

**Discussion Paper**  
**Gulf of Alaska Pacific Cod A Season Opening Date Change**  
**North Pacific Fishery Management Council**  
**November 2011**

**Abstract**

In February 2011, the North Pacific Fishery Management Council requested a discussion paper on the potential effects of delaying the A season opening dates for Pacific cod in the Gulf of Alaska for some or all sectors in the Western and Central Gulf. The current season opening dates are January 1 for fixed gear and January 20 for trawl gear in both areas. This discussion paper begins with background sections describing the Federal Pacific cod fishery, including the recent actions to remove latent licenses and to divide Pacific cod catch among participating sectors, which goes into effect January 1, 2012. The paper also describes fisheries that are most likely to be affected by the action, including primarily the State water Tanner crab and Pacific cod fisheries, as well as potential Steller sea lion issues that may arise from the action. A discussion of the possible rationale for the action follows, which includes a draft purpose and need statement that the Council could consider. The discussion presented here describes possible benefits that some fleets may realize from a delay in the A season opening date from increased catch-per-unit-effort, higher milt value, or additional fishing opportunities in the State Tanner crab fisheries. However, a delay in the A season may create conflicts among participants, such as increased competition in certain fisheries or disruption to processing schedules. Should the Council wish to move forward with an expanded discussion paper or initiate an analysis of this issue, it would be helpful to provide additional guidance to staff, such as a draft purpose and need statement that clearly identifies the Council's intent for this action and more specific alternatives and options for analysis.

**Introduction**

The North Pacific Fishery Management Council (Council) directed staff to prepare a discussion paper on delaying the A season opening dates for the federal Gulf of Alaska (GOA) Pacific cod fisheries. This action stemmed from an Advisory Panel motion that requested a discussion paper for changing the trawl A season opening for the Western GOA Pacific cod fishery to February 20. The Council picked up on this recommendation in December 2010, and in February 2011 expanded the discussion paper to include all GOA fisheries by area and gear type. The Council requested that the paper discuss the effects of possible changes in opening dates on GOA Steller sea lion (SSL) Reasonable and Prudent Alternatives (RPAs). The Council also noted that several other factors could be affected by a change in the A season opening, including opportunities in other fisheries in the GOA, usage of halibut prohibited species catch (PSC), markets for landings, and processing schedules.

The purpose of this paper is to provide a broad context for the Council to suitably anticipate the myriad of management and conservation issues that would arise if the A season opening dates were delayed for GOA Pacific cod fisheries. At this point, the discussion paper is qualitative in nature, focusing on identifying and discussing the interactions among and between State and Federal management areas, various gear types, and Pacific cod fisheries, and the implications for participants, managers, and conservation. The paper concludes by identifying issues that the Council may wish to consider in developing a statement of purpose and need for this action, as well as an outline of elements that the Council could use to develop specific alternatives, options, and components.

## Overview of GOA Pacific Cod Fishery Management

Pacific cod (*Gadus macrocephalus*) fisheries in the GOA are prosecuted under 3 management structures: Federal fisheries, State of Alaska (State) Guideline Harvest Level (GHL) fisheries, and State waters parallel fisheries. Federal Pacific cod fisheries in waters 3 to 200 nm offshore are managed federally through the National Marine Fisheries Service (NMFS) under the federal *Fishery Management Plan for Groundfish of the Gulf of Alaska* (FMP), adopted by the Council and implemented through federal regulations. The State GHL fisheries for Pacific cod in State waters 0 to 3 nm offshore are managed by the Alaska Department of Fish and Game (ADF&G) under State Board of Fisheries (Board) management plans. The State also manages parallel State waters fisheries, also in waters 0 to 3 nm offshore, which are open concurrently with the Federal fisheries. State GHL fisheries are typically open when the Federal and parallel fisheries are closed.

### Federal Pacific cod fisheries

The catch of Pacific cod is limited by annual catch limits (ACL). Normally, the total allowable catch (TAC) for Pacific cod in the WGOA and Central GOA has been set at equal to the annual biological catch (ABC), minus 25 percent of the TAC set-aside for State water GHL fisheries. The TAC applies to both the Federal fisheries and state managed parallel fisheries. Currently, the TAC in each federal management area is divided between inshore and offshore components and seasonally between an A and B season. The inshore component receives 90 percent of the available Pacific cod TAC each season, with the offshore component receiving the remaining 10 percent. Seasonally, sixty percent of the TAC apportioned is to the A season, which opens to fixed gear sectors (pot, jig, and longline/hook-and-line (HAL) gear) on January 1 and to trawl sectors January 20. The A season closes to all sectors June 10 or when the applicable TAC is achieved, whichever occurs first. The B season opens September 1<sup>1</sup> for all gear types and continues until the TAC is harvested or November 1 for trawl gear or December 31 for fixed gear, whichever occurs first. Currently, the Pacific cod TAC is not divided by gear type; however, when Amendment 83 to the GOA groundfish Fishery Management Plan (FMP) is implemented, individual sectors will be fishing against their own specific sector limit beginning January 1, 2012. Incidental catch of Pacific cod from other fisheries will accrue to each sector's TAC limit, and incidental catch during the GHL fishery will accrue to the B season TAC. A discussion of the changes to the apportionment of the TAC by the Council's sector split action appears in the next section.

Pacific cod and other groundfish fisheries prosecuted by trawl and longline/HAL gear are also constrained by a Pacific halibut prohibited species catch (PSC) allowance. The halibut PSC in the GOA is allocated 2000 mt for the trawl sector and 300 mt for the longline/HAL fisheries. HAL PSC is further allocated 10 mt for the Demersal Shelf Rockfish (DSR), which are typically prosecuted by vessels less than 60 ft. in length overall (LOA) and exempt from observer coverage.<sup>1</sup> Beginning in 2012, Amendment 83 will also apportion the HAL PSC limit between catcher processors (C/P) and catcher vessels (CV).

Table 1 shows the number of vessels with retained in the directed Pacific cod fisheries in the Western Gulf and Central Gulf from 1995 through 2010. Although the tables all vessels in the directed Pacific cod fisheries (including vessels that participated only in the B season), they provide a general indication of the levels of participation in Pacific cod fisheries by the different gear and operation types. These vessel counts together with the number of LLP licenses with area/gear/operation type endorsements (which appear below) provide an indication of the potential for latent licenses to be used for entry should changes in A season opening dates be adopted. The extent of entry opportunities will depend not only on the

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<sup>1</sup> The Council is currently considering an action to reduce the halibut PSC available in both trawl and longline/HAL fisheries in the GOA by up to 15 percent of the applicable current apportionment.

extent of a season date change, but also other fishery opportunities and the whether entry to the Pacific cod fishery can be coordinated with the vessel's other operations.

