 would reduce lingcod harvest by the sport fishery and proposal 23 would reduce lingcod harvest by commercial fisheries. The department recommends considering these two proposals together. Precautionary measures, such as size requirements and seasons, are now applied in the management of sport and commercial fisheries. However, abundance estimates are not available for lingcod in PWS, and sport harvest sampling indicates relatively weak recruitment of 7–10 year-olds to the sport fishery in the last few years. The department recommends a precautionary approach by maintaining or reducing the overall harvest level of lingcod in PWS.

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.

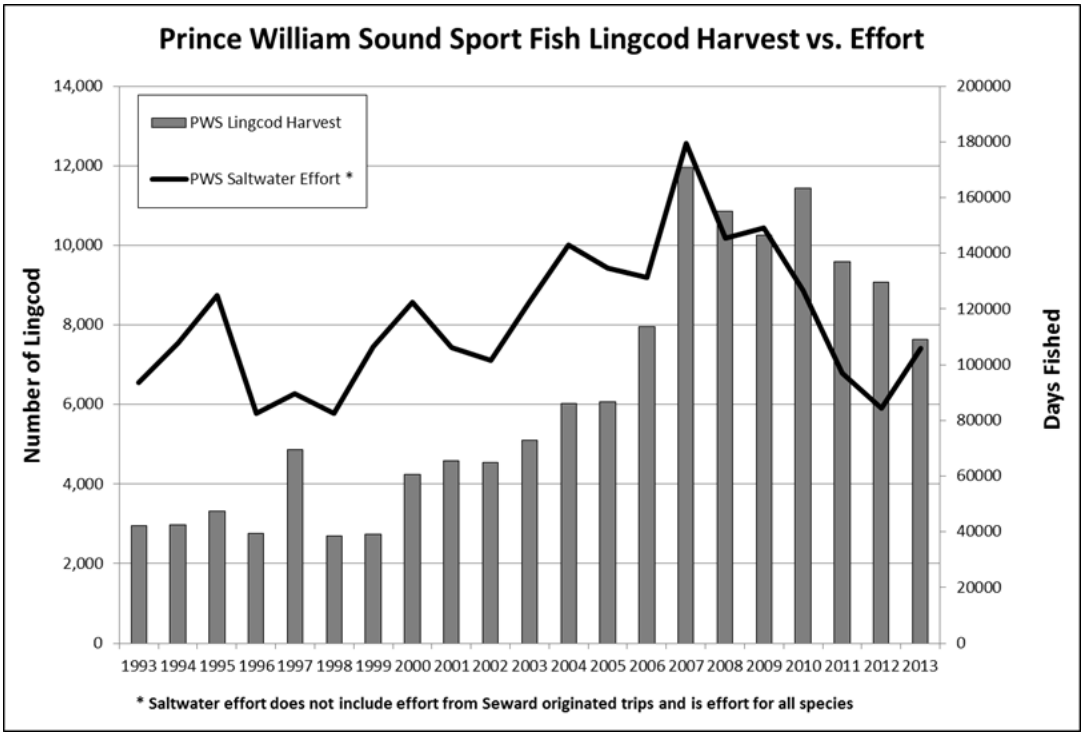

Figure 8-1.–PWS lingcod harvest (total removals).

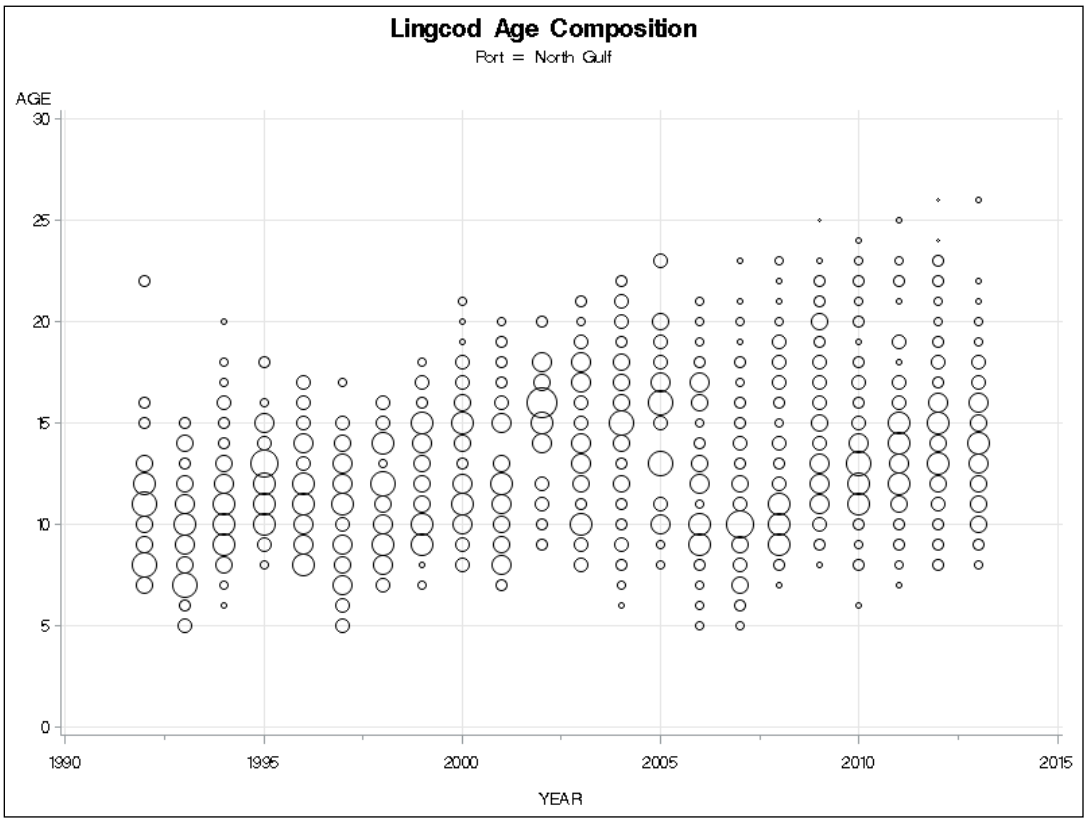

Figure 8-2.–Age composition data for PWS lingcod landed in Seward.

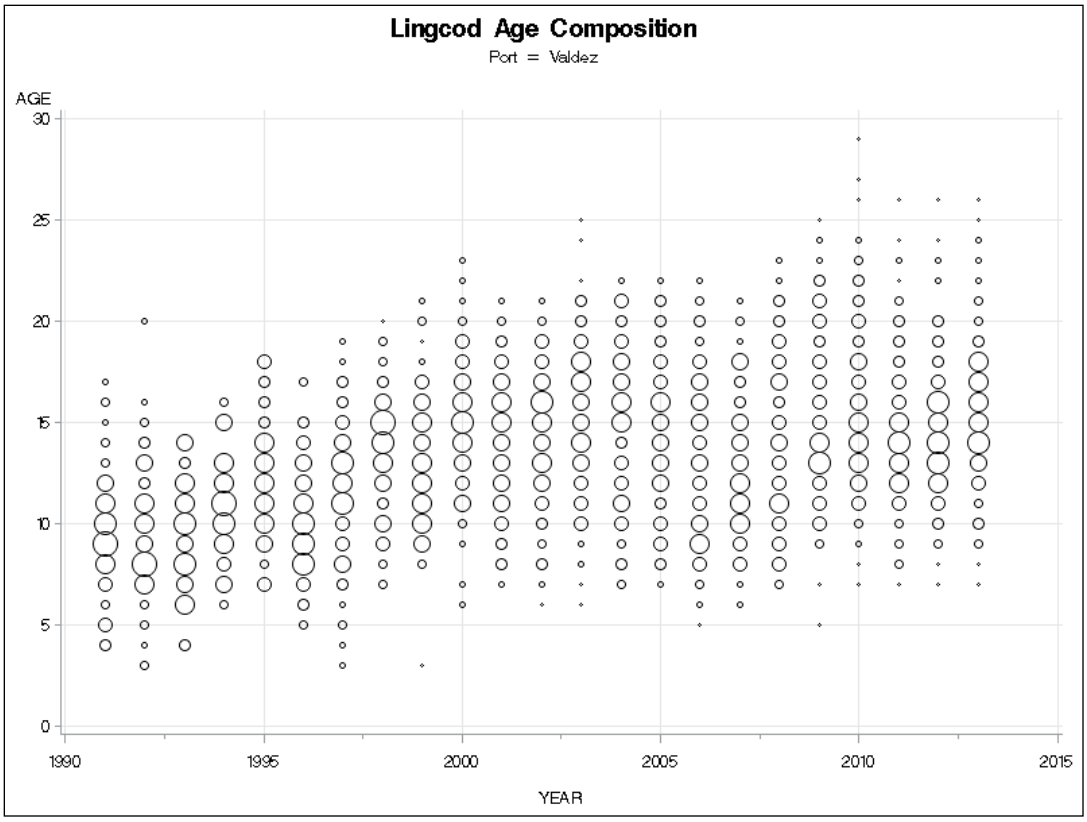

Figure 8-3.–Age composition data for PWS lingcod landed in Valdez.

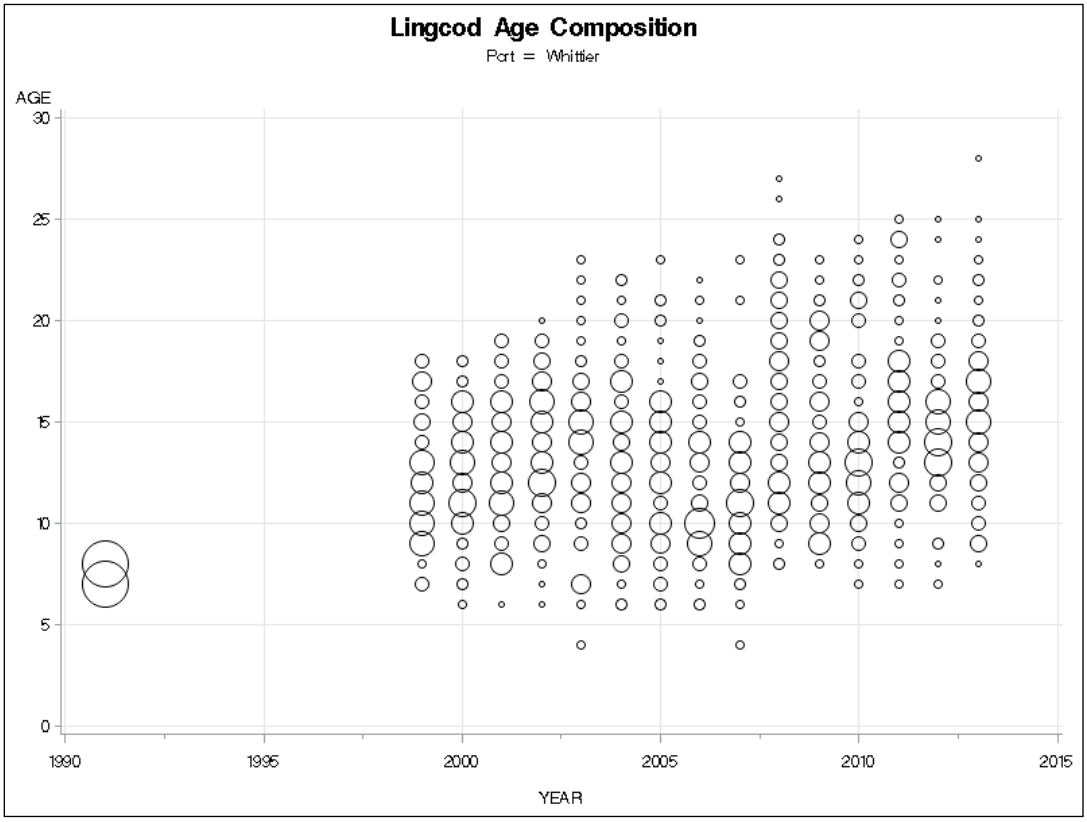

Figure 8-4.–Age composition data for PWS lingcod landed in Whittier.

PROPOSAL 9 – 5 AAC 55.023. Special provisions for seasons, bag, possession, and size limits, and methods and means for the Prince William Sound Area.

PROPOSED BY: Michael Gott.

WHAT WOULD THE PROPOSAL DO? This proposal seeks to allow the use of an additional fishing line to jig for herring and smelt to be used for bait.

WHAT ARE THE CURRENT REGULATIONS? Legal fishing gear is defined under statewide regulation (5AAC 75.020): sport fishing may only be conducted by the use of a single line having attached to it not more than one plug, spoon, spinner or series of spinners, or two flies, or two hooks. The line must be closely attended. Gear for taking bait fish is described in 5 AAC 75.030: in salt water, herring and smelt may be taken with the use of 15 or fewer unbaited single or multiple hooks attached to a single line.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Allowing a second line to fish for baitfish will likely increase the harvest of herring and smelt in PWS by a small amount and add regulatory complexity by creating area boundaries where allowable gear would be different on each side of a boundary.

BACKGROUND: Current regulations allow for specialized herring and smelt jigs. Jigging for herring or smelt is a common practice for anglers who either target them as a food source or catch them for bait. This practice is most often done where bait fish school tightly, creating "bait balls."

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. Current sport and personal use regulations provide ample opportunity for anglers to catch bait fish. Gear definition is a statewide regulation. To be adopted statewide, as this proposal offers, it would need to be submitted for the statewide finfish meeting. Adoption of the proposal specific to PWS would make PWS an exception to statewide regulations.

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

COMMITTEE OF THE WHOLE–GROUP 2: COMMERICAL SALMON (13 PROPOSALS)

PWS commercial salmon: 10–22

PROPOSAL 10 – 5 AAC 24.370. Prince William Sound Management and Salmon Enhancement Allocation Plan.

PROPOSED BY: Jeff Olsen.

WHAT WOULD THE PROPOSAL DO? This proposal would decrease the ex-vessel value trigger for the set gillnet fleet from 5% to 4%.

WHAT ARE THE CURRENT REGULATIONS? Under the current allocation plan (5 AAC 24.370(f)) the set gillnet group is allocated 4% of the 5-year rolling average total ex-vessel value of PWSAC enhanced salmon. If the set gillnet gear group catches 5% or more of the previous 5-year average ex-vessel value of enhanced salmon, the set gillnet fishing periods will total no more than 36 hours per week the following year.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The set gillnet gear group would likely be restricted to no more than 36 hours per week of fishing time on a more frequent basis than under current regulations.

BACKGROUND: The 5-year average ex-vessel values of enhanced salmon harvested by the set gillnet group have been above the 5% trigger point in 4 of 9 years since 2006, when the current plan went into effect (Table 10-1). With a 4% trigger, set gillnet gear users would have been restricted to 36 hours of commercial fishing per week in seven out of the last nine years (Table 10-1).

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 10-1.–Five-year rolling average allocation percentages by gear group and year; and if the set gillnet fishery was restricted.

Year	5-yr period	Purse seine	Drift gillnet	Set gillnet	Restricted
2006	(2000-04)	44.3%	55.7%	6.9%	Yes
2007	(2001-05)	45.4%	54.6%	6.3%	Yes
2008	(2002-06)	47.6%	52.4%	6.0%	Yes
2009	(2003-07)	57.1%	42.9%	5.3%	Yes
2010	(2004-08)	62.1%	37.9%	3.7%	No
2011	(2005-09)	59.0%	41.0%	4.0%	No
2012	(2006-10)	60.9%	39.1%	3.7%	No
2013	(2007-11)	57.6%	42.4%	4.1%	No
2014	(2008-12)	53.7%	46.3%	4.3%	No

PROPOSAL 11 – 5 AAC 24.370. Prince William Sound Management and Salmon Enhancement Allocation Plan.

PROPOSED BY: Michael Bowen.

WHAT WOULD THE PROPOSAL DO? This proposal would include VFDA enhanced salmon harvest value in the *Prince William Sound Management and Salmon Enhancement Allocation Plan*.

WHAT ARE THE CURRENT REGULATIONS? Under the *Prince William Sound Management and Salmon Enhancement Allocation Plan*, "enhanced salmon stocks" are limited to those salmon produced by PWSAC.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Enhanced pink salmon produced by VFDA would add an average value (2009–2013) of $16.3 million ($16.01 million for pink salmon, $268,000 for coho salmon) to the purse seine portion of the *Prince William Sound Management and Salmon Enhancement Allocation Plan*. Adding this value to the purse seine allocation would increase the likelihood of allocation imbalance and increase the chance that the drift gillnet fleet would have access to Port Chalmers chum salmon.

BACKGROUND: The 5-year average purse seine harvest (2009–2013) of VFDA pink salmon is 11.4 million fish. The 5-year average purse seine harvest (2009–2013) of PWSAC pink salmon is 24.5 million fish. VFDA pink salmon are harvested predominately by the purse seine gear group. The harvest timing for VFDA pink salmon is from June 18–August 2 and provides the primary early-season purse seine salmon fishing opportunity in PWS. Beginning in 2016 the permitted capacity at VFDA's Solomon Gulch Hatchery (SGH) will be increased from 230 million to 250 million pink salmon green eggs. An additional permitted capacity of 20 million green eggs will be added in 2018, increasing the permitted capacity at SGH from 250 million to 270 million pink salmon green eggs, contingent on demonstrated physical capacity for this level of production. Assuming recent average marine survivals and a 94% green egg to fry survival, this production increase could lead to increases in the average annual adult run of approximately 2.2 million fish for the odd-years brood line and approximately 1.6 million fish for the even-years brood line.

The 5-year average purse seine harvest (2009–2013) of VFDA coho salmon is 38,400 fish. VFDA coho salmon are harvested exclusively by the purse seine gear group. The 5-year average purse seine harvest (2009–2013) of PWSAC coho salmon is 5,820 fish. The 5-year average drift gillnet harvest (2009–2013) of PWSAC coho salmon is 34,300 fish.

Proposals pertaining to the *Prince William Sound Management and Salmon Enhancement Allocation Plan* have been before the board since the plan became effective in 1991. A history and analysis of the allocation plan through the 1996 board meeting is available in board finding 97-02-FB. After 1997, the plan continued to fail to achieve some of its allocation objectives, resulting in modifications to the plan at the 2003 board meeting and

the formation of a PWS Management and Allocation Plan Workgroup. The workgroup formally met at least six times between 2004 and the time of the 2005 board meeting. Board action at the 2005 board meeting modified the plan to apply only to enhanced stocks, excluding VFDA stocks and PWS and Copper River wild stocks. A history and analysis of the *Prince William Sound Management and Salmon Enhancement Allocation Plan* is available in board finding 06-248-FB.

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

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

PROPOSAL 12 – 5AAC 24.370. Prince William Sound Management and Salmon Enhancement Allocation Plan.

PROPOSED BY: Michael Bowen.

WHAT WOULD THE PROPOSAL DO? This proposal would remove Gulkana Hatchery sockeye salmon harvest from the ex-vessel value calculation in the allocation plan.

WHAT ARE THE CURRENT REGULATIONS? Under the *Prince William Sound Management and Salmon Enhancement Allocation Plan*, "enhanced salmon stocks" means salmon produced by PWSAC, including Gulkana Hatchery fish.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would decrease the ex-vessel value of the drift gillnet proportion of the allocation plan by an average value of $4 million (2009–2013 average value). Subtracting this value from the drift gillnet allocation would increase the likelihood of allocation imbalance and increase the chance that the drift gillnet fleet would have access to Port Chalmers chum salmon.

BACKGROUND: In 2005 the *Prince William Sound Management and Salmon Enhancement Allocation Plan* was changed to include only PWSAC enhanced salmon. During that process, wild salmon (including Copper River drift gillnet fishery) and Solomon Gulch pink salmon (purse seine fishery) were both excluded from the allocation calculation. These were balanced concessions negotiated by each gear group. Gulkana Hatchery ex-vessel value is estimated based on fish numbers estimated from otolith marks and the average weight and specific price of Copper River District sockeye salmon. The 5-year average drift gillnet harvest (2009–2013) of wild Copper River sockeye salmon is 1.14 million fish. The 5-year average drift gillnet harvest (2009–2013) of enhanced Gulkana Hatchery sockeye salmon is 281,000 fish.

Proposals pertaining to the *Prince William Sound Management and Salmon Enhancement Allocation Plan* have been before the board since the plan became effective in 1991. A history and analysis of the allocation plan through the 1996 board meeting is available in board finding 97-02-FB. After 1997, the plan continued to fail to achieve some of its allocation objectives, resulting in modifications to the plan at the 2003 board meeting and the formation of a PWS Management and Allocation Plan Workgroup. The workgroup formally met at least six times between 2004 and the time of the 2005 board meeting. Board action at the 2005 board meeting modified the plan to apply only to enhanced stocks, excluding VFDA stocks and PWS and Copper River wild stocks. A history and analysis of the *Prince William Sound Management and Salmon Enhancement Allocation Plan* is available in board finding 06-248-FB.

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 13 – 5AAC 24.370. Prince William Sound Management and Salmon Enhancement Allocation Plan.

PROPOSED BY: Thomas Nelson.

WHAT WOULD THE PROPOSAL DO? This proposal would designate that area in the Coghill District north of Point Pakenham to a point on the east side of College Fjord near Golden Lagoon at 60° 58.772' N., 147° 59.787' W. open to both drift gillnet and purse seine gear by EO (Figure 13-1).

WHAT ARE THE CURRENT REGULATIONS? Current regulations specify that the Coghill District is only open to drift gillnet gear prior to July 21, after which purse seines may also be operated throughout the district while the harvestable surplus is predominately pink salmon. By EO, purse seine gear may be used prior to July 21 if the harvestable surplus of enhanced chum salmon or wild stock salmon is not being adequately harvested by the drift gillnet fleet.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The proposal would reallocate an unknown portion of Coghill District salmon harvests from the drift gillnet fleet to the purse seine fleet and likely increase conflicts between gear types. Specifically, the proposal would allow the purse seine fleet to fish during the Coghill River wild sockeye salmon run and the enhanced chum salmon run to Wally Noerenberg Hatchery. The drift gillnet fleet currently has exclusive access to the district during the majority of these two runs. Both the Wally Noerenberg Hatchery chum and Coghill sockeye salmon run timing is from early June to the end of July. Considering the spatial separation of the proposed area from Wally Noerenberg Hatchery, enhanced chum salmon harvest by the purse seine fleet would likely be minimal.

BACKGROUND: The drift gillnet and purse seine fleets have shared the Coghill District since 1961. The *Prince William Sound Management and Salmon Enhancement Allocation Plan* outlines time and area allowances for gear usage in the Coghill District based on intended allocation of enhanced salmon stocks. The following is a historical synopsis of legal gear in the Coghill District:

1960: The legal gear types in PWS were purse seine and troll gear. The only defined district within PWS was the Eshamy District with all other area defined as General District.

1961: Fishing districts were defined (same as present). Drift gillnet gear was allowed in the Coghill District; purse seining was closed prior to an announced purse seine season.

1962: Purse seines were not allowed in the Coghill District prior to July 9 or prior to an announced purse seine season.

1963: Purse seines were not allowed in the Coghill District prior to July 1 or prior to an announced purse seine season.

1964: Drift gillnets and purse seines were allowed in the Coghill District.

1965–1980: Purse seines were allowed in all PWS districts, except the Eshamy District, upon announcement.

1979: Gillnets were allowed before July 1 in the Coghill District.

1981–1984: Purse seines were prohibited in the Coghill District before the first Monday in July or until another district was opened for the use of purse seines.

1981: Gillnets were allowed before the first Monday in July in the Coghill District.

1985–1990: Purse seines were prohibited in the Coghill District before July 6.

1991–present: The *Prince William Sound Management and Salmon Enhancement Allocation Plan* restricts purse seining in the Coghill District and the Perry Island Subdistrict prior to July 21.

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.

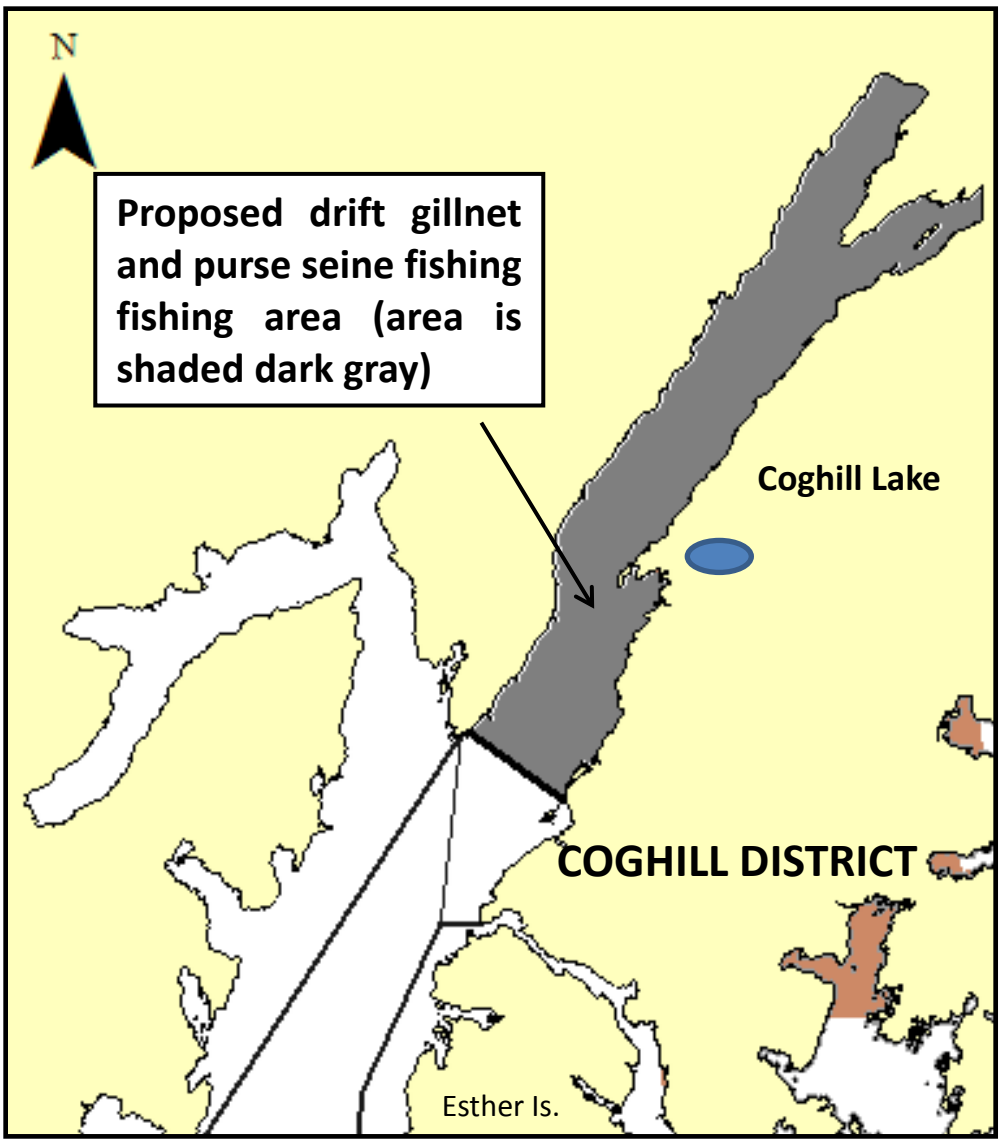

Figure 13-1.—Proposed Coghill District purse seine and drift gillnet area.

PROPOSAL 14 – 5AAC 24.370. Prince William Sound Management and Salmon Enhancement Allocation Plan.

PROPOSED BY: Northwest & Alaska Seiners' Association.

WHAT WOULD THE PROPOSAL DO? This proposal would allow the purse seine gear group to target sockeye salmon at the Coghill River.

WHAT ARE THE CURRENT REGULATIONS? The drift gillnet gear group has exclusive access to this area prior to July 21, unless modified by emergency order.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would grant the seine gear group access to waters near the Coghill River, in which they could target returning Coghill River salmon stocks. The area would be shared by gillnet and purse seine gear groups during any open fishing period. A shared area has potential to increase gear conflict. The gillnet harvest may decrease by an unknown amount depending upon effort by both groups. This proposal would not influence the department's ability to manage for escapement.

