Errata for Chinook and Chum Salmon Bycatch Management Measures Public Review draft EA/RIR/IRFA

Revisions in **bold** and strike-out

Section: Executive Summary

Page 14:
Alternative 1: No Action. Current management measures are in place for both Chinook salmon PSC and chum salmon PSC. For Chinook salmon PSC, a complex management system is in place which sets overall limits to close fishing by sector and season, while incorporating some improved flexibility by including a performance standard and promoting the creation of industry-proposed IPAs to further reduce bycatch below the performance standard. The plans, as reviewed by the Council, are designed to increase incentives for vessels to lower bycatch rates even in years when salmon encounters were low. **The mothership and CP IPAs were both modified for 2015 to include requirements for salmon excluders and several additional provisions.** For chum salmon PSC, the pollock fleet is exempt to a large-scale closure (chum salmon savings area) in the Bering Sea for participating in a rolling hot spot (RHS) program which uses real-time data from the fleet to move the fleet away from areas of highest bycatch by week. The entire fleet participated in this program which is governed by a contractual agreement and managed by third-party contractor Sea State which assimilates fleet data and closes areas of the fishing grounds to cooperatives which have the highest bycatch rates in that week. The provisions of the contractual agreement for the chum RHS program are in regulation.

Page 15:
Alternative 5: Lower the PSC limit and/or the performance standard threshold indexed to years of low Chinook abundance. Under this alternative the overall PSC limit (60,000) and/or the performance standard limit (47,591 annually; divided by sector and season) would be lowered in years where western Alaska Chinook salmon stocks are low. ADF&G would make the determination of 'low Chinook abundance' each fall based on an assessment of the indexed run strength of the combined run sizes of the Unalakleet, Upper Yukon and Kuskokwim river systems. NMFS would set the **annual PSC limit and/or** performance standard's annual threshold amount based on ADF&G's determination in the annual harvest specifications. As with status quo, sectors that exceed the applicable performance standard threshold, in 3 out of 7 years, would be held to their proportion of the 47,591 Chinook PSC limit every year thereafter. All other provisions of the current Chinook salmon PSC management program under status quo would remain in place. Options for reducing the PSC limit and/or performance standard threshold range from 25-60% reduction from current limits. For the PSC limit this is a range of 24,000-45,000 while for the performance standard threshold this is a range of 19,036 – 35,693. The performance standard threshold is the level to which IPAs are structured in the incentives to remain below. Reduced caps would only be applicable in years of low western Alaska Chinook salmon abundance as described above.

Page 16:
See Figure 3 for better resolution.

Page 18 (end of first paragraph)
It is also contingent on vessel behavior and bycatch rates in the A season when the additional quota is harvested. **As shown in a C-4 addendum, there are likely to be increased economic benefits of moving quota to the A season.** Shifting effort earlier into the B season may result in slightly higher adverse impact to chum salmon PSC compared with status quo but these impacts are expected to be negligible.

Page 20:
In the mothership sector, salmon excluders are already employed nearly 100% (with exceptions only for rare occasions such as torn nets, establishment of properly functioning nets, etc[1]) with a ~~pending~~ revision to MSSIP contract formalizing 100% usage (with exceptions as noted) in 2015. ~~In June 2014,~~ **The** CP IPA ~~feedback document proposed~~ **was revised for 2015 to include** mandatory usage from January 20th to March 31st and again from September 1 to the end of the B season. **In December the inshore sector made a response to Alternative 3 that mandates excluder usage for all of A season and after August 31, although this has not yet been implemented.** ~~Reporting requirements for usage were also proposed by the Inshore SSIP in June 2014, but mandating usage was not proposed In December the inshore sector also under that sector's revised IPA.~~

Page 22:
Alternative 4 modifies the start and end dates of the pollock season to begin earlier (option 1) and end earlier (option 2 with suboptions) **and includes a separate option to shift 5-10% of the annual pollock quota to the A-season.** While these options are not mutually exclusive, this analysis treats them individually. Option 1, to open the pollock fishery on June 1st, suggests that shifting the B-season opening date sooner would likely help reduce Chinook salmon bycatch assuming some vessels choose to start fishing earlier, although this may conflict with other opportunities (e.g., such as using pollock vessels to tender other non-pollock fishing operations such as directed herring and salmon).

