Alaska Department of Fish and Game

March 16, 2009 Statewide Dungeness Crab, Shrimp, and Miscellaneous Shellfish Board of Fisheries Meeting

Department response to the CIAA petition to repeal/replace the Bear Lake Management Plan dated January 12, 2009.

PETITION REQUEST: repeal all provisions of 5 AAC 21.375 Bear Lake Management Plan and in its place, adopt new provisions for 5 AAC 21.XXX Trail Lakes Hatchery Management Plan.

The petition was accepted by the Board of Fisheries at the February 2009 Southeast Shellfish meeting in Petersburg. Since then, it has been given a proposal number, **PROPOSAL 380**.

5 AAC 21.375. BEAR LAKE MANAGEMENT PLAN.

PETITIONER: Cook Inlet Aquaculture Association (CIAA).

WHAT WOULD THE PROPOSAL DO? This proposal would repeal all provisions of 5 AAC 21.375 Bear Lake Management Plan and in its place, adopt new provisions for 5 AAC 21.XXX Trail Lakes Hatchery Management Plan.

WHAT ARE THE CURRENT REGULATIONS? Currently **5 AAC 21.375** has a number of specific provisions that provide direction to the department for management of the sockeye salmon return to Bear Lake in Resurrection Bay near Seward. Following are the highlights:

- manage all affected fisheries to achieve the established Bear Lake sockeye salmon escapement goal;
- consider impacts of Bear Lake sockeye salmon enhancement on the ongoing coho salmon enhancement of Bear Lake and insure that sockeye enhancement does not cause a net loss in coho salmon smolt production from Bear Lake;
- ensure that Bear Lake sockeye salmon enhancement efforts strive to retain the early run timing of indigenous stocks
- defines that the primary objective of Bear Lake sockeye salmon enhancement is to provide the opportunity for a commercially viable sockeye salmon fishery, prosecuted with minimal conflict with the recreational fishery
- directs the department to manage the commercial sockeye salmon seine fishery in waters of Resurrection Bay to achieve a harvest allocation (number of fish) of 50% to the seine user group and 50% to CIAA

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would repeal the department's mandate to manage the Resurrection Bay commercial salmon fishery to achieve an equal harvest allocation by numbers of fish between the common property harvest by the purse seine fleet and the cost recovery harvest by CIAA. Additionally, it creates a priority to annually manage all CIAA hatchery Special Harvest Areas (SHA's) in Lower Cook

Inlet (LCI) exclusively for hatchery cost recovery until each year's cumulative corporate revenue goal for Trail Lakes Hatchery is achieved. Finally, provisions of this proposal would create regulatory descriptions of four CIAA SHA's in LCI.

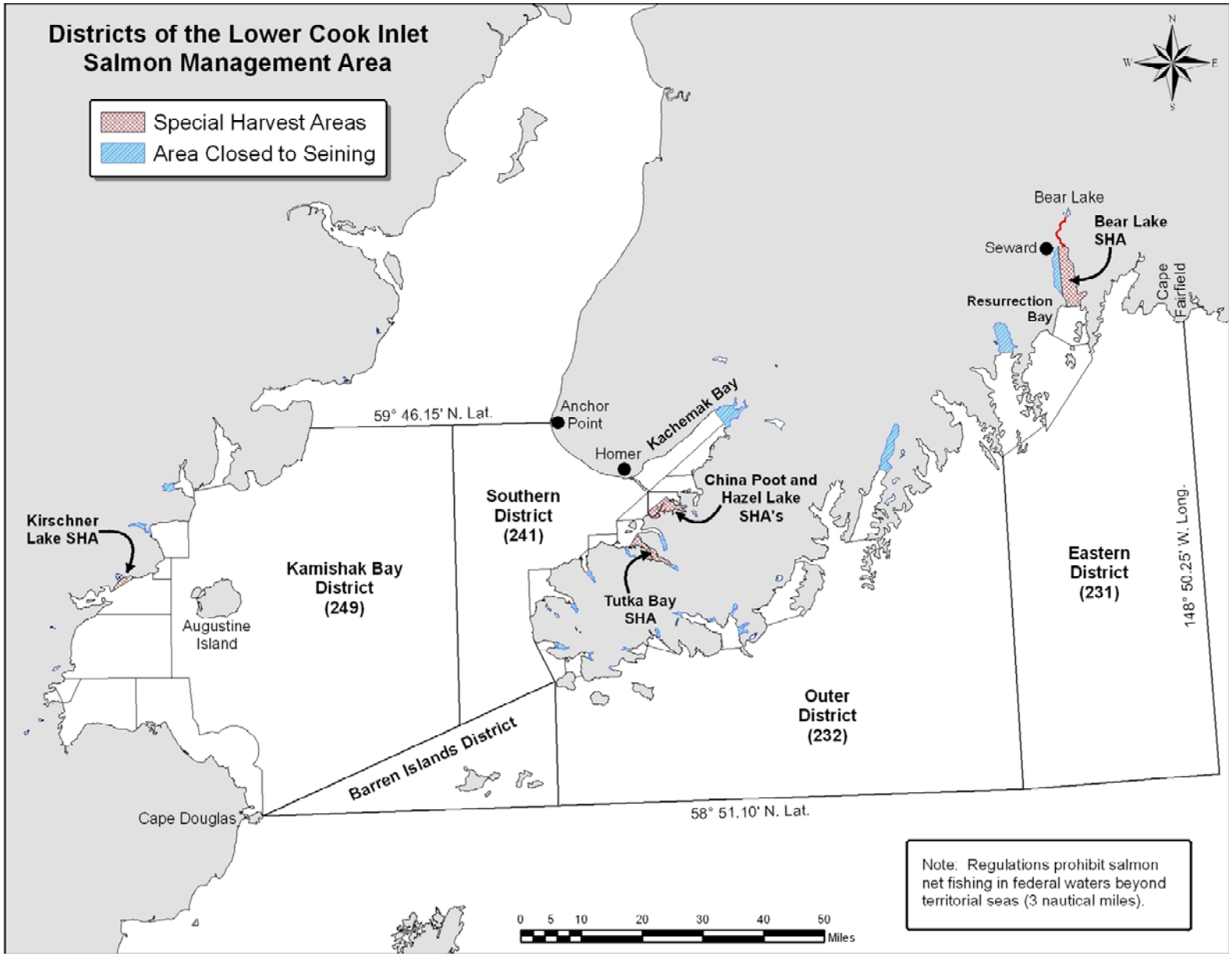
BACKGROUND: Provisions of 5 AAC 21.375 were last addressed by the Alaska Board of Fisheries (board) during the 2004 meeting to consider LCI salmon fisheries issues. At that meeting, the board adopted a CIAA proposal to provide for an equal allocation of the harvestable surplus of enhanced sockeye salmon (in numbers of fish) returning to Bear Lake in Resurrection Bay near Seward between the common property seine fleet and CIAA. In the four seasons since those provisions became effective, the department estimates that the cumulative division of harvest in Resurrection Bay was approximately 51% for the seine fleet and 49% for CIAA. CIAA contends that this allocation formula fails to account for the price-per-pound differential paid to the two harvesting groups, and that CIAA receives substantially less for fish CIAA agents harvest in Resurrection Bay. The Bear Lake return is one of the earlier and more valuable returns in the state, beginning in late May. However, the sockeye salmon that CIAA harvests from this return are of lower quality than those harvested by seiners because the CIAA harvest occurs in freshwater at a weir and/or late in the run after commercial effort has shifted elsewhere. As a result, CIAA has routinely failed to meet its annual Trail Lakes Hatchery combined cost recovery revenue goal in recent years for the various sockeye salmon enhancement projects it conducts in Cook Inlet.

Fisheries enhancement has played a major role in LCI salmon production for three decades. Since their inception in the mid 1970s, enhancement and rehabilitation projects have made significant contributions to both commercial and non-commercial harvests. The estimated cumulative contributions of CIAA sockeye salmon enhancement specific to this proposal has ranged from 39% to 84% of the annual LCI commercial sockeye salmon harvest in numbers of fish (hatchery and common property). This production represents an important component of the commercial exvessel value in this salmon management area. CIAA enhanced sockeye salmon runs in Resurrection Bay and Kachemak Bay additionally provide substantial sport and personal use harvest opportunities in those areas.