BACKGROUND: See background for Proposal 13.

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 15 – 5 AAC 24.370. Prince William Sound Management and Salmon Enhancement Allocation Plan.

PROPOSED BY: Northwest & Alaska Seiners' Association.

WHAT WOULD THE PROPOSAL DO? This proposal is a placeholder and does not suggest any specific changes to regulation.

WHAT ARE THE CURRENT REGULATIONS? Under the *Prince William Sound Management and Salmon Enhancement Allocation Plan*, the Coghill District is open to drift gillnet gear during periods established by emergency order until July 21 after which time, if the harvestable surplus is predominately pink salmon, purse seine gear may be operated. After July 21, both purse seine and drift gillnet gear may be operated in the district. In late August/early September, when the harvest is no longer predominantly pink salmon (dominated by coho salmon), the district is open to drift gillnet gear only.

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

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

COST ANALYSIS: The department is unable to perform a cost analysis on this placeholder proposal.

PROPOSAL 16 – 5 AAC 24.370. Prince William Sound Management and Salmon Enhancement Allocation Plan.

PROPOSED BY: Paul Harder.

WHAT WOULD THE PROPOSAL DO? This proposal would designate an area and establish alternating periods of time for drift gillnet and purse seine gear in portions of the Esther Subdistrict (Coghill District) after July 21 (Figure 16-1). The proposal would create a north-south line at the longitude of Hodgins Point to split the Esther Subdistrict. The drift gillnet gear group would have exclusive access to waters east of Hodgkins Point on odd days of the month and to west of Hodgkins Point on even days of the month. The purse seine gear group would have access to waters east of Hodgkins Point on even days of the month, and the purse seine gear group would have exclusive access to waters west of Hodgkins Point on odd days of the month.

WHAT ARE THE CURRENT REGULATIONS? Under the *Prince William Sound Management and Salmon Enhancement Allocation Plan*, the Coghill District, including the Esther Subdistrict, is open to drift gillnet gear during periods established by EO until July 21 after which time, if the harvestable surplus is predominately pink salmon, purse seine gear may be operated. After July 21, both purse seine and drift gillnet gear may be operated in the district. In late August/early September, when the harvest is no longer predominantly pink salmon (dominated by coho salmon), the district is open to drift gillnet gear only.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, in the Coghill District when the harvestable surplus is predominately pink salmon, the purse seine and drift gillnet fleets would fish alternate periods of time in portions of the Esther Subdistrict (Coghill District). In years with large pink salmon returns, a possible decreased harvest efficiency could lead to the fishery not keeping pace with run entry and decreased fish quality.

BACKGROUND: The period of time after July 21 in this area is dominated by the Wally Noerenberg Hatchery enhanced pink salmon return, which had been harvested almost exclusively by the purse seine fleet prior to 2008. Since 2008, pink salmon prices have been high enough that pink salmon have been targeted by drift gillnet permit holders. Continued high prices for pink salmon may lead to an increase in the level of gear conflict after July 21. See Proposal 13 for other relevant background information.

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

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

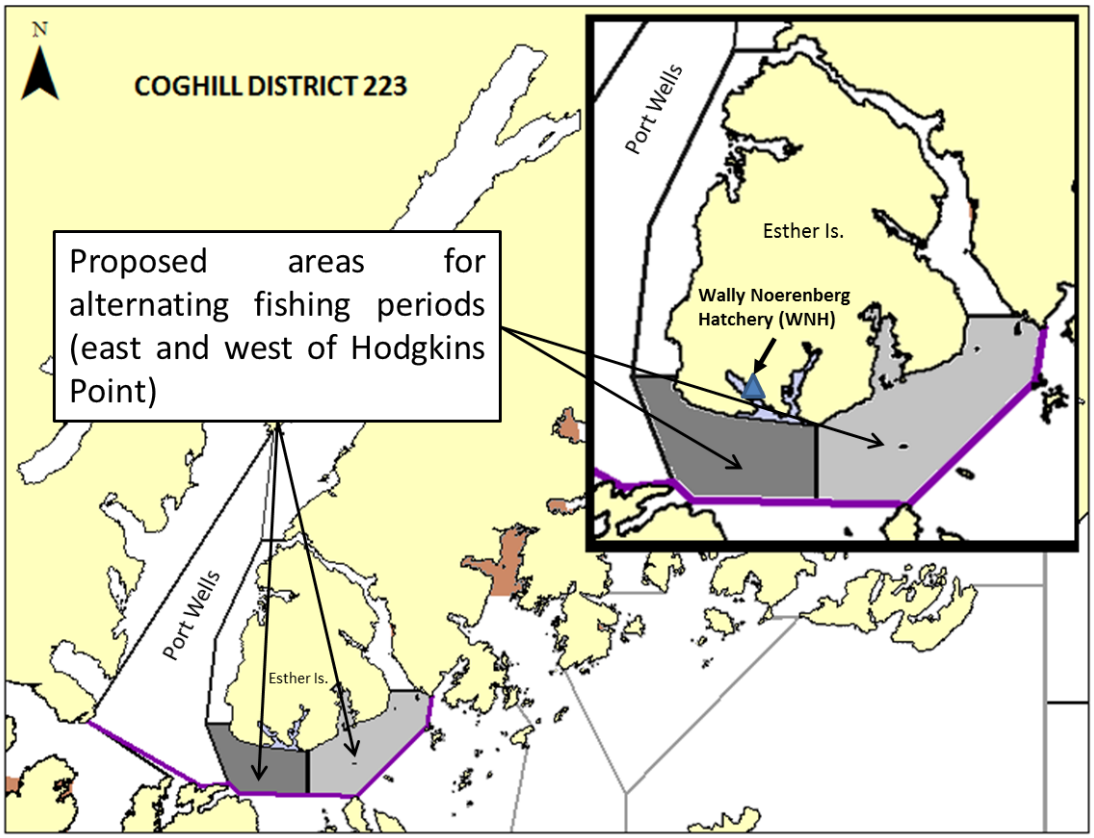

Figure 16-1.—Proposed Esther Subdistrict purse seine and drift gillnet areas.

PROPOSAL 17 – 5AAC 24.331. Gillnet specifications and operations.

PROPOSED BY: Michael Bowen.

WHAT WOULD THE PROPOSAL DO? This proposal would modify PWS gillnet web specifications so that monofilament web could be used in place of multifilament web.

WHAT ARE THE CURRENT REGULATIONS? Gillnets must be built with webbing that is either at least 30 filaments of equal diameter or at least six filaments at least 0.20 millimeters in diameter (5 AAC 39.250(c)).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would allow monofilament web to be utilized in commercial drift and set gillnets within the PWS Management area. It is unknown if the change in gear would alter harvest efficiency.

BACKGROUND: Monofilament gillnets are used to harvest salmon in Puget Sound, Columbia River, and California. British Columbia prohibits the use of monofilament gillnets. Monofilament web is used in Alaska herring gillnet fisheries and Cook Inlet salmon gillnet fisheries. Use of monofilament was first approved in Cook Inlet salmon gillnet fisheries in 2005. From 2005 through 2007, up to one third of a set or drift gillnet could be monofilament. In conjunction with use of monofilament web, a registration requirement was in place at the time. Since 2008, all gear may be monofilament and the registration requirement was dropped.

Several topics were discussed at the 2005 Upper Cook Inlet board meeting when considering monofilament nets. The cost of monofilament is approximately 30%–40% less than multifilament web. Catch efficiency was also discussed based on a study in Southeast Alaska that found increased catch efficiency for pink salmon associated with a decreased number of filaments. That study also showed that six-strand and monofilament web increased the harvest of chum and coho salmon taken in clear water, but not in turbid water. No significant catch efficiency differences were found for sockeye salmon. Gillnet suppliers in 2005 testified that the difference in efficiency between monofilament and the current legal multifilament would be insignificant. In low turbidity water, bird and mammal entanglement would likely be higher when using monofilament web.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. Use of monofilament gillnet web would not likely impact the department's ability to manage for sustained yield and escapement goals.

COST ANALYSIS: Adoption of this proposal may result in an additional direct cost for a private person to participate in this fishery. If the monofilament web proves to be more durable and more efficient at harvesting salmon, then fishermen may choose to replace existing nets with this new gear standard.

PROPOSAL 18 – 5AAC 24.331. Gillnet specifications and operations.

PROPOSED BY: Fairbanks Fish and Game Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would set the webbing-to-cork line hanging ratio at 2:1 for commercial gillnets used in the Copper River District.

WHAT ARE THE CURRENT REGULATIONS? Each drift gillnet vessel may operate no more than one gillnet and no drift gillnet may exceed 150 fathoms in length, hung measure. Gillnets with mesh size less than eight inches may not be more than 60 meshes in depth. "Hung measure" in 5 AAC 39.975. *Definitions* means "the maximum length of the cork line when measured wet or dry with traction applied at one end only."

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would likely decrease the overall harvest efficiency of the commercial drift gillnet fleet in the Copper River District. A reduction in harvest efficiency would reduce commercial catch by an unknown amount and potentially reallocate harvest of Copper River salmon to other fisheries, and/or increase spawning escapement.

BACKGROUND: The "hung measure" standard for allowable gillnet length was in place under federal management prior to statehood and has remained in place throughout state management of the fishery. Constrained by the overall length allowance of 150 fathoms, drift gillnets are hung in varying ratios to adapt to specific fishing scenarios. The proposed 2:1 hanging ratio is a good overall average representation of drift gillnets used in the Copper River drift gillnet fishery. Drift gillnets hung for calm weather and general overall use tend to be hung in a range of 1.7:1 to 1.9:1 (260–280 fathoms of web). Drift gillnets designed to fish in rough weather have been traditionally hung at a ratio of 2.3:1 (340 fathoms of web). This ratio of webbing to corkline length reduces the lateral tension on the webbing while the net is being maneuvered and hauled in rough weather. Under this scenario, maintaining reduced tension on the webbing is vital in preventing entangled fish from dropping out or being mangled. Drift gillnets fished in inside waters of the district may be hung even looser, for example, at a 2.7:1 ratio (400 fathoms of web), to more effectively entangle fish.

There are harvest efficiency tradeoffs to how a net is hung. A loosely hung net may more effectively entangle fish, but it is more visible in the water, and far less efficient to back haul and pick fish from because fish become more thoroughly entangled. Conversely, in a tightly hung net, the mesh visibility in the water is reduced and there is a lower likelihood of complicated entanglement, allowing for more efficient fishing and retrieval of the net. Reducing hanging options that allow adaptation to different fishing conditions will reduce harvest efficiency and potentially change the allocation of commercially caught salmon.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. A fixed gillnet hanging ratio of 2:1 does not impact the department's ability to manage for sustained yield and escapement goals and may have allocative implications.

COST ANALYSIS: Approval of this proposal may result in an additional direct cost for a private person to participate in this fishery. Fishermen with gillnets that were hung at any ratio other than 2:1 ratio would either have to re-hang their existing gillnet or build a new gillnet to conform to the new regulatory standard.

PROPOSALS 19, 20 and 21 – 5 AAC 24.378. Use of aircraft unlawful.

PROPOSED BY: Scott McKenzie (Proposal 19), Kris Phillips (Proposal 20), and Bruce Stamper (Proposal 21).

WHAT WOULD THESE PROPOSAL DO? These proposals would make using aircraft to locate and direct commercial salmon harvests legal.

WHAT ARE THE CURRENT REGULATIONS? During open commercial salmon fishing periods no person may use an aircraft to locate salmon for the commercial taking of those fish or to direct commercial fishing operations.

WHAT WOULD BE THE EFFECT IF THESE PROPOSAL WERE ADOPTED? The proposals would allow those commercial salmon permit holders working with spotter pilots to be more efficient at harvesting salmon.

BACKGROUND: The current regulation was adopted at the 1993 board meeting because fishermen using aircraft had an advantage of locating concentrations of salmon over those not using aircraft.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on these proposals. Use of aircraft to support salmon harvesting operations would not impact the department's ability to manage for sustained yield and escapement goals.

COST ANALYSIS: These proposals are not expected to result in additional direct costs for private individuals to participate in this fishery.

PROPOSAL 22 – 5AAC 24.368. Wally Noerenberg (Esther Island) Hatchery Management Plan.

PROPOSED BY: Fred Marinkovich.

WHAT WOULD THE PROPOSAL DO? The proposal would replace the "as marked" boundary description for the Wally Noerenberg Hatchery Terminal Harvest Area with a GPS-coordinate-based boundary description.

WHAT ARE THE CURRENT REGULATIONS? The Wally Noerenberg Terminal Harvest Area outer boundary is defined as a line from Hodgkins Point to Esther Light, as marked.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would better define a regulatory boundary, with no change to the district area (Figure 22-1).

BACKGROUND: Boundaries for fishing areas that are comprised of a line or line segments defined by GPS coordinates are easier to identify and enforce. The boundary of the Wally Noerenberg Terminal Harvest Area is defined by markers that are degraded and no longer maintained, making this fishing area boundary problematic for fishermen to identify and for AWT to monitor and enforce.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal. Utilizing GPS coordinates for this terminal area boundary will eliminate ambiguity associated with "as marked" geographic locations.

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.

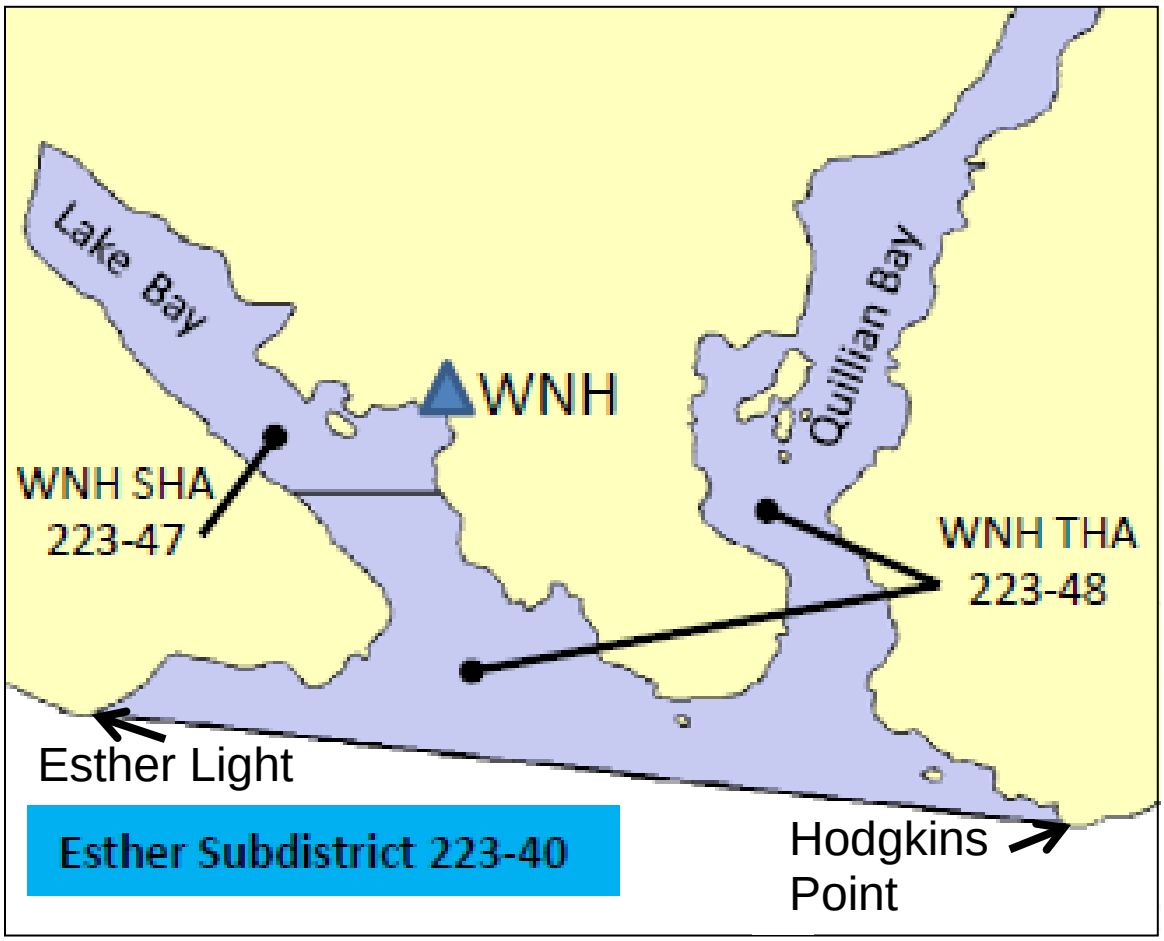

Figure 22-1.–Wally Noerenberg Hatchery terminal harvest areas showing Terminal Harvest Area outer boundary.

COMMITTEE OF THE WHOLE–GROUP 3: COMMERCIAL GROUNDFISH (10 PROPOSALS)

Prince William Sound commercial groundfish: 23–32

PROPOSAL 23 – 5 AAC 28.210. Fishing seasons for Prince William Sound Area.

PROPOSED BY: Seward Charterboat Association.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit the retention of lingcod in the PWS Management Area after the PWS lingcod GHL for the Inside and Outside districts were achieved. In addition, the GHL for the Inside District would be reduced from 7,300 lb to 4,000 lb.

WHAT ARE THE CURRENT REGULATIONS? Current regulations do not define the GHLs, which are set preseason by the department. The department manages the directed lingcod fisheries to achieve the GHLs. Since 2008, the PWS commercial lingcod GHLs for the Outside District and Inside District have been set at 25,300 lb and 7,300 lb, respectively.

Lingcod may be retained as bycatch to other directed fisheries up to 20% by weight of the directed finfish species on board a vessel (5 AAC 28.210 (c) (2)). This regulation also allows retention of lingcod as bycatch following the closure of the directed lingcod season.

The department manages lingcod harvest in both state and federal waters. A regulatory season of July 1 to December 31 exists to protect spawning and nest guarding lingcod during the first half of the year. A minimum size requirement of 35 inches overall, or 28 inches measured from the front of the dorsal fin to the tip of the tail, is intended to allow at least one spawning opportunity prior to being susceptible to harvest (5 AAC 28.270 (a)).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The commercial harvest of lingcod in PWS would be reduced by an unknown amount. Lingcod could not be retained after the closure of the directed fishery. In addition, this proposal would reduce the GHL for the Inside District by 3,300 lb (or 45%).

BACKGROUND: The department does not have a fishery-independent stock assessment program for lingcod in PWS. Beginning in 1998, the department established a lingcod fishery GHL calculated as 50% of the most recent (1986–1995) 10-year harvest. In 2000, the GHL was increased to 75% of the average for those years, which was consistent with the most conservative alternative used by the North Pacific Fishery Management Council when considering fisheries with little data on abundance or stock structure. This resulted in a 5,500 lb GHL for the Inside District and a 19,000 lb GHL for the Outside District and adjacent federal waters. Since 2008, the GHL has been set at 7,300 lb for the Inside District and 25,300 lb for the Outside District and adjacent federal waters, which is 100% of the historical harvest.

The PWS lingcod fishery was mostly a bycatch fishery composed of many small landings. Even when lingcod were landed as directed harvest, they were usually part of a landing that includes

halibut or sablefish. Between 1998 and 2008, an average of 24,493 lb of lingcod was harvested overall, including an average of 13,029 lb (51%) harvested from federal waters (Table 23-1). Between 1998 and 2008, an average of 42% of total harvest was landed as bycatch and lingcod could not be retained as bycatch once the GHL was achieved because the mortality of released lingcod was believed to be low.

In 2008, the board adopted a regulation allowing retention of lingcod as bycatch at 20% following the closure of the directed lingcod season. The total lingcod harvest, including directed and bycatch, spiked in 2009 (72,472 lb). Average harvest was 48,308 lb between 2009 and 2013, with an average of 36,638 lb (76%) harvested from federal waters. During those years, an average of 52% of total harvest was landed as bycatch (Table 23-1).

Since 1998, the directed lingcod season in the Outside District and federal waters of the EEZ has closed as early as July 14 and as late as September 20. Likewise, the directed lingcod season in the Inside District has closed as early as August 6 and stayed open as late as December 31, which is the end of the season. Harvest in the Inside District averaged 4,909 lb between 1998 and 2008, and 5,580 lb between 2009 and 2013. The Inside District lingcod GHL was last achieved in 2011 when the directed fishery was closed on October 6.

There are other management strategies for lingcod in other parts of the state. Current fisheries for lingcod in Southeast Region/EGOA include allocations for directed fishing (dinglebar gear), sport fishing, and bycatch in the longline, jig, and salmon troll fisheries, with the largest commercial GHL allocated to the EYKT (East Yakutat Section) fisheries. Lingcod allocation guidelines exist for the EGOA by section, subdistrict, or sector. Lingcod can be taken as 20% bycatch in the halibut longline fishery (except the Icy Bay Subdistrict, 5%).

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. Proposal 8 would reduce lingcod harvest by the sport fishery and proposal 23 would reduce lingcod harvest by commercial fisheries. The department recommends considering these two proposals together. Precautionary measures, such as size requirements and seasons, are now applied in the management of sport and commercial fisheries. However, abundance estimates are not available for lingcod in PWS, and sport harvest sampling indicates relatively weak recruitment of 7–10 year-olds to the sport fishery in the last few years. The department recommends a precautionary approach by maintaining or reducing the overall harvest level of lingcod in PWS.

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 23-1.–Annual effort and harvest in the commercial lingcod fishery from the PWS Area, and adjacent federal waters, 1988–2013. Harvest includes lingcod landed in the directed lingcod fishery and lingcod landed as bycatch in other directed groundfish fisheries.

		Harvest (lb)					
Year	Vessels	Landings	Inside	Outside	Federal	Total	% Landed as bycatch
1988	20	27	1,338	7,106	18,508	26,952	ND
1989	20	24	1,279	5,335	15,096	21,710	ND
1990	25	31	8,117	3,154	31,628	42,899	ND
1991	21	34	19,358	4,928	7,559	31,845	ND
1992	43	55	2,349	3,786	19,611	25,746	ND
1993	25	45	246	7,462	58,873	66,581	ND
1994	27	52	9,542	831	33,300	43,673	ND
1995	32	44	138	2,751	66,202	69,091	ND
1996	27	46	5,799	790	22,164	28,753	ND
1997	42	73	22,890	2,933	12,375	38,198	40%
1998	18	27	3,399	1,468	6,229	11,096	39%
1999	16	18	1,483	5,352	2,509	9,344	48%
2000	18	41	5,113	12,174	6,568	23,855	56%
2001	32	49	4,359	18,796	3,657	26,812	29%
2002	20	27	1,007	777	18,386	20,170	22%
2003	32	51	5,593	7,023	11,619	24,235	73%
2004	30	47	6,024	6,791	17,477	30,292	27%
2005	30	46	6,193	8,986	9,065	24,244	32%
2006	22	46	5,911	6,303	15.869	28,083	47%
2007	34	41	6,866	2,615	21,215	30,695	60%
2008	30	49	8,051	1,822	30,728	40,601	28%
2009	42	89	8,492	8,782	55,198	72,472	72%
2010	21	39	6,627	4,115	43,088	53,829	68%
2011	29	49	7,141	5,072	32,210	44,422	43%
2012	45	69	4,114	5,665	30,706	40,485	36%
2013	26	35	1,527	4,986	23,818	30,331	43%
Average 1998–2008	26	41	4,909	6,555	13,029	24,493	42%
Average 2009–2013	33	56	5,580	5,724	36,638	48,308	52%

Note: ND indicates no data.

PROPOSAL 24 – 5 AAC 28.210. Fishing seasons for Prince William Sound Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would clarify that lingcod may only be retained from July 1 through December 31, in both a directed fishery and as bycatch.

WHAT ARE THE CURRENT REGULATIONS? Lingcod may be taken in a directed fishery only from July 1 through December 31. Also, lingcod may be taken as bycatch: up to 20% by weight of the directed finfish species on board a vessel.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Lingcod bycatch season dates would be clearly stated, which would make the regulations easier to understand and aid in enforcement.

BACKGROUND: Lingcod harvest is prohibited before July 1 to protect spawning and nest guarding lingcod during the first half of the year, and this date is clearly stated in regulation in reference to the directed fishery. In 2008, a new regulation was adopted by the board allowing retention of lingcod as bycatch following the closure of the directed lingcod season (5 AAC 28.210 (c) (2)). The bycatch regulation does not clearly state that the prohibition on retention of lingcod before July 1 applies to both bycatch and the directed fishery. The department currently manages the prohibition on retention of lingcod as bycatch prior to July 1 by emergency order.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. Clearly stating the prohibition in regulation will benefit fishery managers, participants, and law enforcement.

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 25 – 5 AAC 28.210. Fishing seasons for Prince William Sound Area.

PROPOSED BY: Rod Jensen.

WHAT WOULD THE PROPOSAL DO? This proposal would change the PWS sablefish pot season from April 15–August 31 to March 15–September 30.

WHAT ARE THE CURRENT REGULATIONS? The current season for all gear types participating in the PWS sablefish fishery is April 15–August 31.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would likely increase the harvest of sablefish by the pot gear component of the fleet and decrease the harvest by other gear types by an unknown amount.

BACKGROUND: Prior to 1993, PWS sablefish seasons opened concurrently with sablefish seasons in federal waters of the CGOA, and closed by emergency order when the state waters GHL was attained (Table 25-1). From 1993–1995, department staff established the duration of the fishing period based on the GHL, the projected number of participants, and past fishery performance. As effort and efficiency of the PWS fleet increased, fishing seasons became more restrictive. Seasons were comprised of one or two fishing periods with total fishery duration ranging from 96 hours in 1993 to 48 hours in 1995. A season opening date of May 1 was first effective in 1997.

In 1996, the CFEC adopted a limited entry program for the PWS sablefish fishery and the board adopted a shared quota for the PWS sablefish fishery in 2003. This lengthened the season to at least 82 days in all subsequent years and resulted in a significant reduction in gear loss. Quota allocations are calculated so that half of the GHL is allocated equally among registered participants and the balance of the GHL is allocated according to the permit's vessel size class.

Orca whale depredation on hooked sablefish March–May was an unintended consequence of the extended season (Table 25-2). Fishermen estimated sablefish losses to whales during some trips were as high as 50%–80% of the trip total. In December 2005, longline groundfish pot gear was approved as a legal gear to help reduce the occurrences of Orca whale depredation. However, the use of longline pot gear in the fishery has been minimal and the harvest by this gear type remains confidential due to the limited number of participants.

In order to avoid Orca whale depredation, fishermen delayed fishing during the spring season until the first week of May when many of the Orca whales depart PWS in pursuit of other available food sources. In order to minimize Orca whale predation in early spring and maximize opportunity for fishermen to achieve the GHL, the board amended the season dates to April 15–August 15.

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 25-1.–Annual sablefish harvest and effort, including harvest from test fishery, from the Inside and Outside districts of the PWS Area, 1988–2013.

			Annual harvest (lb)				Whale
Year	Vessels	Landings	Inside	Outside	Test fishery[a]	Total	interactions
1988	54	145	219,416	27,958	ND	247,374	ND
1989	25	95	188,042	746	ND	188,788	ND
1990	71	251	211,486	4,929	ND	216,414	ND
1991	78	157	326,235	24,398	ND	350,633	ND
1992	63	126	432,172	33,684	ND	465,856	ND
1993	60	92	316,602	74,943	ND	391,546	ND
1994	66	102	280,700	60,359	ND	341,059	ND
1995	126	134	565,547	11,767	ND	577,315	ND
Limited entry program implemented							
1996	69	77	247,545	33,475	10,376	291,396	ND
1997	51	81	196,370	2,689	9,311	208,370	ND
1998	59	60	233,004	14	11,676	244,695	ND
1999	42	45	206,142	0	7,765	213,907	ND
2000	32	32	342,854	77	13,582	356,513	1
2001	47	49	310,217	0	13,692	323,908	0
2002	49	51	320,694	0	7,924	328,618	0
Shared quota fishery implemented							
2003	39	67	213,932	0	9,914	223,757	10
2004	38	67	225,003	0	9,994	234,996	12
2005[b]	34	70	220,392	0	6,687	227,079	35
2006	27	73	185,494	0	10,068	195,562	30
2007	28	61	199,213	0	0	199,213	10
2008	31	70	206,888	41	0	206,929	15
2009	32	104	219,438	0	0	219,438	32
2010	30	112	212,229	0	0	212,229	8
2011	29	94	222,099	0	0	222,099	17
2012	26	87	203,824	0	0	203,824	31
2013	30	93	155,463	0	0	155,463	2
2014	26	71	96,726	0	0	96,726	4
Average[c]	38	72	228,933		5,842	229,716	15

Note: ND indicates no data.