Page 28:
Changes as noted in Table 2 (note these same tables are noted in Table 11):

[1] Letter to C. Oliver from J. Bersch, Mothership Fleet Cooperative (October 2013). Summary included in staff discussion paper: http://www.npfmc.org/wp-content/PDFdocuments/bycatch/BSAIChinookDiscPaper913.pdf

Table 2. Summary major policy-level issues and trade-offs among alternatives.

Alt	Policy-level trade-offs
1	**Status quo issues**: • Chum salmon PSC management intended as an interim measure while better approaches were developed. • Regulations limit flexibility in RHS program. • Chinook PSC management effective at keeping bycatch below limits but could improve on objective to affect vessel behavior under conditions of low salmon encounters. Need to account for both salmon species wrt objectives.
2	**Potential benefits** • Likely to provide greater flexibility to modify RHS program to best suit goals and objectives to focus upon protections for WAK chum stocks while continuing to avoid Chinook. **Key concerns** • Potential for increased chum bycatch when RHS closures are lifted or modified to avoid Chinook salmon. • Assumes that Chinook opt-out provisions**, and CSSA exemption,** provide sufficient incentive to participate in an IPA.
3	**Potential benefits** • Likely to provide incremental improvement in Chinook bycatch incentives over status quo, although larger potential penalties would provide stronger incentives for vessels to avoid Chinook. • More flexible and adaptive means of increasing IPA incentives for bycatch reduction than mandating explicit measures by regulation; however, actual impact will depend upon how the IPAs respond to additional requirements. • October bycatch performance incentives can bring down Chinook PSC but still maintain pollock fishery flexibility. **Key concerns** • Depending on IPA response, most of the items in this alternative likely to result in only minor changes relative to Alt 1. • Management measures are outside of regulation and it may be difficult to monitor in terms of incentives and effectiveness. Sectors can dramatically change the form of the IPAs in response to adjustments here.
4	**Potential benefits** • Options to curtail season earlier likely to provide the greatest reduction in Chinook salmon PSC over other alternatives. • Option to open B-season 9 days earlier likely to encourage additional earlier fishing effort in B season and reduce Chinook bycatch. • Options to reallocate additional pollock quota to A-season may provide additional tools to encourage less fishing at end of B season **Key concerns** • Risk that pollock may be forgone in B season depending upon season length options. • Differential impacts by sectors as some sectors have historically completed fishing by proposed end dates. • High potential to increase chum bycatch by increased fishing pressure earlier in B season. • Seasonal quota reallocation may provide tool to encourage fishing earlier but lacks restrictions on fishing at the end of B-season—this change alone could increase rates in some years. Some vessels currently choose to pursue other activities outside of the pollock fishery early in the B season and may continue to do so without new incentives or restrictions. • Presumes IPA structure combined with A91 caps and seasonal allocation sufficient to keep A-season PSC from increasing • Some form of SSL consultation would need to be pursued
5	**Potential benefits** • Threshold for more restrictive management is an index of low abundance. In a year or years of low Chinook abundance (2010-2014) then application of different management measure to reduce risk of reaching bycatch caps **Key concerns** • Some relationship of PSC to run size but at low threshold, significant additional reductions may be difficult to realize • In some individual years (e.g., 2000) the threshold may be met but run sizes could rebound quickly (e.g., in 2001). Such a sequence may significantly increase the costs of Chinook avoidance to the pollock fishery, including that some vessels might not harvest their pollock allocations. • Impacts will be contingent on how IPAs adapt to lower performance standard threshold or lower PSC limit in applicable years. Allocations to individual vessels under lowest performance standard may be very constraining and result in modifications~~sectors~~ to IPAs **within individual sectors.** • Potential that reducing performance standard threshold while retaining higher PSC limit in applicable years will provide perverse response to PS under current IPA structures based upon an evaluation that the Chinook stock will be above the threshold in subsequent years and that it could provide increased incentive to exceed the performance standard threshold. • While vessels often have the ability to move or avoid areas or change when they fish to reduce Chinook bycatch, we do not know how difficult it will be for vessels to avoid Chinook in the future

Page 31:
Modify caption for Table 4 as follows:

> Summary of alternatives and options in relation to Council management objectives ~~and whether options can be combined in selecting a preferred alternative~~. The symbols ↑, ↔, and ↓, reflect improvements, relative neutrality, and potential negative effect (all relative to status quo), respectively.

