

Public Testimony Sign-Up Sheet

Agenda Item Halibut C-1 (C) Area 3A

P6 1

	NAME (PLEASE PRINT)	AFFILIATION
1	John Baker	self
2	Bob Stumpff	self
3	Phonda Hubbard	
4	Russell Swett	ITK
5	Bryan Pfundt	Self
6	Don Lane	NPFA
7	BRENT WESTERN	SELF
8	Todd Hoppe	
9	Malcolm Milne	UpFA
10	Josh Adams	self
11	CAROLYN BRIDGES	SELF
12	WALT BARTON	SELF
13	Richard Barton	self FISH ON ENT.
14	Richard Barton	SELF
15	AUREA SKORDAHL	COMMERCIAL LONG
16	Josh Moore	SELF
17	Wendy Anderson	SELF
18	DUSTIN CONNOR	FAMILY
19	BARRY WRIGHT	self
20	Chris Knight	SELF
21	Tim Henkel	Deep Sea Fishermen's Union
22	Kathy Hansen	SEAFSA
23	Jeff Stephart	IFMA
24	Earl Constatk	CHTF
25	Roland Mann	family

NOTE to persons providing oral or written testimony to the Council: Section 307(1)(I) of the Magnuson-Stevens Fishery Conservation and Management Act prohibits any person "to knowingly and willfully submit to a Council, the Secretary, or the Governor of a State false information (including, but not limited to, false information regarding the capacity and extent to which a United State fish processor, on an annual basis, will process a portion of the optimum yield of a fishery that will be harvested by fishing vessels of the United States) regarding any matter that the Council, Secretary, or Governor is considering in the course of carrying out this Act.

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Agenda Item Halibut C-1 (c) Area 3A

	NAME (PLEASE PRINT)	AFFILIATION
1	Rod Van Soan	Self
2	Tim Erion	Self
3	George Patterson Mike Patterson	Self
4	Ryan Ferrington	Self
5	Wally Martin	Self
6	Alan Gorns	Self
7	Robbie Carroll	Self
8	Wally Martin	Self
9	Lynn Key-O	Self
10	Jim Russo	Self
11	Mike Patterson	
12	Frank Bashich	Self
13	Lanny Kelsey	Self
14	ERIC Thorkildsen	Self DSEU
15	Greg Ireland	Self
16	Dan Hall	SEFU
17	Bob Linville	Self
18	REX MURPHY	Self
19	CHACO PEARMAN	SELF
20	CHRIS FRALA	Self
21	DONNA BONDIOLI	Self
22	Shirley Kalandor	Self
23	Holly Van Peet	Self
24	Brian Bondioli	ACA
25	GREG SUTTER	CAPT. GREG'S CHARTERS

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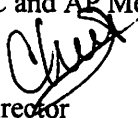
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Agenda Item HALIBUT C (c) Area 3A

	NAME (PLEASE PRINT)	AFFILIATION
1	Nicholas Nekheroff	Commercial Fisherman
2	John Crowley	FVQA
3	Linda Behnken	Halibut Coalition
4	JULIANNE CERRY	PVQA
5	Dan Falvey	ALFA
6	JEFF FARVAD	SELF
7	TERRY HAINES	FISH HEADS
8	JEV SHELTON	USAG
9	CALE CADUKE	SELF
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MEMORANDUM

TO: Council, SSC and AP Members
FROM: Chris Oliver 
Executive Director
DATE: September 19, 2008
SUBJECT: Charter Halibut

ESTIMATED TIME 14 HOURS All C-1 items

ACTION REQUIRED

- (c) Final Action on Area 3A Charter Halibut GHL measures

BACKGROUND

In October 2007 the Council revised the suite of Area 3A guideline harvest level (GHL) management measures under Alternative 2 by dropping a reverse slot limit (then Option 7). The Council may select as its preferred alternative any of the following options to begin during the 2009 charter season: (1) No more than one trip per charter vessel per day; (2) No harvest by skipper or crew and a limit on the number of lines to not exceed the number of paying clients (status quo); (3) Annual limits of four fish, five fish, or six fish per charter angler; (4) Reduced bag limits of one fish per day in May, June, July, August, September or for the entire season; (5) Requiring one of two fish in a daily bag to be larger than 45 inches or 50 inches; or (6) Requiring one of two fish in a daily bag to measure less than, or equal to, 32 inches, 34 inches, or 36 inches.

The Council scheduled final action for October 2008 to consider 2007 charter halibut harvest data. Final estimates of 2007 charter halibut harvests report that the 2007 Area 3A GHL of 3.650 M lb was exceeded by 9.6 percent (Item C-1(c)(1)). The September 10, 2008 release of 2007 charter halibut harvests did not allow sufficient time to incorporate that data into a revised analysis, the Council released a slightly revised public review draft on August 29, 2008 that incorporated only technical revisions recommended by the SSC and Council. Council staff has prepared a supplemental analysis of estimated effects of the proposed options under Alternative 2 (Item C-1(c)(2)) that incorporates 1) 2007 charter halibut harvest data and 2) the 2008 ADF&G Emergency Order for Area 3A (Item C-1(3)(2)).

The Council released the public review draft on August 29, 2008 and posted it on the Council website, but the analysis does not include the 2007 harvest data because the data necessary to revise the analysis of the options was not provided until the week before the Council meeting. A corrected executive summary (for final 2006 charter halibut harvest) is under Item C-1(c)(4).

**Area 2C and 3A Charter Halibut Harvests Relative to
Guideline Harvest Levels^a**

Area 2C			
Year	Charter Harvest (M lb)	GHL	Deviation from GHL
2000	1.132	1.432	-20.9%
2001	1.202	1.432	-16.1%
2002	1.275	1.432	-11.0%
2003	1.412	1.432	-1.4%
2004	1.750	1.432	+22.2%
2005	1.952	1.432	+36.3%
2006	1.804	1.432	+26.0%
2007	1.918	1.432	+33.9%
2008	NA	0.931	NA

Area 3A			
Year	Charter Harvest (M lb)	GHL	Deviation from GHL
2000	3.140	3.650	-14.0%
2001	3.132	3.650	-14.2%
2002	2.724	3.650	-25.4%
2003	3.382	3.650	-7.3%
2004	3.668	3.650	+0.5%
2005	3.689	3.650	+1.1%
2006	3.664	3.650	+0.4%
2007	4.002	3.650	+9.6%
2008	NA	3.650	NA

^a - Guideline harvest levels were adopted by the North Pacific Fishery Management Council in February, 2000, but were not made effective until September 8, 2003.

Area 2C Harvest 2007

User	Port	MeanWt	No. Fish	Yield (lb)
CHARTER	Ketchikan	15.5	11,600	179,296
	POW Island	9.9	30,814	306,567
	PBG/WRG	21.9	8,882	194,691
	Sitka	18.5	35,431	654,409
	Juneau	12.0	7,424	89,433
	Haines/SKG	12.0	0	0
	Glacier Bay	31.5	15,684	493,413
Area 2C		17.5	109,835	1,917,808
PRIVATE	Ketchikan	15.7	9,320	146,339
	POW Island	10.6	12,816	135,866
	PBG/WRG	17.0	8,041	136,570
	Sitka	15.1	5,409	81,927
	Juneau	12.4	14,905	185,130
	Haines/SKG	12.4	986	12,247
	Glacier Bay	25.4	17,021	432,830
Area 2C		16.5	68,498	1,130,909
OVERALL	Area 2C	17.1	178,333	3,048,717

Approximate 95% Confidence Intervals for Harvest

Estimates (M lb):

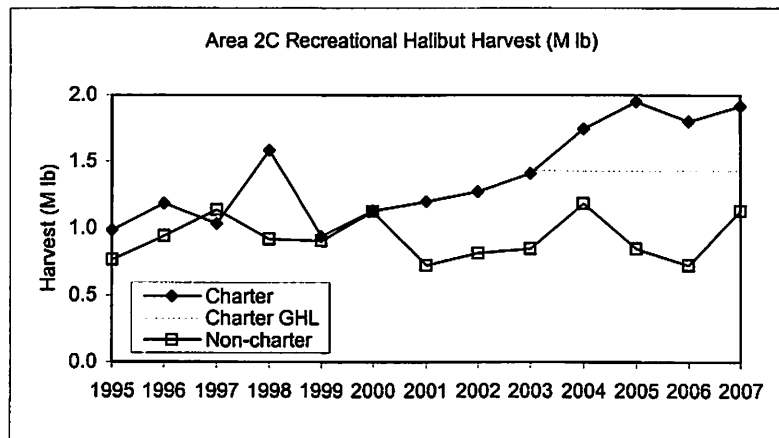
User	PointEst	StdErr	Lower	Upper
Charter	1.918	0.085	1.750	2.085
Private	1.131	0.073	0.987	1.274
Overall	3.049	0.110	2.834	3.264

Comparison of final estimates to last year's projections (M lb):

User	Projected	Final	Proj Error(%)
Charter	1.701	1.918	-11.3%
Private	0.844	1.131	-25.4%
Overall	2.545	3.049	-16.5%

Area 2C Harvest 1995-2007

Year	Charter			Non-charter			Total Sport Harvest		
	No. Fish	Avg. Wt.	Yield (M lb)	No. Fish	Avg. Wt.	Yield (M lb)	No. Fish	Avg. Wt.	Yield (M lb)
1995	49,615	19.9	0.986	39,707	19.3	0.765	89,322	19.6	1.751
1996	53,590	22.1	1.187	41,307	22.8	0.943	94,897	22.4	2.129
1997	51,181	20.2	1.034	53,205	21.4	1.139	104,386	20.8	2.172
1998	54,364	29.1	1.584	42,580	21.5	0.917	96,944	25.8	2.501
1999	52,735	17.8	0.939	44,301	20.4	0.904	97,036	19.0	1.843
2000	57,208	19.8	1.132	54,432	20.7	1.126	111,640	20.2	2.258
2001	66,435	18.1	1.202	43,519	16.6	0.723	109,954	17.5	1.925
2002	64,614	19.7	1.275	40,199	20.3	0.814	104,813	19.9	2.090
2003	73,784	19.1	1.412	45,697	18.5	0.846	119,481	18.9	2.258
2004	84,327	20.7	1.750	62,989	18.8	1.187	147,316	19.9	2.937
2005	102,206	19.1	1.952	60,364	14.0	0.845	162,570	17.2	2.798
2006	90,471	19.9	1.804	50,520	14.3	0.723	140,991	17.9	2.526
2007	109,835	17.5	1.918	68,498	16.5	1.131	178,333	17.1	3.049



Recent regulatory regimes:

Year	Regulations in Place
1995-2005	Two-fish bag limit (no size restrictions), no limit on crew retention
2006	Two-fish bag limit (no size limit), state EO prohibiting crew harvest 5/26-12/31.
2007	Two-fish bag limit (1 under 32" eff. 6/1), no crew retention 5/1-12/31 (State EO and Federal Rule)

Area 3A Harvest 2007

User	Port	MeanWt	No. Fish	Yield (lb)
CHARTER	CCI	15.6	58,933	917,046
	Homer	16.5	93,933	1,553,105
	Kodiak	17.0	19,035	323,050
	Seward	13.4	37,051	496,868
	Valdez	26.3	11,515	303,160
	Whittier	20.4	11,497	235,069
	Yakutat	41.7	4,169	173,860
Area 3A		16.9	236,133	4,002,159
PRIVATE	CCI	14.5	38,247	554,601
	Homer	13.2	62,152	823,493
	Kodiak	17.6	16,302	286,414
	Seward	10.7	25,528	274,325
	Valdez	13.6	9,890	134,032
	Whittier	14.2	13,118	186,560
	Yakutat	19.5	1,101	21,497
Area 3A		13.7	166,338	2,280,921
OVERALL	Area 3A	15.6	402,471	6,283,081

Approximate 95% Confidence Intervals for Harvest Estimates (M lb):

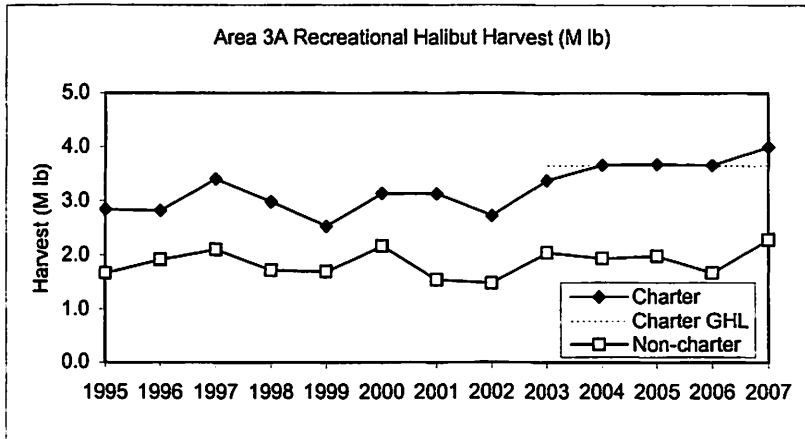
User	PointEst	StdErr	Lower	Upper
Charter	4.002	0.120	3.767	4.237
Private	2.281	0.104	2.078	2.484
Overall	6.283	0.150	5.989	6.577

Approximate 95% Confidence Intervals for Harvest Estimates (M lb):

User	Projected	Final	Proj Error(%)
Charter	3.404	4.002	-14.9%
Private	1.641	2.281	-28.1%
Overall	5.045	6.283	-19.7%

Area 3A Harvest 1995-2007

Year	Charter			Non-charter			Total Sport Harvest		
	No. Fish	Avg. Wt.	Yield (M lb)	No. Fish	Avg. Wt.	Yield (M lb)	No. Fish	Avg. Wt.	Yield (M lb)
1995	137,843	20.6	2.845	95,206	17.5	1.666	233,049	19.4	4.511
1996	142,957	19.7	2.822	108,812	17.6	1.918	251,769	18.8	4.740
1997	152,856	22.3	3.413	119,510	17.6	2.100	272,366	20.2	5.514
1998	143,368	20.8	2.985	105,876	16.2	1.717	249,244	18.9	4.702
1999	131,726	19.2	2.533	99,498	17.0	1.695	231,224	18.3	4.228
2000	159,609	19.7	3.140	128,427	16.9	2.165	288,036	18.4	5.305
2001	163,349	19.2	3.132	90,249	17.1	1.543	253,598	18.4	4.675
2002	149,608	18.2	2.724	93,240	15.9	1.478	242,848	17.3	4.202
2003	163,629	20.7	3.382	118,004	17.3	2.046	281,633	19.3	5.427
2004	197,208	18.6	3.688	134,980	14.4	1.937	332,188	16.9	5.606
2005	206,902	17.8	3.689	127,086	15.6	1.984	333,988	17.0	5.672
2006	204,115	17.9	3.664	114,887	14.6	1.674	319,002	16.7	5.337
2007	236,133	16.9	4.002	166,338	13.7	2.281	402,471	15.6	6.283



Recent regulatory regimes:

Year	Regulations in Place
1995-2006	Two-fish bag limit (no size restrictions), no limit on crew retention
2007	Two-fish bag limit (no size restrictions), state EO prohibiting crew harvest 5/1-12/31.

2007 Estimated Charter Halibut Harvest Using Logbook Numbers^a
 (based on logbook data as of 9/5/08)

Area	Port	2007 MeanWt (lb)	Logbook Harvest	Logbook Yield (lb)
Area 2C	Ketchikan	15.5	11,701	180,858
	POW Island	9.9	42,065	418,502
	PBG/WRG	21.9	5,916	129,677
	Sitka	18.5	34,051	628,920
	Juneau	12.0	9,140	110,105
	Haines/SKG ^b	12.0	159	1,915
	Glacier Bay	31.5	17,378	546,705
	Total	16.7	120,410	2,016,682
Area 3A	CCI	15.6	69,078	1,074,911
	Homer	16.5	98,372	1,626,500
	Kodiak-AKPen	17.0	19,305	327,632
	Seward	13.4	53,955	723,558
	Valdez	26.3	9,260	243,792
	Whittier	20.4	3,651	74,649
	Yakutat	41.7	3,023	126,069
		Total	16.4	256,644

^a - Estimate excludes harvest by "comped" (non-paying) passengers.

^b - Mean weight for Juneau applied to Haines/Skagway estimates.

2007 Saltwater Logbook Data

Information is based on there being a record of a halibut caught or released or both by an angler on a trip, i.e. if any angler caught or released a halibut on that trip, all the anglers on the trip are included. If two of six anglers caught or kept halibut, all six are counted.

IPHC Area*	Average # Anglers/Trip**	Total # Active Vessels	Average # Trips/Vessel	Total # of Anglers in 2007**
2C	3.98	709	33.61	94,887
3A	6.04	633	38.04	145,398

*IPHC Area is assigned by using the bottom stat area first, then the salmon stat area, then the port of offloading. This is necessary because of incidental catching and incomplete data reporting.

**Anglers include all people listed as fishing except crew members.

**Area 3A GHL Analysis
 SUPPLEMENT**

September 23, 2008

This supplemental analysis updates analytical results contained in the *Environmental Assessment/Regulatory Impact Review/Initial Regulatory Flexibility Analysis for a Regulatory Amendment to Implement Guideline Harvest Level Measures in the Halibut Charter Fishery in IPHC Regulatory Area 3A* issued by the North Pacific Fishery Management Council on August 28, 2008. The proposed action was initiated in October 2005, when the Council first reviewed Alaska Department of Fish and Game (ADF&G) Sport Fish Division data that indicated that the 2004 guideline harvest level (GHL) of 3.65 Milb had been exceeded. The Council took no action on an analysis of the 2004 GHL overage in April 2006 because the overage was less than 1 percent. In October 2007 the Council tabled an analysis of 2005 and 2006 GHL overages when the final estimates of charter halibut harvests also was determined to be less than 1 percent. The Council scheduled final action in October 2008 when 2007 charter halibut harvests were determined to be 109.6 percent of the GHL (Figure 1).

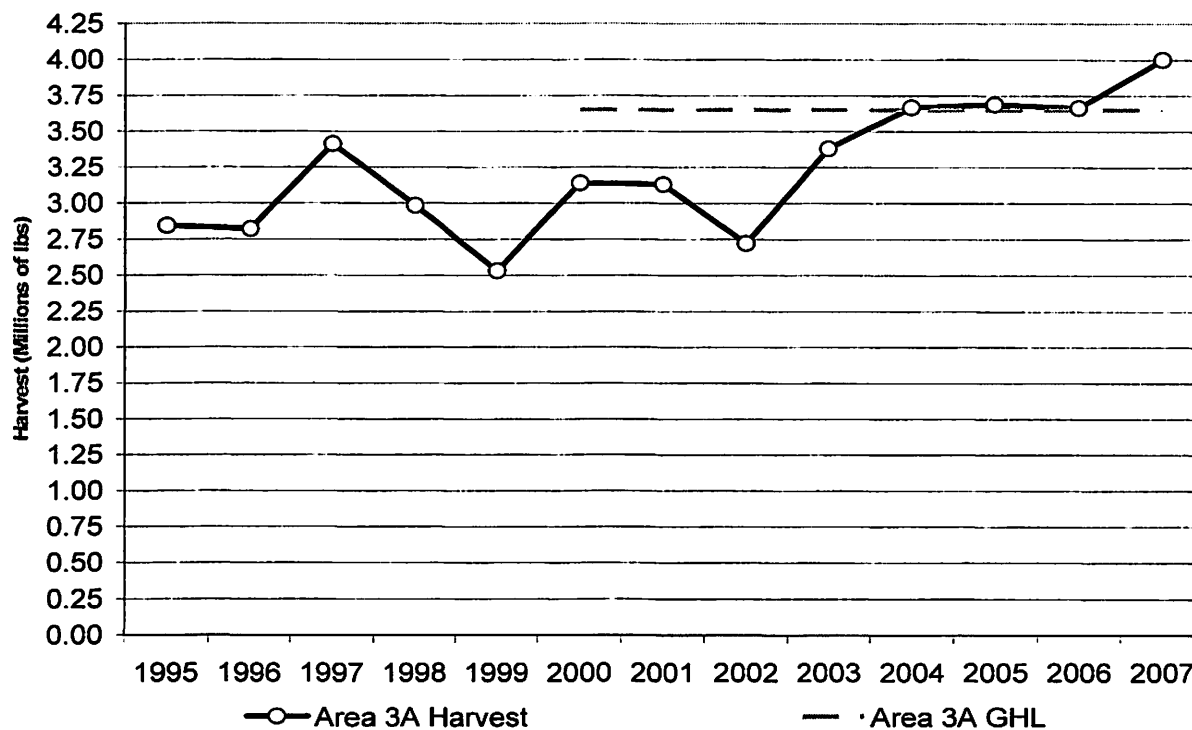


Figure 1. Historic Area 3A Charter Harvest Compared to the Area 3A GHL

The goal of proposed management measures under this action is to reduce sport fishing mortality of halibut in the charter sector in Area 3A to its GHL in a manner that minimizes adverse impacts on the charter fishery, its sport fishing clients, the coastal communities that serve as home port for this fishery, and on fisheries for other species. In addition to the no action alternative, the Council is considering six options to reduce halibut harvests to the Area 3A GHL under Alternative 2:

- Alternative 1. No action. Maintain the existing 2007 Status Quo management structure.
- Alternative 2. Implement one or more measures to restrict charter halibut harvest to the Area 3A GHL
 - Option 1. No more than one trip per charter vessel per day.
 - Option 2¹.
 - i. No harvest by skipper or crew while clients are on board; and/or
 - ii. Line limits not to exceed the number of paying clients on board.
 - Option 3. Annual limits of four, five, or six halibut, per angler, caught from a charter vessel fishing in Area 3A.
 - Option 4. Reduced bag limits of one fish per day in May, June, July, August, or the entire season
 - Option 5. A two-fish bag limit with one fish of any size and one fish larger than 45 inches or 50 inches
 - Option 6. A two-fish bag limit with one fish of any size and one fish 32, 34 or 36 inches in length

The 2007 Status Quo

On January 26, 2007, ADF&G instituted Emergency Order No. 2-R-3-02-07, which banned the retention of sport fish by skipper and crew while clients were onboard the vessel and placed a limit on the number of lines allowed to be fished from a charter vessel equal to the number of paying clients aboard the vessel from May 1, 2007 through December 31, 2007. A similar order (Emergency Order No. 2-R-3-03-08) was effective from May 24, 2008 to September 1, 2008. Thus, ADF&G's final harvest estimate for 2007 differs from previous harvest estimates in that retention of skipper and crew fish was prohibited and could not have been included in the estimate. Therefore, Option 2 has the same effect as status quo, except that it would replace state action with federal action. A federal action would be less restrictive than state action because it would apply only to halibut, rather than all salt water fish as occurred with state action. Prior to 2007, ADF&G estimates of charter halibut harvest included a portion of harvest that was attributable to skipper and crew. *To maintain consistency with prior analyses, and because the status quo harvest level is above the current GHL and includes a state ban on skipper and crew harvest and line limits, the analysis projects the effect of Options 1, 3, 4, 5, and 6 as if they were enacted with Option 2 (or a continued state action on the same measures).*² *The Council should consider the following two points.*

- *The Council may wish to select an option in combination with Option 2 as its preferred alternative to achieve the desired reduction in charter halibut harvest and to replace state action with less restrictive federal action.*
- *If the Council's intent is not to combine Status Quo/Option 2 with another management measure(s), then we would expect to lose the benefits of the Status Quo/Option 2. For example, if*

¹ Option 2 measures were implemented through an emergency order issued by ADF&G for 2008, and is considered part of the No Action Alternative.

² The October 2007 Initial Review EA/RIR/IRFA presented the effect of each option in conjunction with the then existing 2007 status quo including Emergency Order No. 2-R-3-02-07. The effect of each option was presented as if that status quo had been in effect in 2006 while noting that the State of Alaska reserves its right to issue, or not issue, emergency orders regarding skipper and crew harvests to enable the best management of the resource. To maintain consistency between analyses we continue that approach in this analysis.

the Council selected Option 1 (as analyzed in combination with the Status Quo/Option 2) as its preferred alternative, the analysis estimates the measure would have reduced 2007 harvest by 287,000 lb to 318,000 lb (to approximately 100.9 to 101.8 percent of the GHL). However, if the Council does not include Option 2 in its preferred alternative, but instead selected only Option 1 as its preferred alternative (for example), then the analysis predicts that 2007 harvest would have actually increased by 109,000 lb to 144,000 lb. This result occurs because while the action would gain the 287,000 lb to 318,000 lb of harvest savings from Option 1, it would lose a portion of the approximately 464,000 lb of harvest savings from the skipper and crew ban (assuming ADF&G would not release another emergency order).³

Table 1. Estimated Effect of One Trip per Day with and without the Inclusion of Option 2

Estimate Level	Estimated Effect In Conjunction with Option 2 (As Analyzed)				Without Option 2		
	Harvest Reduction (Mlb)	Harvest Reduction (%)	Estimated Post-Action Harvest (Mlb)	As a Portion of the 3.650 Mlb GHL (%)	Harvest Reduction (Mlb)	Post-Management Harvest (Mlb)	As a Portion of the 3.650 Mlb GHL (%)
Lower	0.287	7.2%	3.715	101.8%	-0.144	4.146	113.6%
Upper	0.318	8.0%	3.684	100.9%	-0.109	4.111	112.6%

Source: Northern Economics, Inc. estimates, 2008.

Summary Results

The August 28, 2008 draft of the EA/RIR/RFA was completed using the final 2006 harvest estimate of 3.664 Mlb because the 2007 charter halibut harvest had not been released by ADF&G at the time the draft was released by the Council for public review. Table 2 updates the analytical results of the draft EA/RIR/RFA using the final 2007 Area 3A charter harvest estimate of 4.002 Mlb. This table is an updated version of Table 6 in the draft EA/RIR/IRFA. Three groups of options are identified in Table 2 (below):

- Options which, as estimated, would clearly not have reduced 2007 harvest to *above the GHL* under 2007 conditions. This group includes Option 2 (i.e., the status quo under federal action), Option 3 (i.e., the five or six halibut annual limits), and Option 4 (i.e., a one-halibut daily bag limit in May and September).
- Options which, as estimated, may have reduced 2007 harvest to *near the GHL* under 2007 conditions. These options include Option 1 (ban on second trips in a day) and Option 3 (four halibut annual limit).
- Options which, as estimated, would clearly have reduced 2007 harvest to *below the GHL*. These options include all sub-options of Option 6 (i.e., maximum size on the second halibut in the daily bag limit), both sub-options of Option 5 (i.e., minimum size on the second halibut in the angler's daily bag limit), and Option 4 (June, July, and August one halibut bag limits).

³ The numbers in this example do not add to the number in the table because of the ban on second trips per day would theoretically affect skipper and crew harvest. Consequently, the analysis accounts for this interaction effect and the results are displayed in Table 1.

Table 2. Estimated Effect of Analyzed Management Options

	Management Option (Each Option Assumes the Inclusion of Option 2)	Sub-Option	Estimated 2007 Harvest with Option (Mlb)		Post-Option Harvest as a Portion of the GHL (%)	
			Less Effective	More Effective	Less Effective	More Effective
Below the GHL	Option 4. One Fish Bag Limit	Full Season	2.098	1.469	57.5%	40.2%
	Option 5. Minimum Size on the Second Fish	50"	2.476	2.228	67.8%	61.0%
	Option 5. Minimum Size on the Second Fish	45"	2.621	2.359	71.8%	64.6%
	Option 4. One Fish Bag Limit	July	3.277	3.041	89.8%	83.3%
	Option 6. Maximum Size on the Second Fish	32"	3.341	3.073	91.5%	84.2%
	Option 6. Maximum Size on the Second Fish	34"	3.470	3.213	95.1%	88.0%
	Option 4. One Fish Bag Limit	June	3.522	3.364	96.5%	92.2%
	Option 4. One Fish Bag Limit	August	3.542	3.388	97.0%	92.8%
	Option 6. Maximum Size on the Second Fish	36"	3.600	3.322	98.6%	91.0%
Near the GHL	Option 3. Annual Limit	4 Fish	3.695	3.695	101.2%	101.2%
	Option 1. One Trip per Day	None	3.715	3.684	101.8%	100.9%
Above The GHL	Option 3. Annual Limit	5 Fish	3.799	3.799	104.1%	104.1%
	Option 4. One Fish Bag Limit	May	3.842	3.788	105.3%	103.8%
	Option 3. Annual Limit	6 Fish	3.888	3.888	106.5%	106.5%
	Option 4. One Fish Bag Limit	September	3.930	3.905	107.7%	107.0%
	Option 2. No Harvest by Skipper & Crew (Status Quo)	None	4.002	4.002	109.6%	109.6%

Source: Northern Economics, Inc. estimates, 2008.

Figure 2 shows the estimated effect of implementing each proposed option (in conjunction with Option 2) in 2007 relative to the Area 3A GHL.

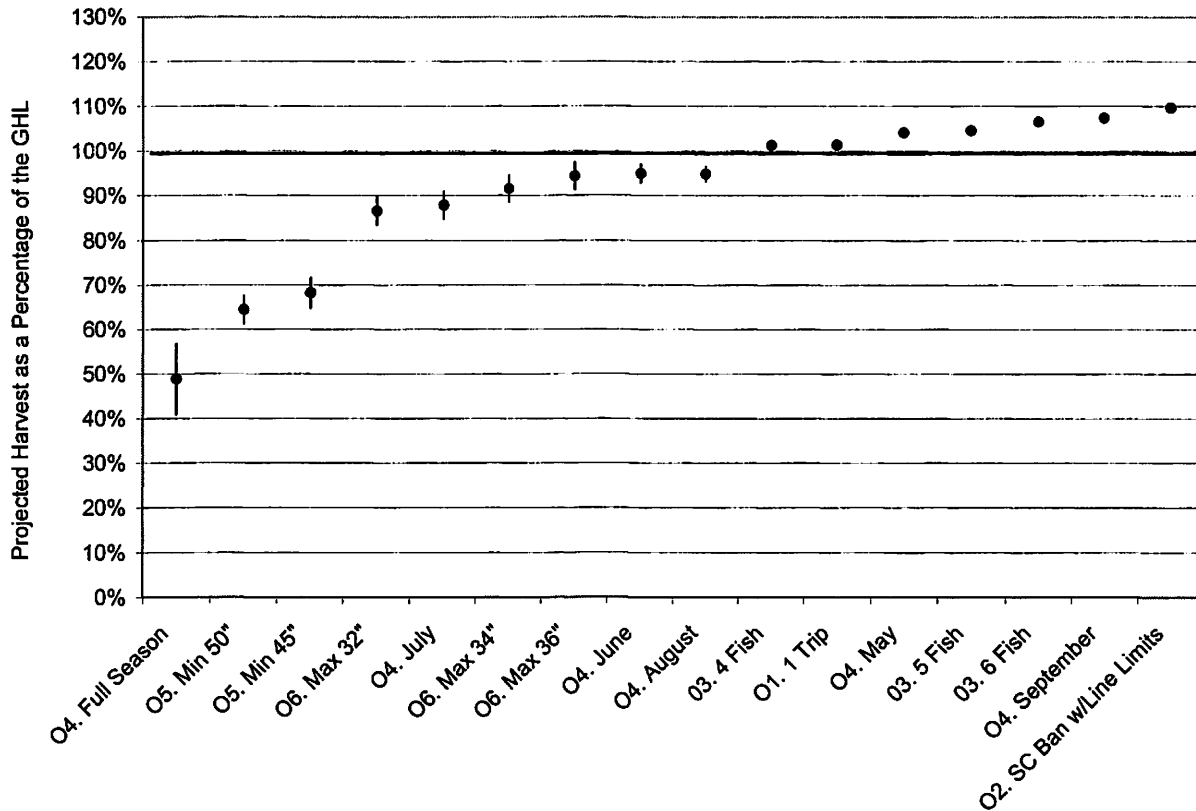


Figure 2. Estimated Effect of Analyzed Management Options

The effect of certain options may be easily eroded by changes in angler behavior. In particular, anglers may high grade halibut to reduce the effect of Options 4 and 6 and anglers may redistribute their trips throughout the year to avoid a month-long reduction in the one halibut bag limit (i.e., Option 4). Additionally, the estimated effect of Option 1 may be eroded if displaced anglers can find seats on another vessel at a different time of year. The net effect of all of the options may be eroded by an increase in angler days, catch per unit of client effort, or a sudden shift upward in average harvest weight, as may have occurred in Area 2C in 2007 when charter harvests were higher than generally expected.