[a] Fish landed and sold under the department's program receipt authority are listed as "test fishery" and not included in vessels or landings.

[b] Pot gear defined as a legal gear type in the PWS sablefish fishery in 2005.

[c] Average 1996–2014.

PROPOSAL 26 – 5 AAC 28.263. Prince William Sound Pollock Management Plan.

PROPOSED BY: Bill Fejes for Polar Seafoods.

WHAT WOULD THE PROPOSAL DO? This proposal would establish a trip limit of 200,000 lb and prohibit use of tenders during the PWS walleye pollock pelagic trawl fishery.

WHAT ARE THE CURRENT REGULATIONS? The PWS walleye pollock pelagic trawl fishery harvest limit is 300,000 lb per trip (5 AAC 28.073). Tenders are limited to possessing no more than 600,000 lb of unprocessed walleye pollock onboard in a single calendar day (5 AAC 28.073).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The fishery would be prosecuted at a slower pace because fishermen would be required to stop fishing and offload after retaining 200,000 lb of walleye pollock in a given trip. The slower pace could facilitate more timely management decisions in regards to bycatch limits. Increased transit times and fuel costs would be significant, especially for the majority of the fleet that deliver their harvest to Kodiak processors. Kodiak is 275 miles away from central PWS.

BACKGROUND: The walleye pollock pelagic trawl fishery begins January 20, which coincides with the opening of federal Gulf of Alaska walleye pollock trawl fishery. Harvest in this state-waters fishery has ranged between a high of 6.33 million lb in 1995 and 1.40 million lb in 2008 (Table 26-1). Annual participation has ranged from fewer than 3 vessels to 19 vessels. Vessel participation has been high in recent years with 14 vessels participating in 2013 and 19 vessels in 2014, the highest levels in the history of the fishery. Although allowed by regulation, no tenders have participated in this fishery.

The length of the season has varied. In the earliest years of the fishery, the season lasted approximately one week (Table 26-1). Between 1999 and 2010, season length varied between 36 days and 84 days. The season has shortened in recent years (2011–2014) with the 2014 season only 7 days long. The average delivery size in the past 10 years was 261,812 lb with a high of 319,569 lb (over the trip limit) and a low of 25,198 lb, both in 2014.

In the 2014 season, all participating vessels except for one delivered their harvest to a processor in Kodiak; that one exception delivered to a processor in Seward, 90 miles from central PWS.

Although bycatch in this fishery is low relative to other groundfish fisheries, bycatch rates have sometimes warranted management measures; bycatch is shown in Table 26-2 as both pounds harvested and as a percentage of round weight of walleye pollock harvested. In 2002, there was a dramatic increase in bycatch rates for all species. At the following board meeting, the department committed to encourage cleaner fishing practices in the PWS walleye pollock fishery by apportioning the bycatch percentage to the following groups: rockfish (0.5%), salmon (0.04%), sharks (0.96%), squid (3.0%), and other species (0.5%). Inseason bycatch information is transmitted to the department but is not always very accurate and full accounting of bycatch may not be available until after the closure of the fishery, when all fish ticket data are reviewed.

In 2008, 2009, and 2014 the pollock fishery was closed because bycatch limits for rockfish were exceeded, and in 2014 the bycatch limit for squid was also exceeded.

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

COST ANALYSIS: Approval of this proposal could increase fuel costs for participants in the fishery.

Table 26-1.–Annual guideline harvest level (GHL), season length, number of vessels, and harvest from the PWS walleye pollock trawl fishery, 1995–2014.

Year	GHL (million lb)	Season days	Vessels	Harvest (lb)	Harvest (% of GHL)	Test fish (lb)
1995	2.1-4.4	26	9	6,325,575	144%	215,025
1996	3.1	5	11	3,265,740	106%	421,137
1997	3.9	8	10	4,319,707	98%	539,123
1998	3.9	7	11	4,031,725	102%	631,751
1999	4.6	36	6	4,673,074	106%	490,761
2000[a]	3.1	70	4	2,256,504	72%	366,724
2001	3.1	64	[b]	[b]	[b]	381,502
2002	3.8	70	3	2,364,143	62%	177,071
2003	3.8	84	3	2,421,773	55%	54,224
2004	2.0	68	3	1,928,458	95%	400,677
2005	2.0	48	6	1,677,157	38%	317,183
2006	3.6	58	8	3,486,449	96%	590
2007	3.6	69	5	2,339,978	53%	259,155
2008	3.6	56	5	1,395,933	38%	0
2009	3.6	60	8	3,249,441	74%	300,806
2010	3.6	42	11	3,662,919	101%	311,853
2011	3.6	17	7	3,377,325	77%	339,683
2012	6.1	24	9	5,785,295	95%	0
2013	5.8	14	14	5,770,151	100%	496,856
2014	8.6	7	19	5,220,121	61%	0
Average 2000–2014	4.0	50	7	3,210,338	73%	299,768

[a] Walleye pollock harvest sections were created in 2000.
[b] Confidential information.

Table 26-2.–Walleye pollock harvest and bycatch by species or group in the PWS pollock fishery, 1995–2014.

		Reported bycatch [a,b]											
Year	Pollock harvest	Rockfish		Salmon		Shark		Squid		Misc.		Total bycatch	
		lb	%	lb	%	lb	%	lb	%	lb	%	lb	%
1995	6,325,575	67	0.00%	76	0.00%	378	0.01%	1,346	0.02%	5,135	0.08%	7,002	0.11%
1996	3,265,552	0	0.00%	0	0.00%	2,724	0.08%	437	0.01%	3,836	0.12%	6,997	0.21%
1997	4,319,707	12	0.00%	42	0.00%	648	0.02%	17,016	0.39%	2,076	0.05%	19,794	0.46%
1998	4,013,725	10	0.00%	285	0.01%	7,825	0.19%	21,663	0.54%	11,909	0.30%	41,692	1.04%
1999	4,673,074	260	0.01%	2,088	0.04%	14,022	0.30%	5,968	0.13%	2,727	0.06%	25,065	0.54%
2000	2,256,504	1,368	0.06%	535	0.02%	2,024	0.09%	5,487	0.24%	974	0.04%	10,388	0.46%
2001	3,128,036	4,031	0.13%	372	0.01%	4,061	0.13%	30,499	0.98%	1,594	0.05%	40,557	1.30%
2002	2,364,143	28,993	1.23%	1,262	0.05%	52,480	2.22%	179,933	7.61%	3,431	0.15%	266,099	11.26%
2003	2,421,772	3,824	0.16%	189	0.01%	7,254	0.30%	20,417	0.84%	8,319	0.34%	40,003	1.65%
2004	1,928,458	2,086	0.11%	151	0.01%	3,148	0.16%	10,890	0.56%	3,848	0.20%	20,123	1.04%
2005	1,677,157	8,289	0.49%	775	0.05%	11,483	0.68%	6,044	0.36%	9,841	0.59%	36,432	2.17%
2006	3,486,499	11,303	0.32%	635	0.02%	3,461	0.10%	31,813	0.91%	17,846	0.51%	65,058	1.87%
2007	2,339,978	10,262	0.44%	836	0.04%	2,650	0.11%	11,155	0.48%	2,233	0.10%	27,136	1.16%
2008	1,395,933	20,790	1.49%	48	0.00%	1,550	0.11%	30,619	2.19%	1,066	0.08%	54,073	3.87%
2009	3,249,441	21,093	0.65%	142	0.00%	19,101	0.59%	15,747	0.48%	14,115	0.43%	70,199	2.16%
2010	3,662,919	3,594	0.10%	223	0.01%	3,133	0.09%	17,052	0.47%	21,854	0.60%	45,856	1.25%
2011	3,377,325	5,290	0.16%	50	0.00%	411	0.01%	15,006	0.44%	2,410	0.07%	23,167	0.69%
2012	5,785,295	16,904	0.29%	1,431	0.02%	1,810	0.03%	8,123	0.14%	12,682	0.22%	40,950	0.71%
2013	5,779,241	27,824	0.48%	61	0.00%	3,230	0.06%	86,116	1.49%	3,401	0.06%	120,632	2.09%
2014	5,220,121	67,446	1.29%	260	0.00%	526	0.01%	171,946	3.29%	24,322	0.47%	264,500	5.07%

[a] Includes at-sea discards.
[b] Test fish not included.

PROPOSAL 27 – 5 AAC XXX. Prince William Sound Pollock Management Plan.

PROPOSED BY: Northwest and Alaska Seiners' Association.

WHAT WOULD THE PROPOSAL DO? This proposal would create a commercial walleye pollock fishery in PWS using purse seine and jig gear. The proposal does not indicate how the GHL would be allocated or calculated pertaining to the different sections.

WHAT ARE THE CURRENT REGULATIONS? Current regulations allow for a directed pelagic trawl fishery from January 20, which coincides with the opening of federal Gulf of Alaska walleye pollock trawl fishery, through March 31. This fishery occurs in three defined sections of PWS and no more than 60% of the harvest may come out of any one section. Additionally, regulations allow only 5% of the total weight of the harvest to be bycatch (5 AAC 28.263 (d)), and the department has further allocated percentages for rockfish, salmon, sharks, squid, and miscellaneous species.

Walleye pollock may also be retained as bycatch to other fisheries. Under regulation 5 AAC 28.270 (b), walleye pollock may be retained with jig or hand troll during a state-waters Pacific cod season. For lingcod, sablefish, and halibut fisheries occurring in PWS, walleye pollock may be retained as bycatch up to 20%, by round weight, of directed groundfish species on board the vessel.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would likely decrease harvest of walleye pollock by vessels using pelagic trawl gear, and influence bycatch rates of other species to an unknown amount.

BACKGROUND: The only state-waters walleye pollock fishery in Alaska occurs in PWS: there are no established walleye pollock purse seine or jig fisheries in Alaska. The GHL for the walleye pollock trawl fishery is deducted from the combined federal Western, Central, and West Yakutat Gulf of Alaska regulatory areas (W/C/WYAK) acceptable biological catch, which is determined by annual surveys conducted by National Marine Fisheries Service (Table 27-1).

Proposals to develop other state waters fisheries for walleye pollock were brought forward in the 2013–2014 board cycle, but the board tabled these proposals until more information becomes available. A Gulf of Alaska Pollock Workgroup was formed with federal, state, and stakeholder participants to explore the development of state waters purse seine and jig fisheries for walleye pollock. In 2014, department staff in Kodiak made available commissioner's permits for walleye pollock which allowed limited purse seine and jig fishing opportunity in order to determine if these gear types were effective for harvesting walleye pollock. As of October 1, forty-six permits have been issued to jig fishermen and none to purse seine fishermen.

Harvest in the PWS state-waters fishery has ranged from 1.40 million lb in 2008 to a high of 6.33 million lb in 1995 (Table 27-1). Average harvest from 2000–2014 was 3.21 million lb, and harvest from 2012–2014 averaged 5.6 million lb, the highest level since the first year of the fishery. Nineteen vessels participated in the 2014 season and the fishery was open for 7 days. In some years, bycatch has been an issue in the walleye pollock pelagic trawl fishery and caused the

department to close the fishery early. In the most recent season, and in other seasons, this closure has left some of the GHL unharvested. It is unclear what bycatch levels will be with jig or seine gear.

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 27-1.–Annual GHL, season length, number of vessels, and harvest from the PWS directed walleye pollock trawl fishery, 1995–2014.

Year	GHL (million lb)	Season days	Vessels	Harvest (lb)	Harvest (% of GHL)	Test fish (lb)
1995	2.1-4.4	26	9	6,325,575	144%	215,025
1996	3.1	5	11	3,265,740	106%	421,137
1997	3.9	8	10	4,319,707	98%	539,123
1998	3.9	7	11	4,031,725	102%	631,751
1999	4.6	36	6	4,673,074	106%	490,761
2000[a]	3.1	70	4	2,256,504	72%	366,724
2001	3.1	64	[b]	[b]	[b]	381,502
2002	3.8	70	3	2,364,143	62%	177,071
2003	3.8	84	3	2,421,773	55%	54,224
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2005	2.0	48	6	1,677,157	38%	317,183
2006	3.6	58	8	3,486,449	96%	590
2007	3.6	69	5	2,339,978	53%	259,155
2008	3.6	56	5	1,395,933	38%	0
2009	3.6	60	8	3,249,441	74%	300,806
2010	3.6	42	11	3,662,919	101%	311,853
2011	3.6	17	7	3,377,325	77%	339,683
2012	6.1	24	9	5,785,295	95%	0
2013	5.8	14	14	5,770,151	100%	496,856
2014	8.6	7	19	5,220,121	61%	0
Average 2000–2014	4.0	50	7	3,210,338	73%	299,768

[a] Walleye pollock harvest sections were created in 2000.
[b] Confidential information.

PROPOSAL 28 – 5 AAC 28.265. Prince William Sound Rockfish Management Plan.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would decrease the amount of rockfish bycatch retainable by fishery participants for profit in the Pacific cod parallel season from 10% to 5% of the directed harvest, and specify that the amount of rockfish bycatch retainable for profit in the directed pelagic walleye pollock trawl fishery would be 0.50% of the directed harvest.

WHAT ARE THE CURRENT REGULATIONS? The PWS commercial rockfish fishery has a GHL of 150,000 lb, and has been a bycatch-only fishery with mandatory retention since 2000. Rockfish may only be commercially harvested as bycatch while participating in another directed fishery, and all rockfish caught must be retained. A trip limit of no more than 3,000 lb of all rockfish species combined within five consecutive days is specified. Bycatch limits are set as a percentage by weight of the directed species on board and vary by fishery and/or season. The bycatch limits for rockfish refer to the amount retainable by fishery participants for profit, with any proceeds from the sale of rockfish over the bycatch limit being surrendered to the state. The amount of rockfish retainable for profit is generally limited to 10% for all directed fisheries not named in the management plan, which includes both the parallel Pacific cod season and the directed walleye pollock trawl fishery. The state-waters Pacific cod season is specifically limited to 5% rockfish bycatch and the sablefish fishery is specifically limited to 20%.

The *Prince William Sound Pollock Pelagic Trawl Management Plan* (5 AAC 28.263) limits bycatch in the directed walleye pollock trawl fishery to no more than 5% total bycatch of all species. Management of the walleye pollock fishery has included an internal cap of 0.50% rockfish as part of the 5% bycatch aggregate.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Between 2007 and 2014 (to date), an average of two landings each year have exceeded the proposed 5% bycatch limit. Vessels participating in the parallel Pacific cod season would still be required to retain all rockfish caught and any proceeds from the sale of rockfish over the 5% bycatch limit will be surrendered to the state. Restricting both Pacific cod seasons to 5% rockfish bycatch will provide consistency in the regulations, without significantly impacting the fishery.

Rockfish bycatch retainable for profit in the PWS pelagic walleye pollock trawl fishery is currently constrained by the 3,000 lb trip limit specified in the rockfish management plan. Because the average walleye pollock landing over the last 10 years has been 261,812 lb, the rockfish bycatch retainable for profit will be reduced from 3,000 lb to 0.5% of the round weight of walleye pollock on board. The directed walleye pollock fishery is already liable to management actions when the 0.5% rockfish bycatch limit is exceeded. Having this limit clearly defined in the rockfish management plan will benefit fishery managers, participants, and enforcement.

BACKGROUND: The bycatch limits in the rockfish management plan are meant to be set high enough to not constrain the directed fishery while at the same time low enough to discourage topping off behavior. Additionally, bycatch limits are intended to provide an incentive to move to another area when fishing in areas of higher than average rockfish bycatch.

The parallel and state-waters Pacific cod seasons occur in the same waters with identical gear types, and therefore the basic rate of rockfish bycatch should be similar. Over the last five years (2009–2013), the average percentage of rockfish retained has been 3.2% in the parallel season and 2.1% in the state-waters season, with an average harvest of 8,558 lb (6% of the GHL) in the parallel season and 26,105 lb (17% of the GHL) in the state-waters season (Table 28-1).

The average walleye pollock landing over the last 10 years has been 261,812 lb, and therefore the trip limit of 3,000 lb rockfish specified in the rockfish management plan has been used to assess rockfish bycatch overages. This rockfish trip limit is still at least twice as high as the 0.5% rockfish bycatch cap, which the department has managed for since 2003. Over the last five years (2009–2013), the average percentage of rockfish retained has been 0.33%, which equates to 14,889 lb or 10% of the PWS total rockfish GHL. The 2014 walleye pollock pelagic trawl fishery retained 1.29% rockfish, which exceeded the 0.5% rockfish bycatch limit, and harvested 67,466 lb of rockfish, or 45% of the 150,000 lb GHL. In 2008, 2009, and 2014, the walleye pollock fishery was closed because the 0.50% bycatch limit for rockfish was exceeded.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. Rockfish are harvested as bycatch by all directed groundfish and halibut fisheries in PWS and limits must be clearly and consistently set. In 2014, the GHL was achieved on September 26 for the first time since the fishery became bycatch-only in 2000, and in 2013 the harvest came within 900 lb of the GHL.

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 28-1. Rockfish bycatch in the Pacific cod and walleye pollock fisheries, bycatch as a percentage of directed species, and bycatch as a percentage of the 150,000 lb rockfish GHL, 2007–2013.

	Pacific cod						Walleye pollock		
	Parallel season			State-waters season			Directed pelagic trawl		
Year	Rockfish bycatch(lb)	% Rockfish	% of GHL	Rockfish bycatch(lb)	% Rockfish	% of GHL	Rockfish bycatch(lb)	% Rockfish	% of GHL
2007	1,266	2.4%	0.8%	0	0.0%	0.0%	10,262	0.44%	6.8%
2008	109	0.3%	0.1%	5	0.1%	0.0%	20,790	1.49%	13.9%
2009	1,581	1.5%	1.1%	11,131	1.6%	7.4%	20,831	0.64%	13.9%
2010	3,209	5.8%	2.1%	12,207	1.5%	8.1%	3,594	0.10%	2.4%
2011	14,184	4.2%	9.5%	38,345	2.4%	25.6%	5,290	0.16%	3.5%
2012	11,057	2.8%	7.4%	30,369	2.2%	20.2%	16,904	0.29%	11.3%
2013	15,907	2.0%	10.6%	38,475	3.0%	25.6%	27,824	0.48%	18.5%
2014[a]	4,740	1.2%	3.2%	28,282	2.1%	18.9%	67,466	1.29%	45.0%
Average 2009–2013	8,558	3.2%	5.7%	26,105	2.1%	17.4%	14,889	0.33%	9.9%

[a]2014 data through September 22.

PROPOSAL 29 – 5 AAC 28.265. Prince William Sound Rockfish Management Plan.

PROPOSED BY: Jon Van Hyning.

WHAT WOULD THE PROPOSAL DO? This proposal would, for gear sets below 150 fathoms in depth in the sablefish fishery, require the retention of rockfish, remove all rockfish bycatch limits, and remove the requirement designating that proceeds from the sale of rockfish in excess of bycatch limits be forfeited to the state.

WHAT ARE THE CURRENT REGULATIONS? All rockfish must be retained when commercial fishing in a directed groundfish fishery in the PWS Management Area. Bycatch allowances have been established for rockfish in the following directed fisheries: 20% to directed sablefish, 5% to directed state-waters Pacific cod, and 10% to all other directed species. All rockfish in excess of the allowances must be reported as a bycatch overage. Proceeds from any overage are surrendered to the state. A vessel may not land or have on board more than 3,000 lb of rockfish within five consecutive days. The GHL for all rockfish species combined is 150,000 lb (round weight).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Bycatch allowances would be eliminated for gear set below 150 fathoms in depth during the sablefish fishery. This would likely increase the amount of rockfish harvested.

BACKGROUND: The department does not assess rockfish abundance in PWS. The current 150,000 lb GHL dates to 1992 when rockfish could be commercially targeted. Most commercial harvest is bycatch to longline harvest of commercial halibut, sablefish, and Pacific cod; the balance is taken by pelagic trawl gear during the walleye pollock fishery and by jig gear. Rockfish bycatch limits are intended to provide an incentive to move to another area when fishing in areas of higher rockfish bycatch.

The CFEC began a limited entry program for PWS sablefish in 1996. There are 61 longline/pot permits and a single net (trawl) permits in the fishery. Beginning in 1997, the rockfish bycatch was set at 10% for all groundfish fisheries and in 1998 and 1999 the department increased the rockfish bycatch limit to 20% for the sablefish fishery to accommodate demonstrated levels of bycatch. The board adopted the 20% limit into regulation in 2000. Rockfish harvest reported as bycatch in the longline sablefish fishery totaled approximately 23,756 lb in 2014 (Table 29-1). The recent 5-year average proportion of rockfish bycatch to sablefish harvest is 17%, and preliminary data for 2014 indicate 25%. Available harvest data indicate that although individual landings may exceed the 20% rockfish bycatch allowance to sablefish, at the fishery level, the allowance is seldom exceeded. In the 2013 season, the total rockfish GHL was within 900 lb of being achieved and was achieved in 2014 (Table 29-2).

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. During the 2013 and 2014 fishing seasons, the rockfish GHL of 150,000 lb was essentially met. Increasing the rockfish bycatch allowance is unwarranted and could trigger restrictions in other fisheries to ensure that the rockfish GHL is not exceeded.

The department does not have any information on potential linkage between shrimp and rockfish populations in PWS. The department tracks harvest data by statistical areas in PWS. The department has no evidence that there are large rockfish populations deeper than 150 fathoms that are preying on shrimp populations. Spot shrimp generally occur between 25 fathoms and 75 fathoms in PWS and are rarely found at depths of 150 fathoms. The annual PWS pot shrimp survey shows no evidence of localized depletion of spot shrimp populations and catch per unit effort has increased since the late 1990s (Figure 29-1). Shrimp trawl survey information from the Port Wells area, where all harvest occurs deeper than 150 fathoms, indicates a stable, healthy sidestripe shrimp population during the last four years (Figure 29-2). Commercial shrimp harvests from both the pot and trawl fisheries indicate healthy populations in PWS.

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 29-1.–Sablefish harvest, total bycatch allowance, and rockfish bycatch as a proportion of longline sablefish harvest from the PWS sablefish fishery, 2006–2014.

Year	Sablefish harvest (lb)	Rockfish bycatch	Rockfish bycatch %
2006	167,535	20,781	12.4%
2007	198,818	25,179	12.7%
2008	206,012	35,348	17.2%
2009	216,198	40,495	18.7%
2010	208,221	51,126	24.6%
2011	222,099	35,252	15.9%
2012	203,824	23,164	11.4%
2013	155,448	23,950	15.4%
2014	96,726	23,756	25.0%

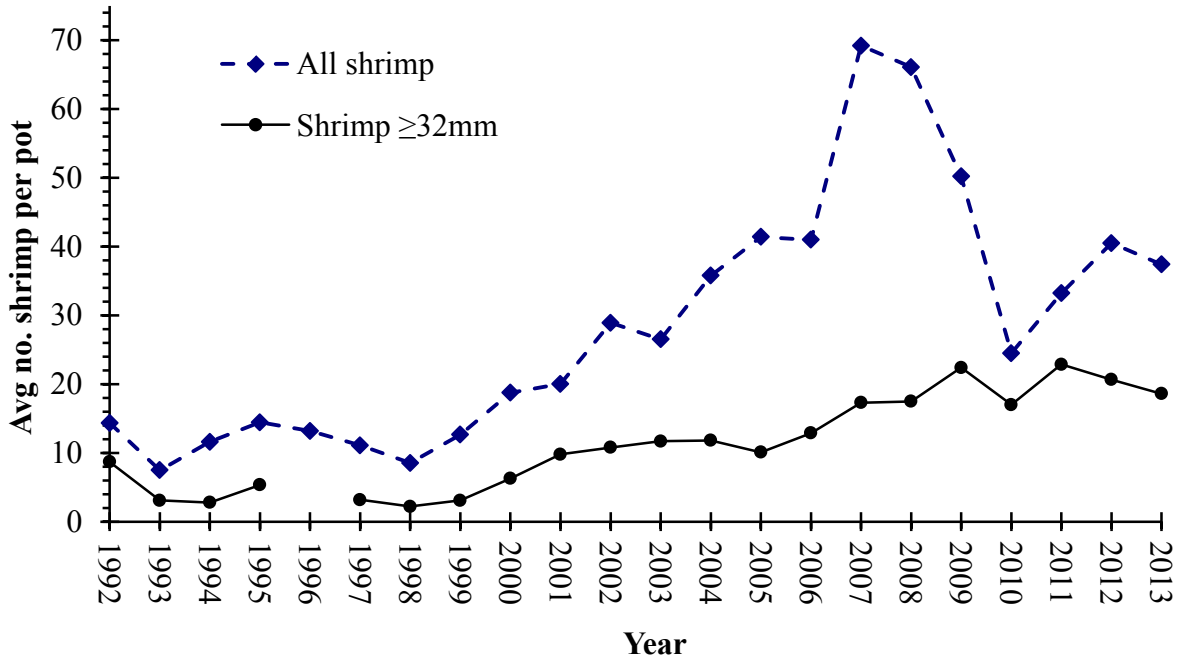

Figure 29-1.–Catch per unit effort of shrimp from annual PWS pot shrimp survey from 1992–2013.

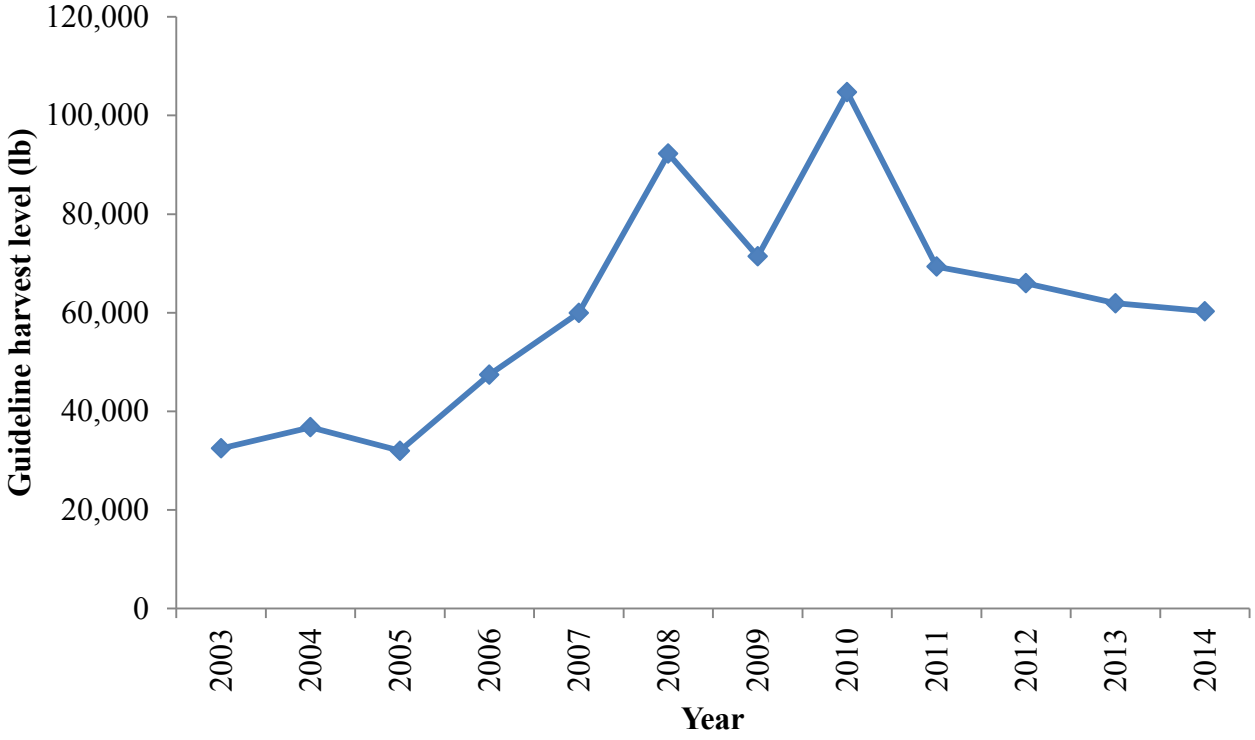

Figure 29-2.–Sidestripe shrimp GHL in the PWS Wells Section of the shrimp trawl fishery, where all harvest occurs below 150 fathoms, from 2003–2014.