Chapter 2:

Section 2.1.3 Chinook salmon PSC management under status quo

Page 52:
The IPAs can be revised by submitting revisions to NMFS for approval **at any time**~~by November~~ 1, **however participants in an IPA must be specified by December 1** prior to **the** following fishing year. Thus the specific features of the IPAs can change at any point~~, although there have been only minor adjustments to date.~~[2] **New features to the Mothership IPA and the CP IPA for the 2015 fishing year are summarized below.**

MSSIP New IPA Features: Since the B-season of 2014, the mothership sector has been operating under new "Best Management Practices" that have been incorporated in the Sector's IPA which was approved by NMFS and is in effect in 2015. Key features of the Best Management Practices include: 1) a requirement for a test tow by a single vessel when entering new areas, 2) attention to codend size and its relation to salmon bycatch, 3) requirement to minimize tow duration where possible, 4) required use of excluders whenever possible and reporting of any non-use, and 5) extensive and rapid communication of pollock catch and salmon bycatch information. Additionally, there is a requirement to review the effectiveness of these and other potential practices and update the practices on an annual basis.

CP New IPA Features: The CP/CDQ IPA was modified for 2015, adding two new features. First, the use of a salmon excluder is now mandatory for fishing in January – March and beginning September 1. Second, the outlier penalty previously proposed by the sector in June 2014 and discussed under Alternative 3 has been included in the IPA. The provision will make any vessels with 3 consecutive seasons with seasonal bycatch above 1.5 standard deviation of the mean subject to hotspot closures throughout the following season as well as subject to a fixed B-season closure if the next season is a B-season.

Section 2.5 Alternative 5 Lower Performance standard threshold or performance standard threshold and PSC limit indexed to years of low Chinook abundance

Page 58:
Revise Table 6 as shown below:

[2] IPAs and amendments can be accessed here: https://alaskafisheries.noaa.gov/sustainablefisheries/bycatch/salmon/chinook/ipa/ipas.htm.

Table 6. Proposed timeline for harvest specifications process and determination of 'low Chinook threshold.'

Date	Action
October 1	Written notification to NMFS from ADFG indicating compiled data on post-season run size estimates from index systems
October 1	~~Proposed~~ **New** IPAs from industry submitted to NMFS **(note, entities can amend their IPA at any time)**
October Council meeting	Proposed harvest specifications including adjusted PSC limit and/or performance standard threshold in low threshold years (Council/NMFS)
December 1	Amendments to **the list of** IPA **participants** (vessels included, etc.) submitted to NMFS
December Council meeting	Final harvest specifications including adjusted PSC limit and/or performance standard threshold in low threshold years

Section 2.7 Comparison of Alternatives and selection of a Preferred Alternative

Page 77:
Revisions to Table 11 are equivalent to those listed for Table 2 in Executive Summary

Page 79:
Revise caption for Table 13 as follows:

> Summary of alternatives and options in relation to Council management objectives ~~and whether options can be combined in selecting a preferred alternative~~. The symbols ↑, ↔, and ↓, reflect improvements, relative neutrality, and potential negative effect (all relative to status quo), respectively.

Section 2.8 Consideration of Reporting Requirements

Page 85:

1. Data on CPUE, fuel cost, travel time: Providing data on these items will allow for an assessment of the fishing search time undergone in operation under the new management program. Fuel cost data ~~will become~~ **is** available from the Chinook EDR ~~starting in~~ **since** 2012 while estimates of distance traveled could be made available using VMS data and the Catch-in-Areas-database.

Section 3.4.8.3 Alternative 2

Page 136:
The reduced adverse impacts to Chinook and chum salmon under this alternative assume that there remains 100% fleet-wide participation in the RHS program as there is under the status quo (Amendment 84) chum salmon ICA. Should measures under Alternative 2 decrease the incentive to remain in an IPA, then adverse impacts to chum salmon and Chinook salmon under this alternative could increase. ~~Particularly for chum salmon PSC management, without participation in an IPA, and absent any backstop measure to further incentivize participation, there are no additional chum salmon conservation measures affecting the pollock fishery. Any action that decreases the incentive to remain in an IPA would also have adverse impacts on Chinook salmon as it would diminish the provisions for bycatch reduction under the IPAs themselves. An opt-out cap exists under Amendment 91 for vessels which do not participate in an IPA. Any vessel that chooses to opt out of an IPA is subject to a cap which is managed collectively for all vessels operating outside of an IPA. Regulations governing the amount of Chinook salmon which is~~