Detailed Results by Option

This section provides detailed tables by option.

Option 1 –No More than One Trip per Vessel per Day

ADF&G estimates that harvest from “second trips” comprised 7.2 percent to 8.0 percent of the 2007 harvest; equivalent to between 287,000 lb and 318,000 lb.⁴ In combination with a continuing ban on skipper and crew harvest and line limits (Option 2), Option 1 would have reduced 2007 harvest to between 100.9 percent and 101.8 percent of the GHL. A portion of displaced anglers are likely to find

⁴ “Second trips in a day” account for growing portion of harvest each year. ADF&G logbook data show long-term increasing trends. In 2000, the harvest associated with second trips was estimated at between 3.0 and 3.5 percent. By 2006 that portion increased to between 5.5 and 6.3 percent.

replacement trips. Thus, the estimated reductions likely overstate actual reductions. In addition, the economic effect of this option is likely to be disproportionately located in the Cook Inlet fishery, where multiple trips in a given day are a common business model.

Table 3. Option 1-Estimated Effect of One Trip per Day

Estimate Level	Estimated Effect In Conjunction with Option 2 (As Analyzed)			
	Harvest Reduction (Mlbs)	Harvest Reduction (%)	Estimated Post-Action Harvest (Mlb)	As a Portion of the 3,650 Mlbs GHL (%)
Lower	0.287	7.2%	3,715	101.8%
Upper	0.318	8.0%	3,684	100.9%

Source: Northern Economics, Inc. estimates, 2008.

Option 2 –A Ban on Skipper and Crew Harvest and Line Limits

Option 2 would create a federal ban on harvest by skipper and crew while clients were onboard and would implement line limits equal to the number of paying clients. The option would have the same effect as the status quo for 2007 and 2008, except that these two measures would be implemented in federal regulations.⁵ Federal action would allow ADF&G to lift the blanket prohibition on retention of halibut by skippers and crew for all saltwater species caught on charter trips and for state line limits on all saltwater charter fish. It may provide a greater sense of permanence to the restrictions, but would not result in additional reductions beyond those achieved by state action. It would lift the state restrictions for skipper and crew retention and line limits for salmon, rockfish, and ling cod. If the Council does not select this option, and the ADF&G does not continue to issue similar emergency orders, skipper and crew harvests of halibut would be expected to return to historic levels of approximately 10.4 percent of total harvest (i.e., approximately 464,000 lb based on the 2007 client harvest).

Table 4. Option 2-Estimated Effect of a Federal Ban on Skipper and Crew Harvest with Line Limits

Estimate Level	Estimated Effect			
	Additional Harvest Reduction (Mlbs)	Harvest Reduction (%)	Estimated Post-Action Harvest (Mlb)	As a Portion of the 3,650 Mlbs GHL (%)
Point Estimate	0.000	0.0%	4,002	109.6%

Source: Northern Economics, Inc. estimates, 2008.

Option 3 –The Annual Harvest Limit

Option 3 would establish either a four, five, or six halibut annual limit for charter halibut anglers. Table 5 shows estimates of reductions in harvest associated with this option. Assuming that all else remains equal (e.g., there is no change in overall demand), a six- halibut annual limit, combined with the status quo, would have reduced harvest to approximately 106.5 percent of the GHL (307,000 lb reduction), a five- halibut annual limit would have reduced harvest to 104.1 percent of the GHL (203,000 lb reduction), and a four- halibut annual limit would have reduced harvest to 101.2 percent of the GHL (114,000 lb reduction). The estimated effect of these sub-options is substantially lower than documented in past

⁵ The analysis does not have any data on the effect of line limits. Line limits could limit skipper and crew harvest of non-halibut species as it would prevent them for fishing for other species while all of their clients have lines in the water.

analyses because in 2006 skippers and crew accounted for 80 percent harvest from individuals harvesting six or more fish. Only five percent of charter anglers harvested at least six halibut in 2007.

Table 5. Option 3—Estimated Effect of an Annual Limit

Estimate Level	Estimated Effect			
	Harvest Reduction (Mlbs)	Harvest Reduction (%)	Estimated Post-Action Harvest (Mlb)	As a Portion of the 3.650 Mlbs GHL (%)
Four Fish	0.307	7.7%	3.695	101.2%
Five Fish	0.203	5.1%	3.799	104.1%
Six Fish	0.114	2.8%	3.888	106.5%

Source: Northern Economics, Inc. estimates, 2008.

Option 4 – The One Fish Bag Limit

Implementing a season-long, one- halibut bag limit would have reduced harvest in 2007 to approximately 57.5 percent of the GHL, assuming no demand effects. Under a 30 percent demand reduction, a reasonable upper level predicted by key informant interviews conducted for prior analyses, the measure would reduce harvest to approximately 40.2 percent of the GHL. The analysis also analyzed the effect of reducing the bag limit for one month durations during the summer. While some of these ‘one month’ bag limits may further reduce harvest levels below the GHL, the analysis is not able to account for anglers switching from a month with a reduced bag limit to a month without a reduced bag limit. Over the long run, anglers who change the timing of their trips to account for bag limit changes *will erode the reductions from these options*. Thus, the estimates for single-month reductions in bag limits are viewed as *maximum estimates of the short-term effect of this management sub-option*.

Table 6. Option 4—Estimated Effect of an One Fish Bag Limit for a Month or for the Entire Season

Sub-Option	Estimate Level	Estimated Effect			
		Harvest Reduction (Mlbs)	Harvest Reduction (%)	Estimated Post-Action Harvest (Mlb)	As a Portion of the 3.650 Mlbs GHL (%)
May	No Demand	0.160	4.0%	3.842	105.3%
	30% Demand	0.214	5.3%	3.788	103.8%
June	No Demand	0.480	12.0%	3.522	96.5%
	30% Demand	0.638	15.9%	3.364	92.2%
July	No Demand	0.725	18.1%	3.277	89.8%
	30% Demand	0.961	24.0%	3.041	83.3%
August	No Demand	0.460	11.5%	3.542	97.0%
	30% Demand	0.614	15.3%	3.388	92.8%
September	No Demand	0.072	1.8%	3.930	107.7%
	30% Demand	0.097	2.4%	3.905	107.0%
Entire Season	No Demand	1.904	47.6%	2.098	57.5%
	30% Demand	2.533	63.3%	1.469	40.2%

Source: Northern Economics, Inc. estimates, 2008.

Option 5 – A Minimum Size on the Second Fish in the Daily Bag Limit

Option 5 would establish a two- halibut bag limit with one halibut of any size and one halibut equal to or larger than 45 inches or 50 inches depending on the sub-option. These options could result in relatively

high levels of harvest reductions. Both of the sub-options would have reduced harvest to a level below the GHL under 2007 conditions, even without some corresponding reduction in demand for trips. ADF&G estimates that the 45-inch sub-option would have reduced 2007 harvest to approximately 71.8 percent of the GHL, while the 50-inch sub-option would have reduced 2007 harvest to 67.8 percent of the GHL. If a 10 percent demand reduction accompanies this action, harvest would have been reduced to 64.6 percent or 61.0 percent, respectively, of the GHL. A ten percent demand reduction means the change must not only reduce demand by ten percent, but also effectively eliminate any growth in the industry, where client demand has been growing at approximately six percent per year. IPHC data show that halibut of 45 inches and larger represent less than ten percent of the total population by number.

Table 7. Option 5-Estimated Effect of a Minimum Size on the Second Fish in the Daily Bag Limit

Sub-Option	Demand Reduction	Estimated Effect			
		Harvest Reduction (Mlbs)	Harvest Reduction (%)	Estimated Post-Action Harvest (Mlb)	As a Portion of the 3.650 Mlbs GHL (%)
45	No Reduction	1.381	34.5%	2.621	71.8%
	10% Demand Reduction	1.643	41.1%	2.359	64.6%
50	No Reduction	1.526	38.1%	2.476	67.8%
	10% Demand Reduction	1.774	44.3%	2.228	61.0%

Source: Northern Economics, Inc. estimates, 2008.

Option 6 – A Maximum Size on the Second Fish in the Daily Bag Limit

Option 6 would allow a two- halibut daily bag limit, with one halibut of any size and one halibut less than or equal to 32, 34, or 36 inches in length. The analysis estimates an upper bound estimate, which is based on the assumption that anglers harvest the “average” halibut below the length limit, and a lower estimate, which depicts how the efficacy of the option could be reduced if the anglers succeeded in high grading their catch by one size class. All three sub-options would have reduced 2007 harvest below the GHL in combination with the state ban on skipper and crew harvest and line limits. The 32-inch limit, which is similar to the 2007 NMFS rule for Area 2C, would have reduced 2007 harvest between 84.2 percent and 91.5 percent of the GHL. The 34-inch limit would have reduced 2007 harvest between 88.0 percent and 95.1 percent of the GHL, while the 36-inch limit would have reduced 2007 harvest between 91.0 percent and 98.6 percent of the GHL. If anglers are not successful at high grading, then the associated harvest reductions would be nearer the upper limit than the lower limit.

Table 8. Option 6-Estimated Effect of a Maximum Size on the Second Fish in the Daily Bag Limit

Sub-Option	Estimate Level	Estimated Effect			
		Harvest Reduction (Mlbs)	Harvest Reduction (%)	Estimated Post-Action Harvest (Mlb)	As a Portion of the 3.650 Mlbs GHL (%)
32"	Highgrading to Next Size Class	0.661	18.1%	3.341	91.5%
	If Anglers Catch Average Fish Below Limit	0.929	25.4%	3.073	84.2%
34"	Highgrading to Next Size Class	0.532	14.6%	3.470	95.1%
	If Anglers Catch Average Fish Below Limit	0.789	21.6%	3.213	88.0%
36"	Highgrading to Next Size Class	0.402	11.0%	3.600	98.6%
	If Anglers Catch Average Fish Below Limit	0.680	18.6%	3.322	91.0%

Source: Northern Economics, Inc. estimates, 2008.