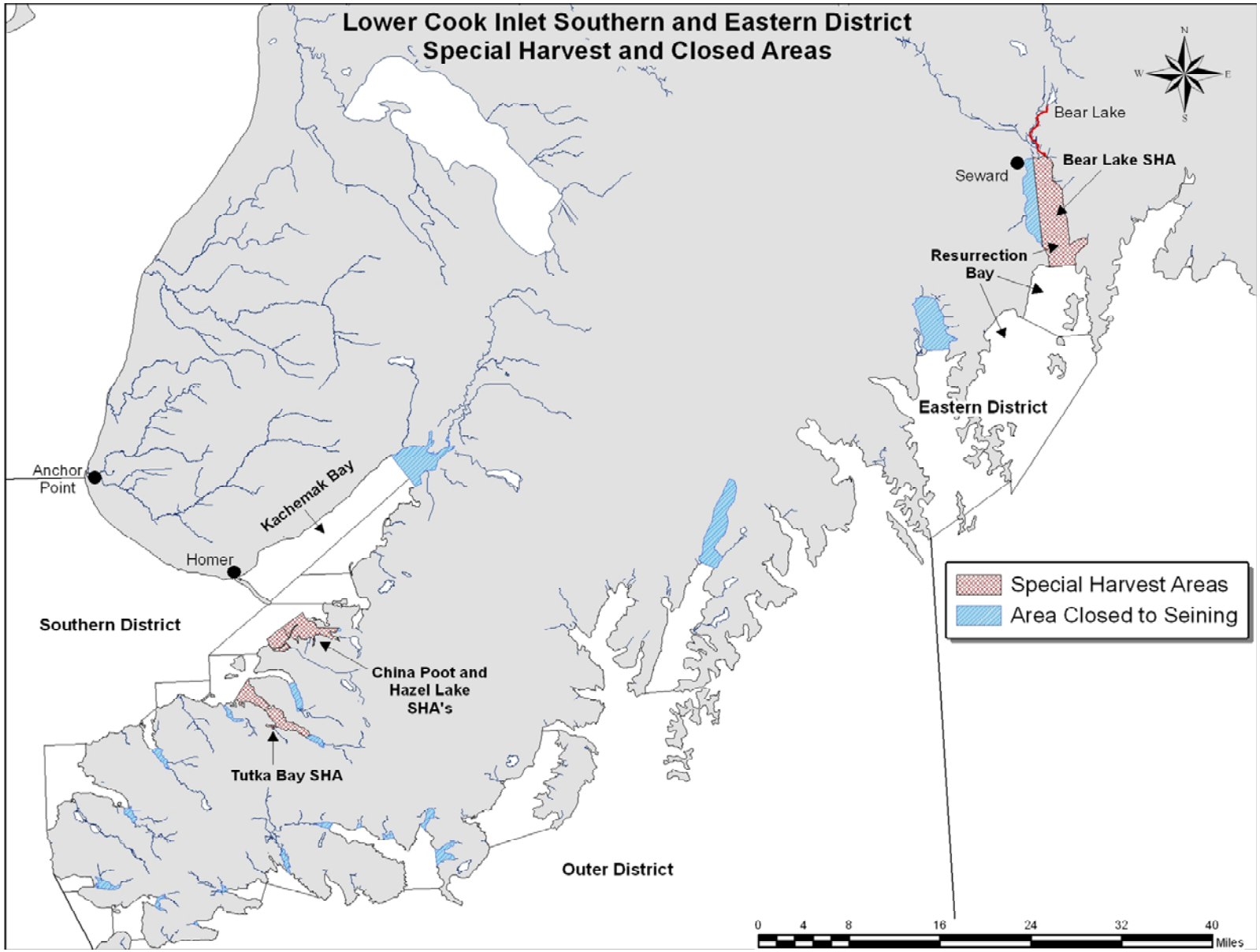
DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal.