~~allocated to the opt-out cap are listed at §679.21(f)(54). The opt-out cap was structured to be a restrictive cap (beginning with a vessel's own allocation of the 28,496 Chinook salmon opt-out cap under their sector and deducted from the sector share of the overall cap) but is managed as a group not an individual allocation among all opt-out vessels so vessels could function in an open-access envioronment although private sub-allocation would be likley. The opt-out cap is further limited regardless of vessels participating by the initial back-stop opt-out allocation (not to exceed the maximum annual backstop cap of 28,496, except when the performance standard threshold is lower than this in which case the opt out cap becomes equal to the lower performance standard threshold). To date there has been 100% participation in the IPAs. However, anything that decreases the incentive to remain in the IPA and potentially fish under the opt-out provisions of Amendment 91 could result in increased bycatch and hence have an adverse impact to both Chum and Chinook salmon stocks. As alternatives under consideration are not mutually exclusive, any combination of alternatives that further erodes the incentives to participate in an IPA may exacerbate these adverse impacts.~~

3.4.8.4 Alternative 3

Page 138
In feedback documents submitted by IPA representatives for the June 2014 Council meeting **and incorporated into the 2015 CP/CDQ IPA**, proposed penalties were based on 3 years or 3 seasons of vessels having high rates (1 – 1.5 standard deviations above the seasonal/annual average)…

~~To calculate similar vessel performance over seasonal periods for CVs, the years 2003-2013 data were compiled and the standard deviation of vessels by season were compared (Table 1 and 2 in the June 2014 discussion paper). Based on the seasonal outlier definition proposed in the inshore SSIP, no vessels in recent (2011-2013) years would have qualified in the A-season (only one vessel would have qualified over the whole set of years based on rates from 2003-2005) (Table 1). For the B-season, 3 vessels would have qualified for the penalty based on rates from 2010-2013 above the standard deviation cut-off threshold while several other vessels would have qualified in previous years. For the annual component, Table 8 of June 2014 Discussion Paper 1[19] is referred to which shows the annual standard deviation in bycatch rates by CV vessels from 2003-2013. Based on the annual outlier definition, three vessels would have qualified between 2003 and 2013. One vessel exceeded the threshold in each year from 2010-2012. It did not exceed it in 2013 however so while restrictions would have applied to that vessel in 2013, after that year the vessel would have reset their standing and would need an additional 3 consecutive years from 2014-2016 to be subject to additional annual penalties outside of that year.~~

Page 139 (after line 3)
The revised proposed inshore SSIP provides outlier provisions for both the A and B seasons. The A-season outlier provision would make any vessels with 2 consecutive A-season bycatch rates greater than 1 standard deviation above the mean seasonal bycatch rate subject to an expanded Chinook fixed area closure in the following A-season. The B-season outlier provision is combined with Option 5 and focuses on reducing October bycatch and is described below under Alternative 5. Vessels with a rolling October Chinook bycatch rate > 0.2 Chinook/MT will be required to stop fishing for the season. Vessels with a rolling trip-level bycatch rate for October fishing > 0.1 Chinook/MT will be required in the following trip to reduce their October rate below 0.1 Chinook/MT or to stop fishing for the remainder of the season.

An analysis of 2011-2014 A-season vessel Chinook bycatch rates indicates that the A-season outlier threshold would have been applied 7 times over the 76 catcher vessels operating in this period, including one case where one vessel was above one standard deviation above the seasonal mean

three years in a row (considered as two of the seven occasions when the penalty would have been imposed). 22 vessels were also above the threshold for a single year and 3 vessels were above the threshold for 2 non-consecutive years, and thus 25 vessels had fishing seasons where they would have faced the penalty the following year if they had again exceeded the threshold.

This penalty occurs frequently enough that it has the potential to incentivize vessels to further reduce their Chinook PSC. The degree to which this would occur will depend on the strength of the penalty -- how important access to the expanded A season closed area is to the vessels and whether the closure itself would have led to a further reduction in Chinook PSC if the vessels did not reduce their bycatch sufficiently enough to avoid the penalty and had to fish outside of the closure.