SPORT FISHING

Emergency Order

ALASKA DEPARTMENT
OF FISH & GAME

Under Authority of AS 16.05.060

Emergency Order No. 2-R-3-03-08

Issued at: Anchorage, Friday, March 21,
2008

Effective Date: 12:01 a.m., May 24, 2008

Expiration Date: 11:59 p.m., September 1,
2008, unless superseded by subsequent
emergency order.

EXPLANATION:

From May 24 through September 1, 2008, a sport fishing guide or sport fishing crew member working on a charter vessel in the salt waters of Southcentral Alaska may not retain any species of fish while paying clients are on board the vessel. The maximum number of lines that may be fished from a vessel engaged in guided sport fishing in salt waters may not exceed the number of paying clients on board the vessel. This prohibition will be in effect for all salt waters west of the longitude of Cape Suckling, including Prince William Sound and Cook Inlet, and the waters of the Kodiak Island area north of a line running from Cape Aklek on the Alaska Peninsula to Cape Ikolik on the western shore of Kodiak Island; and north and east of a line running from Cape Trinity to Cape Sitkinak. All of the provisions above become effective beginning 12:01 A.M., May 24, 2008, through 11:59 P.M., September 1, 2008.

REGULATION:

The provisions of 5 AAC 55.023 (9), 5 AAC 58.022 (b) (4), 5 AAC 64.022 (b) (7), and 5 AAC 65.022 (d) are added by this emergency order. Under this emergency order, the following provisions are effective beginning 12:01 A.M., May 24, 2008, through 11:59 P.M., September 1, 2008:

5 AAC 55.023 SPECIAL PROVISIONS FOR SEASONS, BAG, POSSESSION, AND SIZE LIMITS, AND METHODS AND MEANS FOR THE PRINCE WILLIAM SOUND AREA

(9) A sport fishing guide and sport fishing crew member working on a charter vessel in the salt waters of the Prince William Sound Area may not retain fish while paying clients are on board the vessel. The maximum number of lines that may be fished from a vessel engaged in guided sport fishing in salt waters may not exceed the number of paying clients on board the vessel.

5 AAC 58.022 WATERS; SEASONS; BAG, POSSESSION, AND SIZE LIMITS; AND SPECIAL PROVISIONS FOR COOK INLET — RESURRECTION BAY SALTWATER AREA

(b)(4) A sport fishing guide and sport fishing crew member working on a charter vessel in the salt waters of the Cook Inlet – Resurrection Bay Saltwater Area may not retain fish while paying clients are on board the vessel. The maximum number of lines that may be fished from a vessel engaged in guided sport fishing in salt waters may not exceed the number of paying clients on board the vessel.

5 AAC 64.022 WATERS; SEASONS; BAG, POSSESSION, AND SIZE LIMITS; AND SPECIAL PROVISIONS FOR THE KODIAK AREA

(b)(7) A sport fishing guide and sport fishing crew member working on a charter vessel in the salt waters of the Kodiak Area north of a line running from Cape Aklek on the Alaska Peninsula to Cape Ikolik on the western shore of Kodiak Island; and north and east of a line running from Cape Trinity to Cape Sitkinak may not retain fish while paying clients are on board the vessel. The maximum number of lines that may be fished from a vessel engaged in guided sport fishing in salt waters may not exceed the number of paying clients on board the vessel.

5 AAC 65.022 SPECIAL PROVISIONS FOR METHODS AND MEANS IN THE ALASKA PENINSULA AND ALEUTIAN ISLANDS AREA

(d) A sport fishing guide and sport fishing crew member working on a charter vessel in the salt waters of the Alaska Peninsula and Aleutian Islands Area north of a line running from Cape Aklek on the Alaska Peninsula to Cape Ikolik on the western shore of Kodiak Island may not retain fish while paying clients are on board the vessel. The maximum number of lines that may be fished from a vessel engaged in guided sport fishing in salt waters may not exceed the number of paying clients on board the vessel.

Denby S. Lloyd,
Commissioner

By delegation to:

Matt G. Miller,
Regional Management Biologist

JUSTIFICATION:

The Pacific halibut Guideline Harvest Level (GHL) for charter boat anglers within Southcentral Alaska was exceeded in 2004, 2005, and 2006. The 2007 guide harvest was projected to be less than the GHL, due in part to a Department EO issued in 2007 prohibiting retention of halibut and other fish by guides and crew members. While discussions are continuing between stakeholders, the Department, and the North Pacific Fishery Management Council to seek a long-term solution, it is recognized that federal action will not come soon enough to assure the Area 3A halibut harvests during 2008 remain at or below the GHL. This action to prohibit retention of fish by captain and crew is issued under the authority granted to the Department by the Board of Fisheries to regulate harvests within established allocation guidelines (5 AAC 75.003(4)).

DISTRIBUTION:

The distribution list for this emergency order is on file at the Region 2 Office of Alaska Department of Fish and Game, Division of Sport Fish, 333 Raspberry Road, Anchorage, AK 99518, (907) 267-2218; Alaska Department of Fish and Game Kodiak Area Office; and the Alaska Department of Public Safety Fish and Wildlife Protection Kodiak Office.

CORRECTED EXECUTIVE SUMMARY OF THE AREA 3A GHL ANALYSIS

This analysis assesses the potential biological, social, and economic impacts of implementing regulations to control harvests in the charter halibut fishery in International Pacific Halibut Commission (IPHC) Regulatory Area 3A. The proposed action was initiated in October 2005, when the Council first reviewed Alaska Department of Fish and Game (ADF&G) Sport Fish Division data that indicated that the 2004 guideline harvest level (GHL) of 3.65 Mlb had been exceeded. In response, the Council developed an analysis of alternatives for implementing management options to reduce harvests to below the GHL. The Council selected its preferred alternative of no action in April 2006, because the overage was minimal. In December 2006, the Council received preliminary information that the GHL was exceeded by increasing amounts in 2005 and 2006. In April 2007, the Council revised the options under Alternative 2 from its April 2006 analysis and scheduled initial review of this analysis for October 2007.

In September 2007, ADF&G Sport Fish Division released a final estimate for the 2006 Area 3A charter harvest of 3.664 Mlb. The final estimate is approximately 284,000 lb lower than the 3.948 Mlb projection of 2006 harvest ADF&G issues in October 2006. ADF&G's initial projection of 2006 harvest was equal to 108.1 percent of the GHL; while the final 2006 estimate puts total charter harvest at 100.37 percent of the GHL. During its October 2007 meeting, the Council scheduled final action for October 2008, when final ADF&G estimates for 2007 would be available. Implementation is intended for the 2009 charter season.

In September 2008, ADF&G Sport Fish Division released a final estimate of 2007 Area 3A charter halibut harvest. The 2007 Area 3A charter harvest was 4.002 M lb, which is nearly 10 percent over the 2007 Area 3A GHL of 3.650 M lb. A supplemental analysis of expected effects of proposed options under Alternative 2 will include final 2007 charter halibut harvests.

The goal of proposed restrictive measures under this action is to reduce sport fishing mortality of halibut in the charter sector in Area 3A to its GHL in a manner that minimizes adverse impacts on the charter fishery, its sport fishing clients, the coastal communities that serve as home port for this fishery, and on fisheries for other species. In addition to the no action alternative, the Council is considering six options to reduce halibut harvests to the Area 3A GHL:

Alternative 1. No action. Maintain the existing 2007 Status Quo management structure.

Alternative 2. Implement one or more measures to restrict charter halibut harvest to the Area 3A GHL

- Option 1. No more than one trip per charter vessel per day.
- Option 2.
 - i. No harvest by skipper or crew while clients are on board; and/or
 - ii. Line limits not to exceed the number of paying clients on board.
- Option 3. Annual limits of four, five, or six halibut, per angler, caught from a charter vessel fishing in Area 3A.
- Option 4. Reduced bag limits of one fish per day in May, June, July, August, or the entire season
- Option 5. A two-fish bag limit with the one fish of any size and one fish larger than 45 inches or 50 inches
- Option 6. A two-fish bag limit with one fish of any size and one fish 32, 34 or 36 inches in length

Environmental Assessment

The potential effects of the alternatives on marine resources would be caused by increased harvest of groundfish species, incidental catch of groundfish species, and an increase in halibut mortality. Negative impacts on salmon stocks are not expected, because current ADF&G management under the Pacific Salmon Treaty closely monitors stock health and sets escapements accordingly. The socioeconomic environment may be affected through changes in angler demand for charter halibut trips which may decrease total revenue, both over the short and long run. The socioeconomic environment for the charter and commercial sector may also be affected by allocation conflicts over fully utilized species such as halibut, rockfish, and salmon.

The environmental assessment (EA) concluded that none of the alternatives would affect the health of the halibut stock since the IPHC sets limits on total halibut removals. Regardless of the amount of halibut biomass taken by a sector, no adverse impacts to the halibut resource would be expected because the IPHC factors in most resource removals in the halibut stock assessment when setting annual catch limits. Additionally, release mortality for the sport fishery is not expected to substantially increase above status quo under any of the alternatives.

The EA also examined groundfish species that may be targeted or incidentally caught in the charter halibut fisheries. Rockfish and lingcod are commonly harvested in the sport fishery. Commercial and sport catch limits are set for these species and none of the catches for these species exceeded their respective ABC or OFL in 2007. Rockfish harvests in 2007 were well under the respective limits for the commercial and sport fisheries combined. Harvest levels for lingcod in recent years have remained constant under strict sport fishery slot limits and season regulations, and commercial catch limits. A small increase in lingcod harvest would likely not significantly impact the stock because of ADF&G regulations for the sport and commercial sectors. Moreover, the magnitude of the harvest increase from the proposed alternatives would likely be small given the strict sport harvest measures currently in place for lingcod. For these reasons, the impact of the alternatives on these species is expected to be insignificant.

Cumulative effects are linked to incremental policy changes that individually may have small outcomes, but that in the aggregate and in combination with other factors can result in major resource trends. This action would not interact synergistically with other actions or with natural trends to significantly affect the halibut resource of the Gulf of Alaska. Alternative 2 is expected to have a positive effect on the halibut resource by limiting removals to the charter GHL. No reasonably foreseeable future actions would have impacts that would cause significant cumulative effects when combined with the effects from this action.

Possible future actions currently under consideration by the Council include annual changes to the GHL policy, setting an allocation (rather than a GHL) to the charter sector, and the development of a share-based allocation program to individual charter operators or to the charter sector. NMFS is drafting proposed regulations to implement a Council recommendation in April 2007 for a charter halibut limited entry (moratorium) program for Area 2C and Area 3A. If approved by the Secretary, it may be in effect in 2010. The State of Alaska prohibited retention of crew caught fish and limited the lines to the number of paying passengers, not to exceed six lines. The State legislature adopted a bill to allow the state to share otherwise confidential charter boat fishery data with Federal managers. This will facilitate implementation of the limited entry program and GHL management measures, such as annual limits. The State of Alaska is also seeking limited delegation of authority to manage halibut in State and Federal waters.