**Table 1. Number of vessels with retained catch of Pacific cod from the directed Pacific cod fisheries.\***

**Western GOA**

Year	HAL CP <125	HAL CP ≥125	HAL CV <60	HAL CV ≥60	Jig CV	POT CP	Pot CV <60	Pot CV ≥60	Trawl CV	TRW CP <125	TRW CP ≥125
1995	12	4	4	0	10	2	35	23	86	3	5
1996	12	3	7	3	7	0	34	4	54	3	12
1997	9	4	2	0	2	0	18	2	78	4	13
1998	4	0	1	0	2	0	32	21	66	4	0
1999	9	10	2	0	0	6	30	4	65	4	1
2000	10	2	2	1	2	2	37	44	51	3	1
2001	10	3	6	0	16	3	31	11	55	2	6
2002	7	4	10	3	26	2	33	15	44	2	4
2003	6	8	6	2	11	1	42	18	35	3	0
2004	3	5	11	3	22	1	53	28	31	3	1
2005	2	3	25	2	8	1	39	19	35	2	0
2006	7	5	17	3	1	0	33	18	36	3	1
2007	8	3	24	3	4	1	30	18	38	3	2
2008	10	2	30	3	9	1	43	16	28	2	2
2009	9	6	37	3	11	2	36	3	29	1	1
2010	9	3	26	9	30	0	38	8	29	0	0

**Central GOA**

Year	HAL CP <125	HAL CP ≥125	HAL CV <60	HAL CV ≥60	Jig CV	POT CP	Pot CV <60	Pot CV ≥60	Trawl CV	TRW CP <125	TRW CP ≥125
1995	3	0	116	4	15	0	62	58	101	5	16
1996	4	0	135	5	13	0	46	41	108	4	8
1997	1	0	161	12	8	0	39	22	120	4	2
1998	0	2	133	7	16	0	38	22	123	4	13
1999	3	2	164	22	10	10	44	40	92	3	11
2000	3	2	143	5	16	1	55	59	53	3	6
2001	1	0	118	4	14	3	34	28	70	3	2
2002	0	4	90	10	7	3	28	17	52	2	1
2003	2	2	70	4	7	0	22	13	52	2	5
2004	1	2	76	16	30	0	22	13	49	3	2
2005	1	1	93	14	26	0	25	22	44	3	1
2006	2	4	116	15	24	0	36	23	39	5	3
2007	3	2	128	23	18	1	40	23	36	1	2
2008	4	3	135	19	10	0	39	19	42	4	0
2009	2	3	115	15	13	0	29	21	37	3	1
2010	3	4	103	16	22	0	31	16	38	1	1

\*Includes vessels with retained catch of Pacific cod when the directed Pacific cod fishery is open (including participation in the B season fishery).

Source: NMFS Catch Accounting/Blend and ADF&G fish tickets, 1995–2010.

Traditionally, Gulf pot and longline participants began fishing when the season opened on January 1<sup>st</sup>. Catches of these fleets fluctuate, but have typically been strongest in January and February, as long as TAC remains available and cod are most aggregated. Some pot vessels may choose to wait to fish cod

until after the State water Tanner crab fishery, which opens January 15<sup>th</sup>.<sup>2</sup> Depending on TACs and catch rates, these vessels may have little or no opportunity in the cod fishery after the Tanner crab fishery closes. The catcher processor (CP) longline fleet, with the exception of one or two CPs that fished exclusively in the GOA, started fishing in the Bering Sea (BS) on January 1, moving into the GOA after the BS Pacific cod season closed. Fishing continued until the season TAC was taken or the halibut PSC limit was reached.

The trawl fleets target different species over time to optimize their catches. At the start of the A season, the fleets typically target some combination of pollock and Pacific cod which may change with species aggregations and pollock roe conditions. In recent seasons in the CGOA, the majority of the trawl fleet has targeted Pacific cod first, when it opened on January 20, until the seasonal apportionment has been taken. The fleet then moved on to target pollock beginning on or about February 15, when pollock were most aggregated and the roe quality was highest. In the WGOA, a similar pattern was followed, although smaller vessels that are capable of fishing with trawl and pot gear may have started fishing with pots for Tanner crab (*Chionoecetes bairdi*) in State water fisheries, if those fisheries were open. Those vessels then moved on to trawling for Pacific cod and then to fishing for pollock with trawl gear to catch the pollock TAC apportionment before the pollock regulatory season closure on March 10. The transition among gears may be accomplished on some boats in as little as 2 days and typically takes less than one week, at the extreme. Whether vessels attempt these transitions and their timing depended on whether the State Tanner crab fisheries were open, TACs and GHs in the various fisheries, catch rates in the groundfish fisheries, severity of weather, and other factors. For example, in years of low TACs for GOA pollock, the fishery may last for just a few days, creating an incentive for vessels to enter that fishery once catch rates are reasonably high to ensure all opportunity in the fishery is not lost.

Closures of the Pacific cod A seasons are shown in Table 2 below. Since sector splits of the Pacific cod TAC have not been implemented, these closures apply to all gear types. The pattern of closures has not been consistent across years in either management area. In some cases, the fisheries have closed shortly after the January 20<sup>th</sup> trawl fishery opening, while in other years, the fisheries have remained open for several weeks after that opening. In addition, in both areas, the inshore fishery has closed first more frequently but at times the offshore fishery has closed first. Also, the Central Gulf has typically closed earlier than the Western Gulf; however, in some years, the Western Gulf fisheries have closed first.

**Table 2. Pacific cod A season closures for the Western and Central GOA, 2001–2010.**

Year	Western Gulf				Central Gulf			
	Inshore		Offshore		Inshore		Offshore	
	Date	Reason	Date	Reason	Date	Reason	Date	Reason
2001	27-Feb	TAC	24-May	TAC	4-Mar	TAC	25-May	TAC
2002	26-Feb	TAC	9-Feb	TAC	9-Mar	TAC	25-Mar	TAC
2003	17-Feb	TAC	20-Mar	TAC	9-Feb	TAC	1-Feb	TAC
2004	24-Feb	TAC	8-Mar	TAC	31-Jan	TAC	2-Feb	TAC
2005	24-Feb	TAC	22-Feb	TAC	26-Jan	TAC	22-Feb	TAC
2006	2-Mar	TAC	19-Feb	TAC	28-Feb	TAC	19-Feb	TAC
2007	8-Mar	TAC	14-Feb	TAC	27-Feb	TAC	14-Feb	TAC
2008	29-Feb	TAC	4-Mar	TAC	1-Mar	TAC	9-Mar	TAC
2009	25-Feb	TAC	10-Jun	REG	27-Jan	TAC	19-Feb	TAC
2010	19-Feb	TAC	3-Mar	TAC	31-Jan	TAC	24-Feb	TAC

Source: NMFS Alaska region season closures summary. TAC= TAC reached. REG= regulatory closure on Jun 10.

<sup>2</sup> Although a vessel might fish cod beginning on the 1<sup>st</sup> of January, the State water Tanner fishery has a 14 day standdown preceding the opening, during which a vessel that fishes in the crab fishery is prohibited from using pots in the same district as the crab fishery.

Although not consistent, the periodic short seasons suggest that vessels wanting to share in the catches from the Pacific cod fisheries have had little choice but to enter the fishery by or shortly after the trawl openings. These circumstances and the targeting choice of participants, however, may change in the coming years, as Amendment 83 (Pacific cod sector split) and Amendment 86 (fixed gear Pacific cod endorsements) take effect. With each gear and operation type having its own TAC allocation and required fixed sector license endorsements, it is possible that participants in the various sectors could develop the cooperation to use voluntary stand-downs or agree to the timing of prosecuting specific targets to improve returns from the fisheries. In some cases, these agreements could be difficult to reach, if some participants perceive opportunities to gain advantages through scheduling their fishing effort to offset efforts of others to employ standdowns.

### Pacific Cod TAC Division (the Sector Split)

Amendment 83, passed by the Council in December 2009, establishes separate allocations for GOA Pacific cod TAC, by federal management area and gear type, and will primarily establish the proportion of the respective WGOA and CGOA Pacific cod TAC available to the different sectors. The action is intended to enhance stability in the Pacific cod fisheries by reducing competition among sectors and preserve the historic distribution of catch among the different sectors. The Council established annual and seasonal allocations for six sectors in the WGOA and seven in the CGOA based on historical harvests. Seasonal apportionments to the WGOA trawl CVs and to the pot CVs and C/Ps were shifted to allow more trawl harvests during the A season because there is little trawl effort during the B season. Again, NMFS expects that regulations implementing Amendment 83 will be effective for the 2012 fishing year.