Table 29-2.–Commercial effort and harvest of rockfish from the Inside and Outside districts and black rockfish from federal waters of the PWS Area, 1988–2014.

	Inside District			Outside District			Total
Year	Vessels	Landings	Harvest (lb)	Vessels	Landings	Harvest (lb)	pounds
1988	64	170	113,253	18	25	313,489	426,742
1989	35	95	93,307	7	8	25,124	118,431
1990	93	391	489,154	10	11	17,314	506,468
1991	88	239	153,889	6	6	2,762	156,650
1992	106	275	178,621	16	24	12,882	191,503
1993	67	183	81,095	20	33	27,478	108,573
1994	65	160	97,710	31	51	104,670	202,380
1995	122	211	153,107	35	60	156,839	309,946
1996	86	208	108,372	31	51	76,315	184,686
1997	90	234	136,593	26	36	29,245	165,838
1998	80	198	100,120	13	23	8,914	109,034
1999	81	214	60,539	21	31	11,447	71,987
2000	97	260	111,171	18	31	10,749	121,919
2001	94	205	60,597	17	37	13,485	74,082
2002	81	161	67,242	13	26	7,369	74,612
2003	72	168	35,240	30	58	12,751	47,990
2004	61	149	40,582	23	47	12,219	52,801
2005	72	166	47,528	17	47	13,322	60,850
2006	91	167	61,095	22	51	15,176	76,271
2007	59	165	66,322	25	57	15,282	81,604
2008	60	162	92,166	18	47	14,019	106,585
2009	70	200	96,538	37	68	21,657	118,196
2010	71	212	89,962	32	55	14,939	104,900
2011	66	188	96,511	36	53	22,244	118,755
2012	73	191	90,721	28	60	23,155	113,877
2013	76	232	134,988	22	49	14,586	149,161
2014[a]	70	156	137,092	31	47	13,573	150,665
Average[b]	78	200	108,857	22	40	38,366	148,229
Percent of Total			73%			26%	

[a] Through September 26, 2014.
[b] Average through 2013.

PROPOSAL 30 – 5 AAC 28.267. Prince William Sound Pacific Cod Management Plan.

PROPOSED BY: Rod Jensen.

WHAT WOULD THE PROPOSAL DO? This proposal would remove the provision in the *Prince William Sound Pacific Cod Management Plan* to close pot fishing for Pacific cod after 90% of the GHL has been harvested. It would combine a 15% allocation for jig and pot gear. If jig and pot gear achieved the allocation in a year, the allocation would increase by 5% annually to a maximum allocation of 30% of the state-waters GHL. Inversely, if the jig and pot gear allocation was not achieved in a year, the allocation would decrease by 5% annually to a minimum of 15% of the state-waters GHL.

WHAT ARE THE CURRENT REGULATIONS? The state-waters season is managed for a GHL that is calculated annually as 25% of the federal EGOA Pacific cod ABC. The PWS state-waters Pacific cod season opens to jig gear (mechanical or hand troll) 24 hours following the closure of the parallel season for jig gear, and closes when: 1) the GHL is achieved, 2) a parallel season for jig gear is opened, or 3) on December 31, whichever occurs first. The state-waters season opens to longline gear 7 days following the closure of the parallel longline season or concurrent with the individual fishing quota halibut season opening date, whichever occurs later, and closes when: 1) 85% of the GHL is achieved, 2) a parallel season for longline is opened, or 3) December 31, whichever occurs first. The state-waters season opens to pot gear 24 hours following the closure of the parallel season for pot gear, and closes when: 1) 90% of the GHL is achieved, 2) a parallel season for pot gear is opened, or 3) on December 31, whichever occurs first.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? The state-waters Pacific cod season would still close to longline gear at 85% of the GHL, but jig and pot gear would remain open until the GHL was achieved. This action may increase the harvest of Pacific cod in the pot and jig fisheries. The proposal would also decrease the allocation of Pacific cod in the longline fishery by 5% annually to a minimum of 70% if the combined jig and pot fisheries achieve their allocation in any given year.

BACKGROUND: The PWS Pacific cod state-waters seasons were first prosecuted in 1997 and were only open to pot and jig gear until 2009 when longline was added as a legal gear type. In the early years of the fishery, pot gear harvested up to 45% of the GHL, peaking at 385,817 lb in 1998, and declining to 0 lb in 2001 (Table 30-1). Jig harvest peaked in 1999 at 79,147 lb before declining to 1% in 2008. In 2003, the board reduced the PWS state-waters Pacific cod GHL from 25% to 10% of the federal EGOA Pacific cod ABC and provided for the GHL to increase to 15% and then 25% following years when the entire GHL was harvested. In 2009, longline became a legal gear type and the GHL was achieved in 13 days, with all of the harvest by longline gear, and which was the first time the GHL had been achieved since the fishery began. These harvests triggered step-up provisions which increased the GHL to 15% of the federal EGOA Pacific cod ABC in 2010 and to 25% of the federal EGOA Pacific cod ABC in 2011, when the harvest peaked at 1,594,590 lb.

The 2012 PWS state-waters seasons were the first prosecuted with staggered opening dates in response to federal gear sector splits. The 2012 state-waters jig season opened on March 7 and closed June 10 when the parallel "B" season opened, then reopened on June 29 and remained open through December 31. The state-waters pot and longline sectors both closed to harvest when 90% and 85% of the GHL was harvested, respectively.

Current regulations allow for 10% state-waters GHL to be caught by the jig fleet if the other sectors stay within allocation. In 2012, longline gear harvest exceeded the 85% level (actual harvest was 96% of the GHL), leaving a small amount for jig gear to harvest; the season remained open to jig gear until the regulatory closure of December 31. In the following 2013 and 2014 seasons, the parallel jig season remained open throughout the year; therefore, the state-waters jig season never opened.

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 30-1.–PWS state-waters commercial Pacific cod harvest by gear type (lb), number of vessels and landings, GHL, 1997–2014.

				Harvest (lb)[a]			
Year	Vessels	Landings	GHL	Longline	Pot	Jig[b]	Total
1997	9	36	880,000	ND	192,142	8,378	200,520
1998	9	33	860,000	ND	385,817	33,177	418,994
1999	7	27	930,000	ND	314,987	79,147	394,134
2000	12	36	2,950,000	ND	268,765	22,377	291,142
2001	3	3	2,620,000	ND	0	228	228
2002	0	0	1,900,000	ND	0	0	0
2003	[c]	4	750,000	ND	[c]	0	[c]
2004	[c]	6	970,000	ND	[c]	0	[c]
2005	[c]	3	897,000	ND	[c]	0	[c]
2006	[c]	7	911,000	ND	[c]	[c]	[c]
2007	3	20	911,000	ND	[c]	[c]	345,684
2008	4	6	586,000	ND	[c]	[c]	7,557
2009[d]	19	37	487,746	704,866	0	0	704,866
2010	24	45	784,735	822,747	[c]	[c]	825,226
2011[e]	25	63	1,435,195	1,594,590	0	0	1,594,590
2012[f]	38	70	1,448,437	1,395,483	0	[c]	1,395,483[g]
2013	25	77	1,781,335	1,275,245	0	0	1,275,245
2014[h]	30	59	1,463,318	1,328,486	0	0	1,328,486

Note: ND indicates no data.

[a] Harvest is reported in round pounds.
[b] Includes mechanical jig and hand troll.
[c] Confidential data due to limited number of participants.
[d] Longline first became an allowable gear type for the PWS state-waters season.
[e] Achieved maximum GHL allocation of 25% of EGOA Pacific cod ABC.
[f] Regulatory change implemented to close season to longline gear when 85% of GHL attained.
[g] Total harvest does not include confidential data.
[h] Preliminary data through July 5, 2014; state-waters season has not opened to jig gear in 2014.

PROPOSAL 31 – 5 AAC 28.206. Prince William Sound Area registration; and 5 AAC 28.267. Prince William Sound Pacific Cod Management Plan.

PROPOSED BY: Gregory R. Gabriel, Jr.

WHAT WOULD THE PROPOSAL DO? This proposal would make the PWS Area a nonexclusive registration area for Pacific cod during a state-waters jig season. It would also allocate 10% of the state-waters GHL to the jig fishery until June 10, after which any remaining GHL would become available to the pot and longline fisheries.

WHAT ARE THE CURRENT REGULATIONS? PWS is an exclusive registration area for Pacific cod during a state-waters season. A vessel that has been registered to harvest Pacific cod in an exclusive registration area may not be used to harvest Pacific cod in any other exclusive registration area during the same registration year. The state-waters season is managed for a GHL that is calculated annually as 25% of the federal EGOA Pacific cod ABC.

The PWS state-waters Pacific cod season opens to jig gear 24 hours following the closure of the parallel season for jig gear, and closes when: 1) the GHL is achieved, 2) a parallel season for jig gear is opened, or 3) on December 31, whichever occurs first. The state-waters season opens to longline gear 7 days following the closure of the parallel longline season or concurrent with the individual fishing quota halibut season opening date, whichever occurs later, and closes when: 1) 85% of the GHL is achieved, 2) a parallel season for longline is opened, or 3) December 31, whichever occurs first. The state-waters season opens to pot gear 24 hours following the closure of the parallel season for pot gear, and closes when: 1) 90% of the GHL is achieved, 2) a parallel season for pot gear is opened, or 3) on December 31, whichever occurs first.

If there is any GHL remaining on September 1, the season may be reopened to all legal gear types. After October 30, if the GHL is not expected to be reached by December 31, gear limits may be lifted and the PWS area may be designated as a nonexclusive registration area for Pacific cod.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If PWS becomes nonexclusive for a state-waters Pacific cod season, a vessel could fish for Pacific cod in other nonexclusive and exclusive management areas during the same registration year. In addition, 10% of the GHL would be specifically allocated to jig gear only until June 10.

BACKGROUND: The PWS Pacific cod state-waters seasons were first prosecuted in 1997 and were open only to pot and jig gear until 2009 when longline was added as a legal gear type. From 1997–2008, the GHL was never achieved; a maximum of 48.7% was taken in 1998 (Table 31-1). Maximum participation by vessels fishing with jig gear occurred between 1998 and 2000 with five vessels fishing and a peak harvest of 79,147 lb in 1999. In 2003, the board reduced the PWS state-waters Pacific cod season GHL from 25% to 10% of the estimated ABC of Pacific cod for the EGOA and provided for the GHL to subsequently increase to 15% and then 25% following years when the GHL was harvested. The GHL was not harvested until new regulations adopted by the board in 2008 added longline as a legal gear type. Following this, the GHL was achieved

each year from 2009 to 2011, with almost all harvest taken by longline. This resulted in GHL increases to the current 25% maximum.

The 2012 PWS state-waters seasons were the first prosecuted with staggered opening dates in response to federal gear sector splits. The 2012 state-waters jig season opened on March 7 and closed June 10 when the parallel "B" season opened, then reopened on June 29 and remained open through December 31. The state-waters pot and longline seasons both closed to harvest when 90% and 85% of the GHL was harvested, respectively.

Current regulations set aside 10% of the state-waters GHL for harvest by the jig fleet, but in 2012 harvest by pot and longline gear exceeded the 90% level (actual harvest was 96% of the GHL), which left a small amount (52,594 lb) of Pacific cod for jig gear to harvest. Two jig vessels participated and although their harvest remains confidential, the GHL was not achieved (Table 31-1). In 2013 and 2014 (to date), the parallel jig season harvest has not been achieved. Therefore, the parallel season remained open throughout the year. Participation by jig vessels remained low, with just one vessel in 2013 and no vessels in 2014. The state-waters season never opened to jig gear because the parallel season remained open.

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 31-1.–Annual effort, guideline harvest level (GHL), and harvest by gear type of Pacific cod from the PWS state-waters season, 1997–2014.

				Harvest (lb)[a]			
Year	Vessels	Landings	GHL	Longline	Pot	Jig[b]	Total
1997	9	36	880,000	ND	192,142	8,378	200,520
1998	9	33	860,000	ND	385,817	33,177	418,994
1999	7	27	930,000	ND	314,987	79,147	394,134
2000	12	36	2,950,000	ND	268,765	22,377	291,142
2001	3	3	2,620,000	ND	0	228	228
2002	0	0	1,900,000	ND	0	0	0
2003	[c]	4	750,000	ND	[c]	0	[c]
2004	[c]	6	970,000	ND	[c]	0	[c]
2005	[c]	3	897,000	ND	[c]	0	[c]
2006	[c]	7	911,000	ND	[c]	[c]	[c]
2007	3	20	911,000	ND	[c]	[c]	345,684
2008	4	6	586,000	ND	[c]	[c]	7,557
2009[d]	19	37	487,746	704,866	0	0	704,866
2010	24	45	784,735	822,747	[c]	[c]	825,226
2011[e]	25	63	1,435,195	1,594,590	0	0	1,594,590
2012[f]	38	70	1,448,437	1,395,483	0	[c]	1,395,483[g]
2013	25	77	1,781,335	1,275,245	0	0	1,275,245
2014[h]	30	59	1,463,318	1,328,486	0	0	1,328,486

Note: ND indicates no data.

[a] Harvest is reported in round pounds.
[b] Includes mechanical jig and hand troll.
[c] Confidential data due to limited number of participants.
[d] Longline first became an allowable gear type for the PWS state-waters season.
[e] Achieved maximum GHL allocation of 25% of EGOA Pacific cod ABC.
[f] Regulatory change implemented to close season to longline gear when 85% of GHL attained.
[g] Total harvest does not include confidential data.
[h] Preliminary data through July 5, 2014; state-waters season has not opened to jig gear in 2014.

PROPOSAL 32 – 5 AAC 28.250. Closed waters in Prince William Sound Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would correct coordinates within the described closed waters section for groundfish at Zaikof Point.

WHAT ARE THE CURRENT REGULATIONS? Current regulations for groundfish in 5 AAC 28.250(a) describe the waters that are closed to commercial fishing for groundfish. Included in the descriptions are the coordinates for Zaikof Point.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would precisely define the coordinates for Zaikof Point in regulation.

BACKGROUND: Coordinates that define Zaikof Point in this regulation do not match those in 5 AAC 28.263, which were updated at the December 2011 board meeting.

DEPARTMENT COMMENTS: The department submitted this proposal, but withdraws its support. Since its submission, the regulation has been modified to comply with the statewide regulations through an administrative delegation.

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

COMMITTEE OF THE WHOLE–GROUP 4: ESCAPEMENT GOAL AND SUBSISTENCE/PERSONAL USE SALMON (11 PROPOSALS)

Escapement Goal (1 proposal): 33

PROPOSAL 33 – 5 AAC 24.361. Copper River King Salmon Management Plan.

PROPOSED BY: Fairbanks Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would create a biological escapement goal (BEG) of 28,000 king salmon for the Copper River.

WHAT ARE THE CURRENT REGULATIONS? The current lower bound SEG for Copper River king salmon is 24,000 or more, established in 2003. The current goal is referenced in 5 AAC 24.361. *Copper River Chinook Salmon Fisheries Management Plan.* There is currently no BEG for Copper River king salmon.

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

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

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

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

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

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

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would establish a point escapement goal that is higher than the current SEG by 4,000 king salmon. It would require the department to manage to achieve an escapement of 28,000 king salmon, rather than the SEG of 24,000 or more. Approval of this proposal may result in more conservative early-season management and may reduce opportunity in subsistence, commercial, personal use, and sport fisheries because additional escapement may be needed during low run years. Current information is insufficient to evaluate how yields will be affected by raising the goal to 28,000 king salmon.

BACKGROUND: At its 1996 meeting, the board adopted 5 AAC 24.361. *Copper River Chinook Salmon Fisheries Management Plan*, directing the department to reduce harvest potential of king salmon by 5% for the commercial, sport, and personal use user groups. At its 1999 meeting, the board added a spawning escapement goal of 28,000–55,000 king salmon to the CRKSP. At the 2002 board meeting, the spawning escapement goal of 28,000–55,000 was changed to a lower bound SEG of 24,000 or more king salmon.

In the 2005 escapement goal report, the evaluation team noted that the average escapement between 1980 and 2004, from a catch-age model, was approximately 26,000 king salmon and produced an average annual yield of about 48,000 fish. In 2002 and 2005, the escapement goal review team recommended the fisheries be managed to achieve the historical average escapement of approximately 26,000 king salmon. The review team recommended setting the lower escapement goal threshold at 24,000, slightly below the long-term average escapement, and removing the upper bound. This would keep the escapement near the historical average, and, because there is not an upper bound, would provide the potential opportunity to observe production effects from large escapements in the future.

During escapement goal reviews since 2005, the escapement goal committee has evaluated stock-recruit data, the percentile method, and habitat-based models as means of setting an escapement goal. There are only 15 escapement estimates available (1999–2013) and these estimates exhibit a low contrast (cover a narrow range) and therefore provide limited information

for estimating a stock-recruit relationship, and hence a BEG. Results from all three of the above analyses indicated the current lower bound SEG of 24,000 is a reasonable goal for ensuring high sustained yields and low risk of overfishing. Therefore, the escapement goal committee recommended the current goal remain unchanged. Harvest levels by affected user groups are shown in Figure 33-1 and Table 33-1 shows estimated king salmon spawning escapement relative to the spawning escapement goal range.

Since the king salmon lower bound SEG of 24,000 was established in December 2002, the goal has been met in nine out of 11 years (2003–2013), and the estimated annual escapement has averaged 31,010 fish.

DEPARTMENT COMMENTS: Department staff reviewed Copper River king salmon data as part of the 2014 escapement goal review and recommends maintaining the existing 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.

Table 33-1.–Copper River king salmon inriver abundance and escapement summary, 1999–2013.

Year	Estimate source[a]	Inriver abundance	Inriver harvest	Estimated spawning escapement	Spawning escapement goal	Spawning escapement vs. goal
1999	ADF&G	32,090	15,933	16,157	–[b]	–[b]
2000	ADF&G	38,047	13,555	24,492	28,000–55,000	Below
2001	ADF&G	39,778	11,570	28,208	28,000–55,000	Within
2002	ADF&G	32,873	11,371	21,502	28,000–55,000	Below
2003	NVE	44,764	10,730	34,034	24,000 or greater	Within
2004	NVE	40,564	9,919	30,645	24,000 or greater	Within
2005	NVE	30,333	8,805	21,528	24,000 or greater	Below
2006	NVE	67,789	9,335	58,454	24,000 or greater	Within
2007	NVE	46,349	11,774	34,575	24,000 or greater	Within
2008	NVE	41,343	8,856	32,487	24,000 or greater	Within
2009	NVE	32,401	4,614	27,787	24,000 or greater	Within
2010	NVE	22,323	5,559	16,764	24,000 or greater	Below
2011	NVE	33,889	5,895	27,994	24,000 or greater	Within
2012	NVE	31,452	3,617	27,835	24,000 or greater	Within
2013	NVE	32,581	3,569	29,012	24,000 or greater	Within

[a] Inriver abundance is estimated using mark-recapture methodology. Spawning escapement is then calculated by subtracting inriver harvest from the abundance estimate.

[b] No escapement goal for Copper River king salmon was established prior to 2000.

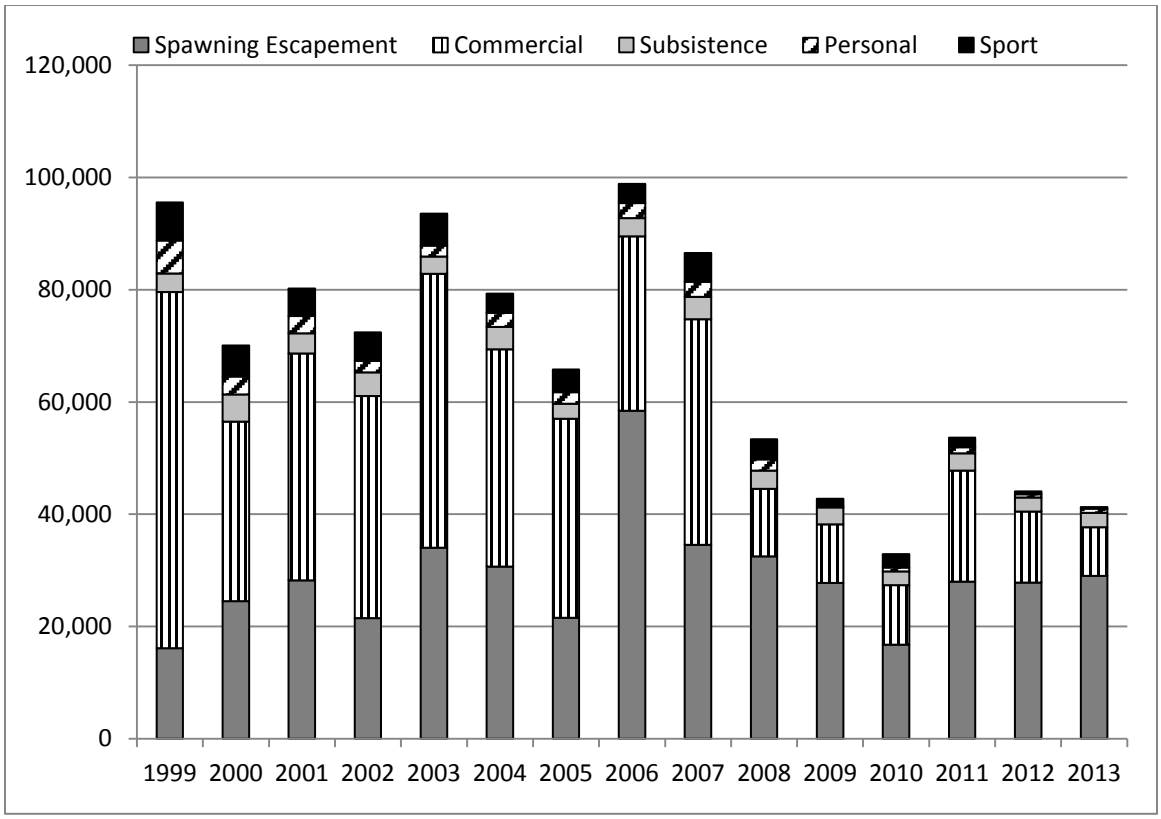

Figure 33-1.–Copper River king salmon escapement and harvest data (includes state and federal harvest), 1999–2013.

Subsistence/Personal Use Salmon (10 proposals): 34–43

PROPOSAL 34 – 5 AAC 24.361. Copper River King Salmon Management Plan.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would authorize the department, by emergency order, to establish a bag limit for king salmon taken with a fish wheel and reduce the bag limit for king salmon taken with either a fish wheel or dip net in the Glennallen subsistence fishery to ensure the Copper River king salmon sustainable escapement goal is met.

WHAT ARE THE CURRENT REGULATIONS? The bag and possession limit for king salmon in the Glennallen subsistence fishery is 5 fish if taken by dip net; there is no bag limit if taken by fish wheel. In order to achieve the sustainable escapement goal of 24,000 or more for king salmon the department may, by emergency order, close the season and immediately reopen a season during which the retention of king salmon is prohibited or methods and means are modified to reduce king salmon harvest.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would provide explicit authority needed to establish and alter bag limits for king salmon within the Glennallen subsistence fishery. This would reduce the overall harvest of Copper River king salmon while allowing a reduced level of king salmon harvest and continued harvest of other salmon by subsistence users.

BACKGROUND: The board adopted the CRKSP at its December 1996 meeting. The CRKSP specifically addressed management of the commercial, personal use, and sport fisheries of the Copper River. The CRKSP was updated and modified during subsequent board meetings in 1999, 2002, and 2005. In 2011, the board added language providing management options and clarity for the department to prohibit retention of king salmon in the Chitina personal use fishery and to prohibit retention of king salmon or modify methods and means in the Glennallen subsistence fishery if additional conservation measures are necessary to achieve the Copper River escapement goal. Although this additional authority provided increased management options for the department, further modification allowing the department to establish and modify bag limits will allow for continued subsistence opportunity if additional conservation measures are necessary.

Inseason restrictions on the harvest of king salmon have been implemented by emergency order in the Chitina personal use fishery every year since 2009 (Table 34-1). The Upper Copper River king salmon sport fisheries were restricted by emergency order in 2005 and each year from 2009–2014. The Copper River District commercial fishery was also restricted beyond regulatory requirement each year from 2009–2014. These actions in the personal use, sport, and commercial fisheries reduced king salmon harvest in these fisheries by approximately 60% and were made to ensure achievement of the escapement goal for king salmon in the Copper River drainage (Table 34-2). No actions have been implemented in the Glennallen subsistence fishery to reduce the harvest of king salmon.

The board has found that salmon stocks in the Glennallen Subdistrict are customarily and traditionally taken or used for subsistence (5 AAC 01.616(a)(1)). The board has found that in the Glennallen Subdistrict the following amounts are reasonably necessary for subsistence: in that portion from the southern boundary of the subdistrict at the downstream edge of the Chitina-McCarthy bridge upstream to the mouth of the Tonsina River, 25,500–39,000 salmon; in that portion from the mouth of the Tonsina River upstream to the mouth of the Gakona River, 23,500–31,000 salmon; and, in that portion from the mouth of the Gakona River upstream to the mouth of the Slana River, and the waters of the Copper River as described in 5 AAC 01.647(i)(3) (Batzulnetas), 12,000–12,500 salmon (5 AAC 01.616(b)(1)). There is a harvestable surplus of salmon. If the regulations provide a reasonable opportunity for success in subsistence fishing, and if other uses need to be further restricted, are board determinations.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. The proposed change provides an intermediate management option prior to closing the subsistence fishery to king salmon retention or reducing subsistence fishing time.

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

Table 34-1.–King salmon management actions in Upper Copper River sport and personal use fisheries, 2005–2014.

Year	Estimated spawning escapement[a]	Date	Chitina personal use fishery	Upper Copper River sport fishery[b]
2005	**21,528**	2-Jul		Reduced annual limit in Gulkana River drainage from four to one.
2009	27,787	8-Jun	Prohibited retention of king salmon.	
		16-Jun		Reduced annual limit in Upper Copper River drainage from four to two, with only one of the two king salmon allowed from any tributary or the Copper River mainstem.
		29-Jun		Closed the Gulkana River drainage to fishing for king salmon.
		27-Jul		Prohibited retention of king salmon in the Klutina River and prohibited the use of bait and treble hooks.
2010	**16,764**	21-Jun	Prohibited retention of king salmon.	Reduced annual limit in Upper Copper River drainage from four to two, with only one of the two king salmon allowed from any tributary or the Copper River mainstem.
2011	27,994	25-Jun		Reduced annual limit in Upper Copper River drainage from four to two, with only one of the two king salmon allowed from any tributary or the Copper River mainstem and prohibited retention in the Copper River drainage upstream of the Klutina River (including the Gulkana River).
		27-Jun	Prohibited retention of king salmon.	
2012	27,835	18-Jun	Prohibited retention of king salmon	
		30-Jun		Reduced annual limit in Upper Copper River drainage from four to one and prohibited retention of king salmon and the use of bait and treble hooks in the Gulkana River.
		28-Jul		Prohibited retention of king salmon and the use of bait and treble hooks in the Klutina River and the Upper Copper River drainage downstream of the Klutina River.
2013	29,012	15-Jun		Reduced annual limit in Upper Copper River drainage from four to one and prohibited retention of king salmon and the use of bait and treble hooks in the Gulkana River.
		24-Jun	Prohibited retention of king salmon	
2014	ND	14-Jun		Reduced annual limit in Upper Copper River drainage from four to one.
		16-Jun	Prohibited retention of king salmon	

Note: ND indicates no data.