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

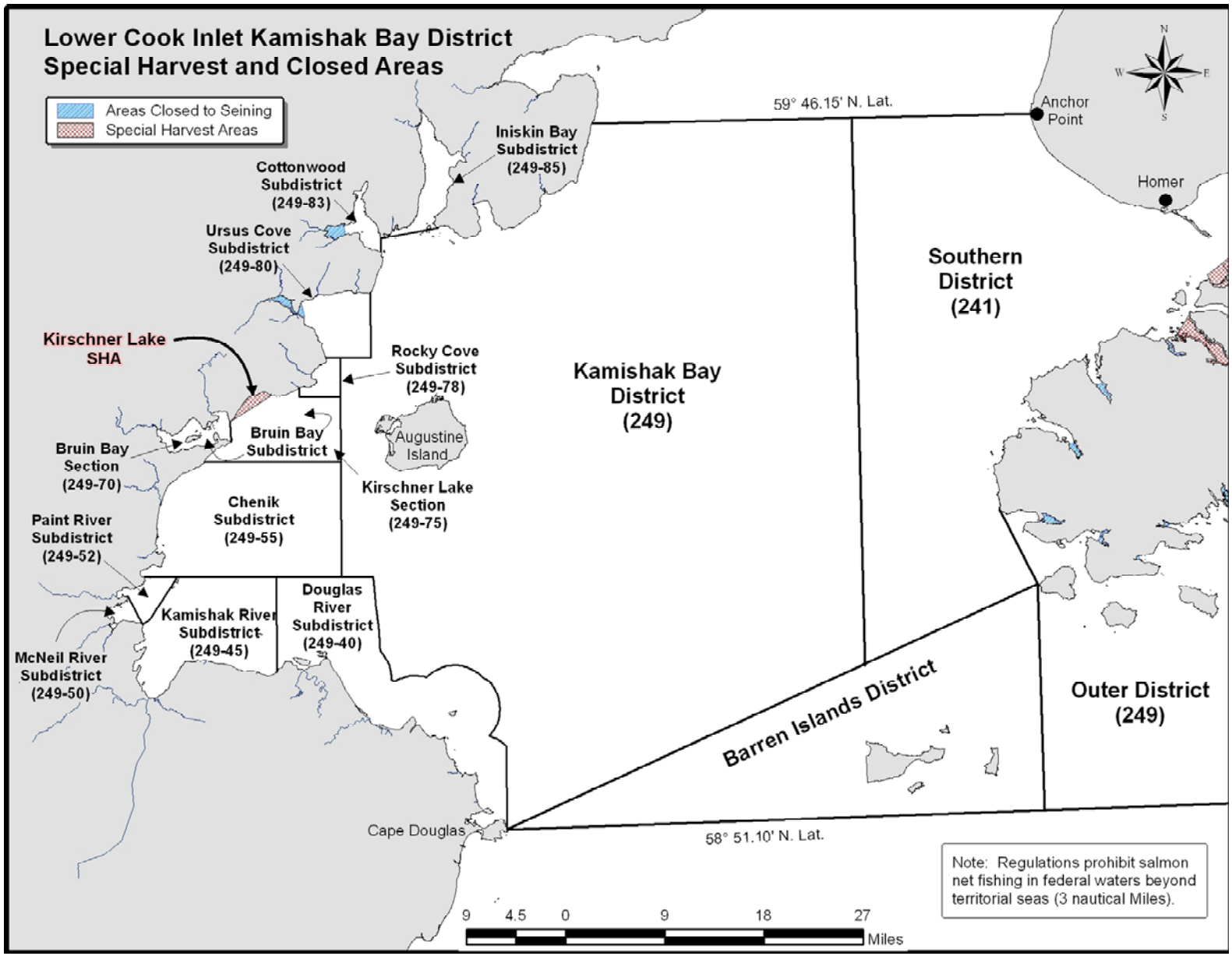
Map A1 **Proposal #380**



Map A2 **Proposal #380**



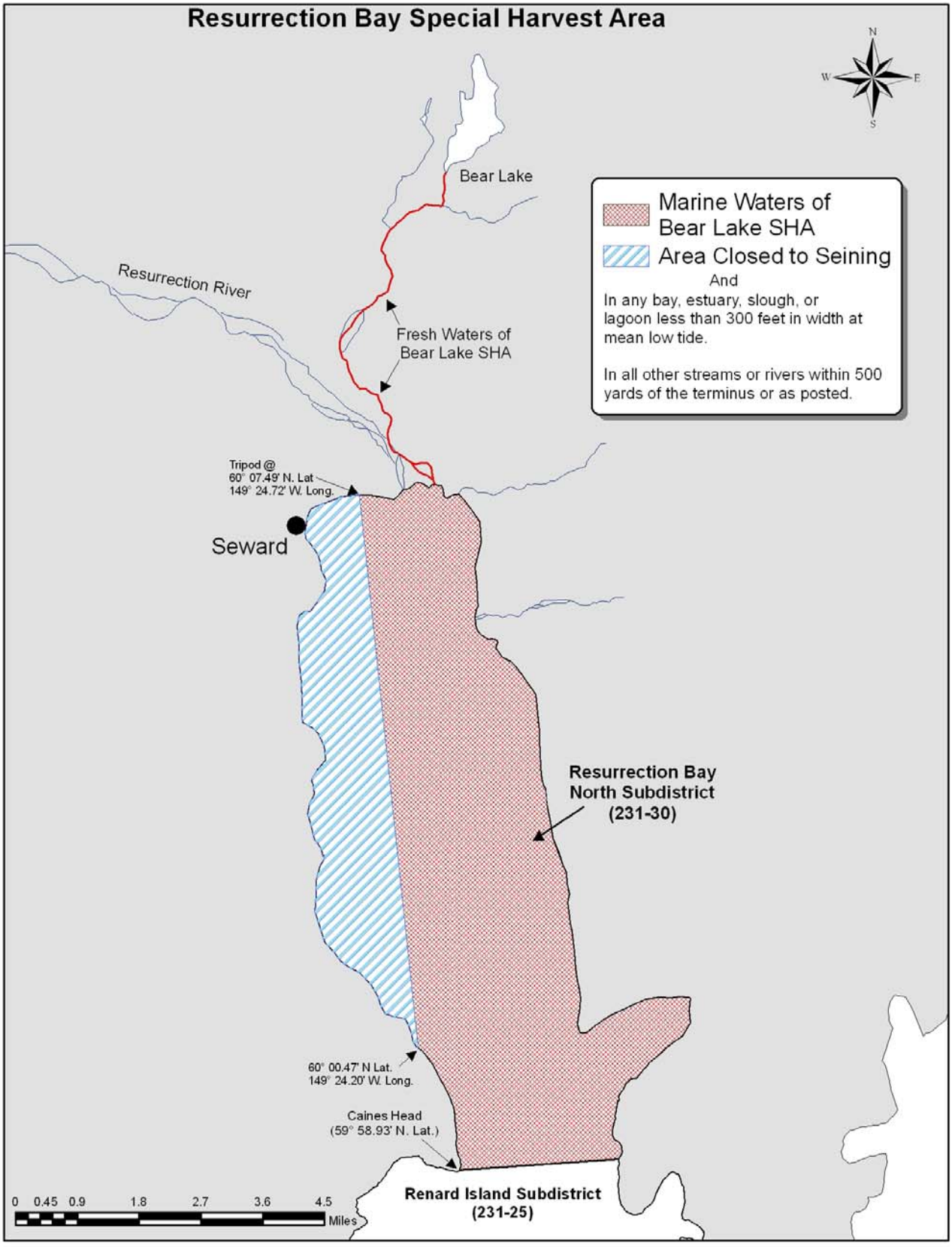
Map A3 **Proposal #380**