**Table 3. Western GOA sector allocations with jig allocation taken off the top of the TAC**

	Annual Allocation	Compare to 60/40		A season allocation	B season allocation	A season allocation	B season allocation
		A season	B season	Percent of annual allocation	Percent of annual allocation	Percent of seasonal allocation	Percent of seasonal allocation
HAL CP	19.8%	55.2%	44.8%	10.9%	8.9%	18.2%	22.2%
HAL CV	1.4%	47.2%	52.8%	0.7%	0.7%	1.1%	1.8%
Pot CV/CP	38.0%	52.0%	48.0%	19.8%	18.2%	32.9%	45.6%
Trawl CP	2.4%	37.9%	62.1%	0.9%	1.5%	1.5%	3.7%
Trawl CV	38.4%	72.3%	27.7%	27.7%	10.7%	46.2%	26.6%
<b>Total</b>	<b>100.0%</b>			<b>60.0%</b>	<b>40.0%</b>	<b>100.0%</b>	<b>100.0%</b>

**Table 4. Central GOA sector allocations with jig allocation taken off the top of the TAC**

	Annual Allocation	Compare to 60/40		A season allocation	B season allocation	A season allocation	B season allocation
		A season	B season	Percent of annual allocation	Percent of annual allocation	Percent of seasonal allocation	Percent of seasonal allocation
HAL CP	5.1%	80.3%	19.7%	4.1%	1.0%	6.8%	2.5%
HAL CV <50	14.6%	63.9%	36.1%	9.3%	5.3%	15.5%	13.2%
HAL CV >=50	6.7%	84.0%	16.0%	5.6%	1.1%	9.4%	2.7%
Pot CV/CP	27.8%	63.9%	36.1%	17.8%	10.0%	29.7%	25.1%
Trawl CP	4.2%	48.8%	51.2%	2.0%	2.2%	3.4%	5.4%
Trawl CV	41.6%	50.8%	49.2%	21.1%	20.5%	35.2%	51.2%
<b>Total</b>	<b>100.0%</b>			<b>60.0%</b>	<b>40.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Under the GOA Pacific cod sector split, the jig sector will receive an initial allocation of TAC before other sectors that is higher than its historic catch—the jig sector has generally harvested less than 1 percent of its WGOA and CGOA Pacific cod TACs. Under Amendment 83, the jig sector will receive 1.5 percent of the WGOA and 1 percent of the CGOA TAC, with a staircase provision to increase the allocation by an additional 1 percent of the TAC if 90 percent of the Federal allocation in an area is harvested in any given year, capped at 6 percent. The allocation will be stepped down by 1 percent in the following year if at least 90 percent of the previous allocation is not harvested in two consecutive years, but will not drop below the initial allocation.<sup>3</sup>

Amendment 83 also apportions the GOA longline/HAL halibut PSC limit between the C/P and CV sectors, in proportion to their respective total WGOA and CGOA Pacific cod allocations. In addition, no later than November 1, halibut PSC mortality that is projected by NMFS to be unused by the longline/HAL sector can be made available to the other sectors during the remainder of the year.

### **Pacific cod limited entry (trawl groundfish and fixed gear Pacific cod endorsements)**

In April 2011, Amendment 86 to the GOA groundfish FMP took effect, adding gear-specific (pot, longline/HAL, and jig) Pacific cod endorsements to WGOA and CGOA fixed gear License Limitation Program (LLP) licenses. The purpose of this amendment was to address the potential for latent fixed gear licenses to re-enter the fisheries. Pacific cod endorsements address this concern by limiting entry to fixed gear licenses that have participated in recent years and qualify for an endorsement. Fixed gear participants in the Federal directed fisheries for Pacific cod in the GOA must have a gear- and operation-type specific Pacific cod endorsement on their LLP license. Pacific cod endorsements are not required for the Eastern GOA, trawl gear, vessels that do not exceed 26 ft. LOA or vessels using jig gear.

Table 5 shows the number of licenses by endorsement in the Gulf of Alaska fisheries. The table highlights licenses quantities that could be relevant to this action. First, the number of licenses for an area/gear/operation type can be compared to historical participation levels shown above. For example, 98 licenses authorize participation in the Western Gulf catcher vessel trawl fishery and 118 licenses authorize participation in the Central Gulf catcher vessel trawl fishery; however, since 2004, fewer than 40 and 50 vessels have participated in these fisheries, respectively. Changes in season openings for these sectors could influence some of these license holders to enter the fishery, if they perceive an improved opportunity. The table also shows licenses with multiple license endorsements. For example, 30 Western Gulf trawl licenses are endorsed for participation in the Western Gulf Pacific cod catcher vessel pot sector. The sector allocations protect some sectors from effort increases using other gear types; however, those allocations, will not prevent vessels that use multiple gear types from moving among sectors. If opening dates are changed substantially, opportunities to move among sectors could change. For example, a delay in the Western Gulf trawl fishery opening may change the opportunity for a vessel to participate first in the Western Gulf Pacific cod pot fishery and then move to the Western Gulf trawl fishery after the pot fishery closes. Again, whether such a move would occur depends on the circumstances, including not only the extent of the change in the opening, but also the TACs in the fisheries, other fishing opportunities, and other considerations.

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<sup>3</sup> Amendment 83 also allows for rollovers during the B season, in the event that NMFS anticipates that one or more sectors will be unable to harvest its annual allocation.

**Table 5. Gulf LLP licenses (area/gear/species endorsements and operation type).**

Endorsements		CG	CG	WG	WG	CG PCOD					WG PCOD				
		Trawl	Trawl	Trawl	Trawl	CP	CP	CV	CV	CV	CP	CP	CV	CV	CV
		CP	CV	CP	CV	HAL	POT	HAL	POT	JIG	HAL	POT	HAL	POT	JIG
CG Trawl (CP)		21	0	13	0	0	0	0	0	0	0	1	0	0	0
CG Trawl (CV)		0	97	0	51	0	0	1	7	0	0	0	0	17	0
WG Trawl (CP)		13	0	20	0	0	0	0	0	0	0	0	0	0	0
WG Trawl (CV)		0	51	0	78	0	0	2	3	0	0	0	0	30	1
CG PCOD	CP Hook and Line	0	0	0	0	23	0	0	0	0	11	0	0	0	0
	CP Pot	0	0	0	0	0	3	0	0	0	1	1	0	0	0
	CV Hook and Line	0	1	0	2	0	0	133	5	5	0	0	9	2	0
	CV Pot	0	7	0	3	0	0	5	78	2	0	0	0	11	0
	CV Jig	0	0	0	0	0	0	5	2	19	0	0	0	0	1
WG PCOD	CP Hook and Line	0	0	0	0	11	1	0	0	0	18	2	0	0	0
	CP Pot	1	0	0	0	0	1	0	0	0	2	4	0	0	0
	CV Hook and Line	0	0	0	0	0	0	9	0	0	0	0	12	2	1
	CV Pot	0	17	0	30	0	0	2	11	0	0	0	2	82	4
	CV Jig	0	0	0	1	0	0	0	0	1	0	0	1	4	11

Source: RAM database – highlights are to emphasize endorsements relevant to the proposed action.