[a] Spawning escapement numbers in bold are below the SEG of 24,000 king salmon or more.

[b] Upper Copper River sport fisheries include those of the Upper Copper River drainage upstream of Haley Creek.

Table 34-2.–Summary of king salmon run statistics in the Copper River, 1994–2013.

Year	Commercial harvest[a]	CRD subsistence harvest[b]	Sport harvest[c]	Glennallen subsistence harvest[d]	Chitina personal use harvest[d]	Total harvest	Upriver run estimate[e]	Estimated total run	Estimated spawning escapement
1994	47,812	164	6,431	1,989	3,743	60,139	33,258	81,234	ND
1995	67,363	154	6,709	1,892	4,707	80,825	51,700	119,217	ND
1996	57,815	276	9,116	1,482	3,584	72,273	54,114	112,205	ND
1997	52,516	200	8,346	2,583	5,447	69,092	40,923	93,639	ND
1998	70,238	295	8,245	1,842	6,723	87,343	46,403	116,936	ND
1999	63,508	353	6,742	3,278	5,913	79,794	32,090	95,951	16,157
2000	32,018	689	5,531	4,856	3,168	46,262	38,047	70,754	24,492
2001	40,551	826	4,904	3,553	3,113	52,947	39,778	81,155	28,208
2002	39,552	549	5,098	4,217	2,056	51,472	32,873	72,974	21,502
2003	49,031	710	5,717	3,092	1,921	60,471	44,764	94,505	34,034
2004	38,889	1,106	3,435	3,982	2,502	49,914	40,564	80,559	30,645
2005	35,764	260	4,093	2,618	2,094	44,829	30,333	66,357	21,528
2006	31,309	779	3,425	3,229	2,681	41,423	67,789	99,877	58,454
2007	40,276	1,145	5,113	3,939	2,722	53,195	46,349	87,770	34,575
2008	12,067	470	3,616	3,218	2,022	21,393	41,343	53,880	32,487
2009	10,394	212	1,355	3,036	223	15,220	32,401	43,007	27,787
2010	10,582	276	2,416	2,425	718	16,417	22,323	33,181	16,764
2011	19,788	212	1,753	3,062	1,080	25,895	33,889	53,889	27,994
2012	12,623	237	535	2,510	572	16,477	31,452	44,312	27,835
2013	9,445	854	285	2,522	762	13,868	32,581	42,880	29,012
Average 2009–2013	12,566	358	1,269	2,711	671	17,575	30,529	43,454	25,878
Average 2004–2013	22,114	555	2,603	3,054	1,538	29,863	37,902	60,571	30,708

Note: ND indicates no data.

[a] Includes commercial harvest plus home pack, donated, and educational harvests.

[b] Includes state and federal subsistence harvests in the Copper River District.

[c] Includes sport harvest in the Copper River Delta and the Upper Copper River upstream of Haley Creek.

[d] These data are expanded to reflect unreported state harvest and include reported federal harvest (2002–2004) and expanded federal harvest beginning in 2005.

[e] Prior to 1999 upriver returns were calculated by applying the percentage of king salmon in the Glennallen subsistence and Chitina personal use fisheries to the sonar count. Starting in 1999, upriver king salmon returns are estimated through a mark-recapture method.

PROPOSAL 35 – 5 AAC 01.647. Copper River Subsistence Salmon Fisheries Management Plans; 5 AAC 77.591. Copper River Personal Use Dip Net Salmon Fishery Management Plan.

PROPOSED BY: Aaron Bloomquist.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit the use of monofilament mesh in dip net bag webbing in Copper River subsistence and personal use fisheries.

WHAT ARE THE CURRENT REGULATIONS? Dip nets are legal gear in Upper Copper River District subsistence and personal use fisheries. A dip net is defined in statewide regulations as 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 the greatest straight-line distance, as measured through the net opening; no portion of the bag may be constructed of webbing that exceeds a stretch measurement of 4.5 inches; the frame must be attached to a single rigid handle and be operated by hand. There are no provisions specific to the type of material for net bags.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would create an exception to the statewide regulation for the Copper River Area. The proposal is unlikely to increase survival of released king salmon; based on observation during department assessment projects, tangling in dip nets is more a function of mesh size and depth of bag rather than net material. This proposal may reduce overall fishing efficiency, requiring subsistence and personal use dipnetters to fish longer to obtain the same number of fish.

BACKGROUND: In 1988, the board 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.

An SEG of 28,000–55,000 king salmon was implemented for the Copper River in 2000 and was adjusted to an SEG of 24,000 or more fish beginning in 2003. Since 2000, king salmon spawning escapement has averaged 29,665 fish and the SEG has been met in ten out of 14 years (Table 35-1).

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. Prohibiting monofilament mesh for use with a dip net in the Chitina personal use and Glennallen subsistence fisheries would create inconsistencies with the statewide regulation without a measurable biological benefit to the resource.

COST ANALYSIS: Approval of this proposal may result in an additional direct cost for a private person to participate in this fishery. A portion of permit holders participating in the Chitina personal use and Glennallen subsistence fishery participants use nets with bags made of monofilament web. They would have to purchase new net bags of nonmonofilament material.

SUBSISTENCE REGULATION REVIEW:

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

2. Is this stock customarily and traditionally taken or used for subsistence? The board has determined under 5 AAC 01.616(a)(1) that salmon in the Glennallen Subdistrict of the Upper Copper River District described in 5 AAC 01.605(2) are customarily and traditionally taken or used for subsistence.

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

4. What amount is reasonably necessary for subsistence uses? In that portion of the Glennallen Subdistrict from the southern boundary of the subdistrict at the downstream edge of the Chitina-McCarthy Road Bridge to the mouth of the Tonsina River: 25,500 – 39,000 salmon; in that portion from the mouth of the Tonsina River upstream to the mouth of the Gakona River: 23,500 – 31,000 salmon; in the portion from the mouth of the Gakona River upstream to the mouth of the Slana River, and the waters of the Copper River as described in 5 AAC 01.647(i)(3): 12,000 – 12,500 salmon (5 AAC 01.616(b)(1)). [The total of these 3 portions is 61,000 – 82,500 salmon.]

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

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

Table 35-1.–Permits issued and king salmon harvest in the Glennallen subsistence and Chitina personal use fisheries, and spawning escapement in the Upper Copper River, 2000–2014.

	Glennallen Subdistrict				Chitina Subdistrict		
Year	Fish wheel permits[a]	Dip net permits[b]	Fish wheel harvest[c]	Dip net harvest[c]	Dip net permits[d]	Harvest[c]	Estimated spawning escapement[e]
2000	787	464	4,856	ND	8,146	3,168	**24,492**
2001	832	407	3,553	ND	9,458	3,113	28,208
2002	853	469	3,747	470	6,893	2,056	**21,502**
2003	834	399	2,747	345	6,523	1,921	34,034
2004	888	330	3,672	310	8,265	2,502	30,645
2005	873	363	2,308	310	8,306	2,094	**21,528**
2006	900	338	2,894	335	8,572	2,681	58,454
2007	988	467	3,443	496	8,474	2,722	34,565
2008	920	536	2,722	496	8,123	2,022	32,487
2009	895	469	2,642	394	8,026	223[g]	27,787
2010	970	620	1,753	672	10,062	718[g]	**16,764**
2011	966	617	2,328	734	9,302	1,080[g]	27,994
2012	931	867	1,919	591	10,108	572[g]	27,835
2013	805	808	1,620	902	10,691	762[g]	29,012
2014[f]	819	1,148	ND	ND	ND	ND[g]	ND
Average 2009–2013	913	676	2,052	659	9,638	671	25,878
Average 2004–2013	914	452	2,530	524	8,993	1,538	30,707

Note: ND indicates no data.

[a] Includes state fish wheel permits and all federal subsistence permits for the Glennallen Subdistrict.

[b] Includes state dip net permits only. Federal subsistence permits are not gear specific.

[c] Expanded state harvest plus federal reported subsistence harvest through 2004 and federal expanded harvest after 2004. Includes state expanded dip net harvest in 2000 and 2001.

[d] Includes state personal use permits and federal subsistence permits.

[e] Numbers in **bold** are years when the escapement goal was not achieved.

[f] Permit data for 2014 are preliminary and harvest data for the 2014 season were not yet available.

[g] Retention of king was prohibited in the Chitina Subdistrict on June 8, 21, 27, 18, 24, and 16 in 2009–2014, respectively.

PROPOSAL 36 – 5 AAC 01.647. Copper River Subsistence Salmon Fisheries Management Plans; and 5 AAC 77.591. Copper River Personal Use Dip Net Salmon Fishery Management Plan.

PROPOSED BY: Aaron Bloomquist.

WHAT WOULD THE PROPOSAL DO? This proposal would prohibit removing a king salmon caught with a dip net, if it is to be released, from the water in the Glennallen subsistence and Chitina personal use salmon fisheries.

WHAT ARE THE CURRENT REGULATIONS? There are no personal use or subsistence regulations that require a king salmon be kept in the water if it is to be released.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would require dipnetters to identify the species of fish in their net and remove king salmon while the fish remained submerged in the glacial waters of the Copper River. It would likely change current fishing practices and adversely affect all dipnetters in the personal use and subsistence fisheries, due to the challenges of complying with the regulations. Few shore-based dipnetting locations in either fishery would allow a fisherman to identify and release king salmon without removing them from the water in a safe and practical manner. Vessel-based dipnetters would also likely find it very difficult to release king salmon from a dipnet without removing the fish from the water. This proposal may, in effect, reduce overall effort in the two fisheries regardless of whether the fisherman sought to harvest king salmon or not.

BACKGROUND: Dip net gear has been considered a viable capture method in fisheries where the release of non-target species is preferred or required, and has recently been added to Yukon and Kuskokwim river subsistence and commercial fisheries. A king salmon SEG of 28,000–55,000 fish was implemented for the Copper River in 2000 and was adjusted to an SEG of 24,000 or more fish beginning in 2003. Since 2000, king salmon spawning escapement has averaged 29,665 fish and the SEG has been met in ten out of 14 years (Table 36-1).

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. In other dipnet fisheries where the release of king salmon is required, fishermen may remove king salmon from the water prior to release. Because of the nature of fishing on the Copper River, it is unclear if leaving king salmon in the water prior to release would actually decrease king salmon mortality. Enforcement of in-water release of king salmon would also be very difficult.

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? The board has determined under 5 AAC 01.616(a)(1) that salmon in the Glennallen Subdistrict of the Upper Copper River District described in 5 AAC 01.605(2) are customarily and traditionally taken or used for subsistence.

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

4. What amount is reasonably necessary for subsistence uses? In that portion of the Glennallen Subdistrict from the southern boundary of the subdistrict at the downstream edge of the Chitina-McCarthy Road Bridge to the mouth of the Tonsina River: 25,500 – 39,000 salmon; in that portion from the mouth of the Tonsina River upstream to the mouth of the Gakona River: 23,500 – 31,000 salmon; in the portion from the mouth of the Gakona River upstream to the mouth of the Slana River, and the waters of the Copper River as described in 5 AAC 01.647(i)(3): 12,000 – 12,500 salmon (5 AAC 01.616(b)(1)). [The total of these 3 portions is 61,000 – 82,500 salmon.]

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

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

Table 36-1.–Permits issued and king salmon harvest in the Glennallen subsistence and Chitina personal use fisheries, and spawning escapement in the Upper Copper River, 2000–2014.

	Glennallen Subdistrict				Chitina Subdistrict		
Year	Fish wheel permits[a]	Dip net permits[b]	Fish wheel harvest[c]	Dip net harvest[c]	Dip net permits[d]	Harvest[c]	Estimated spawning escapement[e]
2000	787	464	4,856	ND	8,146	3,168	**24,492**
2001	832	407	3,553	ND	9,458	3,113	28,208
2002	853	469	3,747	470	6,893	2,056	**21,502**
2003	834	399	2,747	345	6,523	1,921	34,034
2004	888	330	3,672	310	8,265	2,502	30,645
2005	873	363	2,308	310	8,306	2,094	**21,528**
2006	900	338	2,894	335	8,572	2,681	58,454
2007	988	467	3,443	496	8,474	2,722	34,565
2008	920	536	2,722	496	8,123	2,022	32,487
2009	895	469	2,642	394	8,026	223[g]	27,787
2010	970	620	1,753	672	10,062	718[g]	**16,764**
2011	966	617	2,328	734	9,302	1,080[g]	27,994
2012	931	867	1,919	591	10,108	572[g]	27,835
2013	805	808	1,620	902	10,691	762[g]	29,008
2014[f]	819	1,148	ND	ND	ND	ND[g]	ND
Average 2009–2013	913	676	2,052	659	9,638	671	25,878
Average 2004–2013	914	452	2,530	524	8,993	1,538	30,707

Note: ND indicates no data.
[a] Includes state fish wheel permits and all federal subsistence permits for the Glennallen Subdistrict.
[b] Includes state dip net permits only. Federal subsistence permits are not gear specific.
[c] Expanded state harvest plus federal reported subsistence harvest through 2004 and federal expanded harvest after 2004. Includes state expanded dip net harvest in 2000 and 2001.
[d] Includes state personal use permits and federal subsistence permits.
[e] Numbers in **bold** are below the escapement goal.
[f] Permit data for 2014 are preliminary and harvest data for the 2014 season were not yet available.
[g] Retention of king was prohibited in the Chitina Subdistrict on June 8, 21, 27, 18, 24, and 16 in 2009–2014, respectively.

PROPOSAL 37 – 5 AAC 01.647. Copper River Subsistence Salmon Fisheries Management Plans; and 5 AAC 77.591. Copper River Personal Use Dip Net Salmon Fishery Management Plan.

PROPOSED BY: Ahtna Tene Nene' Customary and Traditional Use Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would require establishment of two department-operated check stations in and near Chitina to provide 24-hour reporting of subsistence and personal use salmon harvest and permit compliance in the Chitina and Glennallen subdistricts.

WHAT ARE THE CURRENT REGULATIONS? There are no regulations requiring a check station or permit compliance checks for either the subsistence or personal use salmon fisheries. Permit holders in both fisheries must record their harvest before leaving their fishing site and return their permits to the department at the end of the fishing season.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Requiring permit holders to stop at a checkpoint would likely result in traffic congestion whether the checkpoint was located in Chitina or near the Chitina airport. Up to 800 permit holders can be participating in Chitina-area subsistence and personal use salmon fisheries on any single day. Implementing this proposal would result in a substantial cost to the department.

Inseason harvest management would be unaffected by this proposal. Copper River subsistence and personal use salmon fisheries are managed through an abundance-based approach using Miles Lake sonar counts and assumed weekly harvest rates based on the previous 5-year average. Compliance monitoring would be increased.

BACKGROUND: From 1984–2000, the department operated a permit office at the Chitina airport and personal use salmon permit holders were required to obtain their permit from this office and then return their permits to the office or nearby drop box at the conclusion of their fishing trip. There was no verification of permit compliance or harvest at this office during its operation. Operating the permit office (8 a.m.–5 p.m., Sunday–Thursday; 8 a.m. Friday–2 a.m. Saturday; and 6 a.m.–midnight Saturday) required staffing of five technicians who issued permits, entered permit data, and conducted biological sampling. The department has not required daily harvest reporting from the Glennallen subsistence fishery. Compliance monitoring is currently conducted by three department technicians six days per week as well as through periodic checks by AWT officers and department area management biologists.

Subsistence and personal use salmon fishermen are required to record their harvest on their permit daily, prior to concealing the fish from plain view or transporting the fish from the fishing site. These permits must be presented to department staff and AWT upon request. Since 2001, total harvest for the Chitina personal use fishery have been expanded from reported harvests to account for permits not returned, and take into consideration nonreturn bias. Postseason subsistence salmon permit return rates from 2009–2013 have averaged 87% (ranging from 86%–89%) and 81% in the personal use fishery (ranging from 78%–87%).

Over the five year period of 2009–2013, an average of 1,590 salmon permits (state and federal) were issued and 1,113 fished in the Glennallen subsistence fishery, resulting in an average total harvest of 84,222 fish (Table 37-1). In the Chitina personal use fishery, an average of 9,638 salmon permits (state and federal) were issued and 5,871 fished from 2009–2013, with an average total harvest of 137,156 fish (Table 37-1).

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. Data collected at the check station would not be necessary for management of these fisheries. Current regulations are enforceable and ensure compliance and sufficient data for management purposes.

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? The board has determined under 5 AAC 01.616(a)(1) that salmon in the Glennallen Subdistrict of the Upper Copper River District described in 5 AAC 01.605(2) are customarily and traditionally taken or used for subsistence.

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

4. What amount is reasonably necessary for subsistence uses? In that portion of the Glennallen Subdistrict from the southern boundary of the subdistrict at the downstream edge of the Chitina-McCarthy Road Bridge to the mouth of the Tonsina River: 25,500 – 39,000 salmon; in that portion from the mouth of the Tonsina River upstream to the mouth of the Gakona River: 23,500 – 31,000 salmon; in the portion from the mouth of the Gakona River upstream to the mouth of the Slana River, and the waters of the Copper River as described in 5 AAC 01.647(i)(3): 12,000 – 12,500 salmon (5 AAC 01.616(b)(1)). [The total of these 3 portions is 61,000 – 82,500 salmon.]

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

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

Table 37-1.–Harvest[a], permits issued, and permits fished in the Glennallen subsistence and Chitina personal use fisheries, 1994–2013.

	Glennallen subsistence						Chitina personal use					
Year	Permits issued	Permits fished	King salmon	Sockeye salmon	Coho salmon	Total harvest[b]	Permits issued	Permits fished	King salmon	Sockeye salmon	Coho salmon	Total harvest[b]
1994	970	ND	1,989	68,278	60	70,391	7,061	ND	3,743	94,024	1,981	99,823
1995	858	ND	1,892	52,516	882	55,323	6,758	ND	4,707	79,006	4,870	88,617
1996	850	ND	1,482	52,052	557	54,290	7,193	ND	3,584	95,007	3,381	102,108
1997	1,133	ND	2,583	82,807	187	85,743	9,086	ND	5,447	148,727	160	154,349
1998	1,010	ND	1,842	64,463	533	66,951	10,006	ND	6,723	137,161	2,145	146,075
1999	1,101	ND	3,278	77,369	1,121	82,119	9,943	ND	5,913	141,658	2,128	149,733
2000	1,251	1,134	4,856	59,497	532	64,885	8,146	ND	3,168	107,856	3,657	114,884
2001	1,239	1,148	3,553	83,787	1,144	88,568	9,458	6,644	3,113	132,108	2,720	138,425
2002[c]	1,121	819	4,217	58,800	611	63,715	6,926	4,480	2,056	86,543	1,934	90,850
2003[c]	1,233	780	3,092	60,623	619	64,382	6,541	4,257	1,921	81,513	2,603	86,301
2004[c]	1,218	732	3,982	73,214	729	78,001	8,265	4,955	2,502	108,527	2,878	114,416
2005	1,236	927	2,618	86,140	341	89,159	8,306	5,357	2,094	122,463	1,869	126,904
2006	1,238	924	3,229	76,056	240	79,694	8,572	5,320	2,681	124,810	2,735	130,690
2007	1,455	1,104	3,939	83,338	295	87,759	8,474	5,623	2,722	126,154	1,783	131,319
2008	1,456	997	3,218	57,632	722	61,725	8,123	4,841	2,022	82,318	2,811	87,558
2009	1,364	950	3,036	60,517	262	64,017	8,026	4,869	223	90,917	1,723	93,130
2010	1,590	1,128	2,425	84,856	374	87,908	10,062	6,113	718	140,811	2,043	143,937
2011	1,583	1,138	3,062	75,375	595	79,518	9,302	5,752	1,080	129,985	1,712	133,221
2012	1,798	1,216	2,510	92,792	508	96,074	10,108	5,814	572	128,058	1,393	130,298
2013	1,613	1,134	2,522	90,788	164	93,594	10,691	6,807	762	182,915	805	185,194
Average 2009–2013	1,590	1,113	2,711	80,866	381	84,222	9,638	5,871	671	134,537	1,535	137,156
Average 2004–2013	1,455	1,025	3,054	78,071	423	81,745	8,993	5,545	1,538	123,696	1,975	127,667

Note: ND indicates no data.

[a] All data include state and federal permits and state expanded harvest and federal reported subsistence harvest from 2004 and federal expanded harvest after 2004.

[b] Total harvest includes unidentified salmon in the Chitina personal use fishery and unidentified salmon and nonsalmon species in the Glennallen subsistence fishery.

[c] From 2002–2004 federal permits fished data are unavailable. Permits fished for these years includes only state issued permits.

PROPOSAL 38 –5 AAC 77.591. Copper River Personal Use Dip Net Salmon Fishery Management Plan.

PROPOSED BY: Chitina Dipnetters Association and Fairbanks Fish and Game Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would change the opening date for the Chitina personal use fishery to open as early as June 1, but not later than June 11.

WHAT ARE THE CURRENT REGULATIONS? The department may open, by emergency order, the Chitina personal use fishery no earlier than June 7 and no later than June 15.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would advance the potential opening of the Chitina personal use fishery by six days. King and sockeye salmon harvest would likely increase by an unknown amount.

BACKGROUND: The *Copper River Personal Use Dip Net Salmon Fishery Management Plan* was established in 1987. The Chitina personal use fishery opening dates were established as a range from June 1–11 with the commissioner having authority to delay the opening by 10 days, depending upon the strength and timing of the sockeye salmon run. These dates remained unchanged through 2011. In 2011, the board adopted June 7 as the opening date for the fishery and allowed the commissioner to close the fishery and reopen it by June 15 depending upon the strength and timing of the sockeye salmon run. Management of this fishery is based on the abundance of salmon enumerated at the Miles Lake sonar site. The average (2002-2011) reported harvest for the Chitina personal use fishery for the period June 1–6 was 2,756 sockeye salmon (Table 38-1) and 82 king salmon (Table 38-2).

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 38-1.–Reported harvest of sockeye salmon in the Chitina personal use fishery during June, 2001–2013.

Dates	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012[a]	2013[a]	Average 2007–2011	Average 2012–2013
6/1–6/6	5,188	322	1,996	5,471	6,534	374	354	871	3,919	1,498	6,219	ND	ND	2,572	ND
6/7–6/13	11,945	5,129	5,342	11,309	9,341	9,771	10,307	4,706	3,159	10,085	17,157	8,586	4,595	9,083	6,591
6/14–6/20	10,625	5,988	8,721	12,914	7,699	12,456	13,620	6,361	8,410	10,900	5,518	10,639	20,384	8,962	15,512
6/21–6/27	10,470	3,966	10,842	4,097	12,003	15,332	9,701	5,083	9,456	6,112	3,538	1,882	24,850	6,778	13,366
Total annual harvest[b]	132,108	86,543	81,513	108,527	122,463	124,810	126,154	82,318	90,917	140,811	129,985	128,058	182,915	114,037	155,487

Note: ND indicates no data.

[a] The Chitina personal use fishery could not open until June 7, beginning in 2012. The fishery opened on June 7 in 2012 and June 10 in 2013.

[b] Expanded state harvest and reported federal subsistence harvest (2002–2004) or expanded federal subsistence harvest (2005–2013) from May 15–September 30.

Table 38-2.–Reported harvest of king salmon in the Chitina personal use fishery during June, 2001–2013.

Dates	2001	2002	2003	2004	2005	2006	2007	2008	2009[a]	2010[a]	2011[a]	2012[a,b]	2013[a,b]	Average 2007–2011	Average 2012–2013
6/1–6/6	143	16	73	176	187	16	15	40	137	28	128	ND	ND	70	ND
6/7–6/13	377	235	280	384	319	311	283	193	27	243	415	265	100	232	183
6/14–6/20	414	340	285	414	253	375	450	323	5	268	187	198	358	247	278
6/21–6/27	369	226	307	149	244	367	374	234	0	16	136	6	114	152	60
Total annual harvest[c]	3,113	2,056	1,921	2,502	2,094	2,681	2,722	2,022	223	718	1,080	572	762	1,175	667

Note: ND indicates no data.

[a] Retention of king salmon was prohibited starting June 8, 2009; June 21, 2010; June 27, 2011; June 18, 2012; and June 24, 2013.

[b] The Chitina personal use fishery could not open until June 7, beginning in 2012. The fishery opened on June 7 in 2012 and June 10 in 2013.

[c] Expanded state harvest and reported federal subsistence harvest (2002–2004) or expanded federal subsistence harvest (2005–2013) from May 15–September 30.

PROPOSAL 39 –5 AAC 77.591. Copper River Personal Use Dip Net Salmon Fishery Management Plan.

PROPOSED BY: Chitina Dipnetters Association and Fairbanks Fish and Game Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would change the Chitina personal use fishery annual limit to 25 salmon per permit holder (only one of which may be a king salmon) and 10 salmon for each additional household member. It would also eliminate provisions for a supplemental harvest.

WHAT ARE THE CURRENT REGULATIONS? The annual limit for a personal use permit is 15 salmon for a household of one person and 30 salmon for a household of two or more persons, of which no more than one may be a king salmon. However, when the department determines that a weekly surplus of 50,000 or more salmon will be present in the Chitina Subdistrict, the department shall issue a supplemental permit for 10 additional sockeye salmon to a permit holder who has met the annual limit. The maximum harvest level for the Chitina personal use fishery is 100,000–150,000 salmon, not including salmon in excess of the inriver goal or salmon taken after August 31.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would increase the annual limit for a household of one person by 10 salmon, a household of two people by five salmon, and provide an additional 10 salmon for each additional household member. The proposed limits will likely increase sockeye salmon harvest in the Chitina personal use fishery by an unknown amount, even with elimination of supplemental periods. Because weekly fishing periods are based on sonar passage rates and fishery CPUE, weekly fishing period length may be reduced to account for the additional harvest. Adoption of this proposal would align bag limits in the Copper River and Cook Inlet personal use fisheries.

BACKGROUND: In 1984, the board created a personal use salmon fishery in the Copper River drainage and in 1987 established the *Copper River Personal Use Dip Net Salmon Fishery Management Plan* (5 AAC 77.590). Prior to 1997, maximum allowable harvest for the Chitina personal use fishery was 60,000 salmon, all species combined, with 25% of fish in excess of this inriver goal allocated to the personal use fishery. From 1997–1999, maximum allowable harvest was increased to 100,000 salmon, excluding fish in excess of the inriver goal as well as any salmon harvested after August 31. In 2000, following the 1999 board reclassification of the Chitina personal use fishery as a subsistence fishery, the board found the amount reasonably necessary to meet subsistence needs was 100,000–150,000 salmon, all species combined. In 2003, the board reversed its 1999 decision and reclassified the Chitina Subdistrict as a personal use fishery, but maintained the harvest level and bag limits. Provisions for supplemental periods for 10 additional sockeye salmon were adopted prior to the 1998 fishing season.

Since 1994, the personal use fishery has exceeded its maximum harvest allocation twice and only once under the current allocation (Table 39-1). In most years the total allowable harvest in this fishery is far greater than the actual harvest. The total allowable harvest of salmon, all species

(allocated harvest plus all salmon excess to the inriver goal) averaged 400,845 fish over the last 10 years (2004–2013) while the average total harvest over this same period was 127,667 fish.

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 39-1.–Fishery statistics for the Chitina personal use fishery, 1997–2013.