Regulatory Impact Review

Expected Effect of Alternative 1

The long-term effect of the no action alternative likely would be the continuation of a highly variable annual growth trend in the Area 3A charter halibut harvest and a reallocation, more or less rapid - depending upon the CEY, from the commercial sector to the charter sector (Figure 1). In 2006, charter halibut harvests equaled 3.664 Mlb or 100.4 percent of the GHL. This amount includes harvest by skipper, crew, and clients. The client portion is estimated at 96.7 percent of the GHL or 3.528 Mlb. In the short-term, the January 2007 ADF&G emergency order, which banned retention of fish caught by skipper and crew during saltwater charters, may result in a reduction in harvest between 2006 and 2007. The 2007 client harvest will be lower than the GHL if charter client harvests increase by less than 121,000 lb from the estimated 2006 client harvest level of 3.528 Mlb, all things being equal. Estimates based on ADF&G data indicate that the ban on skipper and crew would have saved approximately 418,000 lb or 10.6 percent of the harvest if it had been in place in 2006 and if one assumes that skipper and crew fully report their harvests through the SWHS. The analysis assumes that the reductions in 2007 will be approximately the same percentage. Charter halibut harvests have grown at an annualized growth rate of 3.0 percent over the past 11 years and 4.7 percent over the past five years. Therefore, under these growth rates, charter client harvest would grow between 107,000 and 167,000 lb in 2007.¹ An emergency order was issued on March 21, 2008 to reinstitute a prohibition on a sport fishing guide or sport fishing crew member working on a charter vessel in the salt waters of Southcentral Alaska to not retain any species of fish while paying clients are on board the vessel from May 24 through September 1, 2008.

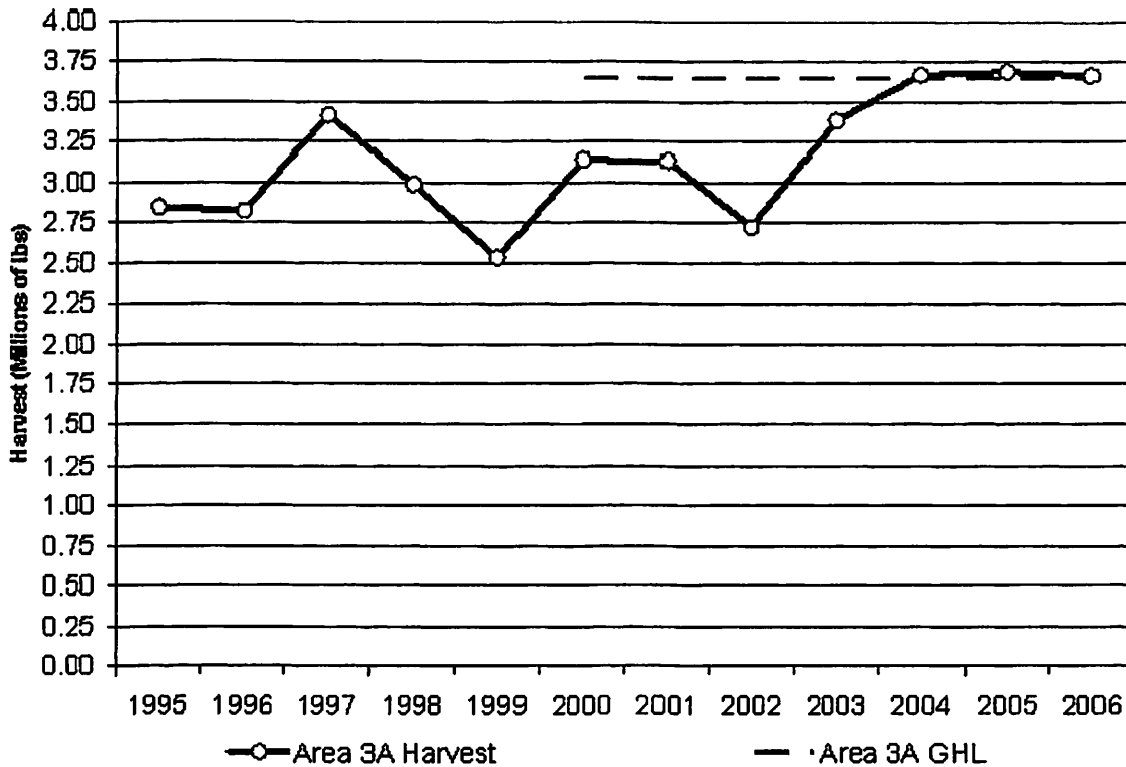


Figure 1 Charter Fleet Halibut Harvests by Year

Source: ADF&G Statewide Harvest Survey Data, 1995-2006 (2007).

¹ Year to year changes between 1995 and 2006 in charter harvests have ranged from -15.1 percent to 24.4 percent.

Expected Effect of Alternative 2

This analysis includes six options the Council is considering to reduce charter halibut harvests in Area 3A. The following sub-sections summarize the analytical results for each option. A summary of the entire analysis is then provided. The status quo includes the ADF&G emergency order that banned skipper and crew harvest. The analysis expects that in the absence of Council action ADF&G will maintain that emergency order. Hence, all of the options are analyzed as if that emergency order had been in place in 2006. The tables show the effect of the each option as a stand alone measure on 2006 harvest and the combined effect on 2006, including any interaction effects, of the status quo and the proposed option (see Table 1). All of the summary tables show the combined effect of no crew harvesting, and the proposed management option.

Option 1 – Effect of No More than One Trip per Vessel per Day

ADF&G estimates that harvest from “second trips” comprise between 5.5 percent and 6.3 percent of total harvest in 2006, equivalent between 217,000 lb and 247,000 lb. These data are adjusted for the status quo, which includes the ADF&G emergency order. In combination, these measures would have reduced 2006 harvest to between 90.6 percent and 91.4 percent of the GH L, or 3.307 Mlb to 3.334 Mlb. As noted in a prior analysis (NPFMC 2006), a portion of displaced anglers are likely to find replacement trips. Thus, the estimated reductions likely overstate actual reductions.

Table 1 Summary Effect of No More than One Trip per Day

Estimate Level	Effect of One Trip per Day under 2006 Status Quo		Adjusted for 2007 Status Quo		
	Harvest Reduction (Mlb)	Harvest Reduction (%)	Combined Harvest Reduction (Mlb)	Estimated Harvest (Mlb)	As a Portion of the 3.650 Mlb GH L (%)
Lower Estimated	0.217	5.5%	0.613	3.334	91.4%
Upper Estimate	0.247	6.3%	0.640	3.307	90.6%

Source: NEI estimates based on ADF&G Logbook and Statewide Harvest Survey Data.

Option 2 – Effect of No Harvest by Skipper and Crew and Line Limits

Option 2 would ban harvest by skipper and crew while clients were onboard and would implement line limits equal to the number of paying clients. It would have the same effect as the status quo for 2007, except that these two measures would be implemented in Federal regulations. A Federal ban would allow ADF&G to lift the blanket crew and skipper fishing ban for all species caught on saltwater trips and for state line limits on all saltwater charter fish. It may provide a greater sense of permanence to the restrictions, but would not result in additional reductions beyond those achieved by the State ban. NPFMC (2006) estimated that this option would reduce overall harvest by 7.7 percent and 10.5 percent in Area 3A and noted an increasing trend between 1998 and 2002. This analysis estimates that it would have reduced harvest in 2006 by 10.6 percent (418,000 lb) to 96.7 percent of the GH L. Interviews for this analysis and NPFMC (2006) indicated notable support for this measure. However, an additional Federal restriction would not result in additional harvest reductions.

Option 3 – Effect of an Annual Limit of Four or Five or Six Fish per Angler

Option 3 would establish a four, five, or six fish annual limit that in combination with a daily bag limit an individual should be permitted to harvest while on charter trips in Area 3A. Table 2 shows associated estimates of reductions in harvest. Assuming that all else remains equal (e.g., there is no change in overall demand), The six-fish annual limit combined with the status quo would have reduced harvest to approximately 94.4 percent of the GHL (502,000 lb reduction), a five-fish annual limit would have reduced harvest to roughly 92.2 percent of the GHL (582,000 lb reduction), and a four-fish annual limit would have reduced 2006 harvest to 89.6 percent of the GHL (676,000 lb reduction). However, much of these reductions are attributable to the ban on skipper and crew harvesting halibut while on charter trips. The reason for this decline in the expected effect is that skipper and crew account for the vast majority of the “multi-fish” harvest. The analysis does not expect significant reductions in growth rates or participation as only 5 percent of anglers harvested five fish or more in Area 3A in 2006.² However, it is possible that some anglers could choose not to go fishing as their opportunity to harvest fish would be diminished by this option.

Table 2 Summary Effect of an Annual Limit

Estimate Level	Adjusted for 2007 Status Quo		
	Combined Harvest Reduction (Mlb)	Harvest (Mlb)	As a Portion of the 3.650 Mlb GHL (%)
Four Fish	0.676	3.271	89.6%
Five Fish	0.582	3.365	92.2%
Six Fish	0.502	3.445	94.4%

Source: NEI estimates based on ADF&G data (2007).

Option 4 – Effect of Reduced Bag Limits

Instituting a season-long, one-fish bag limit would reduce harvests to approximately 51.2 percent of the GHL assuming no demand effects. Combining a 30 percent demand reduction, the upper level predicted by both peer-reviewed literature and key informant interviews, would result in harvest equivalent to 35.8 percent of the GHL (Table 3). While replacing an annual bag limit with some ‘one month’ bag limits may further reduce harvest levels below the GHL, the analysis is not able to account for anglers switching from a month with a reduced bag limit to a month without a reduced bag limit. Over the long run, anglers who change the timing of their trips to account for bag limit changes *will erode the reductions from these options*. Thus, the estimates for single-month bag limits are viewed as *maximum estimates of the short-term effect of this management sub-option*.

Option 5 – Effect of a Two Fish Bag Limit with One Fish any Size and One Fish Larger than 45” or 50”

Option 5 would establish a two-fish bag limit with one fish of any size and one fish equal to or larger than 45 inches or 50 inches depending on the sub-option. These options result in relatively high levels of catch reductions especially when considered in combination with the ADF&G ban on skipper and crew harvest. Both of the sub-options would reduce harvest to a level below the GHL, without the assumption of some corresponding reduction in demand for trips. ADF&G estimates that the 45-inch sub-option would reduce harvest to approximately 62.3 percent of the GHL, while the 50-inch sub-option would reduce harvest to 57.5 percent of the GHL. If a ten percent demand reduction accompanies this action, harvest would have been reduced to 54.9 percent or 50.6 percent, respectively. A ten percent demand reduction means the change must not only reduce demand by ten percent, but also effectively eliminate any growth in the industry, which has been growing at 4 percent to 7 percent per year. ADF&G data indicate that more than

² These data show a fundamental difference between Area 3A and Area 2C charter halibut fisheries. In Area 2C more than 10 percent of clients harvested five or more fish in 2006.