Page 142 (middle of 1st paragraph)
In June 2014, the CP IPA feedback document proposed mandatory usage from January 20th to March 31st and again from September 1 to the end of the B season **and this requirement was included in the sector's 2015 IPA.**

(After 1st pargraph)
If the new inshore IPA proposal is implemented, with limited exceptions, an excluder will be mandatory from January-March and in September and October.

Page 144 (before last paragraph)
If the new inshore IPA proposal is implemented, a Chinook rolling hotspot program will be in place throughtout the year.

Page 146 (before last paragraph)
If the new inshore IPA proposal is implemented, the inshore SSIP will reduce the duration of credits to 3 years and maintain the credit earnings ratio of 3 salmon avoided to obtain a salmon credit.

Page 148 (before Alternative 3 summary)
The B-season outlier provision that is included in the December 2014 inshore SSIP proposal is a combination of Options 1 and 5 and focuses on reducing October Chinook bycatch. Vessels with a rolling October Chinook bycatch rate > 0.2 Chinook/MT will be required to stop fishing for the season. Vessels with a rolling trip-level bycatch rate for October fishing > 0.1 Chinook/MT will be required in the following trip to reduce their October rate below 0.1 Chinook/MT or to stop fishing for the remainder of the season.

Using the October landings data for 2011-2014, we can see that this mechanism would have applied to many vessels each year, and would have necessarily significantly altered October fishing. There was no fishing in October in 2014 so there would have been no direct impact.

Exactly how much this would impact October fishing is not clear, but there are several means through which Chinook PSC is likely to be reduced. Is is likely that this incentive would encourage vessels to fish earlier in future years because it is very risky for a vessel to fish in October knowing that a high-bycatch rate on a trip could end a vessel's season. Vessels are also more likely in October to avoid high-bycatch areas even when they have large amount of Chinook PSC otherwise available to them. If vessels are stopped for the season, some quota is likely to move to other vessels and the Chinook bycatch rates of these vessels are unknown. While the vessels continuing to fish will often be vessels already fishing at a low rate, it is possible that other vessels not previously fishing in October would fish the quota of a vessel restricted from fishing. In summary, it appears likely that this would be an effective incentive to reduce October bycatch.

Cumulative October Chinook bycatch rate by inshore catcher vessel trip for **2011**

ID	1	2	3	4	5	6	7	8	9	10
1	0.12	0.17								
2	0.01	0.02	0.02	0.05						
3	0.43	0.44	0.33	0.28	0.31					
4	0.10	0.14								
5	0.14	0.15								
6	0.05	0.05	0.16	0.14	0.14	0.14	0.13	0.12		
7	0.15	0.20	0.26							
8	0.32	0.78	0.69							
9	0.02	0.03	0.09	0.10	0.10	0.09	0.09			
10	0.06	0.13	0.36	0.32	0.30	0.31	0.30	0.30		
11	0.06	0.16	0.13	0.14	0.15	0.17	0.19			
12	0.12	0.25	0.24	0.24	0.25	0.26				
13	0.22	0.23	0.35	0.32	0.28					
14	0.10	0.16	0.29	0.31	0.27	0.27	0.28	0.28		
15	0.16	0.23	0.22	0.22	0.21	0.21				
16	0.10									
18	0.05	0.26	0.42							
19	0.10	0.21	0.16	0.19	0.23	0.24				
20	0.22	0.16	0.20	0.22						
22	0.10	0.07	0.09	0.09	0.10	0.10	0.12			
23	0.16	0.22	0.38							
24	0.11	0.19	0.28							
25	0.10	0.18	0.24							
26	0.04	0.08	0.07	0.11	0.11					
27	0.23	0.25								
28	0.04	0.24	0.32							
29	0.27	0.28	0.37							
30	0.03	0.03	0.07	0.09	0.11	0.15				
31	0.05	0.15		0.97	0.33	0.37	0.40			
32	0.17	0.38	0.43							
33	0.17	0.15	0.24							
35	0.09	0.18	0.21							
36	0.11	0.12	0.17	0.16	0.20	0.26	0.27	0.25		
37	0.25									
38	0.13	0.39								
39	0.24	0.52								

Cumulative October Chinook bycatch rate by inshore catcher vessel trip for **2012**