Year	Salmon harvest allocation[a]	Inriver goal	Actual sonar count	Preseason harvest allocation	Total salmon harvest	Surplus[b]
1997	100,000	571,523	1,148,079	100,000	154,349	522,207
1998	100,000	612,000	866,957	100,000	146,075	208,882
1999	100,000	737,765	850,597	100,000	149,733	63,099
2000	100–150,000	768,024	636,837	110,000	114,884	-4,884
2001	100–150,000	723,006	878,205	139,905	138,425	166,774
2002	100–150,000	651,500	830,263	125,000	90,850	212,913
2003	100–150,000	617,000	747,091	120,000	86,301	163,790
2004	100–150,000	552,000	684,103	120,000	114,416	137,687
2005	100–150,000	579,000	855,125	110,000	126,904	259,221
2006	100–150,000	637,000	959,706	110,000	130,690	302,016
2007	100–150,000	577,000	919,601	110,000	131,319	321,282
2008	100–150,000	615,000	718,344	122,825	87,558	138,611
2009	100–150,000	592,000	709,748	110,948	93,130	135,566
2010	100–150,000	668,000	923,811	108,295	143,937	220,169
2011	100–150,000	622,000	914,231	112,950	133,221	271,960
2012	100–150,000	684,000	1,271,354	120,000	130,298	577,056
2013	100–150,000	728,000	1,267,060	133,000	185,194	486,866
Average 2009–2013		658,800	1,017,241	117,039	137,156	338,323
Average 2004–2013		625,400	922,308	115,802	127,667	285,043

[a] Allocation is the portion of the inriver goal harvestable by the personal use fishery, any salmon in excess of the inriver goal or salmon taken after August 31 can be taken by the personal use and other Copper River fisheries.

[b] All remaining fish surplus to inriver goal (final sonar count minus preseason inriver goal).

PROPOSAL 40 –5 AAC 77.XXX. New Section.

PROPOSED BY: Shawn Gilman.

WHAT WOULD THE PROPOSAL DO? This proposal would require any person who transports Chitina personal use fishermen to keep a daily logbook indicating number of customers, where and by what method fish were caught, and the number of fish harvested by species.

WHAT ARE THE CURRENT REGULATIONS? Each household issued a Chitina personal use permit is required to record their harvest prior to concealing the fish from view or transporting the salmon from the fishing site, and to designate whether they fished from shore or a boat. There are no state regulations regarding charter operators or transporters in the Chitina personal use fishery.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would require businesses providing transportation services to personal use participants in the Chitina Subdistrict to provide information on the number of clients, where and how they fish, and number of fish by species harvested by the clients.

BACKGROUND: Reported harvest from returned household permits is used to estimate participation and harvest by species postseason. There are currently only two known commercial transport operations working in the Chitina Subdistrict. The use of the commercial transporters by participants of the fishery has increased in the past decade due to landslides limiting access to all-terrain vehicles, mountain bikes, or foot traffic in the lower half of the subdistrict.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. The proposal duplicates information already collected from household permits and information on how personal use fishermen access the fishing areas is not necessary for the management of this 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 41 – 5 AAC 77.591. Copper River Personal Use Dip Net Salmon Fishery Management Plan.

PROPOSED BY: Chitina Dipnetters Association and Fairbanks Fish and Game Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would repeal the regulation reducing the Chitina personal use fishery allocation when the commercial salmon fishery is closed for 13 or more consecutive days.

WHAT ARE THE CURRENT REGULATIONS? The maximum harvest level for the Chitina personal use fishery is 100,000–150,000 salmon, not including any salmon in excess of the inriver goal or salmon taken after August 31. If the Copper River District commercial salmon fishery is closed for 13 or more consecutive days, the maximum harvest level for the Chitina personal use fishery is reduced to 50,000 salmon.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would have no effect on meeting escapement goals in the Copper River because the personal use fishery is managed based on the number of salmon passing the Miles Lake sonar. This proposal would increase fishing opportunity for Chitina personal use fishery participants.

BACKGROUND: The trigger to reduce the harvest level in the Chitina personal use fishery to 50,000 fish has only been implemented once since it was first adopted in 1998. During the 2008 season, the Copper River District commercial fishery was closed for longer than 13 days, from June 19–July 4. The Chitina personal use fishery was managed under a 50,000 salmon harvest level from July 2 through the remainder of the season. As a result, fishing time in the personal use fishery was reduced by 4.5 days (108 hours) from July 28–August 31 (Table 41-1). If the maximum harvest level had not been reduced there would have been no reduction in fishing time during this period, based on Miles Lake sonar counts.

Total sockeye salmon harvest in 2008 was the lowest recorded for the combined Copper River fisheries for the period 1994–2013 (Table 41-2). Sockeye salmon harvest in 2008 represented the lowest for the commercial fishery, second lowest for the personal use fishery, and third lowest for the Glennallen subsistence fishery. It is unknown what effect the fishing time reductions had on total harvest in the personal use fishery. There is no inseason monitoring of harvest and thus no mechanism to adjust the fishing time based on actual harvest. From July 2–August 31, 2008, when the 50,000 maximum fish limit was in place, a total of 191,950 fish in excess of the projected sonar passage were counted past the Miles Lake sonar.

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 41-1.–Weekly sonar passage, harvest allocations, and calculated number of fishing hours in the Chitina personal use fishery, 2008.

	Sonar passage			Allocation[a]			Calculated dip net hours[a]				
PU WK	Projected	Actual	Difference	(A) 150,000 maximum harvest[a]	(B) 50,000 maximum harvest[a]	(C) Average catch/hour 2003-2007	(A/C) 150,000 maximum harvest[b]	(B/C) 50,000 maximum harvest[b]	Actual dip net hours[c]	Decrease in hours	Salmon harvest
1	2,921	762	-2,159	**152**	ND	80	**2**	ND	0	ND	3,264
2	54,350	35,008	-19,342	**6,992**	ND	94	**74**	ND	72	ND	5,664
3	106,632	77,556	-29,076	**15,489**	ND	73	**212**	ND	168	ND	7,235
4	99,408	124,350	24,942	**24,835**	ND	67	**371**	ND	168	ND	7,198
5	66,766	73,581	6,815	**14,695**	ND	47	**313**	ND	168	ND	4,933
6	53,233	42,531	-10,702	**8,494**	ND	47	**181**	ND	168	ND	4,328
7	47,952	55,551	7,599	**11,094**	ND	68	**163**	ND	168	ND	17,119
8	44,950	98,301	53,351	19,632	**12,191**	69	285	**177**	168	0	18,828
9	41,948	141,050	99,102	28,170	**13,288**	61	462	**218**	168	0	4,839
10	43,096	65,300	22,204	13,041	**5,309**	45	290	**118**	120	48	3,922
11	41,988	49,868	7,880	9,959	**4,054**	28	356	**145**	144	24	4,574
12	29,087	33,918	4,831	6,774	**2,758**	21	323	**131**	132	36	1,970
13	15,610	20,192	4,582	4,033	**1,642**	10	403	**164**	168	0	1,444
Total	647,941	817,968	170,027						1,812	108	85,318

Note: ND indicates no data.

[a] Data in **bold** used for determining actual fishing time in 2008.

[b] Total number of allocated fish in a week may result in more calculated fishing hours than are available in a week.

[c] There is a maximum of 168 hours in a week.

Table 41-2.–Summary of sockeye salmon run statistics in the Copper River, 1994–2013.

Year	Copper River District commercial harvest[a]	Copper River District subsistence harvest[b]	Sport harvest[c]	Glennallen subsistence harvest[d]	Chitina personal use harvest[d]	Total harvest	Upriver return estimate[e]	Estimated total run	Estimated spawning escapement[f]
1994	1,153,167	474	9,599	68,278	94,024	1,325,542	682,319	1,835,013	472,748
1995	1,271,822	692	6,658	52,516	79,006	1,410,694	547,565	1,820,079	379,329
1996	2,356,365	969	14,086	52,052	95,007	2,518,479	852,125	3,209,459	569,212
1997	2,955,431	1,001	13,265	82,807	148,727	3,201,231	1,107,156	4,063,588	797,882
1998	1,343,127	850	13,199	64,463	137,161	1,558,800	820,554	2,341,546	485,541
1999	1,683,892	1,330	13,956	77,369	141,658	1,918,205	818,507	2,708,888	478,661
2000	881,419	4,360	14,550	59,497	107,856	1,067,682	598,790	1,633,508	343,691
2001	1,325,690	3,072	8,467	83,787	132,108	1,553,124	838,427	2,237,918	538,681
2002	1,249,920	3,067	8,559	58,800	86,543	1,406,889	797,390	2,192,176	581,717
2003	1,192,164	1,607	7,739	60,623	81,513	1,343,646	702,327	2,043,029	507,895
2004	1,048,603	1,822	7,416	73,214	108,527	1,239,582	643,539	1,833,686	448,534
2005	1,333,574	939	8,791	86,140	122,463	1,551,907	824,792	2,276,773	515,599
2006	1,498,423	4,505	14,410	76,056	124,810	1,718,204	891,917	2,592,750	579,552
2007	1,903,858	6,184	24,713	83,338	126,154	2,144,247	873,252	2,961,568	612,102
2008	323,096	4,001	12,656	57,632	82,318	479,703	677,001	1,141,223	480,597
2009	902,940	1,810	14,429	60,517	90,917	1,070,613	677,347	1,721,695	469,089
2010	643,086	2,016	16,057	84,856	140,811	886,826	901,488	1,715,714	502,992
2011	2,061,525	1,818	8,565	75,375	129,985	2,277,268	880,342	3,097,537	607,657
2012	1,874,726	4,334	24,629	92,792	128,058	2,124,539	1,239,902	3,253,887	930,699
2013	1,617,717	5,741	27,773	90,788	182,915	1,924,934	1,234,479	3,006,009	860,829
Average 2009–2013	1,419,999	3,144	18,291	80,866	134,537	1,656,836	986,712	2,558,968	674,253
Average 2004–2013	1,320,755	3,317	15,944	78,071	123,696	1,541,782	884,406	2,360,084	600,765

[a] Includes commercial harvest plus homepack, donated and educational harvests.
[b] Includes state and federal subsistence harvests in the Copper River District.
[c] Includes sport harvest in the Copper River Delta and the Upper Copper River upstream of Haley Creek.
[d] Data are expanded to reflect unreported state harvest and include reported federal subsistence harvest (2002–2004) and expanded federal harvest after 2004.
[e] Prior to 1999 the estimate is the Miles Lake sonar count minus the proportion of king salmon in the Glennallen subsistence and Chitina personal use fisheries. Starting in 1999, the estimate is the Miles Lake sonar count minus the king salmon mark-recapture point estimate.
[f] Upriver return escapement minus upriver sockeye salmon harvests.

PROPOSAL 42 – 5 AAC 77.591. Copper River Personal Use Dip Net Salmon Fishery Management Plan.

PROPOSED BY: Ahtna Tene Nene' Customary and Traditional Use Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would reduce the maximum harvest level for the Chitina personal use fishery from a range of 100,000–150,000 to 100,000 salmon.

WHAT ARE THE CURRENT REGULATIONS? The maximum harvest level for the Chitina personal use fishery is 100,000–150,000 salmon, not including any salmon in excess of the inriver goal or salmon taken after August 31.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would reduce the weekly allocation of fish to the Chitina personal use fishery, and in some weeks reduce fishing time. This proposal may reduce harvest. However, it would have little to no effect on the actual harvest as long as the inriver run continues to exceed the inriver goal as it has for all but one year since 1997.

BACKGROUND: Prior to 1997 the harvest allocation for the Chitina personal use fishery was 60,000 salmon plus 25% of the fish in excess of the inriver goal. This allocation was subsequently increased by the board in 1996. From 1997–1999 the allocation was 100,000 salmon, not including any salmon in excess of the inriver goal or salmon taken after August 31. At the December 1999 meeting the board made a positive customary and traditional use (C&T) finding for salmon stocks in the Chitina Subdistrict and reclassified the fishery as a subsistence fishery with a maximum harvest set at 100,000–150,000 salmon, not including any salmon in excess of the inriver goal or salmon taken after August 31. At the December 2003 meeting the board reversed its 1999 decision, making a negative C&T determination for salmon stocks in the Chitina Subdistrict, and reinstated the personal use fishery. The maximum harvest allocation remained at 100,000–150,000 maximum salmon harvest, not including any salmon in excess of the inriver goal or salmon taken after August 31.

Total harvest of salmon (includes unidentified salmon) in the Chitina personal use fishery has averaged 137,156 fish over the five year period of 2009–2013 and 127,667 over the last 10 years (2004–2013) (Table 42-1). Total harvest in this fishery has only fallen below 100,000 fish four times since 1997 when the maximum harvest was raised to 100,000 or more fish. The total number of permits issued in this fishery has ranged from 6,541 permits in 2003 to 10,691 permits in 2013. However, only 6,807 permits were fished in 2013, and the average is 5,545 permits fished annually from 2004–2013.

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 42-1.–Fishery statistics for the Chitina personal use fishery, 1997–2013.

Year	Permits issued[a]	Permits fished[a]	Salmon harvest allocation[b]	Inriver goal	Actual sonar count	Preseason harvest allocation	Total salmon harvest	Surplus[c]
1997	9,086	ND	100,000	571,523	1,148,079	100,000	154,349	522,207
1998	10,006	ND	100,000	612,000	866,957	100,000	146,075	208,882
1999	9,943	ND	100,000	737,765	850,597	100,000	149,733	63,099
2000	8,146	ND	100–150,000	768,024	636,837	110,000	114,884	-4,884
2001	9,458	6,644	100–150,000	723,006	878,205	139,905	138,425	166,774
2002	6,926	4,480	100–150,000	651,500	830,263	125,000	90,850	212,913
2003	6,541	4,257	100–150,000	617,000	747,091	120,000	86,301	163,790
2004	8,265	4,955	100–150,000	552,000	684,103	120,000	114,416	137,687
2005	8,306	5,357	100–150,000	579,000	855,125	110,000	126,904	259,221
2006	8,572	5,320	100–150,000	637,000	959,706	110,000	130,690	302,016
2007	8,474	5,623	100–150,000	577,000	919,601	110,000	131,319	321,282
2008	8,123	4,841	100–150,000	615,000	718,344	122,825	87,558	138,611
2009	8,026	4,869	100–150,000	592,000	709,748	110,948	93,130	135,566
2010	10,062	6,113	100–150,000	668,000	923,811	108,295	143,937	220,169
2011	9,302	5,752	100–150,000	622,000	914,231	112,950	133,221	271,960
2012	10,108	5,814	100–150,000	684,000	1,271,354	120,000	130,298	577,056
2013	10,691	6,807	100–150,000	728,000	1,267,060	133,000	185,194	486,866
Average 2009–2013	9,638	5,871		658,800	1,017,241	117,039	137,156	338,323
Average 2004–2013	8,993	5,545		625,400	922,308	115,802	127,667	285,043

Note: ND indicates no data.

[a] Includes state and federal subsistence permits.

[b] Allocation is as noted, plus any salmon in excess of the inriver goal or salmon taken after August 31.

[c] All remaining fish surplus to inriver goal.

PROPOSAL 43 – 5 AAC 77.591. Copper River Personal Use Dip Net Salmon Fishery Management Plan.

PROPOSED BY: Chitina Dipnetters Association and Fairbanks Fish and Game Advisory Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would establish an allocation of 3,000 king salmon to the Chitina personal use fishery.

WHAT ARE THE CURRENT REGULATIONS? The maximum harvest level for the Chitina personal use fishery is 100,000–150,000 salmon, not including any salmon in excess of the inriver goal or salmon taken after August 31. This maximum harvest level applies to all salmon species combined.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would require the department to develop a new management strategy for the Chitina personal use fishery that would ensure achievement of a specific king salmon allocation. The department would need to reduce sport and commercial fishing opportunity to ensure that an additional 3,000 king salmon are available for harvest inriver while managing for the Copper River king salmon SEG.

BACKGROUND: Inseason management actions restricting or prohibiting the harvest of king salmon have been implemented in the Copper River commercial, personal use, and sport fisheries each year since 2009 (Table 43-1). These three fisheries have all experienced reductions in harvest opportunity due to lower than average king salmon returns and resultant regulatory actions to ensure achievement of the Copper River king salmon SEG (Table 43-2). From 2008 to 2013, average CRD commercial king salmon harvest was approximately 68% below the 2003–2007 harvest average, and average combined sport and personal use harvests were 62% below the 2003–2007 harvest average (Table 43-2). Glennallen Subdistrict and CRD subsistence fisheries have not been restricted; subsistence harvests have declined over this period as well. In spite of low king salmon abundance, department management restrictions in commercial, personal use, and sport fisheries resulted in spawning escapement remaining above the escapement goal threshold in 5 out of 6 of these years.

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 43-1.–King salmon regulatory action history for the CRD commercial and Upper Copper River king salmon fisheries, 2009–2014.

Year	Estimated spawning escapement[a]	Date	Copper River District	Chitina personal use fishery	Upper Copper River sport fishery
2009	27,787	21-May	Inside area closed 27 days		
		8-Jun		Prohibited retention.	
		16-Jun			Reduced annual limit from four to two, with only one of the two allowed from any tributary or the Copper River mainstem.
		29-Jun			Closed the Gulkana River drainage to fishing for king salmon.
		27-Jul			Prohibited retention in the Klutina River and the use of bait and treble hooks.
2010	**16,764**	20-May	Inside area closed 25 days		
		21-Jun		Prohibited retention	Reduced annual limit from four to two, with only one of the two allowed from any tributary or the Copper River mainstem.
2011	27,994	16-May	Inside area closed 16 days		
		25-Jun			Reduced annual limit from four to two, with only one of the two allowed from any tributary or the Copper River mainstem and prohibited retention in the Copper River drainage upstream of the Klutina River (including the Gulkana River).
		27-Jun		Prohibited retention	
2012	27,835	17-May	Inside area closed 31 days		
		18-Jun		Prohibited retention	
		30-Jun			Reduced annual limit from four to one and prohibited retention and the use of bait and treble hooks in the Gulkana River
		28-Jul			Prohibited retention and the use of bait and treble hooks in the Klutina River and the Upper Copper River drainage downstream of the Klutina River
2013	29,012	16-May	Inside area closed 27 days		
		15-Jun			Reduced annual limit from four to one and prohibited retention and the use of bait and treble hooks in the Gulkana River
		24-Jun		Prohibited retention	
2014	ND	15-May	Inside area closed 38 days		
		14-Jun			Reduced annual limit from four to one in Upper Copper River drainage
		16-Jun		Prohibited retention	

Note: ND indicates no data.

[a] Numbers in bold are below the escapement goal.

Table 43-2.–Summary of king salmon harvests and upriver escapement in the Copper River, 1994–2013.

Year	Commercial harvest[a]	CRD subsistence harvest[b]	Sport harvest[c]	Glennallen subsistence harvest[d]	Chitina personal use harvest[d]	Total harvest	Upriver return estimate[e]	Estimated total run	Estimated spawning escapement
1994	47,812	164	6,431	1,989	3,743	60,139	33,258	81,234	ND
1995	67,363	154	6,709	1,892	4,707	80,825	51,700	119,217	ND
1996	57,815	276	9,116	1,482	3,584	72,273	54,114	112,205	ND
1997	52,516	200	8,346	2,583	5,447	69,092	40,923	93,639	ND
1998	70,238	295	8,245	1,842	6,723	87,343	46,403	116,936	ND
1999	63,508	353	6,742	3,278	5,913	79,794	32,090	95,951	16,157
2000	32,018	689	5,531	4,856	3,168	46,262	38,047	70,754	24,492
2001	40,551	826	4,904	3,553	3,113	52,947	39,778	81,155	28,208
2002	39,552	549	5,098	4,217	2,056	51,472	32,873	72,974	21,502
2003	49,031	710	5,717	3,092	1,921	60,471	44,764	94,505	34,034
2004	38,889	1,106	3,435	3,982	2,502	49,914	40,564	80,559	30,645
2005	35,764	260	4,093	2,618	2,094	44,829	30,333	66,357	21,528
2006	31,309	779	3,425	3,229	2,681	41,423	67,789	99,877	58,454
2007	40,276	1,145	5,113	3,939	2,722	53,195	46,349	87,770	34,575
2008	12,067	470	3,616	3,218	2,022	21,393	41,343	53,880	32,487
2009	10,394	212	1,355	3,036	223	15,220	32,401	43,007	27,787
2010	10,582	276	2,416	2,425	718	16,417	22,323	33,181	16,764
2011	19,788	212	1,753	3,062	1,080	25,895	33,889	53,889	27,994
2012	12,623	237	535	2,510	572	16,477	31,452	44,312	27,835
2013	9,445	854	285	2,522	762	13,868	32,581	42,880	29,012
Average 2009–2013	12,566	358	1,269	2,711	671	17,575	30,529	43,454	25,878
Average 2004–2013	22,114	555	2,603	3,054	1,538	29,863	37,902	60,571	30,708

Note: ND indicates no data.

[a] Includes commercial harvest plus homepack, donated and educational harvests.

[b] Includes state and federal subsistence harvests in the CRD.

[c] Includes sport harvest in the Copper River Delta and the Upper Copper River upstream of Haley Creek.

[d] These data are expanded to reflect unreported state harvest and include reported federal harvest (2002–2004) and expanded federal harvest beginning in 2005.

[e] Prior to 1999 upriver returns were calculated by applying the percentage of king salmon in the Glennallen subsistence and Chitina personal use fisheries to the sonar count. Starting in 1999, upriver king salmon returns are estimated through a mark-recapture method.

COMMITTEE OF THE WHOLE–GROUP 5: COMMERCIAL SALMON (5 PROPOSALS)

Copper River commercial salmon: 44–48

PROPOSAL 44 – 5AAC 24.310. Fishing seasons.

PROPOSED BY: Fairbanks Advisory Committee.

WHAT WOULD THE PROPOSAL DO? The proposal would mandate that the first commercial fishing period within the CRD would not happen until the department has verified by sonar that salmon have passed the Miles Lake sonar site.

WHAT ARE THE CURRENT REGULATIONS? 5 AAC 24.310(a) The Copper River District is open and closed by emergency order. Additionally, Copper River salmon runs are managed to assure sustained yield as outlined in 5 AAC 24.360, *Copper River District Salmon Management Plan* as well as 5 AAC 24.361 *Copper River King Salmon Management Plan* which directs the department to manage the Copper River commercial, sport, personal use and subsistence fisheries to achieve a sustainable goal of 24,000 or more for king salmon. For the purposes of managing these fisheries, the department shall consider the best available information regarding harvest, age composition, and escapement, including escapement information obtained from mark-recapture studies, aerial surveys, or by other means.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would likely result in foregone commercial harvest of sockeye and king salmon. More salmon would likely be available for harvest by inriver fisheries. Escapement of both sockeye and king salmon would likely increase.

BACKGROUND: Copper River sockeye salmon escapement goals have been consistently achieved and often exceeded in recent years (Table 44-1). King salmon escapement goals have been achieved in 8 of the last 10 years (Table 44-2). Historically, the CRD has opened to commercial fishing near May 15 each year. In some years sonar deployment is delayed due to shore ice and river flows. In the absence of sonar deployment early season management is based on environmental conditions and harvest rates. Depending upon water level in the Copper River, it takes between three and 10 days for salmon to migrate from the fishing district to the sonar site. At the time a salmon is counted at the sonar, considering the distance (~30 miles) between the sonar site and the fishing district, it is possible that large numbers of salmon are in the river between the district and the sonar (Figure 44-1).

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal because it reduces the department's ability to provide commercial fishing opportunity on salmon runs within or above escapement goals. The department is **NEUTRAL** on the allocative effects 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 44-1.–Copper River sockeye salmon estimated spawning escapement, 2004–2013.

Year	Upriver estimated spawning escapement[a]	Upriver spawning escapement goal	Delta estimated spawning escapement[b]	Delta spawning escapement goal
2004	462,664	300,000-500,000	138,770	55,000-130,000
2005	528,816	300,000-500,000	116,812	55,000-130,000
2006	600,378	300,000-500,000	197,792	55,000-130,000
2007	624,457	300,000-500,000	176,570	55,000-130,000
2008	491,516	300,000-500,000	135,900	55,000-130,000
2009	477,327	300,000-500,000	138,584	55,000-130,000
2010	524,692	300,000-500,000	167,810	55,000-130,000
2011	621,545	300,000-500,000	153,014	55,000-130,000
2012	970,611	360,000-750,000	133,700	55,000-130,000
2013	889,143	360,000-750,000	151,410	55,000-130,000
10-year Average	619,115		151,036	

[a]Since 1999, sockeye salmon spawning escapement has been based on the total number of fish past the Miles Lake sonar minus the king salmon inriver midpoint abundance estimate; and upriver subsistence, personal use, and sport harvest; and hatchery broodstock and onsite hatchery surplus requirements.

[b]Delta spawning escapement estimated by doubling the peak aerial survey index.

Table 44-2.–Copper River king salmon inriver abundance, total Upper Copper River (UCR) harvest, and estimated spawning escapement, 1999–2013.

		Inriver Abundance				Total UCR Harvest [b, c, d]			Estimated Spawning Escapement [e]			
Run Year	Estimator [a]	Point Estimate	SE	L 95%	U 95%	Point Estimate	L 95%	U 95%	Point Estimate	L 95%	U 95%	Sustainable Escapement Goal (SEG)
1999	Department	32,090	3,814	24,615	39,565	15,933	ND	ND	16,157	ND	ND	ND
2000	Department	38,047	7,675	23,004	53,090	13,555	ND	ND	24,492	ND	ND	28,000–55,000
2001	Department	39,778	8,262	23,585	55,971	11,570	10,765	12,375	28,208	11,995	44,421	28,000–55,000
2002	Department	32,873	8,863	15,502	50,244	11,371	10,399	12,343	21,502	4,104	38,900	28,000–55,000
2003	NVE	44,764	12,506	20,253	69,275	10,730	9,766	11,694	34,034	9,504	58,564	24,000 or greater
2004	NVE	40,564	4,650	31,450	49,678	9,919	9,229	10,609	30,645	21,505	39,785	24,000 or greater
2005	NVE	30,333	1,529	27,336	33,330	8,805	7,829	9,781	21,528	18,525	24,709	24,000 or greater
2006	NVE	67,789	4,779	58,422	77,156	9,335	8,475	10,195	58,454	49,714	67,603	24,000 or greater
2007	NVE	46,349	3,283	39,914	52,784	11,774	10,566	12,982	34,575	27,214	40,868	24,000 or greater
2008	NVE	41,343	2,166	37,098	45,588	8,858	7,937	9,779	32,485	28,056	36,854	24,000 or greater
2009	NVE	32,400	2,365	27,765	37,035	4,614	4,213	5,015	27,786	23,028	32,326	24,000 or greater
2010	NVE	22,323	2,492	17,439	27,207	5,559	4,991	6,127	16,764	11,961	21,718	24,000 or greater
2011	NVE	33,889	3,329	27,364	40,414	5,895	ND	ND	27,994	ND	ND	24,000 or greater
2012 [f]	NVE	31,452	5,242	21,178	41,726	3,617	ND	ND	27,835	ND	ND	24,000 or greater
2013 [g]	NVE	32,581	4,425	23,908	41,254	3,569	ND	ND	29,012	ND	ND	24,000 or greater

Note: ND indicates no data.

[a] In a few years there were estimates from both the Division of Sport Fish and NVE/LGL Consulting. The "Estimator" listed was considered by both ADF&G and NVE/LGL to have the best estimate for a given year.

[b] The total Upper Copper River (UCR) harvest estimate includes the 1) State Batzulnetas subsistence fishery, 2) State Glennallen Subdistrict Subsistence fishery, 3) Federal Glennallen Subdistrict Subsistence fishery, 4) State Chitina Subdistrict Personal Use Fishery, 5) Federal Chitina Subdistrict Subsistence Fishery, and 6) the State Sport Fishery. The 1999–2013 data provided by Mark Somerville, ADF&G.

[c] Federal subsistence harvests in the Glennallen and Chitina Subdistricts began in 2002; however, no estimates of the standard error (SE) are available until 2005.

[d] SE estimates of state harvests are not available until 2001.

[e] Uncertainty of harvests and spawning escapement for 2002–2004 is underestimated because of correlated harvest and inriver abundance estimates and no SE estimates for federal harvests. The 2005–2010 SE values used to construct the confidence intervals were bootstrapped because the harvests and inriver abundance values were positively correlated.

[f] The 2012 estimate is a preliminary Darroch estimate. The final estimate has not been released as of September 2014.