Although the Council’s primary purpose in developing the action for fixed gear endorsements was to eliminate latent licenses, the program also allows Community Quota Entities (CQEs) representing small coastal communities to acquire LLP licenses to promote community interests. The CQE component of the action allows each of the 21 communities eligible under the CQE Program in the Western and Central GOA to request a number of fixed gear and Pacific cod-endorsed licenses equal to the number of licenses held by residents of the community estimated to be removed under the fixed gear recency action under the 10 mt landing threshold, or two licenses, whichever is greater.<sup>4</sup> These licenses are non-transferable and have a specified MLOA of <60’. CQEs would only be issued licenses for the area of the community they represent (Western GOA or Central GOA). In addition, licenses issued to CQEs located in the Western GOA are endorsed only for pot gear. CQEs representing communities in the Central GOA have the option of selecting what proportion of their LLP licenses would have a pot endorsement or a hook-and-line endorsement, provided the CQE notifies NMFS of their choice within six months of the effective date of a final rule. Selection of gear type would be a one-time permanent choice.<sup>5</sup> Only residents of the CQE community can use the license.

Under the above criteria, a total of 27 LLPs endorsed for the Western GOA could be requested by four CQEs located in the Western GOA, and a total of 58 LLPs endorsed for the Central GOA could be requested by seventeen CQEs located in the Central GOA.<sup>6</sup> As of Nov 2011, RAM is issuing LLPs endorsed for the Central Gulf to two CQEs: Cape Barnabas (Old Harbor) and Ouzinkie. Cape Barnabas is

<sup>4</sup>Note that while the CQE provisions were included in the overall motion on fixed gear recency approved in April 2009, the Council amended the motion with respect to CQE licenses in December 2009. This action was taken in order to remedy an inconsistency with the Council’s original stated intent of providing the same number of licenses to CQEs that residents of those communities were estimated to lose under the recency action.

<sup>5</sup>If a CQE did not notify NMFS within this timeframe, NMFS would issue any LLP licenses that are requested by a CQE so that half the LLP licenses issued to the CQE would be endorsed for pot gear and half would be endorsed for hook-and-line gear.

<sup>6</sup>In December 2010, the Council approved one new Area 3B community into the CQE Program, and explicitly allowed it to receive pot-endorsed Pacific cod licenses in the Western GOA if it meets the same criteria as other CQE communities. This recommendation has not yet been forwarded to the Secretary. If approved, it could add a maximum of 2 new cod pot gear licenses to this estimate for the Western GOA.

receiving 5 LLPs endorsed for pot and Pacific cod; Ouzinkie is receiving 9 (3 endorsed for hook-and-line and 6 for pot). Neither will receive the licenses until they name the vessels and persons, as required to use these licenses. No Western Gulf CQEs have requested Pacific cod licenses. Several other communities have expressed an intent to request licenses.<sup>7</sup> The first annual reports required to describe the use of these licenses (if requested and used in 2011) are due January 31, 2012.

Eligible community must apply for a CQE license through NMFS. The one-time application requires a description of procedures the CQE will use to determine distribution of licenses and to solicit requests from community members to be assigned a license. Once approved and granted by NMFS, a CQEs LLP license is permanent; the CQE need not reapply. The CQE must, though, provide an annual authorization letter assigning each CQE LLP to a user and vessel on or before the date that the LLP license is used. A CQE may reassign a license to a different user or vessel annually, but a license may not be assigned to more than one vessel per calendar year. By creating a pool of entering licenses, the CQE program could interact with the changes in season dates to either limit the effectiveness of the CQE program or allow additional effort (beyond that expected under current season openings). The additional capacity is limited by the prohibition on assigning licenses to more than one vessel in a single year.

If the Council were to delay an A season fixed gear Pacific cod opening with this action, it is possible that additional opportunities may arise for residents of CQE communities to enter vessels into those fisheries. Since CQE licenses may be acquired by the local entities without cost, these opportunities are likely be lower cost for these potential entrants, as intended by the program.

### **State Pacific cod parallel waters fisheries**

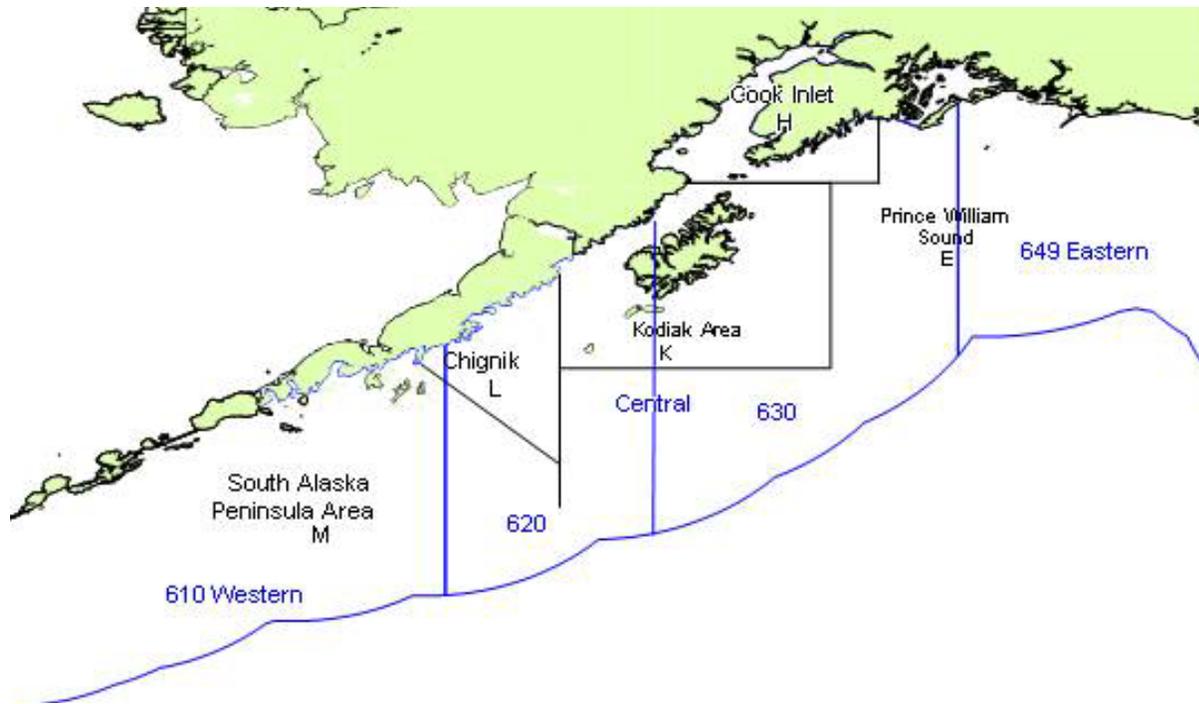
The State of Alaska manages parallel State waters fisheries in waters 0 to 3 nm offshore. While the Federal fisheries are open, parallel fisheries in State waters are open concurrently. Vessels fishing exclusively in the parallel water fisheries do not need to meet Federal LLP license requirements; however, a vessel that has a Federal Fisheries Permit (FFP) authorizing participation in Federal fisheries is required to have an LLP carrying endorsements for the applicable sector in the contiguous area (i.e., WGOA or CGOA). In addition, vessels participating in the parallel fishery may be subject to vessel length restrictions. In the Chignik area, vessels are limited to a maximum length of 58 feet.

### **State GHL Pacific cod fisheries**

This section describes the state waters Pacific cod fisheries in the GOA. In 1997, the State of Alaska began managing its own Pacific cod fisheries inside of 3 nm (referred to as the “state waters fishery”). Fisheries are prosecuted in five management areas, which overlap with Federal management areas: Cook Inlet, Kodiak, and Chignik (Central Gulf); Prince William Sound (Eastern Gulf); and South Peninsula (Western Gulf). Each State management area is allocated a percentage of the federal GOA Pacific cod acceptable biological catch (ABC). State fisheries are managed under a guideline harvest level (GHL), which limits total catch in the fishery in a manner similar to the federal TAC. If a GHL is fully harvested, it can be increased on an annual basis up to 25% of the Pacific cod ABC in each GOA management area, the maximum level permitted by state regulation. All allocations are currently 25% of the applicable Pacific cod ABCs, the maximum level permitted by state regulation.