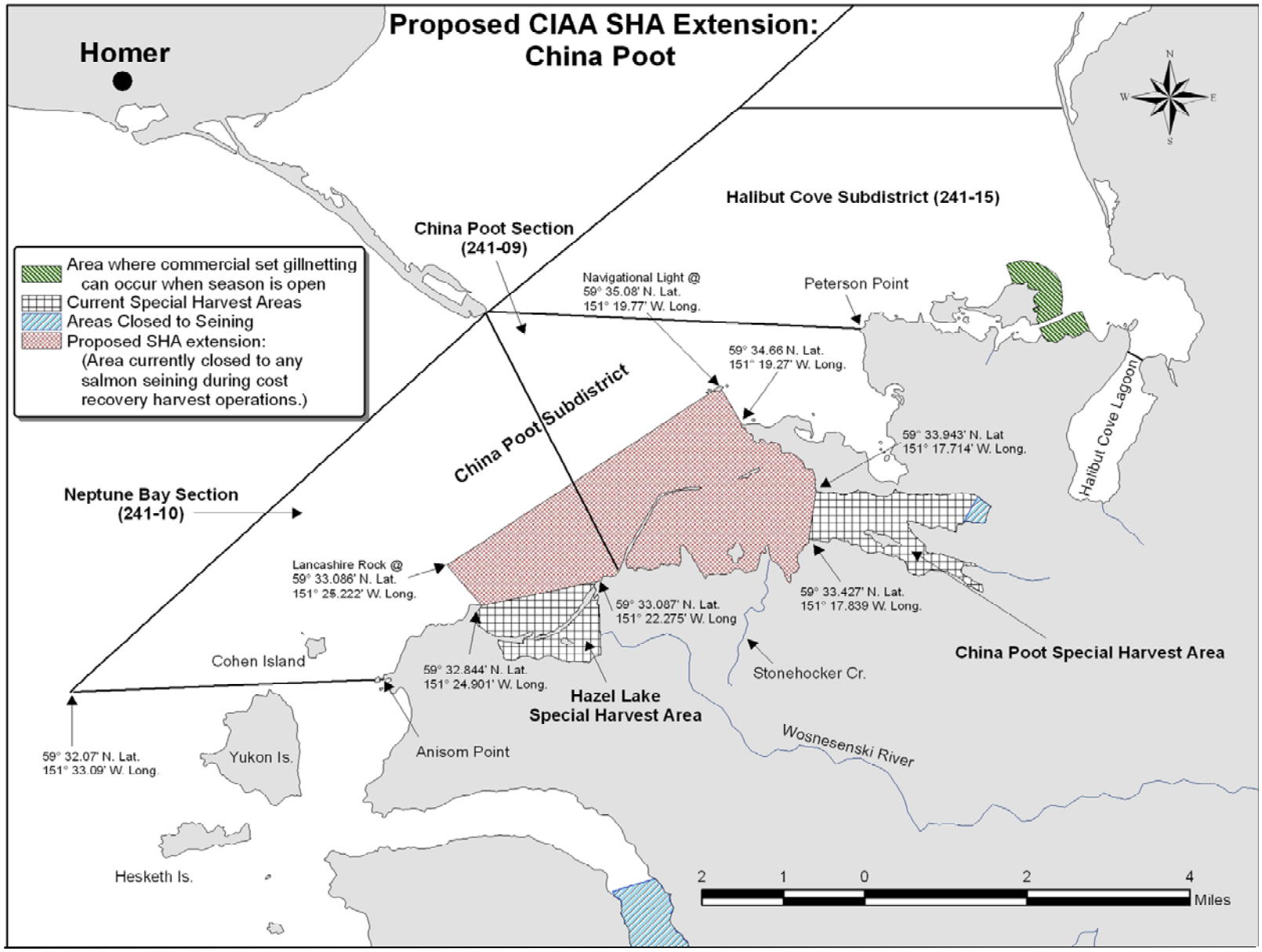
Link to Map A4

Map A4

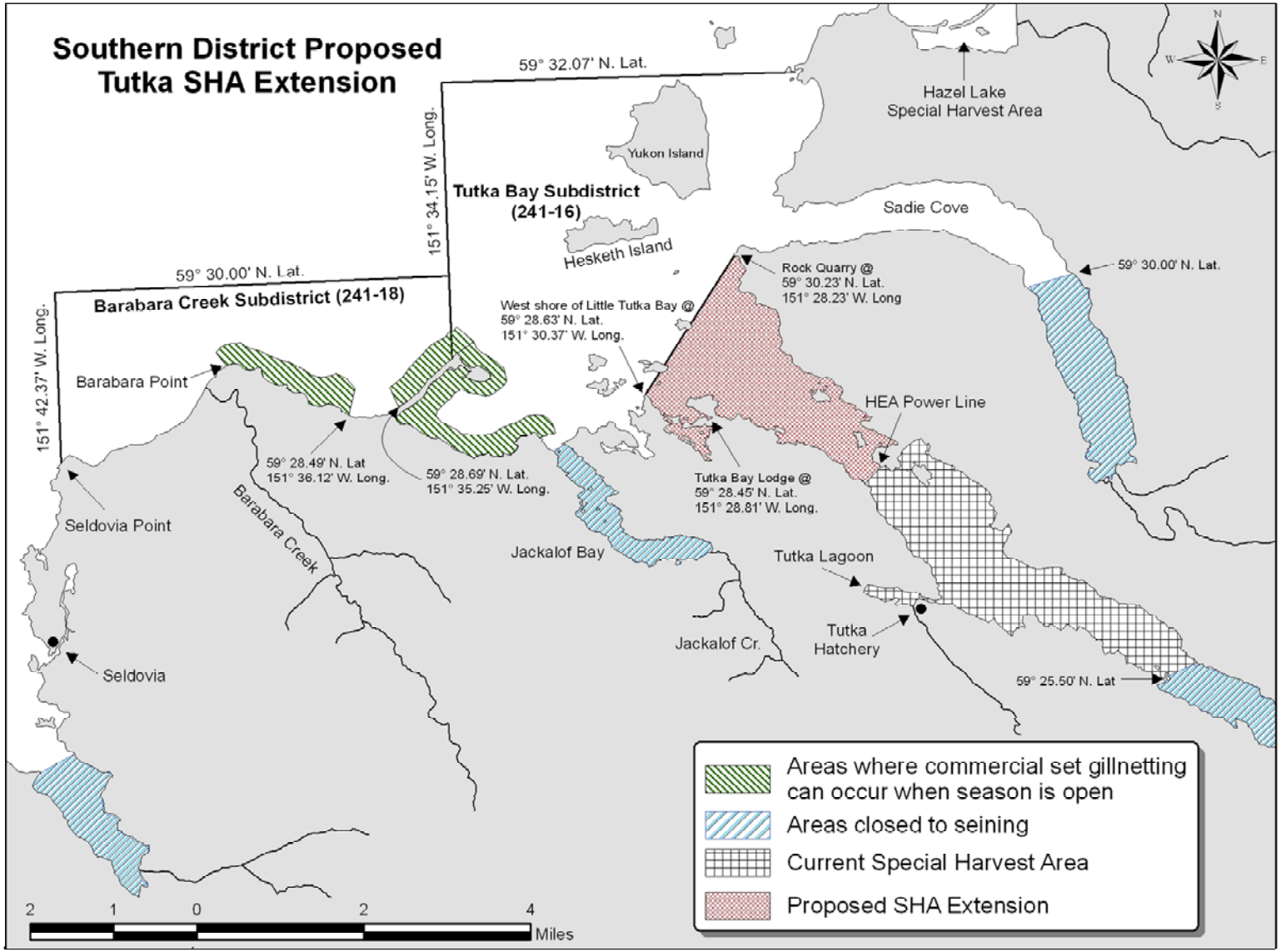
Proposal #380



Map A5 **Proposal #380**



Map A6 **Proposal #380**



Map A7 **Proposal #380**

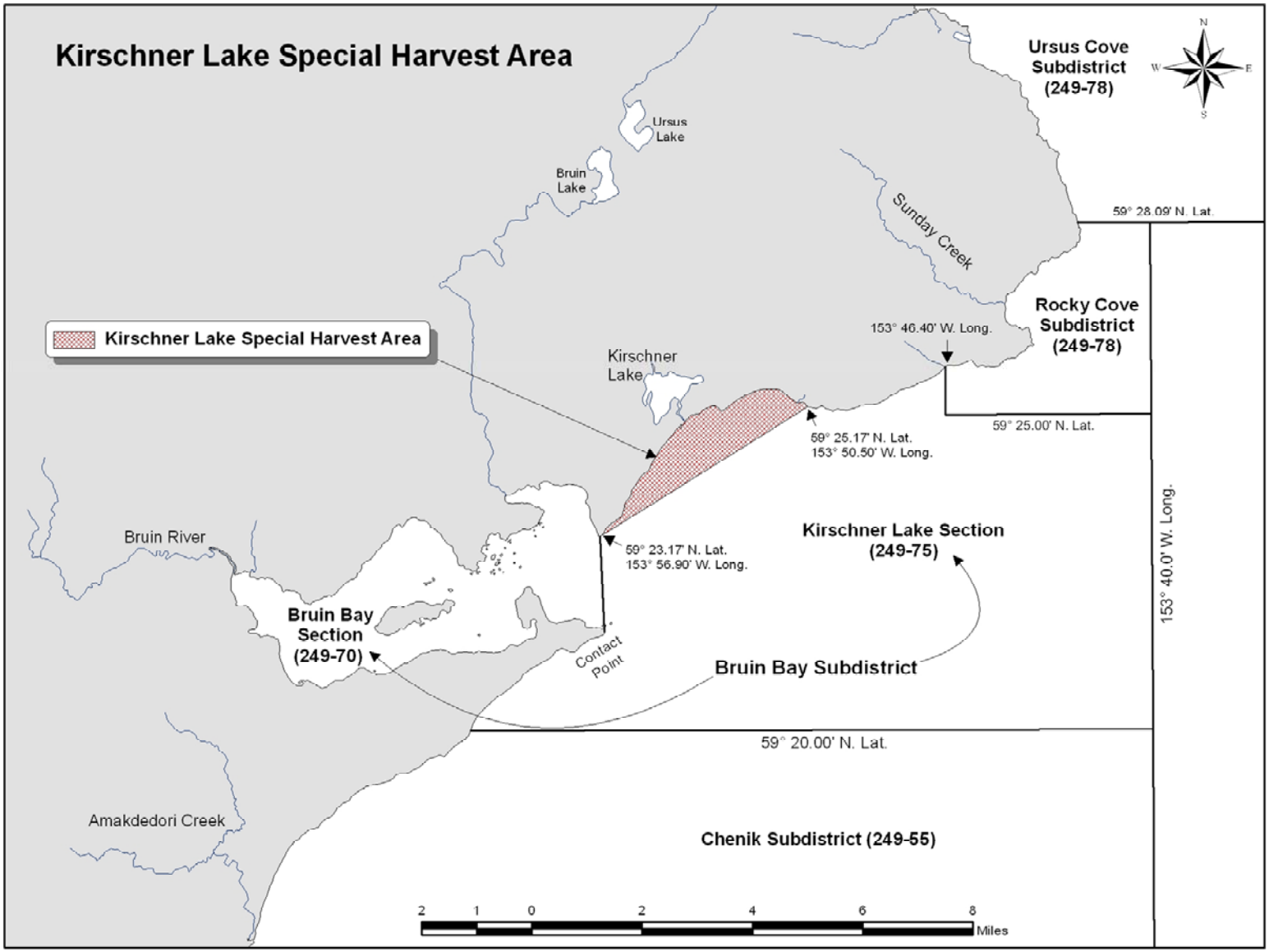