[g] The 2013 estimate is for 6/5/13 through 7/9/13 because of early season river conditions and equipment issues (Fish > 600 mm).

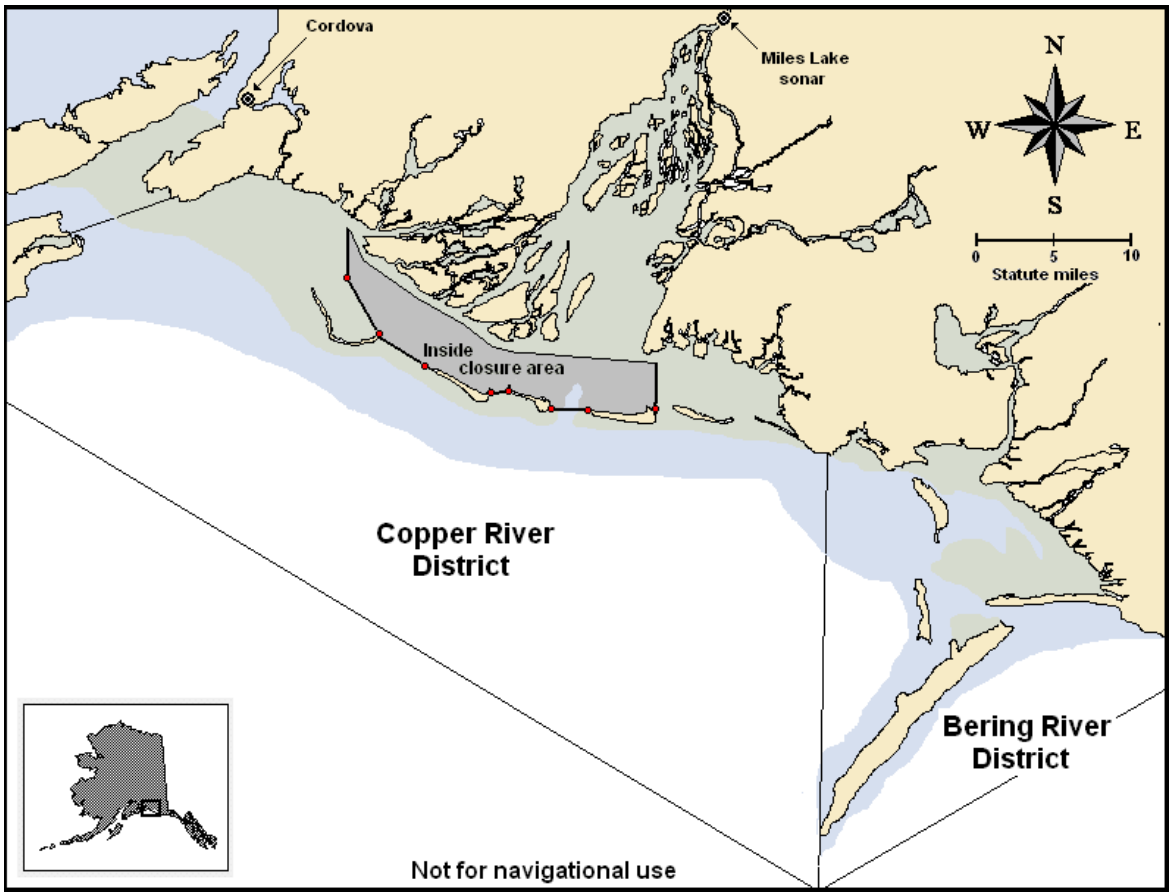

Figure 44-1.–Copper River and Bering River districts showing Miles Lake sonar site.

PROPOSAL 45 – 5AAC 24.361. Copper River King Salmon Management Plan.

PROPOSED BY: Shawn Gilman.

WHAT WOULD THE PROPOSAL DO? The proposal would repeal the limit on the number of commercial fishing periods within the inside closure area of the Copper River District.

WHAT ARE THE CURRENT REGULATIONS? Currently, during statistical weeks 20 and 21 (the first 2 weeks of the season), only one 12-hour fishing period is allowed within the inside waters (Figure 45-1) of the Copper River District.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would allow the department to determine how many, if any, closures of the inside waters of the CRD are necessary to manage king salmon returns to the Copper River. This proposal may increase the commercial harvest of king salmon by an unknown amount depending on abundance.

BACKGROUND: Since 1997, the department has used inside closures as a tool to reduce early season king salmon harvest in CRD. This strategy was developed based on catch data that show the majority of king salmon are harvested in the shallow inside areas. The department has implemented more inside closures than required by regulation during each of the last 6 years.

Over the past decade king salmon returns have declined and management has adapted to reduce harvest proportionally. King salmon harvests between 2003 and 2007 for all user groups were essentially steady (Figure 45-2). During this time king salmon spawning escapement ranged from 22,000 to 59,000, with an average escapement of 36,000 (Table 45-1).

From 2008 to 2013, average CRD commercial king salmon harvest was approximately 68% below the 2003–2007 harvest average, and average combined sport and personal use harvests were 62% below the 2003–2007 harvest average (Figure 45-2). Glennallen Subdistrict and CRD subsistence fisheries have not been restricted; subsistence harvests have declined over this period as well. In spite of low king salmon abundance, department management restrictions in commercial, personal use, and sport fisheries resulted in spawning escapement remaining above the escapement goal threshold in 5 out of 6 of these years.

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.

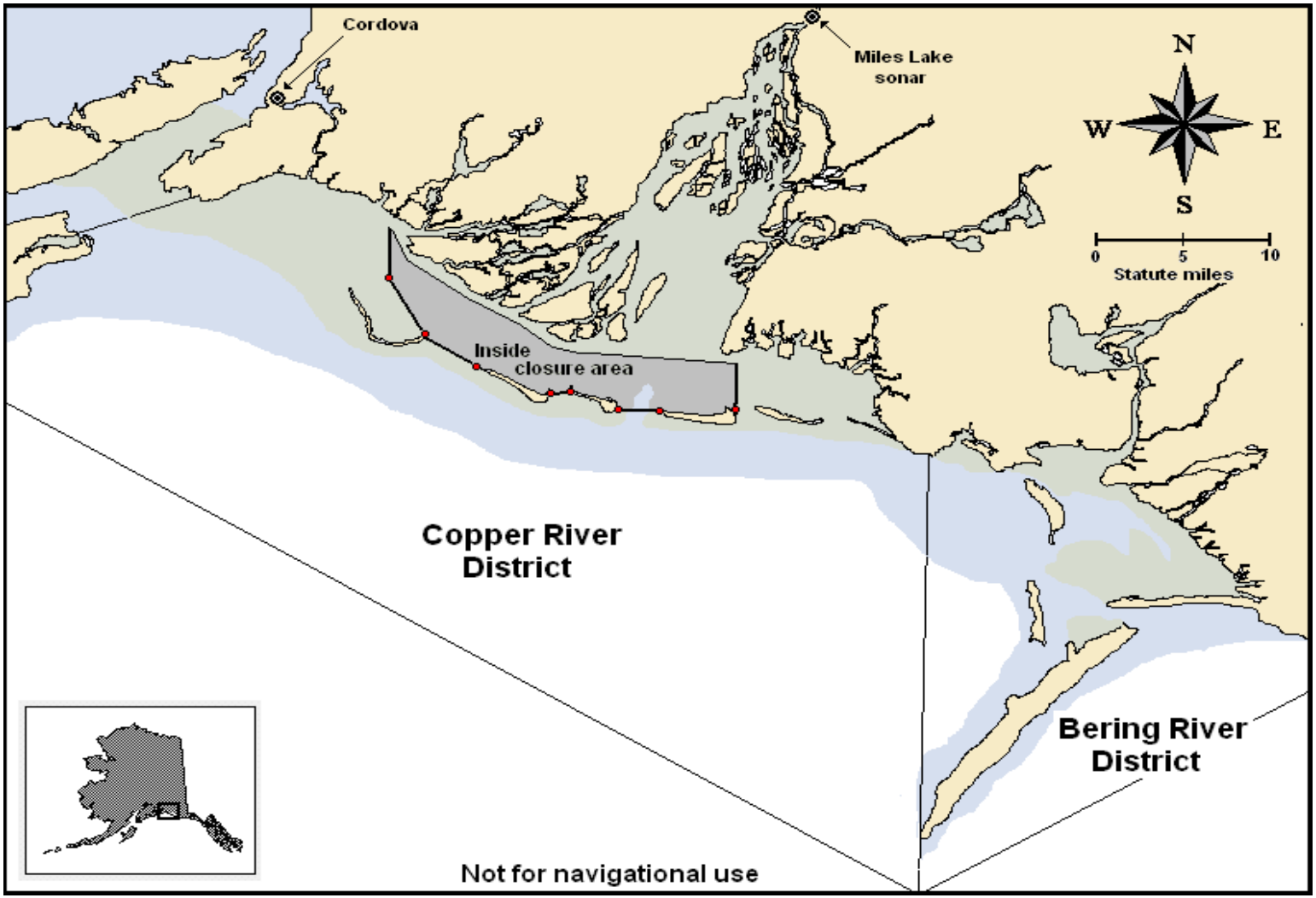

Figure 45-1.–Copper River and Bering River districts showing inside closure area.

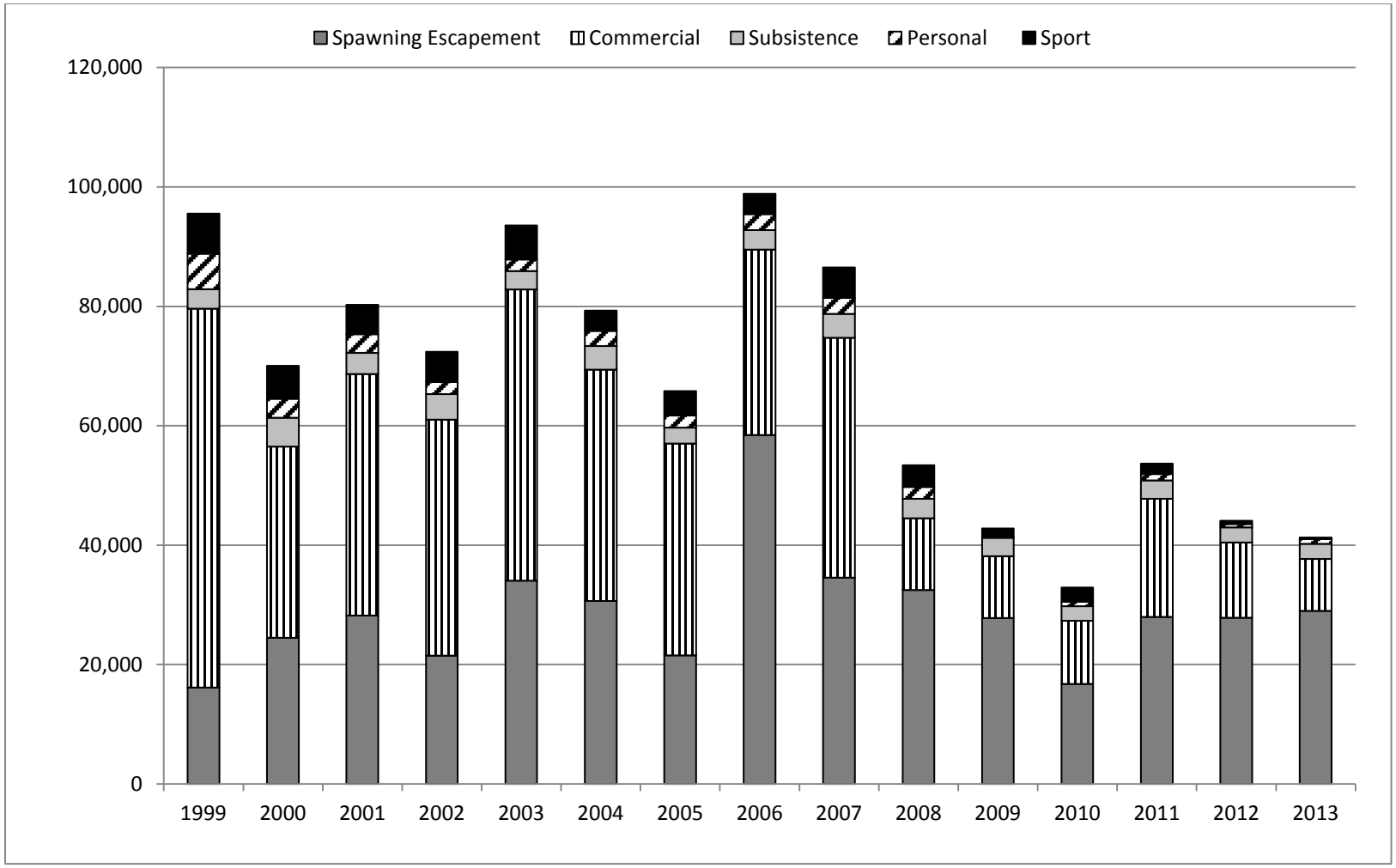

Figure 45-2.–King salmon escapement and harvest 2003–2013.

Table 45-1.–Copper River king salmon inriver abundance, total Upper Copper River (UCR) harvest, and estimated spawning escapement, 1999–2013.

		Inriver Abundance				Total UCR Harvest [b, c, d]			Estimated Spawning Escapement [e]			
Run Year	Estimator [a]	Point Estimate	SE	L 95%	U 95%	Point Estimate	L 95%	U 95%	Point Estimate	L 95%	U 95%	Sustainable Escapement Goal (SEG)
1999	Department	32,090	3,814	24,615	39,565	15,933	ND	ND	16,157	ND	ND	ND
2000	Department	38,047	7,675	23,004	53,090	13,555	ND	ND	24,492	ND	ND	28,000–55,000
2001	Department	39,778	8,262	23,585	55,971	11,570	10,765	12,375	28,208	11,995	44,421	28,000–55,000
2002	Department	32,873	8,863	15,502	50,244	11,371	10,399	12,343	21,502	4,104	38,900	28,000–55,000
2003	NVE	44,764	12,506	20,253	69,275	10,730	9,766	11,694	34,034	9,504	58,564	24,000 or greater
2004	NVE	40,564	4,650	31,450	49,678	9,919	9,229	10,609	30,645	21,505	39,785	24,000 or greater
2005	NVE	30,333	1,529	27,336	33,330	8,805	7,829	9,781	21,528	18,525	24,709	24,000 or greater
2006	NVE	67,789	4,779	58,422	77,156	9,335	8,475	10,195	58,454	49,714	67,603	24,000 or greater
2007	NVE	46,349	3,283	39,914	52,784	11,774	10,566	12,982	34,575	27,214	40,868	24,000 or greater
2008	NVE	41,343	2,166	37,098	45,588	8,858	7,937	9,779	32,485	28,056	36,854	24,000 or greater
2009	NVE	32,400	2,365	27,765	37,035	4,614	4,213	5,015	27,786	23,028	32,326	24,000 or greater
2010	NVE	22,323	2,492	17,439	27,207	5,559	4,991	6,127	16,764	11,961	21,718	24,000 or greater
2011	NVE	33,889	3,329	27,364	40,414	5,895	ND	ND	27,994	ND	ND	24,000 or greater
2012 [f]	NVE	31,452	5,242	21,178	41,726	3,617	ND	ND	27,835	ND	ND	24,000 or greater
2013 [g]	NVE	32,581	4,425	23,908	41,254	3,569	ND	ND	29,012	ND	ND	24,000 or greater

Note: ND indicates no data.

[a] In a few years there were estimates from both the Division of Sport Fish and NVE/LGL Consulting. The "Estimator" listed was considered by both ADF&G and NVE/LGL to have the best estimate for a given year.

[b] The total Upper Copper River (UCR) harvest estimate includes the 1) state Batzulnetas subsistence fishery, 2) state Glennallen Subdistrict Subsistence fishery, 3) federal Glennallen Subdistrict Subsistence fishery, 4) state Chitina Subdistrict Personal Use Fishery, 5) federal Chitina Subdistrict Subsistence Fishery, and 6) the state Sport Fishery. The 1999–2013 data provided by Mark Somerville, ADF&G.

[c] Federal subsistence harvests in the Glennallen and Chitina Subdistricts began in 2002; however, no estimates of the standard error (SE) are available until 2005.

[d] SE estimates of state harvests are not available until 2001.

[e] Uncertainty of harvests and spawning escapement for 2002–2004 is underestimated because of correlated harvest and inriver abundance estimates and no SE estimates for federal harvests. The 2005–2010 SE values used to construct the confidence intervals were bootstrapped because the harvests and inriver abundance values were positively correlated.

[f] The 2012 estimate is a preliminary Darroch estimate. The final estimate has not been released as of September 2014.

[g] The 2013 estimate is for 6/5/13 through 7/9/13 because of early season river conditions and equipment issues (fish > 600 mm).

PROPOSAL 46 – 5AAC 24.356. Reporting requirements.

PROPOSED BY: Fairbanks Advisory Committee.

WHAT WOULD THE PROPOSAL DO? The proposal would set a limit on king salmon retained for a person's own use by commercial fishermen equal to the sport fishing harvest limits, and restrict retention of king salmon for a person's own use to only a single CFEC permit holder on the vessel.

WHAT ARE THE CURRENT REGULATIONS? A person engaged in commercial fishing may retain finfish from lawfully taken commercial catch for that person's own use, including for use as bait in a commercial fishery. Commercial fishermen are required to report on fish tickets all fish harvested but not sold.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would limit the number of king salmon legally taken for a person's own use in PWS commercial salmon fisheries. Only a single CFEC permit holder on each vessel would be able to retain king salmon for his or her own use. The reduction of king salmon taken in the commercial fishery by Alaska residents for their own use may lead to an increase in subsistence harvest to meet harvest goals. This proposal would likely affect nonresident permit holders and crew members more than residents because nonresidents cannot participate in personal use or subsistence fisheries. This proposal would also reduce the number of king salmon allowed under *5 AAC 39.010(a). Retention of fish taken in a commercial fishery*.

BACKGROUND: Commercially caught king salmon retained for a person's own use represent 3% of the total average king salmon harvest for the Copper River (Table 46-1).

When the board established the ANS for the salmon stocks of the CRD, it recognized the contribution that the retention of salmon from commercial harvests made to the supply of salmon for home use in Cordova, and established a two-level ANS finding: a lower ANS range when a salmon commercial fishery is open and a higher range when there is no commercial fishery (5 AAC 01.616.(b)(2). *Customary and traditional subsistence uses of fish stocks and amount necessary for subsistence uses*). There is no two-level ANS finding for other areas in PWS.

Cordova is not unique in their reliance on salmon harvested in the commercial fishery for household consumption. Residents of other Alaska communities with active participation in the commercial fishery retain salmon from their commercial harvest for home use. For example, commercial removals accounted for anywhere from 6% of the overall harvest of salmon in Emmonak in 2008 to 36% of salmon in Chignik Lagoon in 2003, compared to 37% in Cordova (Table 46-2).

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

COST ANALYSIS: Approval of this proposal may result in an additional direct cost for a private person to participate in this fishery. If adopted, commercial fishermen of Alaska residency may have to spend money to subsistence fish to meet their needs.

Table 46-1.–Total estimated king salmon run to the Copper River by end user or destination, with previous 10-year average, 2003–2013.

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	10-year Average	2013
Commercial harvest	47,724	38,196	34,635	30,281	39,095	11,441	9,457	9,645	18,500	11,764	25,074	8,826
Commercial, home pack	1,073	539	760	779	1,019	537	876	906	1,282	853	862	564
Educational drift gillnet permit	0	0	92	11	70	47	50	31	6	6	31	55
Subsistence (Cordova, drift gillnet)	710	1,106	260	779	1,145	470	212	276	212	237	541	854
Subsistence (Batzulnetas, dip net, fish wheel, or spear)	0	0	0	0	0	0	0	0	0	0	0	5
Subsistence (Glennallen Subdistrict, dip net, fish wheel, or spear)	2,538	3,346	2,229	2,769	3,276	2,381	2,493	2,099	2,319	2,095	2,555	2,148
Federal subsistence (Glennallen subdistrict, dip net, fish wheel, or spear)	554	636	345	430	663	837	549	326	744	415	550	329
Personal use harvests (Chitina Subdistrict, dip net)	1,903	2,495	2,043	2,663	2,694	1,999	214	700	1,067	567	1,635	744
Federal subsistence (Chitina subdistrict, dip net)	18	7	22	13	28	23	9	18	13	5	16	17
Sport harvest	5,717	3,435	4,093	3,425	5,123	3,618	1,355	2,409	1,753	459	3,139	1,106
Upriver spawning escapement	34,034	30,645	21,528	58,454	34,565	32,485	27,781	16,771	27,993	27,911	31,217	28,237
Total estimated king salmon run	94,271	80,405	66,007	99,604	87,678	53,838	42,996	33,181	53,889	44,312	65,618	42,885

Table 46-2.–Estimated percentage of harvest for household consumption by fishery, Alaska residents of coastal communities in Alaska.

Study Year	Community	Commercial Removal	Subsistence Fishery	Sport Fishery
2008	Togiak	29%	62%	9%
2008	Emmonak	6%	94%	0%
2003	Chignik Bay	25%	59%	17%
2003	Chignik Lagoon	36%	60%	4%
2003	Chignik Lake	16%	79%	5%
2003	Cordova	37%	57%	6%
2003	Larsen Bay	23%	54%	23%
2003	Old Harbor	11%	47%	42%
2003	Perryville	15%	77%	9%

PROPOSAL 47 – 5AAC 24.361. Copper River King Salmon Management Plan.

PROPOSED BY: Fairbanks Fish and Game Advisory Committee.

WHAT WOULD THE PROPOSAL DO? When deemed necessary for the conservation of king salmon, the department may close the commercial gillnet fishing season and immediately reopen a fishing season during which dip net gear may be used and all king salmon caught must be returned immediately to the water.

WHAT ARE THE CURRENT REGULATIONS? Drift gillnet gear is the only legal commercial salmon fishing gear within the Copper River District.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would decrease mortality of king salmon in the CRD commercial fishery, reallocate harvest of Copper River salmon to other fisheries, and potentially increase king salmon spawning escapement. It would likely lead to foregone sockeye salmon harvest and potentially exceeding sockeye salmon escapement goals.

BACKGROUND: In recent years, fisheries using dip net gear have been shown to reduce mortality of king salmon on the Yukon and Kuskokwim rivers. However, these are inriver fisheries, in which salmon are susceptible to capture by dip net due to restricted area of the river channel as they move upstream. The result is a fishery for all species of salmon that allows for release of species for which conservation concerns exist. In these cases, fishermen are still able to harvest chum or sockeye salmon while releasing king salmon. Fishermen in the Yukon and Kuskokwim can use small, open skiffs to fish, and the channelized riverine environment allows them to target salmon with greater success than an open ocean environment. The environment within the CRD would not be conducive for this gear type. The CRD is either open ocean or broad intertidal flats. In the CRD there is little channelized shallow area to concentrate fish and allow dip net gear to be effective.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. The magnitude of sockeye salmon run entry would overwhelm harvest ability because ineffective nature of dip net gear in the CRD environment. 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. Commercial fishermen would need to purchase dip nets and any other associated gear to be able to participate in the fishery.

PROPOSAL 48 – 5AAC 24.XX New section

PROPOSED BY: Native Village of Eyak.

WHAT WOULD THE PROPOSAL DO? The proposal would require that markers defining the closed water boundaries for the CRD commercial fishery be installed and maintained during the fishing season.

WHAT ARE THE CURRENT REGULATIONS? Closed waters for the commercial fishery in the Copper River District are currently defined by GPS coordinates.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would not change the closed waters boundaries utilized in this fishery. Markers would be placed near designated closed water boundary points. There would likely be disagreement between GPS coordinates and marker locations due to accuracy issues when placing markers because of the inherent variability in location assessment among GPS units. Differences between marker and GPS coordinate locations may make the fishery boundaries more difficult to enforce. This proposal would increase expenses incurred by the department.

BACKGROUND: Prior to full implementation of GPS coordinates, geographic points and marker locations were often used to define CRD closed waters. These points and marker locations were historically on sand bars or within a certain distance of geographic features. Some of these sand bars and geographic features have remained in position while others have shifted and require an adjustment of their location for these coordinates to accurately reflect regulatory intent. Markers were placed and removed every year through a vessel contract with the department. The department no longer maintains markers in the CRD.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal due to decreased enforceability of the district boundaries that would occur if markers are in place.

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

COMMITTEE OF THE WHOLE–GROUP 6: SPORT (8 PROPOSALS)

Upper Copper/Upper Susitna sport fisheries: 49–57

PROPOSAL 49 – 5 AAC 52.023. Special provisions for seasons, bag, possession, and size limits, and methods and means for the Upper Copper River and Upper Susitna River Area.

PROPOSED BY: Jim West.

WHAT WOULD THE PROPOSAL DO? This proposal would change the sport fishing season opening date for king salmon on the Klutina River from July 1 to June 1.

WHAT ARE THE CURRENT REGULATIONS? The sport fishing season for king salmon in the Klutina River downstream of the Klutina Lake Road Mile 13 is July 1–August 10. The upper reaches of the Klutina River close earlier to protect spawning king salmon: from Klutina Lake Road Mile 19.2 to Klutina Lake the season is July 1–19, and from Klutina Lake Road Mile 13 to Mile 19.2 the season is July 1–31. The bag and possession limit for sport caught king salmon 20 inches or greater in length is one fish. The Upper Copper River annual limit of four king salmon 20 inches or greater in length includes the Klutina River.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would extend the king salmon fishing season by 30 days. King salmon harvest in the Klutina River would increase with the adoption of the proposal.

BACKGROUND: At the December 2008 meeting in Cordova, the board modified the sport fishing season for king salmon on the Klutina, Tonsina, and Copper rivers. The season for king salmon in the Copper River drainage downstream of the upstream bank of the Klutina River was set for July 1–August 10. Closure dates on the upper reaches of the Klutina River were set earlier to protect spawning salmon.

Sport harvests of king salmon in the Klutina River have averaged 977 fish annually (2004–2013), and represent 38% of the Upper Copper River drainage king salmon sport harvest (Table 49-1). Based on radiotelemetry data collected by the department from 1999–2004, an average 20% of the Klutina River king salmon run enters the river by July 1 and 80% of the run enters the river by August 1. From 2005–2008, guided sport harvests of king salmon in the Klutina River prior to July 1 averaged 16% of the total guided harvests (Table 49-2). Every year since 2009, the annual limit of king salmon in the Upper Copper River drainage has been reduced.

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 49-1.–Harvest of king salmon by recreational anglers fishing in the Copper River by drainage, 1994–2013.

	Gulkana River							Copper River			
Year	Upper Reach	Lower Reach	Unspecified	Total	Klutina River Drainage	Tonsina River Drainage	Tazlina River Drainage	Upstream of Gulkana	Downstream of Klutina	Other Waters	Area Total
1994	1,538	2,071	83	3,692	2,189	349	105	16	20	50	6,431
1995	1,269	2,250	37	3,556	2,485	539	0	0	0	129	6,709
1996	1,667	3,362	231	5,260	3,142	331	64	0	64	255	9,116
1997	2,089	2,514	138	4,741	3,344	131	28	0	22	80	8,346
1998	1,511	3,786	106	5,403	2,608	39	63	0	15	117	8,245
1999	1,102	1,764	227	3,093	3,489	0	0	25	11	124	6,742
2000	1,787	2,304	86	4,177	1,303	0	0	0	10	41	5,531
2001	1,338	1,793	143	3,274	1,465	11	0	0	32	122	4,904
2002	715	2,125	143	2,983	1,778	230	0	13	0	94	5,098
2003	1,427	2,164	116	3,707	1,873	25	0	0	12	100	5,717
2004	64	1,670	156	1,890	1,338	115	0	0	39	53	3,435
2005	392	2,081	100	2,573	1,276	214	0	0	15	15	4,093
2006	464	1,495	188	2,147	1,136	100	0	0	13	29	3,425
2007	467	2,639	163	3,269	1,683	0	0	0	113	48	5,113
2008	241	2,036	46	2,323	1,160	0	0	0	118	15	3,616
2009	62	454	0	516	733	58	0	0	48	0	1,355
2010	401	1,038	13	1,452	863	0	0	0	101	0	2,416
2011	0	536	27	563	1,043	0	0	0	107	40	1,753
2012	14	106	76	196	314	0	0	0	25	0	535
2013	0	0	0	0	223	51	0	0	0	11	285
Average 2009–2013	95	427	23	545	635	22	0	0	56	10	1,269
Average 2004–2013	211	1,206	77	1,493	977	54	0	0	58	21	2,603

Table 49-2.–Guided king salmon harvest in the Klutina River, 2005–2013.