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<sup>7</sup>RAM weekly report, July 8, 2011.



**Figure 1. Map of state management areas (South Alaska Peninsula, Chignik, Kodiak, Cook Inlet, and Prince William Sound) and federal management areas (Western, Central, and Eastern) in the GOA.**

Table 6 summarizes the GOA state waters Pacific cod fishery regulations as of the 2011 season. Some changes in these regulations will arise due to the change in federal management under the sector allocations created by Amendment 83. There is no limited entry permit requirement in the state waters fisheries, but there are gear and vessel length restrictions. The GOA state waters Pacific cod fisheries are open only to pot and jig gear in all GOA management areas except Prince William Sound, which added longline gear in 2009. The GHs in the other management areas are allocated between the pot and jig sectors, and vessel size restrictions limit harvests by vessels >58 ft length overall (LOA) in some areas or exclude these vessels from participating in the fisheries.

**Table 6. Summary of GOA state waters Pacific cod fishery regulations.**

Area	Pot allocation	Jig allocation	Allocation to ≤58 ft vessels	Allocation to >58 ft vessels	Super exclusive	Exclusive	Gear Limit
Kodiak	50%	50%	None	Capped at 25% prior to Sept 1	No	Yes-prior to Oct 31	60 pots/5 jigs
Cook Inlet	75%	25%	None	Capped at 25% prior to Sept 1	No	Yes-prior to Oct 31	60 pots/5 jigs
Chignik	90%	10%	100%	0%	Yes	No	60 pots/ 5 jigs
South Peninsula	Capped at 85%	none	100%	0%	No	Yes-prior to Oct 31	60 pots/ 5 jigs

Source: ADF&G, 2010.

**Table 7. Allocations of GOA state waters Pacific cod GHs among management areas and gear types**

Federal Management Area	State Management Area	Percent of Area ABC	Pot/Jig Allocation	Pot allocation as a percent of ABC	Jig allocation as a percent of ABC
Central GOA	Cook Inlet	3.75%	75/25	2.81%	0.94%
	Chignik	8.75%	90/10	7.88%	0.88%
	Kodiak	12.50%	50/50	6.25%	6.25%
	Total Central GOA	25%		16.94%	8.06%
Western GOA	Alaska Peninsula	25%	85/15 <sup>1</sup>	21.25%	3.75%
Eastern GOA	Prince William Sound <sup>2</sup>	25%	None	n/a	n/a

<sup>1</sup>Pot gear is capped at 85%. <sup>2</sup>Longline gear was allowed in the Prince William Sound area in 2009.

### Cook Inlet State Management Area Pacific cod

The Cook Inlet, State managed, Pacific cod season opens 24 hours after the Federal Pacific cod fishery closes, which in 2011 was January 30. The GHs is calculated as 3.75 percent of the Central GOA Pacific cod ABC and is allocated 75 percent to pot gear (prior to October 1) and 25 percent to jig gear. In 2011, the GHs was 4.45 million lbs. (2,020 mt). The fishery closed to pot gear on March 19, with a total pot harvest of 3.49 million lbs. (1,583 mt); the jig fishery remained open through September 1, 2011; total jig harvest to date is 494,305 lbs. (224 mt) or 44percent of the jig allocation. Unharvested jig allocation can be released to all legal gear types on September 1, although in 2011 the State fishery closed to allow the parallel fishery to open. In addition to the directed fishery, Pacific cod may be retained in State waters as bycatch in other groundfish and halibut fisheries at a maximum of 20 percent. State waters Pacific cod fishing closures related to SSL conservation establish longline and pot gear closures within 10 nm, in addition to no-transit zones within 3 nm, of Sugarloaf and Outer Pye Islands rookeries to protect SSL. The fishery is an exclusive fishery prior to October 31<sup>st</sup>, meaning that participants cannot participate in any other exclusive State water Pacific cod fishery prior to October 31<sup>st</sup> during the same year.

### Chignik State Management Area Pacific cod

The Chignik State-waters Pacific cod GHs fishery opens by regulation on March 1. Vessels participating in the state-waters season may not exceed 58 feet in length, and legal gear is limited to pot and jig gear. No more than 60 pots or 5 mechanical jigging machines may be operated from a vessel. The 2011 GHs is 10.38 million lbs. (4,700 mt), which is 8.75 percent of the Central GOA ABC for Pacific cod. Pot vessels are allocated 90 percent of the total GHs or 9.34 million lbs.. Jig or hand troll vessels are allocated 10 percent of the total GHs or 1.04 million lbs.. The fishery closed to vessels using pot gear on March 17, 2011, with a total pot harvest of 9.37 million lbs. (4,250 mt). Through August 8, 2011, the jig fleet harvested 20 percent of their 1,038,134 pound (47 mt) Pacific cod GHs. On August 12, the Chignik Area re-opened to pot gear according to its Board management plan. The Chignik fishery is superexclusive, meaning that no participant is allowed to participate in any other State water Pacific cod fishery during the same year.

**Table 8. Chignik Management Area Pacific cod GHL and harvests 2003 through 2012.**

Season	GHL	Harvest	Vessels
2003	4,500,000	4,467,571	28
2004	5,800,000	5,750,461	28
2005	6,400,000	5,787,467	22
2006	7,300,000	3,439,521	12
2007	7,300,000	5,699,461	16
2008	7,300,000	6,838,934	23
2009	6,100,000	5,681,230	12
2010	9,500,000	9,153,719	16
2011	10,380,000	9,557,272	

**Prince William Sound State Management Area Pacific cod**

The Prince William Sound Pacific cod season opens 7 days after closure of the parallel (Federal) Pacific cod fishery. The fishery is open to pot, jig, and longline (i.e. HAL) gear, limited to 60 pots, and 5 jigging or longlining machines. The GHL is 25 percent of the ABC for the Eastern GOA. The fishery closes to pot gear when 60 percent of the GHL is reached, or December 31. There is no allocation for the jig or longline fisheries, but the longline fishery closes on May 1. Any GHL remaining on October 1 becomes available to both pot and jig gear. The fishery is an exclusive fishery prior to October 31<sup>st</sup>, meaning that participants cannot participate in any other exclusive State water Pacific cod fishery prior to October 31<sup>st</sup> during the same year.

**Kodiak State Management Area Pacific cod**

The Kodiak State-waters Pacific cod GHL fishery opens 7 days after the closure of the Federal/parallel Central GOA Pacific cod A-season. Legal gear types are pot, jig, and hand troll, with limits of 60 pots (buoy tags required), 5 jigging machines (5 lines per machine, 30 hooks per line), or 5 hand troll lines. The GHL for 2011 is 14.8 million lbs.. The GHL is split evenly between vessels using pot and jig gear (50%); however, vessels over 58 ft. using pot gear are capped at 25 percent of the total GHL prior to September 1. The percentage of the ABC for the Central GOA that is allocated to the Kodiak Area state-waters Pacific cod season is 12.5 percent. The 2011 GHL for the Kodiak Area state-waters Pacific cod fishery is 14.8 million lbs. The fishery is an exclusive fishery prior to October 31<sup>st</sup>, meaning that participants cannot participate in any other exclusive State water Pacific cod fishery during the same year.