ID	1	2	3	4	5	6	7	8	9	10
1	0.03	0.05	0.41	0.27						
2	0.06	0.04	0.04	0.12						
3	0.08	0.07	0.06	0.06	0.06	0.06	0.06	0.07	0.08	
4										
5	0.06	0.11	0.08							
6	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.05	
7	-									
9	0.02	0.01	0.04	0.04	0.03					
10	0.07	0.08	0.05	0.05	0.04	0.08				
11	0.09	0.08	0.08	0.08						
12	0.16	0.07	0.06	0.05	0.06	0.07	0.18	0.17		
14	0.04	0.04	0.04	0.05	0.04	0.07	0.09	0.09		
15	0.04	0.03	0.03	0.04	0.03	0.03	0.04	0.03	0.04	
16	0.02		0.21	0.03	0.04					
17	0.13	0.14	0.15	0.10	0.12	0.11	0.13			
18										
19	0.15	0.08	0.09	0.07	0.07	0.08	0.08			
22	0.03	0.02	0.02	0.02	0.02	0.04	0.04	0.04		
23										
27	0.07	0.06	0.49	0.32						
29										
30	0.02	0.02	0.06	0.05	0.04	0.03	0.04	0.04	0.04	0.04
31	0.03	0.02	0.05	0.09	0.07	0.10	0.09	0.10		
34	0.09	0.05	0.14							
35										
36	0.12	0.08	0.23	0.15	0.13	0.13	0.12	0.16		

Cumulative October Chinook bycatch rate by inshore catcher vessel trip for **2013**

ID	1	2	3	4	5	6	7	8	9	10
2	0.01	0.01								
3	0.35	0.28	0.56	0.50	0.38	0.32				
6	0.07	0.20			0.02					
9	0.26	0.28	0.18	0.13	0.11	0.11				
10	0.39	0.21	0.15	0.12						
11	0.35	0.77	0.77	0.46	0.37	0.35				
12	0.01	0.01	0.03							
15	0.07	0.07								
19	0.02	0.01								
21	0.08	0.16	0.27	0.30		0.01	0.07			
22	0.00	0.03								
30	0.11	0.04								
31	0.10	0.28		0.00						
36	0.39	0.34								

Notes on tables: the ID is a random vessel ID. Squares highlighted in red indicate the vessel's rolling Chinook bycatch rate > 0.2 Chinook/MT. Squares highlighted in yellow indicate the vessel's rolling Chinook bycatch rate > 0.1 Chinook/MT. The vessel must stop if the square is red or on the second adjacent yellow square.

Section 3.4.8.5 Alternative 4

Page 154
Following tables based on completed 2014 data (original tables had only part of B-season for 2014).

Table 40. Amount of **Chinook** salmon PSC saved by year and sector for Alternative 4, opening the B-season on June 1st instead of June 10th. See text for details of how computations were conducted. Figures in parentheses represent negative savings (i.e., increased PSC catch given assumptions).

	Shore-based CVs	CVs to Motherships	CPs	CDQ	Total
2003	1,214	139	1,886	8	3,247
2004	3,802	59	695	19	4,575
2005	12,337	52	329	249	12,968
2006	3,631	11	165	16	3,823
2007	12,737	74	874	990	14,675
2008	4,229	-	34	(1)	4,262
2009	1,136	(12)	7	84	1,215
2010	1,914	(26)	50	-	1,938
2011	7,282	778	427	113	8,601
2012	2,270	(8)	(8)	(0)	2,254
2013	4,254	(3)	196	48	4,495
2014	**741**	**144**	**500**	**(2)**	**1,384**
					63,436

Table 41. Amount of **chum** salmon PSC saved by year and sector for Alternative 4, opening the B-season on June 1st instead of June 10th. See text for details of how computations were conducted. Figures in parentheses represent negative savings (i.e., increased PSC catch given assumptions).

	Shore-based CVs	CVs to Motherships	CPs	CDQ	Total
2003	10,882	476	9,411	151	20,920
2004	17,753	251	(3,117)	72	14,959
2005	29,345	(1,443)	85	1,071	29,058
2006	(36,219)	13	(467)	3	(36,671)
2007	797	39	61	365	1,263
2008	1,306	-	15	(8)	1,313
2009	5,969	(163)	102	802	6,710
2010	1,895	(103)	(70)	(155)	1,567
2011	(7,200)	(2,096)	3,986	382	(4,928)
2012	1,735	(56)	0	46	1,725
2013	6,497	(69)	387	535	7,351
2014	**109**	**1,893**	**2,888**	**(216)**	**4,674**
					47,942

Table 42. Amount of Chinook salmon (top panel) and chum salmon (bottom panel) PSC saved by year and sector for Alternative 4, opening the B-season on June 1st instead of June 10th. Sub-options 1, 2, and 3 close the fishery on Sept 15th, October 1st and October 15th respectively. See text for details of how computations were conducted. Figures in parentheses represent negative savings (i.e., increased PSC catch given assumptions).