90 percent of the halibut harvested in Area 3A in 2006 were smaller than the sub-option lengths. IPHC data also show that fish 45" and larger are less than ten percent of the population. These data would indicate that fish above 45" are relatively rare, and the limit could effectively result in a one-fish bag limit for many anglers; particularly in areas where these fish are rarer than area wide measurements would suggest. In these areas demand reductions could be much higher than area wide effects.

Table 3 Summary Effect of Lower Bag Limits

Sub-Option	Demand Reduction for Charters	Effect of Option 4		Adjusted for 2007 Status Quo		
		Harvest Reduction (Mib)	Harvest Reduction (%)	Combined Harvest Reduction (Mib)	Harvest (Mib)	As a Portion of the 3.650 Mib GHL (%)
May	No Reduction	0.175	5.0%	0.593	3.354	91.9%
	30%Reduction	0.234	6.6%	0.652	3.295	90.3%
June	No Reduction	0.437	12.4%	0.855	3.092	84.7%
	30%Reduction	0.584	16.5%	1.002	2.945	80.7%
July	No Reduction	0.628	17.8%	1.046	2.901	79.5%
	30%Reduction	0.840	23.8%	1.258	2.689	73.7%
August	No Reduction	0.348	9.9%	0.766	3.181	87.1%
	30%Reduction	0.465	13.2%	0.884	3.063	83.9%
September	No Reduction	0.064	1.8%	0.482	3.465	94.9%
	30%Reduction	0.107	3.0%	0.525	3.422	93.7%
Entire Season	No Reduction	1.661	47.1%	2.079	1.868	51.2%
	30%Reduction	2.221	62.9%	2.639	1.308	35.8%

Source: NEI estimates based on ADF&G data (2007).

Table 4 Summary Effect of a Two Fish Bag Limit with One Fish any Size and One Fish Larger than 45" or 50"

Sub-Option	Demand Reduction for Charters	Effect of Option 5		Adjusted for 2007 Status Quo		
		Harvest Reduction (Mib)	Harvest Reduction (%)	Combined Harvest Reduction (Mib)	Harvest (Mib)	As a Portion of the 3.650 Mib GHL (%)
45	No Reduction	1.254	31.8%	1.673	2.274	62.3%
	10% Demand Reduction	1.524	38.6%	1.942	2.005	54.9%
50	No Reduction	1.431	36.3%	1.850	2.097	57.5%
	10% Demand Reduction	1.683	42.6%	2.101	1.846	50.6%

Source: NEI estimates based on ADF&G data (2007).

Option 6 – Effect of a two Fish Bag Limit with One Halibut any Size and One Halibut Less than 32", 34", or 36"

Option 6 would allow a two-fish daily bag limit, with one fish of any size and one fish less than or equal to 32, 34, or 36 inches in length. The analysis estimates an upper bound estimate based on the assumption that angler's harvest the "average" fish below the length limit and a lower estimate depicting how the efficacy of the option could be reduced if the anglers succeeded in high grading their catch by one size class. All three sub-options would reduce harvest below the GHL when the analysis accounts for the combined effect with the State ban on skipper and crew harvest. The 32-inch limit, which is similar to the 2007 NMFS rule for Area 2C, would reduce harvest between 69.8 percent and 76.4 percent of the GHL. The 34-inch limit would reduce harvest between 73.3 percent and 79.7 percent of the GHL, while the 36-inch limit would reduce harvest between 76.3 percent and 82.9 percent of the GHL. If anglers are not successful at high grading, then the associated harvest reductions will be nearer the upper limit than the lower limit.

Table 5 Summary Effect of a Two Fish Bag Limit with One Fish any Size and One Fish Less than 32", 34", or 36"

Sub-Option	Estimate Level	Annual Limit		Adjusted for 2007 Status Quo		
		Harvest Reduction (Mib)	Harvest Reduction (%)	Combined Harvest Reduction (Mib)	Harvest (Mib)	As a Portion of the 3,650 Mib GHL (%)
32"	Lower	0.738	20.2%	1.157	2.790	76.4%
	Upper	0.983	26.9%	1.401	2.546	69.8%
34"	Lower	0.620	17.0%	1.038	2.909	79.7%
	Upper	0.852	23.3%	1.270	2.677	73.3%
36"	Lower	0.501	13.7%	0.920	3.027	82.9%
	Upper	0.742	20.3%	1.160	2.787	76.3%

Source: NEI estimates based on ADF&G 2006 Logbook Data, 2007.

Summary of Effects

In 2006, charter halibut harvests stood at 100.37 percent of the GHL (including harvests by skipper, crew, and client). Client harvest is estimated at approximately 96.7 percent of the GHL for 2006. All of the options under consideration, with the exceptions of Option 2 (the status quo), would reduce total charter harvests further.

Table 6 Summary of Estimated Effects

Management Option	Suboption	Harvest with Option (Mib)		Post-Option Harvest as a Portion of the GHL (%)	
		Less Effective	More Effective	Less Effective	More Effective
Option 4. One Fish (Daily) Bag Limit	Full Season	1.868	1.308	51.2%	35.8%
Option 5. Minimum Size on the Second Fish	50"	2.097	1.846	57.5%	50.6%
Option 5. Minimum Size on the Second Fish	45"	2.274	2.005	62.3%	54.9%
Option 6. Maximum Size on the Second Fish	32"	2.790	2.546	76.4%	69.8%
Option 4. One Fish Bag Limit	July	2.901	2.689	79.5%	73.7%
Option 6. Maximum Size on the Second Fish	34"	2.909	2.677	79.7%	73.3%
Option 6. Maximum Size on the Second Fish	36"	3.027	2.787	82.9%	76.3%
Option 4. One Fish Bag Limit	June	3.092	2.945	84.7%	80.7%
Option 4. One Fish Bag Limit	August	3.181	3.063	87.1%	83.9%
Option 3. Annual Limit	4 Fish	3.271	3.271	89.6%	89.6%
Option 1. One Trip per Day	None	3.334	3.307	91.4%	90.6%
Option 4. One Fish Bag Limit	May	3.354	3.295	91.9%	90.3%
Option 3. Annual Limit	5 Fish	3.365	3.365	92.2%	92.2%
Option 3. Annual Limit	6 Fish	3.445	3.445	94.4%	94.4%
Option 4. One Fish Bag Limit	September	3.465	3.422	94.9%	93.7%
Option 2. No Harvest by Skipper & Crew (Status Quo)	None	3.529	3.529	96.7%	96.7%

NPFMC (2007) noted the Council's reasons for rejecting several similar options for Area 2C.

Table 7 Action Option Weak Points

Option Weakness	1	2	3	4	5	6
Less Effective than Status Quo						
Effect of Option Easily Diluted by Changes in Behavior	•			•		•
Potential for Increased Mortality					•	•
Difficulty Measuring Larger Fish					•	
Reduce Harvest by Too Great an Amount				•		
Economic Effects on Charter sector				•	•	•

Table 8 provides a qualitative summary of the effects by option, including charter sector preference based on key informant interviews and qualitative estimates on the benefits of each option to the commercial sector. Additional detail is provided in the RIR.

Overall and Long-Term Efficacy of the Options and Management Options

The long-term efficacy of the options is likely to be limited by strategic responses to each of them by charter sector participants and anglers. For example, lowering bag limits during one portion of the season will tend to shift demand to other times of the year, subject to opportunity costs. Similarly, season closure dates will also shift effort. Thus, the estimates for these options should be seen as short-term maximum effects, rather than long-term estimates. The efficacy of annual limits is likely to be limited by the substitution of bare-boat charters and other self-guided activities, because charter-based trips could become less attractive under an annual limit. Again, the halibut harvest resulting from these behaviors would not count against the GHL, but would be counted in the IPHC’s deductions for total sport catch from Total CEY, and therefore not improve the commercial sector’s share of total removals.

Table 8 Qualitative Summary of Effects by Option for Area 3A

Option	Expected Size of Reductions	Effects on Industry	Effect on State Managed Fisheries
Status Quo	No reduction in harvest excepting changes in long-term trends.	The status quo option would not result in a direct negative effect on the charter sector. The commercial sector would be exposed to future changes in IFQ values if the charter sector continued to grow.	State managers expect no change in the harvest of associated species excepting that change associated with growth in the charter industry.
1. One Trip per Vessel per Day	In conjunction with the status quo, would reduce harvest to between 90.6 and 91.4% of the GHL.	Relatively minor effects on the charter sector, except those businesses that focus on multiple trips per day, which are concentrated in a few ports. Some benefits for the commercial industry from minor restrictions on the charter sector.	State managers expect a concurrent reduction in the harvest of some associated species.
2. No Retention by Skipper and Crew and Line Limits	Would have no additional harvest reductions. 2006 client harvest is estimated at 96.7% of the GHL and nearly achieves the Council's management objective.	Preferred by the charter sector with no additional benefits for the commercial industry.	State managers expect no change in the harvest of associated species.
3. Annual Limit	Three sub-options would, in conjunction with the status quo, reduce harvest levels to between 89.6 and 94.4% of the GHL, depending on the sub-option, and are substantially below the GHL.	The second most preferred option by the charter sector. Commercial sector would receive benefits beyond the status quo from restricted harvests by the charter sector.	State managers expect a modest to significant increase in the charter harvest of available salmon species, lingcod, and rockfish as anglers would switch from targeting halibut to these other species.
4. One-fish daily bag limit	Would reduce harvest to between 35.8% and 94.9% of the GHL, depending on the sub-option.	Least preferred option for charter clients. Highest opportunity cost to the charter sector, as demand for trips is expected to fall. Highest benefits for the commercial fleet from greatest level of harvest reduction by charter sector, but reduction exceeds Council's objectives of achieving the GHL.	State managers expect a significant increase in the charter harvest of available salmon species, lingcod, and rockfish as anglers would switch from targeting halibut to these other species.
5. Option for a Second Fish with a Minimum Length	Would reduce harvest to between 50.6% and 62.3% of the GHL, depending on the sub-option.	Minor demand reductions expected by charter clients. Modest to high benefits for the commercial fleet.	Charter harvest of state managed species would likely increase by modest amounts.
6. Option for a Second Fish with a Maximum Length	Would reduce harvest to between 69.8% and 82.9% of the GHL, depending on the sub-option.	Options would likely result in economic losses to the charter sector and moderate to high benefits for the commercial fleet; however, the same benefits could be achieved with lower cost to charter sector under Option 3.	Charter harvest of state managed species could increase by modest amounts. However, such an increase is not certain.