**Table 9. Kodiak Management Area Pacific cod GHL and harvests 2003 through 2012.**

Season	GHL	Harvest	Vessels
2003	8,000,000	8,154,867	128
2004	9,900,000	10,033,889	156
2005	9,100,000	8,548,163	158
2006	10,500,000	6,330,518	113
2007	10,500,000	6,439,757	95
2008	10,500,000	10,548,875	111
2009	8,700,000	8,591,477	130
2010	13,500,000	13,566,306	114
2011	14,830,000	15,268,180	

**South Alaska Peninsula State Management Area Pacific cod**

The South Alaska Peninsula State-waters Pacific cod GHL fishery opens 7 days after the closure of the Federal and parallel Western GOC Pacific cod season or March 7<sup>th</sup>, whichever is later. Vessels participating in the State-waters season may not exceed 58 ft. in length, and legal gear is limited to pot and jig gear. No more than 60 pots or 5 mechanical jigging machines may be operated from a vessel. The 2011 of 16.74 million lbs. is equal to 25 percent of the Western GOA ABC for Pacific cod. The pot vessel GHL is capped at 85 percent of the total GHL or 14.23 million lbs. The fishery is an exclusive fishery prior to October 31<sup>st</sup>, meaning that participants cannot participate in any other exclusive State water Pacific cod fishery prior to October 31<sup>st</sup> during the same year.

**Table 10. South Peninsula Management Area Pacific cod GHL and harvests 2003 through 2012.**

Season	GHL	Harvest	Vessels
2003	11,400,000	11,560,663	92
2004	12,500,000	12,514,240	88
2005	11,500,000	11,436,172	73
2006	14,800,000	11,739,736	54
2007	14,800,000	12,678,151	60
2008	14,300,000	13,302,050	97
2009	11,900,000	11,594,124	72
2010	15,250,000	15,288,267	69
2011	16,740,000	16,795,852	

Pot allocations in the State Water fisheries have generally been fully harvested in all management areas except Prince William Sound. Jig harvests were relatively high in some areas during 2003 through 2005, declined substantially in 2006 through 2008, and increased in 2009 and 2010. A combination of poor weather conditions, difficulty finding fish in state waters, and high operating costs contributed to low levels of jig effort in 2006 through 2008. Total catch was substantially below the GHLs in all four Western and Central GOA management areas in 2006 and 2007; and in Kodiak and Cook Inlet during 2008. However, in 2009 and 2010 in the Kodiak management area, jig vessels harvested the entire jig GHL. Unharvested GHL is rolled over to other sectors on August 15 (Chignik) or September 1 (Kodiak and Cook Inlet), if it is determined that an allocation will not be fully harvested. However, during 2005 through 2007, the parallel waters B season remained open to vessels using fixed gear from September 1 until December 31. During these years, state managers did not have the opportunity to re-open the state waters season in the fall and roll over unused jig GHL to the pot sector. There is substantial overlap between participants in the state waters and parallel/federal Pacific cod fisheries. The majority (85% to 93%) of state waters pot catch is harvested by vessels that hold LLP licenses and also have access to the federal waters fishery. There is slightly less overlap between participants in the state waters jig fishery and the parallel/federal waters Pacific cod fishery.

**Table 11. Percent of pot vessels participating in the GOA state waters Pacific cod fisheries that had groundfish LLP licenses, and percent of state waters catch by these vessels.**

Year	Pot	
	Percent of vessels with LLP licenses	Percent of catch by vessels with LLP licenses
Western GOA 2002–2008 average	91%	93%
Central GOA 2002–2008 average	75%	85%

Source: ADF&G Fish Tickets and RAM groundfish LLP license file, December 2008.

### Changes in State water cod fishery openings

Openings of the State water fisheries in most areas have been scheduled based on federal fishery closures. In the 2012 season, State water fishery openings will need to change to correspond to the changes in federal fisheries to sector level allocations. In Cook Inlet and Prince William Sound, the pot fishery will likely be scheduled to open 24 hours after the closure of the federal Central Gulf pot fishery. Similarly, the jig fishery in those areas is scheduled to open 24 hours after the closure of the federal Central Gulf jig fishery. The longline fishery in the Prince William Sound area is scheduled to open 7 days after the closure of the federal Central Gulf longline fishery. In the Kodiak area, the jig fishery will open 48 hours after the closure of the federal Central Gulf jig fishery (or at the discretion of the department, if the federal fishery is not closed before March 15<sup>th</sup>). The Kodiak pot fishery will open 7 days after the closure of the federal Central Gulf pot fishery. The Chignik jig fishery will open on March 15<sup>th</sup>. The Chignik pot fishery will open either 7 days after the closure of the federal Central Gulf pot fishery or March 7<sup>th</sup>, whichever is later. The parallel fishery will close on the earlier of the federal fishery closure or 7 days prior to the March 7<sup>th</sup> opening. The South Peninsula jig fishery will open 48 hours after the closure of the federal Western Gulf jig fishery (or at the discretion of the department, if the federal fishery is not closed before March 15<sup>th</sup>). The following table shows state water fishery openings, which have occurred under the previous management of season openings.

**Table 12. Recent season opening dates of the GOA Pacific cod state waters fisheries – note: openings occurred prior to Pacific cod sector splits.**

	Kodiak	Chignik	Cook Inlet	Alaska Peninsula
Year	Jig/Pot	Jig/Pot	Jig/Pot	Jig/Pot
2003	16-Feb	1-Mar	10-Feb	24-Feb
2004	7-Feb	1-Mar	1-Feb	2-Mar
2005	2-Feb	1-Mar	27-Jan	3-Mar
2006	7-Mar	1-Mar	1-Mar	9-Mar
2007	6-Mar	1-Mar	28-Feb	15-Mar
2008*	27-Feb	1-Mar	21-Feb	7-Mar
2009	3-Feb	1-Mar	28-Jan	4-Mar
2010	7-Feb	1-Mar	1-Feb	5-Mar

\*The 2008 Central GOA inshore parallel/federal season closed 20-Feb, but reopened 29-Feb for 2 days to reach the TAC.

### Coordination of Federal and State Pacific cod jig management

In its final action on the sector split, the Council supported increasing entry-level fishing opportunities for the jig sector, recognizing that fishery as the primary tool for the Council and the Board to provide true entry-level fishing opportunity in the GOA. At its October 2011 meeting, the Council recognized that NMFS' proposed rule on the sector split provides maximum access to Federal waters to vessels using jig gear while providing maximum flexibility to the Board for management of the State water GHL and parallel fisheries.

The Council requested that the Board consider the Council's intent in the jig fishery during Board deliberations on proposals received on the State GHL and parallel fisheries for GOA Pacific cod management. The Council recommended that the Board focus on State water considerations relative to NMFS' proposed rule, and that any longer-term solutions should be a separate discussion at a future Joint Protocol Committee meeting. The Council also requested that the Board consider options to provide jig fishing opportunities concurrently in State and Federal waters when the regulations allow, and where the Board and State managers find it practical to implement.

At the Board's October 2011 meeting in Anchorage, the Board took public comment on a myriad of issues such as: options for opening and closing the State parallel and GHL fisheries; allocations between gear types; and stand-down time periods for switching gear types. The Board took actions and recommended regulations for each State management area were generally consistent with the Council's recommendations, and aligned season opening and closing dates to the extent practicable with the Federal management provisions proposed under NMFS' draft rule implementing sector splits (Amendment 83). Longer-term issues, to be first vetted through the Joint Protocol Committee, include further consideration of the reverse parallel fishery concept and the Board's discussion of recommendations it received to consider possible increases in the State GHL fisheries.