Figure A1 **Proposal #380**

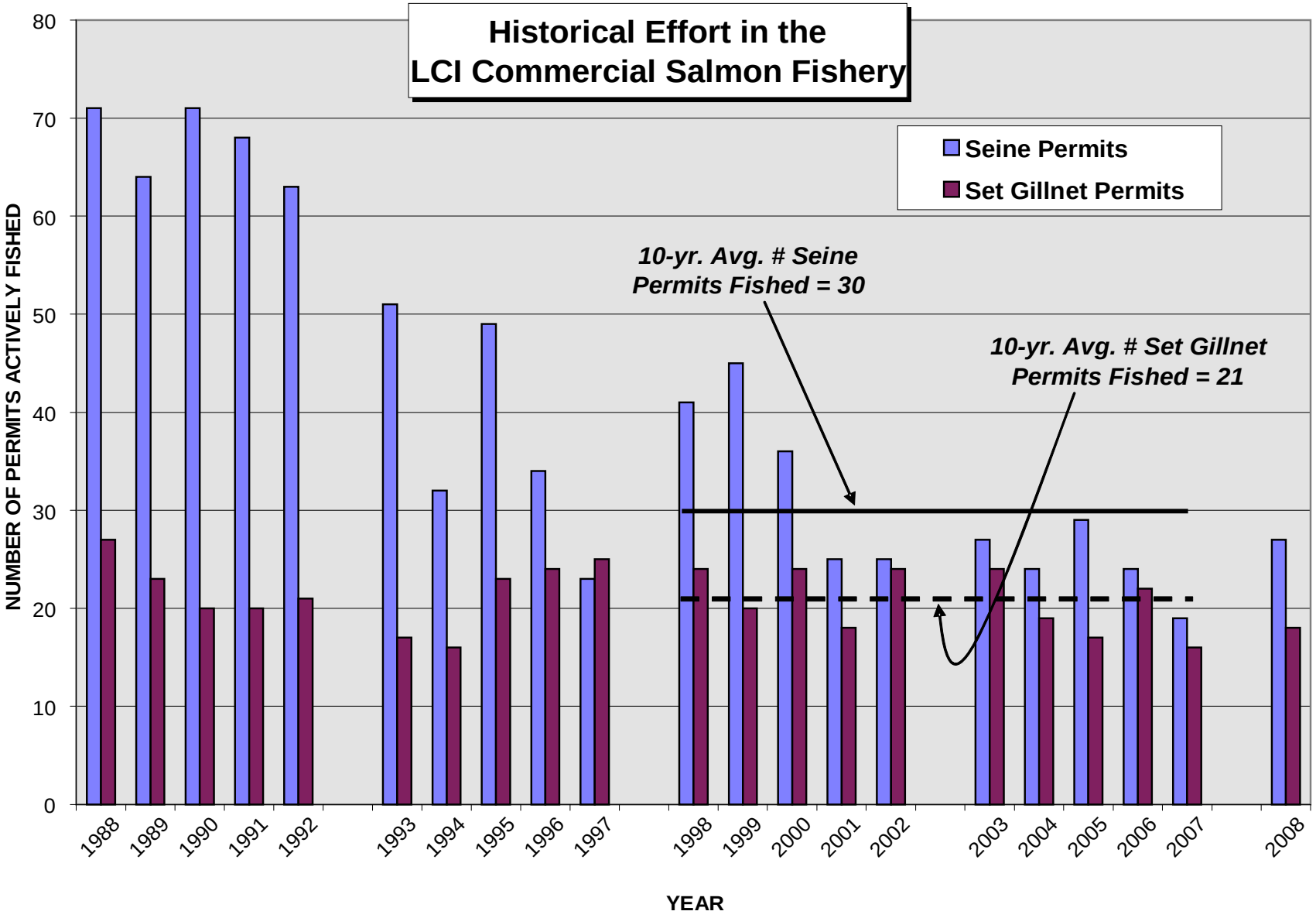


Figure A2 **Proposal #380**

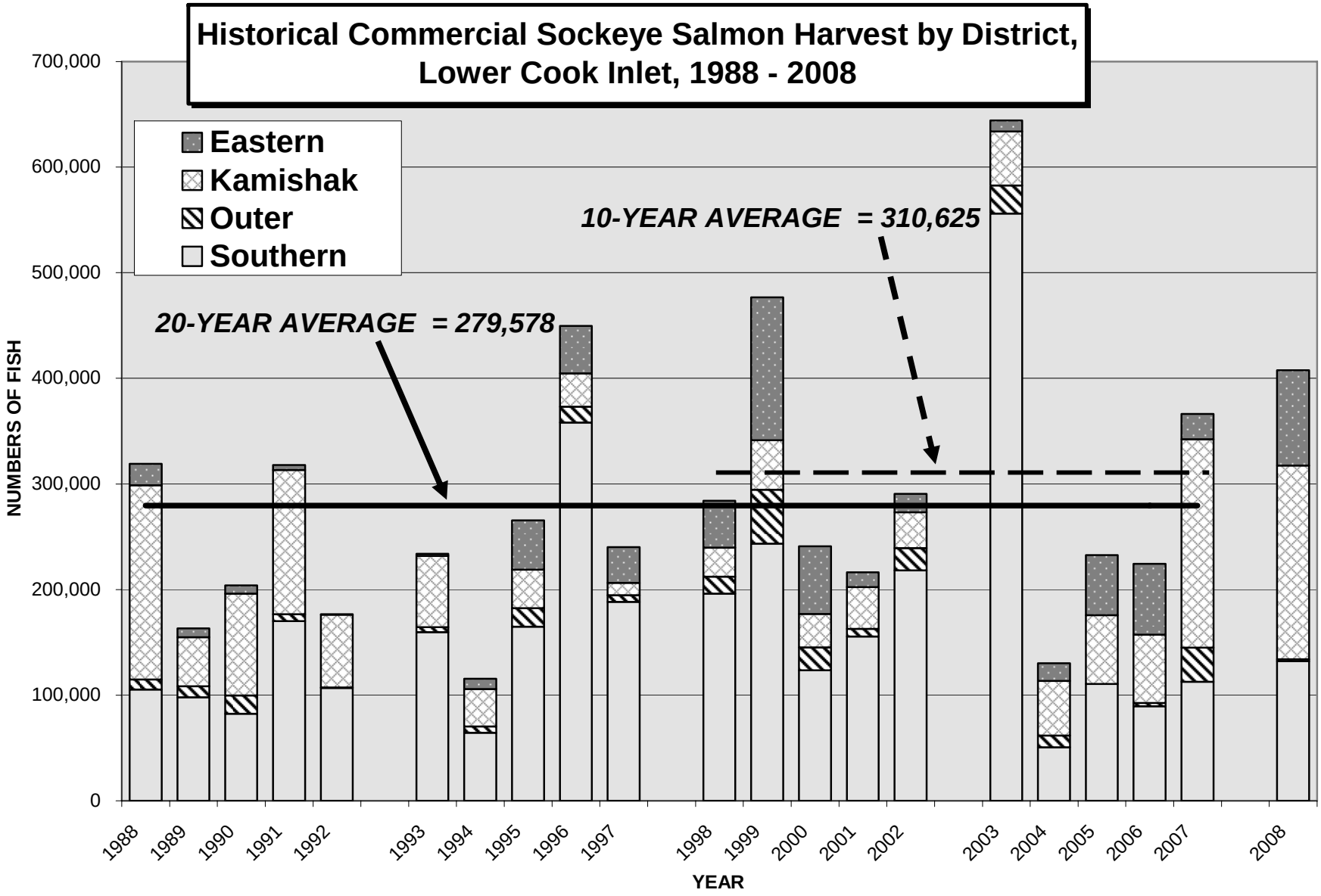


Figure A3 **Proposal #380**

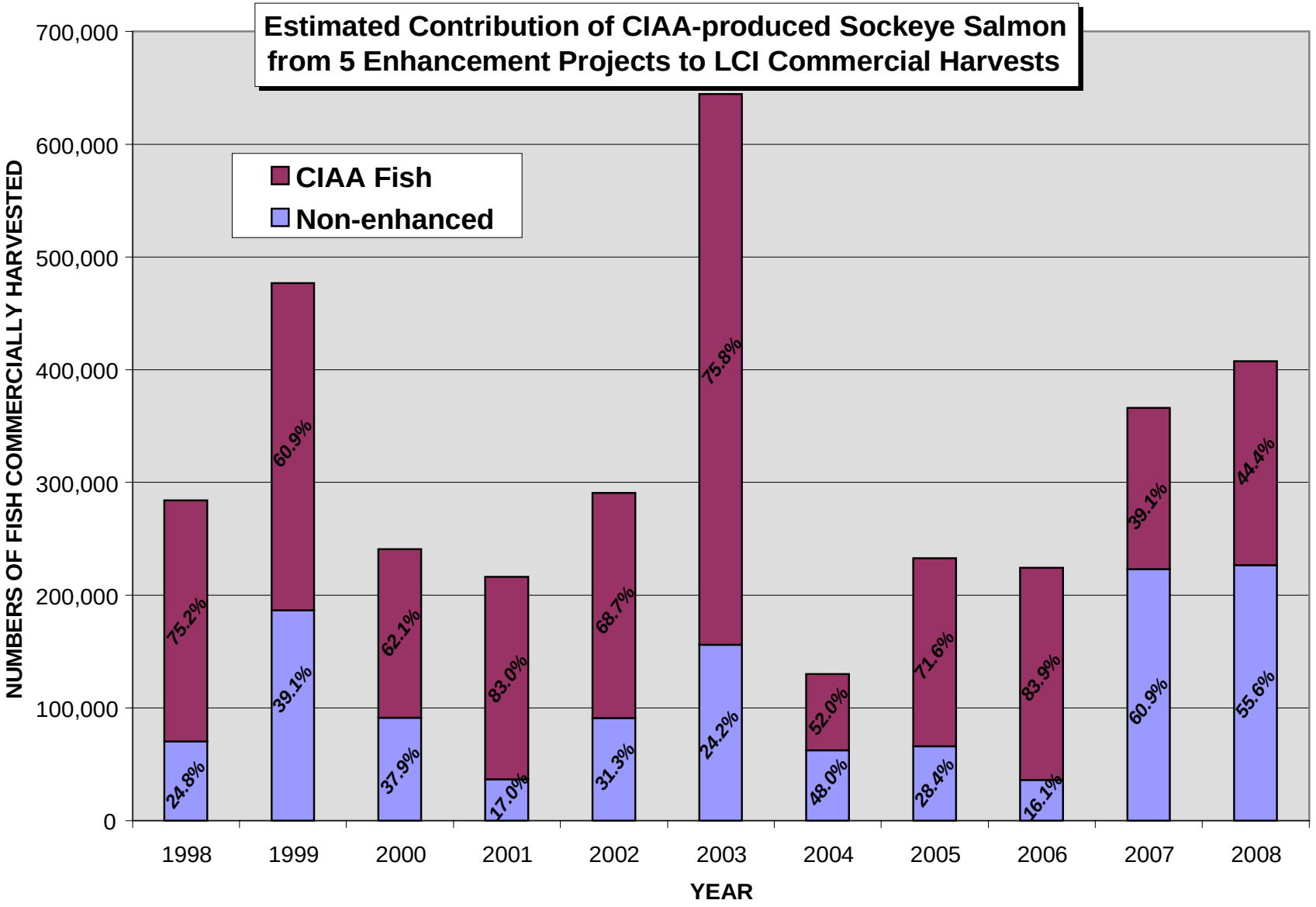


Figure A4 **Proposal #380**