Area 3A GHIL Analysis Supplement Addendum

September 30, 2008

This addendum to the September 23, 2008 Area 3A GHIL Analysis Supplement changes a key assumption in Option 6. Prior analyses of maximum length limit regulations underestimated anglers' abilities to high grade their catch. The revised tables show the estimated effect on harvest if every angler is able to high grade their 2nd fish in the daily bag limit to the maximum length established by the management measure.

Option 6- Two Fish Bag Limit; One Fish ≤32" or 34" or 36"

The 32" size limit as a stand alone measure would reduce harvest by 0.696 and 0.929 Mlb and to between 84.2% and 90.6% of the GHIL.
 The 34" size limit as a stand alone measure would reduce harvest by 0.437 and 0.789 Mlb to between 88.0% and 97.1% of the GHIL.
 The 36" size limit as a stand alone measure would reduce harvest by 0.141 and 0.680 Mlb to 18.4% to between 91.0% and 105.8% of the GHIL.

Sub-Option	Estimate Level	Estimated Effect			
		Harvest Reduction (Mlbs)	Harvest Reduction (%)	Estimated Post-Action Harvest (Mb)	As a Portion of the 3.650 Mlbs GHIL (%)
32"	Anglers High Grade To Category Maximum	0.696	19.1%	3.306	90.6%
	If Anglers Catch Average Fish Below Limit	0.929	25.4%	3.073	84.2%
34"	Anglers High Grade To Category Maximum	0.437	12.0%	3.565	97.7%
	If Anglers Catch Average Fish Below Limit	0.789	21.6%	3.213	88.0%
36"	Anglers High Grade To Category Maximum	0.141	3.9%	3.861	105.8%
	If Anglers Catch Average Fish Below Limit	0.680	18.6%	3.322	91.0%

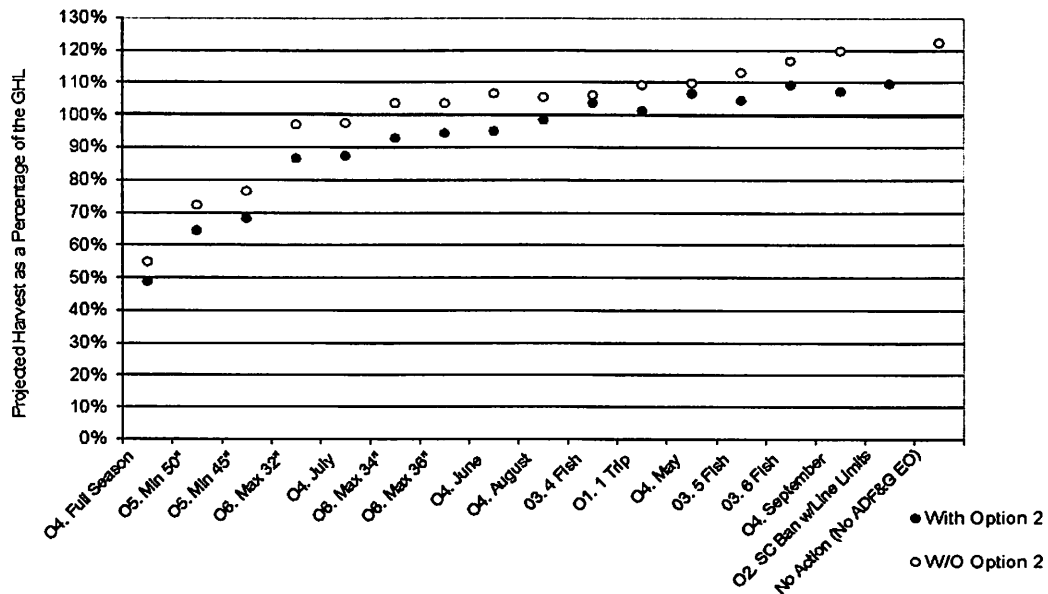
Summary-Measures In Conjunction with Option 2/Status Quo

Management Option (Each Option Assumes the Inclusion of Option 2)	Sub-Option	Harvest with Option (Mb)		Post-Option Harvest as a Portion of the GHIL (%)	
		Less Effective	More Effective	Less Effective	More Effective
Option 4. One Fish Bag Limit	Full Season	2.098	1.469	57.5%	40.2%
Option 5. Minimum Size on the Second Fish	50"	2.476	2.228	67.8%	61.0%
Option 5. Minimum Size on the Second Fish	45"	2.621	2.359	71.8%	64.6%
Option 4. One Fish Bag Limit	July	3.277	3.041	89.8%	83.3%
Option 6. Maximum Size on the Second Fish	32"	3.306	3.073	90.6%	84.2%
Option 4. One Fish Bag Limit	June	3.522	3.364	96.5%	92.2%
Option 4. One Fish Bag Limit	August	3.542	3.388	97.0%	92.8%
Option 6. Maximum Size on the Second Fish	34"	3.565	3.213	97.7%	88.0%
Option 1. One Trip per Day	None	3.715	3.684	101.8%	100.9%
Option 3. Annual Limit	4 Fish	3.784	3.784	103.7%	103.7%
Option 4. One Fish Bag Limit	May	3.842	3.788	105.3%	103.8%
Option 6. Maximum Size on the Second Fish	36"	3.861	3.322	105.8%	91.0%
Option 3. Annual Limit	5 Fish	3.893	3.893	106.6%	106.6%
Option 4. One Fish Bag Limit	September	3.930	3.905	107.7%	107.0%
Option 3. Annual Limit	6 Fish	3.987	3.987	109.2%	109.2%
Option 2. Skipper & Crew Harvest Ban w/Line Limits (Status Quo)	None	4.002	4.002	109.6%	109.6%

Summary-No Combination with Option 2

	Management Option (Each Option Assumes the Inclusion of Option 2)	Sub-Option	Harvest with Option (Mb)		Post-Option Harvest as a Portion of the GHL (%)	
			Less Effective	More Effective	Less Effective	More Effective
Below the GHL	Option 4. One Fish Bag Limit	Full Season	2,319	1,690	63.5%	46.3%
	Option 5. Minimum Size on the Second Fish	50*	2,763	2,515	75.7%	68.9%
	Option 5. Minimum Size on the Second Fish	45*	2,925	2,663	80.1%	73.0%
Near the GHL	Option 4. One Fish Bag Limit	July	3,658	3,422	100.2%	93.8%
	Option 6. Maximum Size on the Second Fish	32*	3,690	3,430	101.1%	94.0%
	Option 3. Annual Limit	4 Fish	3,784	3,784	103.7%	103.7%
Above the GHL	Option 3. Annual Limit	5 Fish	3,893	3,893	106.6%	106.6%
	Option 4. One Fish Bag Limit	June	3,931	3,773	107.7%	103.4%
	Option 4. One Fish Bag Limit	August	3,952	3,799	108.3%	104.1%
	Option 6. Maximum Size on the Second Fish	34*	3,979	3,586	109.0%	98.2%
	Option 3. Annual Limit	6 Fish	3,987	3,987	109.2%	109.2%
	No Action (ADF&G EO)	None	4,002	4,002	109.6%	109.6%
	Option 1. One Trip per Day	None	4,146	4,111	113.6%	112.6%
	Option 4. One Fish Bag Limit	May	4,288	4,234	117.5%	116.0%
	Option 6. Maximum Size on the Second Fish	36*	4,309	3,707	118.1%	101.6%
	Option 4. One Fish Bag Limit	September	4,386	4,361	120.2%	119.5%
	No Action (No ADF&G EO)	None	4,467	4,467	122.4%	122.4%

Figure: Shift Caused by Not Including Option 2



Alaska Board of Fisheries
RE: Proposal 377

March 5, 2008

Request by:
Crewman's Association
PO BOX 451
Kodiak, AK 99615

AK BOF Chairman Morris & Members,

Proposal 377 - The CR crab program was designed to protect the biological concerns as to ensure the sustainability of the Bering Sea crab resources. Safety was another one of the factors that was attributed to rationalizing the BS crab fisheries. The result was the gifting of economic allocations to a small group of vessel owners that are for the most part not active participants in prosecuting the fishery.

How does this proposal protect the sustainability of the resource? If Proposal 377 has merits to protect the resource then we are happy to support it, otherwise we must oppose it if there are no conservation methods to be reaped.

The crewmen that actually prosecute this fishery are the true stewards of the fisheries if they so choose to be, and provide necessary information on how fisheries should be managed. We have great concerns with removing the pot limit and tag requirements, on the basis of conservation concerns, second because of safety problems that may arise with crews, and third from data gather measures that may be diminished.

I personally observed multiple strings of gear that were not pulled for ten to twelve days while we were prosecuting the 2007 red king crab fishery. Our concerns are those of bycatch of groundfish, deadloss of weak crab, and mortality of any species that is left in the pot due to the gear not being hauled in a substantial amount of time.

The fact is that less gear is being used in the Red King Crab fishery, so why would one not reduce the pot limit instead of allow more pots to be fished?

Our major concern is that of **SAFETY**. If the board allows an unlimited amount of pots to be fished, it could easily alleviate the

safety on board vessels. If cooperative vessels are allowed to pull unlimited amount of pots, then the crews may be subject to fishing in dangerous conditions. As an example, the processors have scheduled deliveries that push vessels to be at the dock to deliver at a set time. This proposal would enable the vessel operators to pull an unlimited amount of gear that is fishing on the grounds in his cooperative. The crew may then be forced to pull gear without enough rest to make it to the dock on time for their delivery date. This may also pressure crews to work in weather that is unsafe, as a result, if the pot limit was eliminated.

It's very important to seek best data possible to help sustainability of the BS crab resources. We're would hate to see the Bering Sea become a free for all, where boats are just pulling random strings of pots, and not providing the best data to track the crab fisheries.

There is an argument from the vessel owners about fines levied and legal action from tags loss. We'd like to see the BOF work with Dept of Law to reduce the tag loss fines to something like a fix-it ticket and establish a \$10 to \$25 fine and reduce the legal action to non-criminal.

It would be advisable to allow Proposal 376 to be passed, as the Opilio and Tanner crab fisheries have needs with regards to greater amounts of gear. We'd request that Proposal 377 be modified to reduce fines and lawful action, but keep the pot limit and tag requirements. In 2 years an analysis could be done to revisit if a pot limit is necessary, after biological and safety concerns are addressed.

We appreciate the BOF's consideration on amending Proposal 377.

As we say on our vessels, "safety first".

Shawn C. Dochtermann
Crewman's Association-Secretary
Kodiak, AK