### **State Water Tanner Crab Fisheries**

The State Westward Region supports the management of the State water commercial Tanner crab fisheries in the Central and Western Gulf and Aleutian Islands. These Tanner crab fisheries open January 15<sup>th</sup> and could experience increased effort as a result of changes in federal Pacific cod A season openings. This section provides background on those fisheries that may help in assessing the potential effects of this action. The discussion of Aleutian Islands fisheries is abbreviated, since those fisheries may be less likely to experience any effects. Those sections can be elaborated as a part of any analysis, if needed.

While the the Tanner crab fisheries open on January 15<sup>th</sup>, participants may be prevented from fishing Pacific cod prior to the opening by a regulated standdown required of vessels that enter the Tanner crab fisheries. Vessels or vessel operators intending to participate in the State water commercial Tanner crab fishery may not operate commercial, subsistence, sport, or personal use pot gear, including cod pots, for any species in the applicable district for the 14 days prior to the season opening. Placing tagged gear into shallow water is permitted but vessels may not retrieve gear to place buoy tags on gear during this 14-day period. Cod caught as bycatch in crab pots may be used for bait but must be recorded on fish tickets. In addition, vessels may unregister from a State water crab fishery to participate in another fishery (except as prohibited for superexclusive and exclusive fisheries).

#### **Kodiak District Tanner**

The Kodiak District Tanner crab fishery is a limited entry fishery, with permits regulated by the Commercial Fisheries Entry Commission (CFEC). Permits are issued by vessel length: a) less than 60 feet or b) 60 feet or greater and less than 120 feet. A large vessel permit may be assigned to a vessel in the smaller size category. In 2011, 139 permits were issued for use on vessels under 60 feet and 43 permits were issued for vessels 60 feet or greater and less than 120 feet. The fishery is superexclusive, meaning that vessels participating in the fishery are prohibited from participating in other State water Tanner crab fisheries during the same year. Vessels are limited to between 20 and 60 pots depending on the GHL. Under the Board's management plan, a commercial Tanner crab fishery in the Kodiak District may occur when: 1) the preseason trawl survey abundance estimates meet or exceed the established minimum thresholds; 2) two or more sections in the District are opened; 3) the GHL in an open section is at least 100,000 lbs.; and 4) the overall district harvest will be at least 4000,000 lbs., based on abundance rates. The total District GHL is allocated among eight sections. In addition to registering for the fishery, vessels must register for a section. Section registration may be changed by notice to ADF&G.

The scheduled opening of the fishery is January 15<sup>th</sup>. In the 14 days preceding the fishery, no vessel is permitted to use pots in the district (although pots may be put shallow water storage or used in other districts).

As with most limited entry fisheries in Alaska, harvests are monitored inseason with the fishery closure for a section timed to coincide with the estimated harvest of the applicable GHL.

In 2008/2009, areas supporting all but 30,000 pounds of the GHL closed in January, with the last open area closing at the end of March by regulation. The last open section in the 2009/2010 fishery closed in late January.

**Table 13. Kodiak District Tanner GHL and harvests 03/04 through 11/12.**

Season	GH L	Harvest	Vessels
2004	795,000	566,218	66
2005	1,750,000	1,800,196	76
2006	2,100,000	2,121,384	68
2007	800,000	765,092	50
2008	500,000	425,353	33
2009	400,000	357,854	31
2010	700,000	650,315	52
2011	1,490,000	1,537,384	80
2012	950,000		

### Chignik State District Tanner

The State manages the Chignik District as a superexclusive registration area fishery. ADF&G manages the nearshore and the offshore areas independently. Participating vessels in the Chignik District are limited to not more than 58 ft. LOA. Pot limits vary based on the GH L and number of vessels participating in the fishery, ranging from 30 pots to 75 pots per vessel.

The fishery was closed from 1990 through 2003. The fishery opened for the 2004 and 2005 seasons, but closed again from 2006 season through the 2010 season. The fishery opened in 2011 with a GH L of 600,000 pounds.

**Table 14. Chignik District Tanner GH L and harvests 2003 through 2012.**

Season	GH L	Harvest	Vessels
2003	Closed		
2004	400,000	410,741	22
2005	200,000	143,164	4
2006	Closed		
2007	Closed		
2008	Closed		
2009	Closed		
2010	Closed		
2011	600,000	646,531	13
2012	700,000		

**Semidi Island Overlap section**

The Semedi Island Overlap section is part of the Kodiak District. When open, vessels registered in the either the Kodiak District or Chignik District may also register for the Semidi Island Overlap section, provided they have withdrawn registration in other sections. Pot limits for the Semidi Island section may differ from limits for other sections in the Kodiak district. Vessels may not be simultaneously registered to fish in the Chignik District and the Semidi Overlap Section.

**Alaska South Peninsula District Tanner**

The South Peninsula District is a non-exclusive registration fishery. The District is divided into two sections, an Eastern and Western, which are managed independently. In the 2010/2011 fishing season, the Western and Eastern sections opened at noon on January 15, with a combined GHL of 2.3 million lbs.—900,000 and 1,400,00 lbs., respectively. The pot limit ranges from 30 pots per vessel to 75 pots per vessel based on the GHL. Vessels are limited to not more than 58 ft. LOA, must be registered with ADF&G prior to fishing, and may not fish the Eastern and Western sections simultaneously. ADF&G manages the nearshore and offshore areas independently within the Eastern and Western sections.

The fishery was closed from 1990 until it reopened in 2000. The fishery closed again from 2001 through 2003 and reopened from 2004 through 2008. The fishery closed again reopening in 2011.

**Table 15. South Peninsula Management Area GHL and harvests 2003 through 2011.**

Season	GHL	Harvest	Vessels
2003	Closed		
2004	Closed		
2005	300,000	295,741	42
2006	290,000	287,749	15
2007	200,000	165,811	6
2008	250,000	236,241	9
2009	275,000	265,560	12
2010	500,000	583,202	41
2011	2,300,000	2,874,743	51
2012	1,620,000		

**Eastern Aleutian Tanner Crab District**

The Eastern Aleutian Tanner Crab District has three sections, the Unalaska, Makushin/Skan, and Akutan Bays, all within Area J. Harvest information from 2006 to 2010 has been confidential because less than three processors purchased crab from the fishery. Typically, there are only a few major bays and inlets with Tanner crab and the directed fishery has been relatively small, at under a million lbs. over the last quarter-century. In 2010, the commercial Tanner crab fishery opened on January 15, with GHLs of 74,000 lbs. in the Unalaska Bay section and 45,000 lbs. in the Akutan. The Makushin/Skan section was closed to commercial fishing because the minimal GHL was not met. Vessels were limited to 33 pots. The Unalaska section closed on February 10, and Akutan closed by regulation on March 31.

**Western Aleutian Tanner Crab District**

No commercial harvest of Tanner crab has occurred in the Western Aleutian Tanner Crab District (WAD), also within Area J, since the 1996/1997 season. Though the fishery may be opened by emergency order on November 1, it was not opened during the 2009/2010 season because there was no

management plan in place and insufficient data to establish a GHF for the fishery. Most Tanner crab in the WAD is taken incidentally in the directed red king crab fishery in the same area.

### **Possible rationale for delaying the Pacific cod A season opening**

The delay in the Pacific cod A season opening date for a sector could be intended to serve a few purposes. A delay might allow a fleet to idle their vessels during a period that typically has either low catch rates or high bycatch. Cod aggregations are said to increase from late in January through late February. A delay in the opening could aid fishermen, who have higher fuel and bait costs during early season periods with low catch rates. While these vessels could simply choose not to fish until acceptable catch and bycatch rates are present, they may run a risk of losing a substantial share of the available catch in the fishery. A season opening delay would remove this risk.