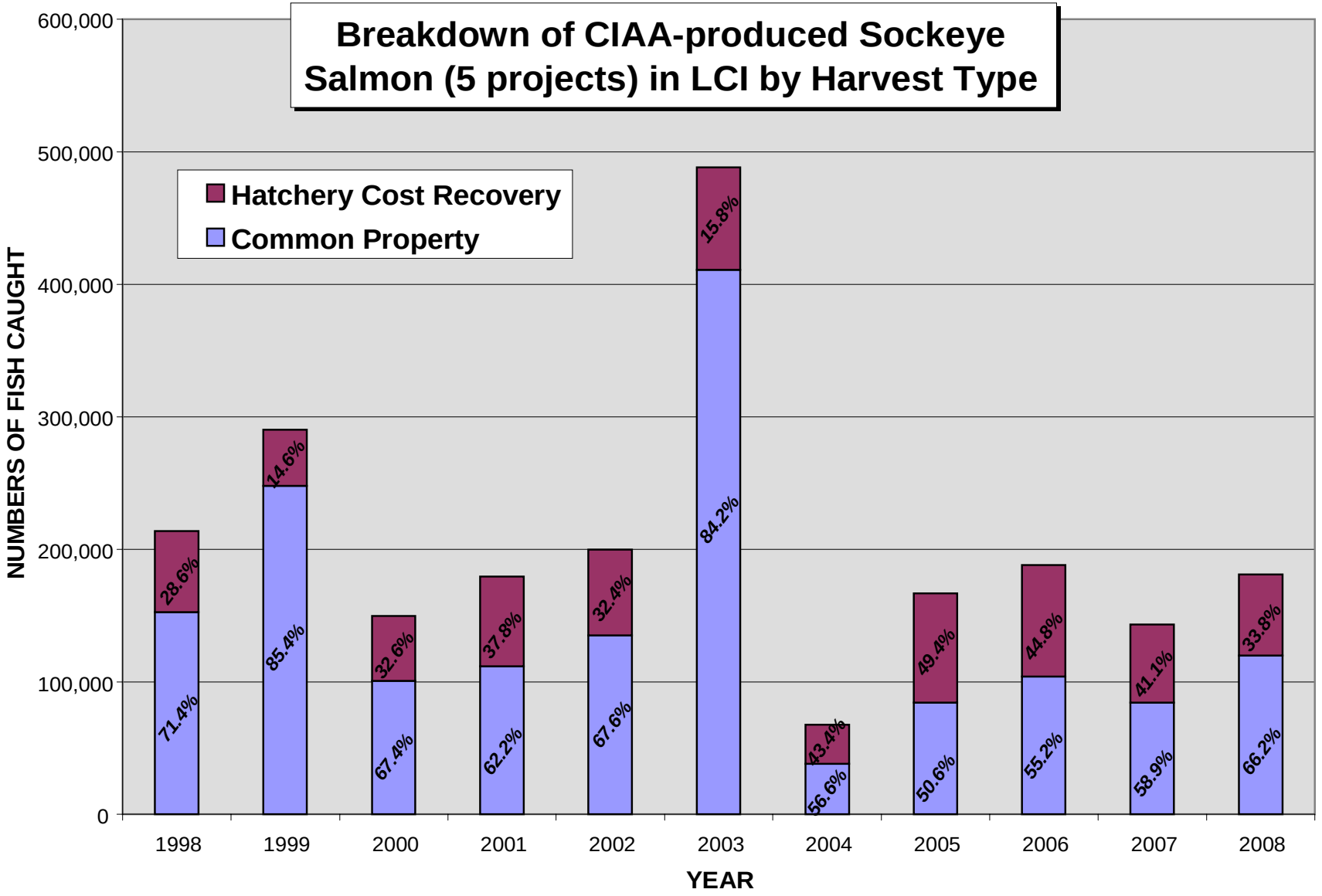


Figure A5 **Proposal #380**

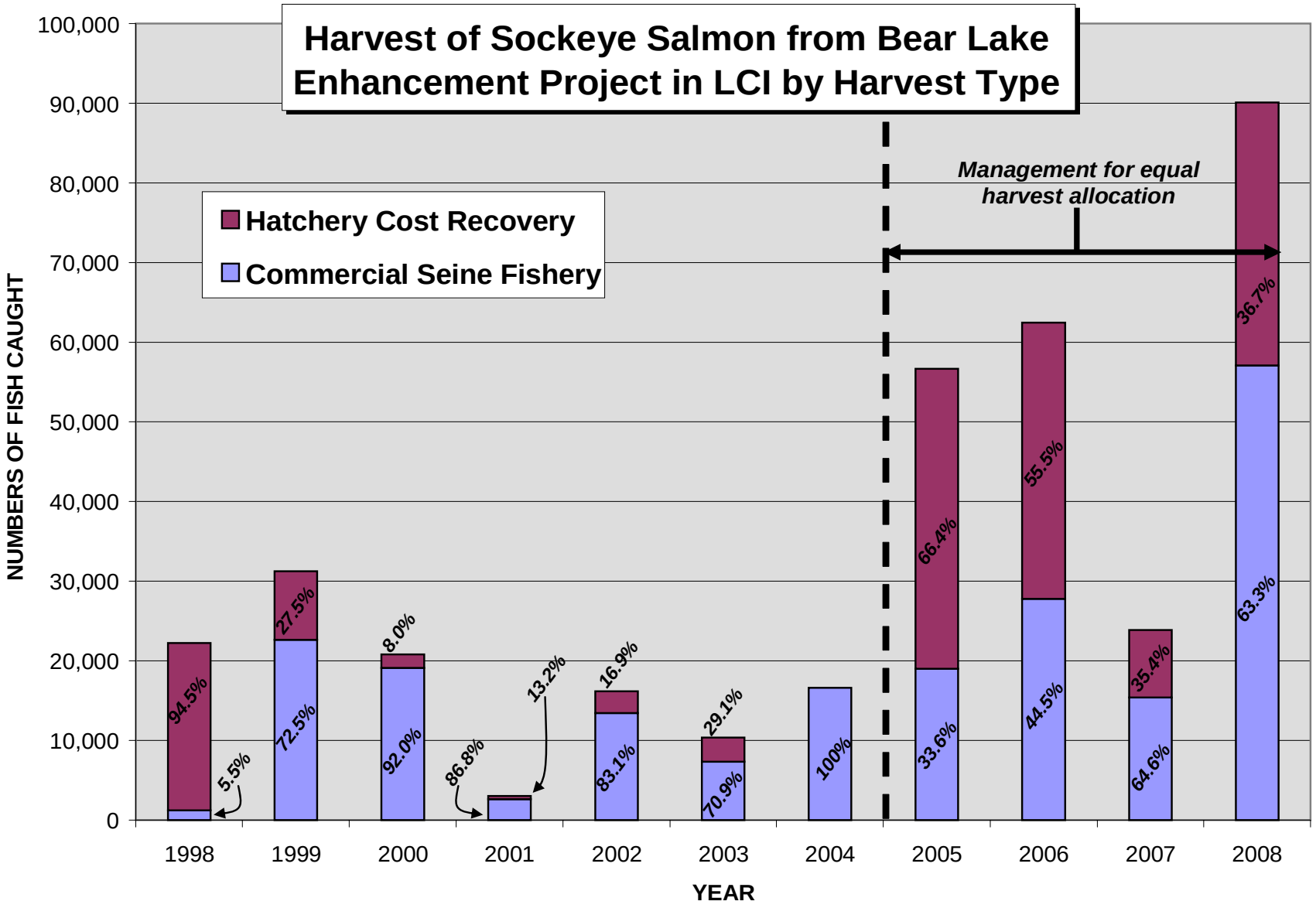


Figure A6 **Proposal #380**

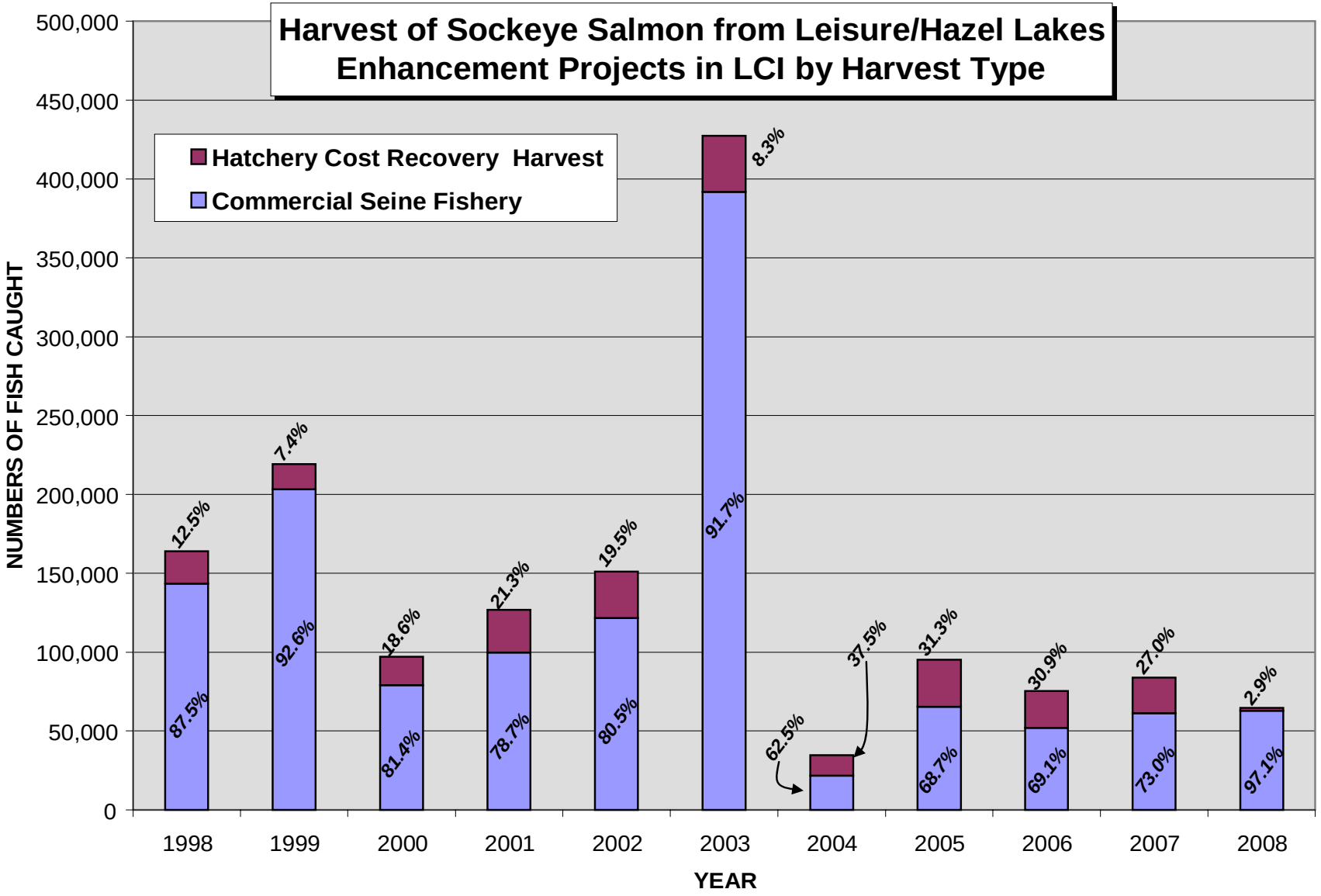


Figure A7 **Proposal #380**

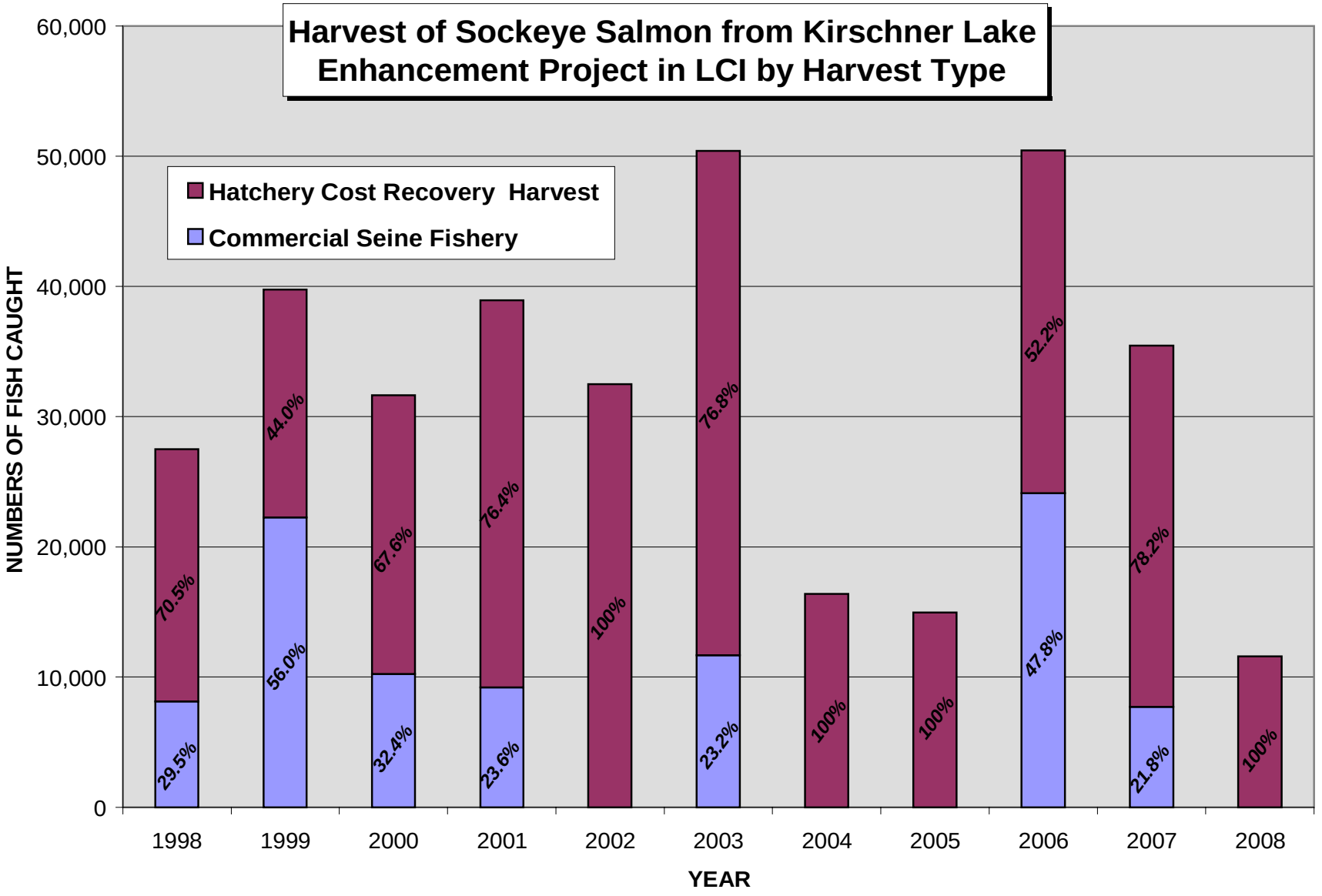