	Year									
Month	2005	2006	2007	2008	2009	2010	2011	2012	2013	Total
June	142	149	149	85	2	6	2	0	0	535
July	757	693	755	600	372	489	323	237	93	4,319
August	0	0	0	0	0	68	62	0	38	168
Total	899	842	904	685	374	563	387	237	131	5,022

PROPOSALS 50, 51, and 52 – 5 AAC 24.361. Copper River King Salmon Management Plan. and 5 AAC 52.022. General provisions for seasons, bag, possession, and size limits, and methods and means for the Upper Copper River and Upper Susitna River Area.

PROPOSED BY: Ahtna Tene Nene' Customary and Traditional Use Committee (Proposal 50) and Aaron Bloomquist (proposals 51 and 52).

WHAT WOULD THE PROPOSAL DO? Proposal 50 would prohibit the use of bait, barbed hooks, and multiple hooks when sport fishing for king salmon in the UCUSMA. Proposal 51 would prohibit the use of barbed hooks and multiple hooks once the king salmon bag or annual limit has been achieved. Proposal 52 would amend the CRKSP to prohibit the use of barbed and multiple hooks and either allow or prohibit the use of bait when the department designates the Upper Copper River king salmon sport fishery a catch-and-release fishery.

WHAT ARE THE CURRENT REGULATIONS? In flowing waters of the UCUSMA only unbaited, single-hook, artificial lures may be used when sport fishing for all species, with the following exceptions: in the Copper River mainstem downstream of the Slana River confluence, bait and artificial lures may be used; in the Gulkana River drainage downstream of the Richardson Highway Bridge to an department marker 500 yards downstream of the confluence with the Copper River, only single-hook, artificial flies may be used from June 1–July 31; in the Gulkana River drainage upstream of the Richardson Highway Bridge to a department marker 7.5 miles upstream of the West Fork confluence, bait and artificial lures may be used from June 1–July 19; in the Klutina River drainage, bait and artificial lures may be used; in Moose Creek, bait and artificial lures may be used; and, in the Tonsina River drainage, in all flowing waters downstream from the outlet of Tonsina Lake, bait and artificial lures may be used.

There are currently no regulations in the UCUSMA that require sport anglers to use different terminal gear once they have reached the bag or annual limit of king salmon.

The CRKSP directs the department to manage the Copper River commercial, sport, personal use and subsistence fisheries to achieve the sustainable escapement goal of 24,000 king salmon or more. The plan specifies an annual limit of four king salmon (20 in or greater). The plan directs the department, when necessary to achieve escapement goals, to use the following management actions in the following priority order: A) reduce the annual limit for king salmon; B) modify other methods and means not specified in the plan; C) designate the fishery as a catch-and-release fishery only; and D) close specific waters to sport fishing for king salmon. Under the authority of the CRKSP the department can prohibit the use of barbed and multiple hooks and the use of bait by emergency order.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? These proposals would reduce angler efficiency by an unknown amount when targeting king salmon. Reduced angler efficiency would result in either anglers fishing longer in order to achieve their bag limit of one king salmon, or a reduced harvest of king salmon overall.

Requiring all anglers to use barbless hooks when fishing for king salmon would add complexity to the regulations. In general, freshwater sport fishing terminal gear regulations are not species-

specific (with the exception of burbot in the UCUSMA); requiring barbless hooks when sport fishing for king salmon would deviate from the standard regulation protocol. As another example, under Proposal 51 a boat with multiple anglers could result in a situation where some anglers are required to use different terminal tackle depending on whether or not they have taken their bag or annual limit of king salmon. These proposals would likely make regulations more difficult to understand, reduce compliance, and increase the likelihood of unintentional violations. Prohibiting barbed hooks would not reduce mortality of released fish by a measurable amount.

Proposal 51 would further reduce angler efficiency when fishing for any species after they have taken their king salmon bag or annual limit. In water bodies where bait is allowed, anglers would still be able to fish bait with a barbless hook once they have taken their bag or annual limit of king salmon. This proposal may result in a change in angler practice in that some anglers may choose to fish with bait and barbed, single or multiple hook artificial lures for longer periods before harvesting their "last" fish of the day.

By directing the department to decide whether or not to allow or prohibit the use of bait when the fishery is restricted to catch-and-release, Proposal 52 would have a much greater effect on angler efficiency (depending on whether or not the department restricted the use of bait in a particular circumstance). Prohibiting barbed hooks as proposed would not reduce mortality of released fish by a measurable amount, but the use of bait has been shown to increase catch rates and hooking mortality. Restricting the fishery to catch-and-release with single, baited, barbless hooks would result in greater mortality of king salmon than the current department practice of restricting the fishery to catch-and-release with unbaited, single-hook, artificial lures or unbaited, artificial lures.

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 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. 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

These proposals imply that high numbers of king salmon released by anglers experience mortality and seek to reduce mortality of released fish by prohibiting barbed hooks. Some salmon anglers currently use barbless hooks voluntarily. Studies indicate estimates of release mortality vary greatly depending on a number of factors, but conservatively fall between 1–12% for freshwater king salmon sport fisheries. Specifically for Alaskan fresh waters, king salmon release mortality rates were estimated at 8% (range 4–11%).

The major king salmon sport fisheries in the UCUSMA occur in the Gulkana and Klutina rivers. Due to declining king salmon runs since 2009, inseason management actions have been implemented to reduce overall king salmon sport harvest in the Upper Copper River drainage. This includes four years (2009, 2011, 2012, and 2013) in which catch-and-release regulations were implemented by emergency order (Table 50-2). These emergency orders have occurred in

the Gulkana or Klutina rivers, or both. In all cases when catch-and-release was implemented, the use of bait was prohibited. This is not a requirement of the CRKSP, but a common practice when restricting fisheries to catch-and-release by emergency order. On average, harvest and catch from 2009–2013 have been reduced more than 50% compared to the previous 5-year average (2004–2008) while fishing effort has remained relatively stable (Tables 50-1 and 50-2).

The board has adopted regulations to reduce 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** these proposals. 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 use of barbless hooks because of the negative effects it would cause to sport fishing opportunity in the absence of a measurable biological benefit. The department also does not support a regulation that conflicts with the "best practices" when implementing catch-and-release restrictions, such as allowing bait. The department is **NEUTRAL** on allocative aspects, due to the potential decreased efficiency and harvest reduction of these proposals.

COST ANALYSIS: Approval of this proposal may result in an additional direct cost for a private person to participate in this fishery. Sport anglers may be required to purchase barbless hooks or lures or tools to modify their existing gear.

Table 50-1.–King salmon sport fishing harvest, catch, and effort in the UCUSMA.

Year	Effort (Angler-days)			Harvest			Catch		
	Gulkana	Klutina	Total	Gulkana	Klutina	Total	Gulkana	Klutina	Total
1999	29,934	15,687	77,619	3,093	3,489	6,742	9,034	8,637	18,034
2000	20,896	11,125	58,194	4,177	1,303	5,531	13,919	4,057	18,503
2001	18,664	8,960	48,879	3,274	1,465	4,904	10,834	4,922	16,000
2002	18,060	9,111	46,613	2,983	1,778	5,098	12,316	5,645	19,497
2003	19,164	8,897	52,139	3,707	1,873	5,717	13,356	5,418	19,426
2004	17,351	10,472	46,592	1,890	1,338	3,435	7,368	4,135	12,664
2005	15,277	10,516	41,801	2,573	1,276	4,093	6,584	2,651	9,778
2006	11,910	12,285	39,107	2,147	1,136	3,425	7,673	2,890	11,057
2007	19,323	16,512	52,837	3,275	1,687	5,113	8,620	3,025	12,109
2008	16,794	12,677	48,371	2,323	1,160	3,616	5,984	1,670	7,827
2009	13,340	15,665	53,409	516	733	1,355	2,085	1,888	4,231
2010	13,834	16,534	52,232	1,445	863	2,416	4,740	3,240	8,213
2011	6,134	9,915	31,993	563	1,043	1,753	2,597	3,476	7,025
2012	5,593	18,030	40,368	196	314	535	685	1,118	1,869
2013	6,296	16,339	40,281	0	223	285	0	565	1,209
Average 2004–08	16,131	12,492	45,742	2,442	1,319	3,938	7,246	2,874	10,687
Average 2009–13	9,039	15,297	43,657	544	636	1,268	2,021	2,057	4,509

Table 50-2.–UCUSMA sport fishing management actions for king salmon, and king salmon spawning escapement.

Year	EO	Action	Spawning Escapement (SEG≥24,000)
2014	3-KS-06-14 (6/14/14)	Annual limit from four to one.	ND
2013	3-KS-05-13 (6/15/13)	Annual limit from four to one; Gulkana R, no retention, bait or treble hooks.	29,012
2012	3-KS-05-12 (6/30/12)	Annual limit from four to one; Gulkana R, no retention, bait or treble hooks.	27,835
	3-KS-08-12 (7/28/12)	Klutina R and Copper R drainage downstream, no retention, bait or treble hooks.	
2011	3-KS-03-11 (6/25/11)	Annual limit from four to two, only one from any drainage; no retention upstream of the Klutina R.	27,994
2010	3-KS-01-10 (6/21/10)	Annual limit from four to two, only one from any drainage.	16,764
2009	3-KS-02-09 (6/15/09)	Annual limit from four to two, only one from any drainage.	27,787
	3-KS-03-09 (6/29/09)	Gulkana R closed to sport fishing for king salmon.	
	3-KS-05-09 (7/27/09)	Klutina R and Copper R drainage downstream, no retention, bait or treble hooks.	
2005	3-KS-01-05 (7/2/15)	Gulkana River annual limit from four to one (Copper R annual limit remains at four, only one from Gulkana R).	21,528

Note: ND indicates no data.

PROPOSAL 53 – 5 AAC 52.022. General provisions for seasons, bag, possession and size limits, and methods and means for the Upper Copper River and Upper Susitna River Area, and 5 AAC 52.023. Special provisions for seasons, bag, possession, and size limits, and methods and means for the Upper Copper River and Upper Susitna River Area.

PROPOSED BY: Alaska Department of Fish and Game.

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

WHAT ARE THE CURRENT REGULATIONS? Current regulations allow only unbaited, single-hook artificial lures to be used year-round in all flowing waters of the UCUSMA (except the Klutina and Tonsina rivers, and Moose Creek, and certain areas of the Gulkana River), in Lake Louise, and in Crosswind, Paxson, Summit, Susitna, and Tyone lakes from April 16–October 31.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would preface the existing regulatory language by adding the word "one," clarifying that only one artificial lure with one hook or only one artificial fly may be used. This would prevent anglers from fishing with two artificial flies or artificial lures with two single hooks. This would provide consistency in sport fish regulations within Region III (Arctic-Yukon-Kuskokwim and Upper Copper/Upper Susitna drainages).

BACKGROUND: Current regulations are unclear whether artificial lures with two single hooks or two artificial flies may be used when regulations state that only unbaited, single-hook, artificial lures may be used. Initially, the language "unbaited, single-hook artificial lures" was thought to mean that only one artificial lure or fly with a single hook could be fished. Upon consultation with AWT and DOL staff, it was determined that current regulatory language would allow two artificial flies or a lure with two single hooks to be fished. Adding "one" in front of "unbaited, single-hook artificial lure" clarifies that only one artificial fly or an artificial lure with only one single-hook may be fished and the regulation will comply with the original intent. Unbaited, single-hook, artificial lure regulations are in place to provide for sustained yield of rainbow trout, Arctic grayling, Dolly Varden, lake trout, and 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.

PROPOSAL 54 – 5 AAC 52.023. Special provisions for seasons, bag, possession, and size limits, and methods and means for the Upper Copper River and Upper Susitna River Area.

PROPOSED BY: Ahtna Tene Nene' Customary and Traditional Use Committee.

WHAT WOULD THE PROPOSAL DO? This proposal would increase the bag and possession limit of Arctic grayling in the Gulkana River drainage and allow use of a baited, single hook in flowing waters where currently only unbaited, single-hook, artificial lures may be used for most of the year.

WHAT ARE THE CURRENT REGULATIONS? In all flowing waters of the Gulkana River drainage, only unbaited, single-hook, artificial lures may be used; with the exception of that portion of the mainstream Gulkana River from the Richardson Highway Bridge to a marker 7.5 miles upstream of the West Fork where bait and artificial lures may be used from June 1–July 19. The bag and possession limit for Arctic grayling in the Gulkana River drainage is five fish, and only one fish may be 14 inches or greater, with the exception of the Gulkana River drainage upstream of Paxson Lake where the bag and possession limit is two fish, only one of which may be 14 inches of greater in length.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would increase the harvest of Arctic grayling in the Gulkana River drainage by an unknown amount. If adopted, this would allow 50% of the bag limit to consist of 14 inch or greater Arctic grayling, versus 20% under current regulations. The increased harvest would potentially change the size composition of Arctic grayling populations. Removal of the bait restriction in the Gulkana River drainage may also impact rainbow and steelhead trout populations in this drainage.

BACKGROUND: Wild Arctic grayling fisheries in the UCUSMA are managed to maintain sustained yield and historical age and size composition and stock abundance while producing satisfactory catch rates for sport anglers. Harvest and catch of wild Arctic grayling in the Gulkana River are estimated via the Statewide Harvest Survey.

The *Wild Arctic Grayling Management Plan* (5 AAC 52.055) was adopted in 2004 and designates three management approaches: regional, conservative, and special management. Most wild Arctic grayling fisheries in the UCUSMA fall under the regional management approach and are open to fishing all year, with or without bait, and a bag and possession limit of five fish with no size limit. Under the conservative management approach the fishery is open from June 1–March 31, may be limited to unbaited lures, and has a bag and possession limit of two fish. Size limits may or may not be imposed. Four fisheries within the UCUSMA are classified under the conservative management approach: Mendeltna Creek (two fish ≥ 12 inches), Moose Lake and Our Creek in the Tazlina drainage (two fish, no size limit), and the Gulkana River upstream of Paxson Lake (two fish, only one fish 14 inches or greater in length, open all year). Under these regulations, the wild Arctic grayling stocks in the UCUSMA are able to support current harvest levels.

The bag limit for wild Arctic grayling in the remainder of the Gulkana River (five fish, only one fish 14 inches or greater in length) was established in 1986, and deviates slightly from the three management approaches outlined in the *Wild Arctic Grayling Management Plan*. However, previous estimates of abundance indicate that current harvest levels on the major stock units of wild Arctic grayling in the Gulkana River drainage are sustainable.

The Gulkana River drainage sustains the highest angler effort (all species) in the UCUSMA averaging 15,913 angler-days annually from 2004–2013 (Table 54-1). This drainage also supports the largest harvest of Arctic grayling in the UCUSMA, averaging 1,242 fish from 2004–2013 (Table 54-2).

In 2000, the board approved an areawide restriction on the use of bait in all flowing waters of the UCUSMA (with some area and time exceptions). This action was in part to protect rainbow and steelhead trout populations.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. This proposal is inconsistent with the *Wild Arctic Grayling Management Plan,* in which the department is instructed to manage Arctic grayling fisheries for sustained yield and to provide or maintain fishery qualities that are desired by sport anglers. A change in size composition is likely if a high number of large fish are harvested, this would conflict with the current management strategy to provide anglers the opportunity to catch a large Arctic grayling when fishing the Gulkana River.

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 54-1.–Sport fishing effort (angler-days) in the UCUSMA by drainage, 1994–2013.

	River drainage									
Year	Gulkana	Susitna	Klutina	Tazlina	Tonsina	Above Gulkana River	Below Klutina River	Stocked lakes	Other Copper River drainages	UCUSMA Total
1994	34,702	18,574	10,624	3,837	2,254	1,611	1,778	5,561	6,579	85,520
1995	44,075	20,738	14,496	4,034	3,912	2,276	1,373	5,441	6,606	102,951
1996	32,025	9,859	10,699	1,775	1,514	815	695	3,759	3,266	64,407
1997	29,056	5,995	11,644	1,489	1,099	457	952	2,160	3,405	56,257
1998	31,909	5,643	9,408	1,592	1,054	540	795	3,346	2,419	56,706
1999	37,867	12,003	15,687	1,617	1,230	1,184	388	3,841	3,802	77,619
2000	25,721	10,646	11,125	1,583	1,182	459	780	3,689	3,009	58,194
2001	24,852	5,161	8,960	902	1,100	781	484	4,396	2,243	48,879
2002	23,970	5,522	9,111	751	1,381	675	301	2,377	2,525	46,613
2003	25,846	8,778	8,897	773	879	1,947	330	2,858	1,831	52,139
2004	20,608	6,890	10,472	241	1,007	1,431	2,608	1,406	1,929	46,592
2005	20,486	4,594	10,516	613	593	1,133	539	2,313	1,014	41,801
2006	14,455	5,143	12,285	587	716	734	855	2,790	1,542	39,107
2007	22,620	8,209	16,512	593	562	1,180	578	1,974	609	52,837
2008	20,893	8,472	12,677	641	653	1,216	1,349	1,453	1,017	48,371
2009	17,713	8,845	15,665	802	645	1,653	508	2,254	5,324	53,409
2010	16,714	11,320	16,534	1,540	725	1,726	974	2,049	650	52,232
2011	8,541	6,032	9,915	1,366	535	408	1,366	3,117	713	31,993
2012	8,117	7,788	18,030	1,067	380	894	628	2,510	954	40,368
2013	8,980	6,998	16,357	1,331	898	1,589	1,717	1,163	572	39,605
Average 2009–2013	12,013	8,197	15,300	1,221	637	1,254	1,039	2,219	1,643	43,521
Average 2004–2013	15,913	7,429	13,896	878	671	1,196	1,112	2,103	1,432	44,632

Table 54-2.–Harvest of wild Arctic grayling by sport fishing anglers fishing in the UCUSMA by drainage, 1994–2013.

					Tazlina River drainage		Copper River drainage			
Year	Gulkana River drainage	Upper Susitna River drainage	Klutina River drainage	Tonsina River drainage	Mendeltna Creek	Other lakes and streams	Above Gulkana River	Below Klutina River	Other lakes and streams	Area total
1994	4,253	3,662	363	363	906	984	884	123	1,796	13,334
1995	4,159	3,982	285	261	1,041	1,171	953	166	1,661	13,679
1996	3,263	2,949	183	192	570	849	608	194	1,279	10,087
1997	3,228	1,332	165	82	462	468	475	269	1,785	8,266
1998	2,975	1,797	517	495	579	490	527	150	589	8,119
1999	2,482	1,564	530	368	79	650	1,108	67	798	7,646
2000	2,062	2,181	134	123	245	274	588	0	954	6,561
2001	1,753	686	267	128	70	120	589	29	630	4,272
2002	2,646	928	566	180	23	370	2,598	62	537	7,910
2003	2,132	1,047	575	58	23	312	1,466	0	236	5,849
2004	1,331	819	197	112	65	73	805	124	589	4,115
2005	1,553	380	59	86	0	500	432	96	540	3,646
2006	1,179	998	77	8	46	359	194	137	298	3,296
2007	729	387	138	0	97	130	840	144	19	2,484
2008	1,665	1,431	17	59	190	34	616	42	76	4,130
2009	1,522	1,216	47	35	0	85	462	0	1,078	4,445
2010	2,081	1,850	57	12	107	90	210	89	227	4,723
2011	532	1,195	0	9	0	0	14	28	29	1,807
2012	1,393	1,335	42	0	0	710	243	67	144	3,934
2013	436	1,340	0	0	23	401	1,087	72	0	3,359
Average 2009–2013	1,193	1,387	29	11	26	257	403	51	296	3,654
Average 2004–2013	1,242	1,095	63	32	53	238	490	80	300	3,594

PROPOSAL 55 – 5 AAC 52.023. Special provisions for seasons, bag, possession, and size limits, and methods and means for the Upper Copper River and Upper Susitna River Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would align the rainbow trout regulations in Bridge Creek and Summit Lake.

WHAT ARE THE CURRENT REGULATIONS? Fishing regulations for Bridge Creek fall under the general provisions for seasons, bag, possession and size limits, and methods and means for the UCUSMA. Rainbow/steelhead trout may be taken from January 1–December 31 with a bag and possession limit of two fish, of which only one may be 20 inches or greater in length. However, Summit Lake falls under the special provisions for seasons, bag, possession, and size limits, and methods and means for the UCUSMA. In Summit Lake, the bag and possession limit for rainbow/steelhead trout is 10 fish, of which only one may be greater than 18 inches in length.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would increase harvest opportunity for rainbow trout at Bridge Creek. It may also help maintain the current size composition of the rainbow trout population in Summit Lake.

BACKGROUND: Bridge Creek is the outlet stream of Summit Lake (a remote, high alpine lake in Wrangell-St. Elias National Park) and the main spawning location for Summit Lake rainbow trout (Figure 55-1). The department conducted a large-scale removal operation in 1999, 2004–2011, and 2013 to change this rainbow trout population from a stunted population with no fish larger than 16 inches to a stable population composed of multiple size classes ranging up to 24 inches or greater. To maintain the improved size structure of the rainbow trout population in Summit Lake, the board adopted a 10 fish bag limit, of which only one may be greater than 18 inches in length, and removed the spawning closure for rainbow trout at its 2011 meeting. Most of the sport fishing effort in this area occurs from the shore of Summit Lake near the outlet or within the first mile of Bridge Creek. Bridge Creek was inadvertently not included in the 2011 regulations.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. This proposal provides consistency and clarity to existing special regulations for Summit Lake and management of its rainbow trout population.

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.

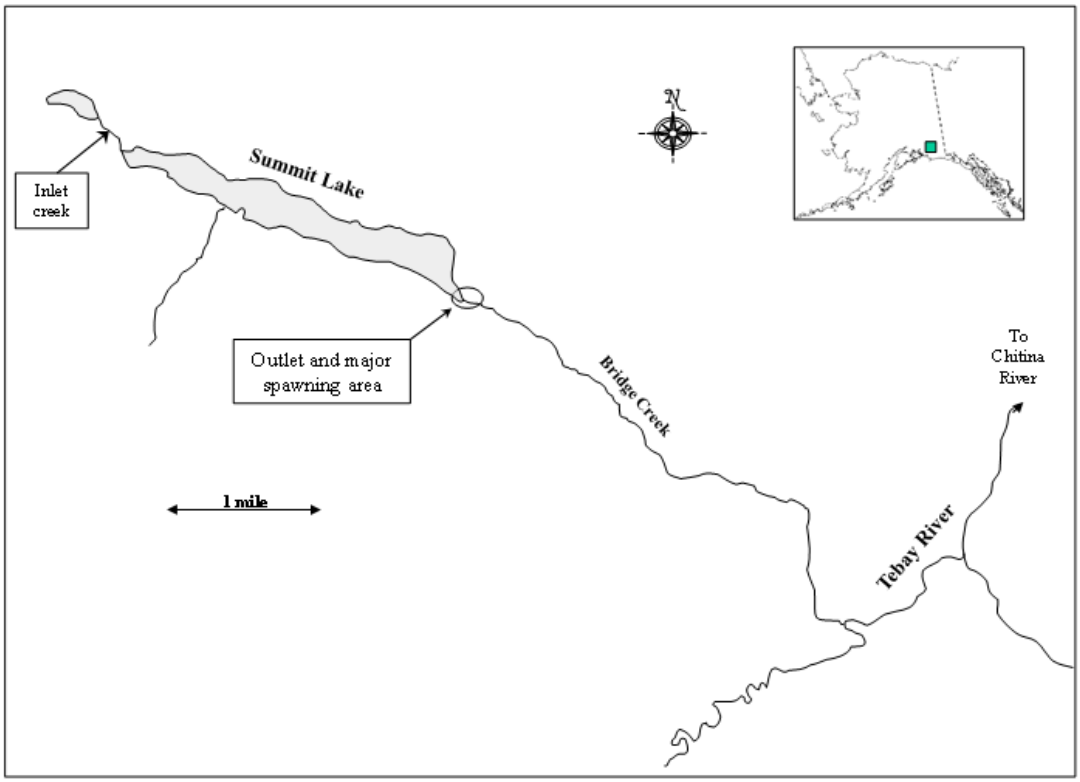

Figure 55-1.–Map of Summit Lake and Bridge Creek, Tebay River drainage.

PROPOSAL 56 – 5 AAC 52.023. Special provisions for seasons, bag, possession, and size limits, and methods and means for the Upper Copper River and Upper Susitna River Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would update the list of stocked waters in regulation and remove Kathleen Lake, Little Crater Lake, Little Junction Lake and Van Lake from the Upper Copper River and Upper Susitna River Area stocked waters regulation.

WHAT ARE THE CURRENT REGULATIONS? Twenty-nine stocked waters in the UCUSMA are managed under the regional management approach with an aggregate bag, possession, and size limit for rainbow trout, Arctic char/Dolly Varden, landlocked salmon, and Arctic grayling of 10 fish (all stocked species combined), of which no more than one fish may be 18 inches or greater in length.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would make regulations consistent with stocked waters.

BACKGROUND: In conjunction with each board cycle, the department reviews stocked waters to ensure consistency between the *Statewide Stocking Plan for Recreational Fisheries*, the Upper Copper River and Upper Susitna River Area stocked waters regulations, and the *Upper Copper River and Upper Susitna River Area Stocked Waters Management Plan* (5 AAC 52.065). Stocked waters are removed from the stocking plan due to a loss of public access, poor fish growth or survival, or insufficient fishing effort. As new waters are identified and included in the stocking plan, they are added to the 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.

PROPOSAL 57 – 5 AAC 52.023. Special provisions for seasons, bag, possession, and size limits, and methods and means for the Upper Copper River and Upper Susitna River Area.

PROPOSED BY: Alaska Department of Fish and Game.

WHAT WOULD THE PROPOSAL DO? This proposal would amend methods and means for burbot in a portion of the Copper River drainage to reference statewide regulations.

WHAT ARE THE CURRENT REGULATIONS? Per statewide regulations, burbot may be taken in fresh water with more than one line and hook under the following conditions: the total aggregate number of hooks used on set lines, closely attended gear, and ice fishing gear may not exceed 15 or the daily bag limit for burbot in the waters being fished, whichever is less; the hooks are single hooks with gap between point and shank larger than three-fourths inch; each hook is set to rest on the bottom of the lake or stream; each line is identified with the angler's name, and address; and each line is physically inspected at least once during each 24-hour period.

In the Copper River downstream from the confluence of the Copper River and the Slana River the bag and possession limit for burbot is five fish; burbot of any size may be taken with more than one line and hook only under the following conditions: with sport fishing gear, ice fishing gear, or a set line; the aggregate number of hooks may not exceed five hooks; only single hooks with a gap that does not exceed three-fourths inch between the point and shank may be used; if using a set line, each hook must be set to rest on the bottom, and each line must be identified with the angler's name and address on a tag or label attached to the shoreward end of the line or above the ice; and unattended set lines are prohibited and must be physically inspected at least once every 24 hours.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would eliminate a duplicate regulation and simplify regulations.

BACKGROUND: The board adopted a proposal in 1999 that allowed the use of set lines in the Copper River under sport fishing regulations with conservative bag limits (five fish). There has been minimal participation and harvest in this fishery since 2000 and current harvest levels are sustainable.

In 1999, separate statewide set line regulations (adopted prior to 1988) were incorporated into the UCUSMA regulations, creating a duplication of regulations.

DEPARTMENT COMMENTS: The department submitted this proposal, but is withdrawing support for it. Since its submission, the regulation has been modified to comply with the statewide regulations through an administrative delegation.

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.