Chinook salmon	Alt. 4 (option 1)	Alt4 Option 2 sub-option 1 (close 9/15)	Alt4 Option 2 sub-option 2 (close 10/1)	Alt4 Option 2 sub-option 3 (close 10/15)
2003	3,247	9,105	7,572	4,245
2004	4,575	20,707	16,055	12,299
2005	12,968	27,437	23,832	14,032
2006	3,823	17,715	12,071	9,036
2007	14,675	44,590	36,566	28,237
2008	4,262	3,509	2,823	2,218
2009	1,215	796	285	33
2010	1,938	1,200	831	546
2011	8,601	15,480	12,187	7,763
2012	2,254	2,811	2,165	1,686
2013	4,495	2,845	2,630	613
2014	**1,384**	**1,052**	**158**	**0**

Chum salmon	Alt. 4 (Option 1)	Alt4 Option 2 sub-option 1 (close 9/15)	Alt4 Option 2 sub-option 2 (close 10/1)	Alt4 Option 2 sub-option 3 (close 10/15)
2003	20,920	75,641	46,430	5,497
2004	14,959	194,045	34,570	18,761
2005	29,058	(55,517)	(16,538)	(5,396)
2006	(36,671)	(115,784)	(66,656)	(30,591)
2007	1,263	5,432	(7,988)	(7,237)
2008	1,313	2,771	744	(92)
2009	6,710	3,048	803	(225)
2010	1,567	1,004	194	(12)
2011	(4,928)	(2,088)	(4,581)	54
2012	1,725	7,535	526	(358)
2013	7,351	12,010	(8)	(2,476)
2014	**4,674**	**6,246**	**(270)**	**-**

Page 164 (middle of second paragraph):

While data presented here is intended to provide an estimate of the relative rates likely to be encountered by the fleet based on historical rates, this does not take into account the potentially increased efficacy of fleet reporting on higher ~~chum~~ **Chinook** bycatch rates that may be encountered earlier in the B season and resulting fleet movement away from these regions. Therefore the magnitude of the adverse impact to ~~chum~~ **Chinook** PSC may be over-estimated by use of historical rates.

Page 171. Figures 35 and 36 with stray characters removed:

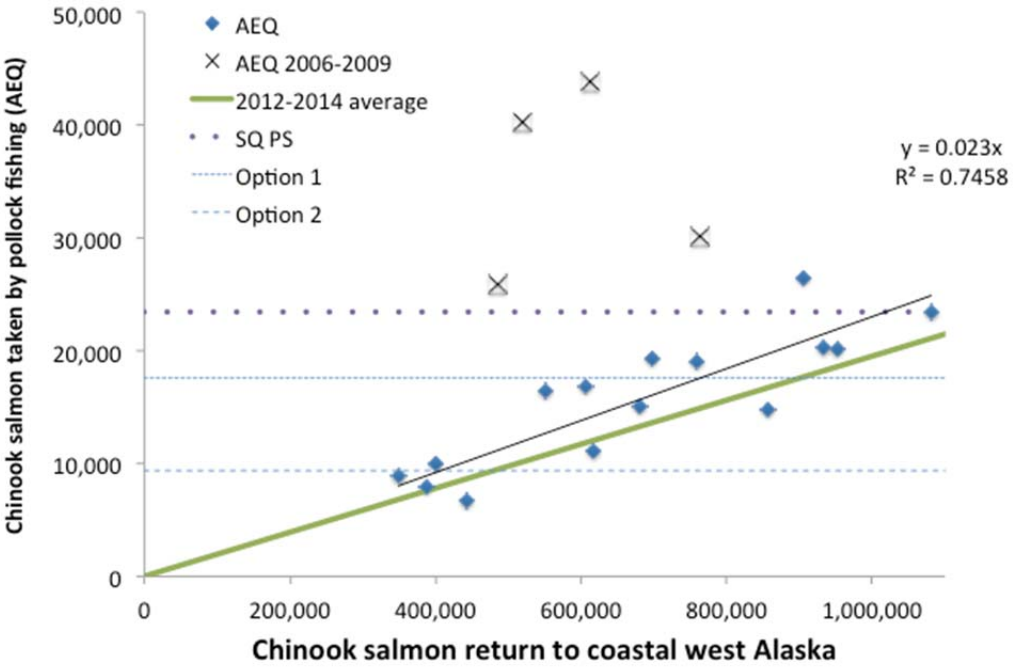

Figure 35. Relationship between in-river run abundance for coastal west Alaska and the bycatch AEQ values. Horizontal dotted lines represent the AEQ mapping of PSC for status quo performance standard (23,448 Chinook salmon in AEQ terms) and Alternative 5, options 1 and 2 (17,586 and 9,379 Chinook salmon in AEQ terms, respectively). The thick diagonal green line is the estimated impact post Amendment 91 (~2%) and the thin line is the estimate based on all years from 1994-2012 *except* 2006-2009.

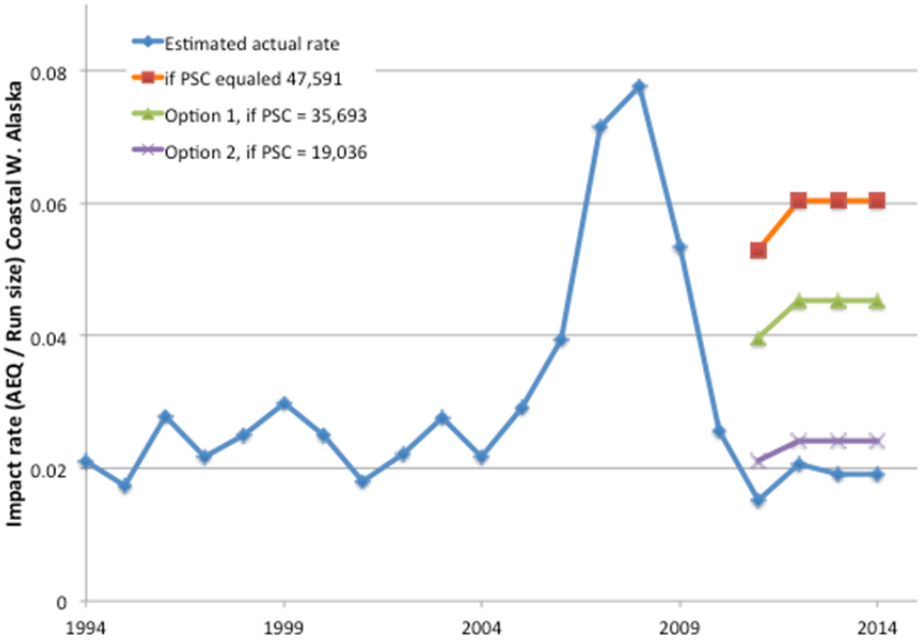

Figure 36. Estimated impact rate by year to coastal west Alaskan Chinook salmon runs (vertical scale) and projected "what-ifs" had the PSC equaled different levels. Note that run-size for 2013 and 2014 was assumed to equal that of 2012.

Section 4.5.6 Donation of Bycaught Salmon: Prohibited Species Donation Program

Page 225: Last sentence in third paragraph

~~"The most recent selection notice for SeaShare was published in the Federal Register on July 15, 2005 (70 FR 40987). SeaShare applied for a permit renewal on March 20, 2008."~~ **"The most recent selection notice for SeaShare was published in the Federal Register on June 11, 2014 (79 FR 33526) with permits effective through June 12, 2017."**

4.7.2 Western Alaska Seafood Industry Profiles Summary

This discussion applies to both chum and Chinook salmon, as well as to groundfish fisheries importance in the Aleutian and Pribilof Islands Region.

Section 4.8.2, Alternative 4 Potential Effects on the Pollock Fishery

Page 242 (before last paragraph)

Initially efforts were made to use available data on catch, annual product prices, and products produced to recover the relative monthly premium, based on the differences in recover rates and products made at different times of year. Data limitations in the end precluded conclusive analysis. Seasonal data have been compiled in a C-4 supplemental that show the relative values of average production and the A and B seasons and suggest increased economic benefits from moving TAC from B to A season.