Figure B1 **Proposal #380**

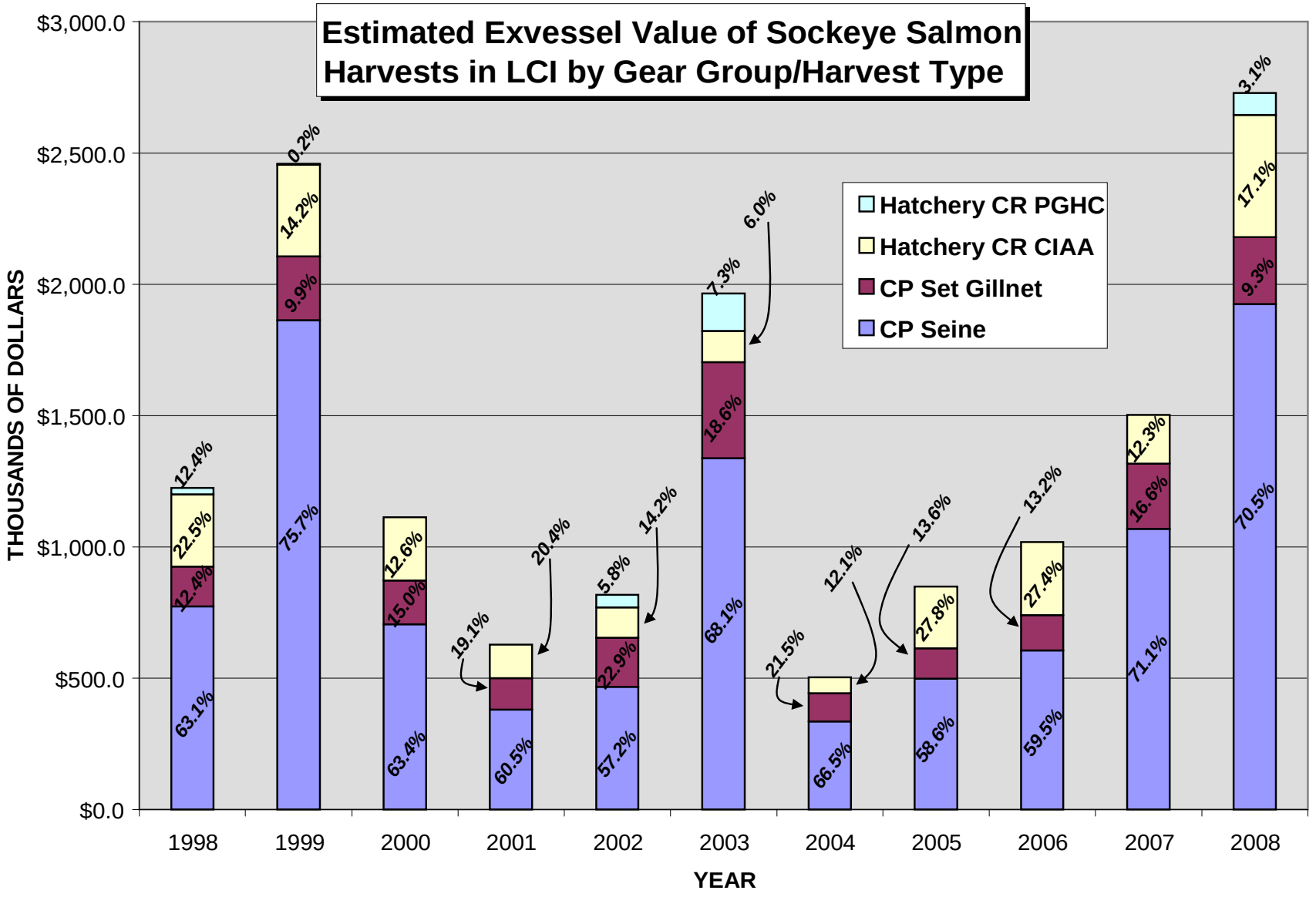


Table A1

Proposal #380

Table A1.−Commercial sockeye salmon catch for all gear and harvest types in numbers of fish by district, Lower Cook Inlet, 1988 – 2008.

Year	Southern	Outer	Kamishak	Eastern	Total
1988	105,302	9,501	183,952	20,253	319,008
1989	98,052	10,286	46,395	8,538	163,271
1990	82,412	17,404	96,397	7,682	203,895
1991	170,224	6,408	136,612	4,703	317,947
1992	106,793	572	68,847	432	176,644
1993	159,747	4,613	67,650	1,824	233,834
1994	64,531	5,930	35,296	9,661	115,418
1995	164,798	17,642	36,427	46,556	265,423
1996	358,163	14,999	31,604	44,919	449,685
1997	188,402	6,255	11,733	33,783	240,173
1998	196,262	15,991	27,502	44,274	284,029
1999	24 3,444	51,117	46,913	135,305	476,779
2000	123,574	21,623	31,636	64,099	240,932
2001	155,411	7,339	39,712	13,809	216,271
2002	218,203	21,154	33,921	17,376	290,654
2003	556,037	26,615	51,253	10,352	644,257
2004	50,699 [a]	11,082	51,657	16,645	130,083
2005	110,739 [a]	1	64,987	56,951 [a]	232,678
2006	89,522 [a]	3,198	64,577	67,048	224,345
2007	112,672 [a]	32,461	197,228	23,864	366,225
2008	132,279 [a]	1,704	183,512	90,096	407,591
20 -Year Avg.	167,749	14,210	66,215	31,404	279,578
1988 – 1997 Avg.	149,842	9,361	71,491	17,835	248,530
1998 – 2007 Avg.	185,656	19,058	60,939	44,972	310,625
2008 % of Total	32.45%	0.42%	45.02%	22.10%	100.00%

Source: ADF&G fish ticket database *Unpublished* .

[a] 2004 - 2008 totals do not include a very small number of fish retained for personal use.

Table A2

Proposal #380

Table A2. Estimated contribution of CIAA enhancement projects[a] to the LCI commercial salmon fishery (*sockeye only*).

Year	Numbers of sockeye caught		%
	LCI Total	Enhanced only	Enhanced
1998	284,000	213,700	75.2%
1999	476,800	290,260	60.9%
2000	240,900	149,542	62.1%
2001	216,300	179,600	83.0%
2002	290,700	199,800	68.7%
2003	644,300	488,100	75.8%
2004	130,100	67,600	52.0%
2005	232,700	166,700	71.6%
2006	224,300	188,200	83.9%
2007	366,200	143,100	39.1%
2008	407,600	181,000	44.4%
'98-'07 Avg.	310,630	208,660	67.2%
'99-'08 Avg.	322,990	205,390	63.6%

[a] Projects inlcude only Bear, Leisure, Hazel, and Kirschner Lakes, and Tutka Lagoon remote release.

Table A3

Proposal #380

Table A3. Estimated catch breakdown of sockeye salmon produced by CIAA enhancement projects[a] in LCI.

Year	Numbers of sockeye caught			%	%
	Total CIAA Fish	Common Property	Cost Recovery	Common Property	Cost Recovery
1998	213,700	152,654	61,046	71.4%	28.6%
1999	290,260	247,960	42,300	85.4%	14.6%
2000	149,542	100,746	48,796	67.4%	32.6%
2001	179,600	111,638	67,962	62.2%	37.8%
2002	199,800	135,062	64,738	67.6%	32.4%
2003	488,100	410,789	77,311	84.2%	15.8%
2004	67,600	38,237	29,363	56.6%	43.4%
2005	166,700	84,340	82,360	50.6%	49.4%
2006	188,200	103,952	84,248	55.2%	44.8%
2007	143,100	84,338	58,762	58.9%	41.1%
2008	181,000	119,865	61,135	66.2%	33.8%
'98-'07 Avg.	208,660	146,972	61,689	70.4%	29.6%
'99-'08 Avg.	205,390	143,693	61,698	70.0%	30.0%

[a] Projects inlcude only Bear, Leisure, Hazel, and Kirschner Lakes, and Tutka Lagoon remote release project.

Table A4

Proposal #380

Table A4. Historical catch and escapement of sockeye salmon ("early run") at Bear Lake in the Eastern District of Lower Cook Inlet, 1991 - 2008.

Year	Commercial Seine Fishery # of Permits	Commercial Seine Fishery Harvest	Hatchery Cost Recovery Harvest	Total Combined Harvest	Escapement plus Broodstock	Total Adult Return
1991					748	748
1992					1,921	1,921
1993	*	*	*	1,654	5,033	6,687
1994	*	987	8,051	9,038	8,592	17,630
1995	18	23,655	20,930	44,585	8,328	52,913
1996	17	35,944	7,944	43,888	8,004	51,892
1997	9	8,933	10,056	18,989	7,945	26,934
1998	*	1,229	21,000	22,229	8,431	30,660
1999	11	22,630	8,600	31,230	7,814	39,044
2000	13	19,145	1,670	20,815	11,904	32,719
2001	*	2,629	400	3,029	12,801	15,830
2002	7	13,447	2,729	16,176	12,473	28,649
2003	10	7,341	3,011	10,352	13,233	23,585
2004	8	16,645	0	16,645	11,923	28,568
2005	15	19,018	37,654	56,672	13,407	70,079
2006	13	27,793	34,655	62,448	12,398	74,846
2007	11	15,407	8,457	23,864	12,841	36,705
2008	11	57,060	33,036	90,096	13,444	103,540
All Years Average	10	16,992	11,121	25,554	9,513	35,719

* To comply with **AS 16.05.815 CONFIDENTIAL NATURE OF CERTAIN REPORTS AND RECORDS**, effort data has been masked where fewer than four vessels or permits fished in a given area.

2005-08 Average	13	29,820	28,451	58,270	13,023	71,293
2005-08 % of Total Harvest		51.2%	48.8%			

Management for equal harvest allocation (numbers of fish)

Table A5

Proposal #380

Table A5. Historical estimated catch of sockeye salmon for the combined Leisure/Hazel Lakes enhancement projects in the Southern District of Lower Cook Inlet, 1998 – 2008.

Year	Commercial Seine Fishery		Hatchery Cost Recovery Harvest	Total Combined Harvest
	# of Permits	Harvest		
1998	35	143,421	20,579	164,000
1999	37	203,161	16,139	219,300
2000	29	78,997	18,103	97,100
2001	19	99,863	27,037	126,900
2002	19	121,583	29,517	151,100
2003	21	391,770	35,557	427,327
2004	19	21,621	12,991	34,612
2005	23	65,333	29,737	95,070
2006	16	52,020	23,283	75,303
2007	13	61,216	22,586	83,802
2008	13	62,761	1,907	64,668
All Years Average	22	118,341	21,585	139,926
Avg. % of Total Harvest		84.6%	15.4%	

Table A6

Proposal #380

Table A6. Historical catch of sockeye salmon for the Kirschner Lake enhancement project in the Kamishak Bay District of Lower Cook Inlet, 1998 – 2008.

Year	Commercial Seine Fishery		Hatchery Cost Recovery Harvest	Total Combined Harvest
	# of Permits	Harvest		
1998	4	8,112	19,390	27,502
1999	*	22,256	17,504	39,760
2000	*	10,236	21,391	31,627
2001	*	9,198	29,740	38,938
2002	*	0	32,492	32,492
2003	*	11,671	38,741	50,412
2004		0	16,372	16,372
2005		0	14,969	14,969
2006	*	24,130	26,310	50,440
2007	*	7,725	27,719	35,444
2008		0	11,588	11,588
All Years Average	4	8,484	23,292	31,777
Avg. % of Total Harvest		26.7%	73.3%	

* To comply with **AS 16.05.815 CONFIDENTIAL NATURE OF CERTAIN REPORTS AND RECORDS**, effort data has been masked where fewer than four vessels or permits fished in a given area.

Table B1

Proposal #380

Table B1. Estimated exvessel value of commercial sockeye salmon harvests in the LCI management area (THOUSANDS of dollars).

Year	Common Property		Hatchery		Total
	Seine	Set gillnet	CIAA	PGHC	
1998	$772.9	$151.6	$275.7	$24.0	$1,224.2
1999	$1,862.5	$244.1	$348.6	$4.0	$2,459.2
2000	$705.0	$166.6	$240.8		$1,112.3
2001	$379.7	$119.8	$127.7		$627.2
2002	$467.0	$186.8	$115.8	$47.4	$816.9
2003	$1,337.3	$366.0	$118.9	$142.7	$1,964.8
2004	$334.3	$108.0	$60.8		$503.1
2005	$497.4	$115.5	$235.5		$848.5
2006	$605.4	$134.3	$278.6		$1,018.4
2007	$1,068.1	$249.5	$184.3		$1,502.0
2008	$1,924.4	$254.7	$465.8	$83.2	$2,728.2
98-'07 Avg.	$803.0	$184.2	$198.7	$54.5	$1,207.7
99-'08 Avg.	$918.1	$194.5	$217.7	$69.3	$1,358.1