Delaying openings could also be intended to improve revenues from the fishery. Since cod generally aggregate during the peak spawning periods, roe and milt production may peak from harvests that coincide with the strongest aggregations. In addition, some participants contend that fish quality may improve as the season progresses from its current opening. Some participants also believe that cod markets strengthen through the late winter into the spring. Delaying the opening could be intended to achieve improved revenues from the fishery.

In some cases, it is possible that delaying an opening may reduce gear conflicts in the fisheries. For example, a further delay in the trawl opening could provide time for longline or pot participants to harvest the large majority of their allocations prior to the trawl opening. This could reduce gear conflicts by reducing the overlap of the seasons.

A delay in opening the fishery might also be advocated to allow portions of the fleet to enter other fisheries that they are eligible for. Currently, vessels confronting conflicts between open fisheries would need to choose between fishing opportunities. A delay in the opening of one fishery may allow vessels in that fleet to deploy effort first in another fishery. A delay in one opening could remove the conflict allowing vessels to prosecute both fisheries. A later A season opening could also be intended to allow some participants to celebrate holidays (which extend into the middle of January) with their families prior to starting fishing. These participants might otherwise need to choose between fishing and remaining with families for the holidays.

### **Possible effects of delaying the A season opening**

The environmental and economic effects of delaying Pacific cod A season openings could vary greatly depending upon the specific action. A working outline of these issues identified by staff thus far is attached as Appendix 1. In addition to understanding potential impacts on fishermen, the Council requested that the discussion paper include a discussion of the relationships of actions modifying the Pacific cod A season opening dates on GOA Steller sea lion (SSL) Reasonable and Prudent Alternatives (RPAs), non-cod GOA fisheries, halibut bycatch, and processing considerations.

### **Possible effects on harvesters**

As noted above, Pacific cod are known to form spawning aggregations from January to May in the GOA. Fishing these aggregations results in higher catch rates, reduced operational costs to the fleet, and potentially lower bycatch of other species, including halibut. Fishermen have indicated that in many years Pacific cod aggregations may not occur until several weeks after the season openings in January. Delaying the openings may prevent these fishermen from expending effort inefficiently prior to aggregations forming. Fuel and bait costs may be reduced. Although halibut PSC is rarely constraining in

the A season, it may be possible to reduce use of available halibut PSC, which could contribute to both overall halibut savings and improved fishing opportunities later in the year when halibut PSC may constrain fishing.

While the delayed opening would prevent fishermen from needing to compete for catch during years when aggregations do not occur until well after the season opening, a regulatory change in the season opening would also prevent fishing on aggregations that occur prior to that opening. In essence, the fleet will lose the option of entering the fishery early, should the fishing opportunity be good.

If the change in opening dates results in offsetting seasons for the different gear types, it is possible that some gear conflicts could be reduced. On the other hand, to the extent that vessels can be converted to operate with different gear types and are able to secure licenses with the appropriate endorsements, creation of offsetting seasons may increase competition in the fisheries by allowing vessels to enter new fisheries or simplify participation in multiple fisheries. These circumstances arise (or are exaggerated) by the sector split of Gulf Pacific cod TACs, which creates exclusive TACs for different gear and operation types.

Delaying the opening of the A season in the GOA could allow vessels to participate other in fisheries that currently conflict with the Gulf Pacific cod fishery. Some participants in the Western Gulf trawl fishery may support a delay in the A season opening to allow them to participate in the State water Tanner crab fisheries. Currently only the Kodiak district Tanner crab fishery is subject to limited entry. Other Gulf Tanner crab fisheries have vessel size limits, but many of the Western Gulf trawl vessels meet those limits. A later A season trawl fishery opening may allow those vessels are able to participate in both the Pacific cod fishery and the State water Tanner crab fishery.

While allowing vessels to move into the State water Tanner crab fishery may be an intended effect of an A season delay, it is possible that vessels may perceive an opportunity to move into other fisheries. For example, if a local Tanner crab fishery does not open in a year and other fishery opportunities exist prior to the later Pacific cod A season opening, it is possible that these vessels may elect to enter other fisheries. The extent of these other opportunities will likely vary across time and with TACs in the various fisheries. License availability is also likely to change over time. These different factors will all affect the extent to which vessels might use an A season change to expand their operations into other fisheries (as intended or unintended).

An additional effect that should be explored is whether a delay in a season opening could affect the potential of a fleet to fully harvest available TACs. The ability to fully harvest TACs should be considered not only for the Pacific cod fishery, but also in other fisheries in which Pacific cod vessels may participate. The A seasons for the pollock fishery and the Pacific cod fishery both open January 20<sup>th</sup>. Delaying the Pacific cod opening may change vessels' choices of fisheries, particularly if some trawl vessels are drawn into crab fisheries or fisheries of other gear types. Whether these choices may remove effort from the groundfish fisheries to an extent that one or more TACs may remain unharvested should be considered.

In addition to the potential to constrain a fleet's ability to harvest an A season TAC, the action could also have spillover effects on State water Pacific cod fisheries. Those fisheries with openings that depend on federal fishery closures might be delayed. While some participants in State water fisheries may also participate in the federal fisheries, it is possible that some others are unable to participate because of limited license requirements. These vessels' fishing patterns could be disrupted, if a State water fishery opening is delayed as a result of the later federal fishery openings.

### **Possible effects on processors**

A few effects of delaying the Pacific cod A season are likely to have implications for processors. As with other effects, these effects largely depend on the specific action. In general, the effects are driven by the redistribution of landings that will arise. Most processors begin operations after the New Year by accepting deliveries from fixed gear vessels shortly after its January 1<sup>st</sup> opening. Over the course of the following few weeks, processing scales up with opening of State water Tanner crab fisheries on January 15<sup>th</sup> and the trawl pollock and Pacific cod fisheries January 20<sup>th</sup>. Trawlers generally follow a progression from the Pacific cod fishery to the pollock fishery, with some exceptions. The current sequence of fishing has allowed processors to ramp up their operations over the course of a few weeks, then move crews among various processing lines landings come in. The early opening of fixed gear Pacific cod fisheries and the balancing of Pacific cod and pollock deliveries from the trawl fisheries are both important components of this progression of operations. Depending on the extent of changes to A season openings, it is possible that the flow of landings could be disrupted, leading to either down times when plants may have little production or gluts during which harvesters will need to wait to offload. Either of these circumstances might lead to additional operating costs or loss of product quality. Whether any disruption to operations might occur (and the extent of those disruptions), however, will depend on the specific change in the season openings and conditions in the Pacific cod fisheries and other fisheries.

### **Impacts on Steller sea lion protection measures and ESA consultation**

As the acting federal agency, NMFS has an affirmative legal duty under Section 7 of the ESA to ensure that implementation of an FMP or an FMP amendment does not jeopardize the continued existence of an endangered species (such as Steller sea lions (SSL)) or adversely modify to the critical habitat of a protected species. Based on the most recent completed biological opinion (BiOp) on the western distinct population segment (DSP) of SSL, the harvest restrictions in the GOA on Pacific cod, Atka mackerel, and pollock decrease the likelihood of disturbance, incidental take, and competition for prey, to ensure the groundfish fisheries do not jeopardize the continued existence or modify the designated critical habitat of the western DSP of SSL.

An ESA Section 7 consultation must be re-initiated if an action under consideration modifies existing protection measures in a manner that causes an effect to a listed species—or its habitat—that was not previously considered. Delays of the A season opening of the Pacific cod fishery may modify the temporal distribution and spatial distribution of catch in the fishery. Whether the action will have a detrimental effect on SSLs will depend on the specific action and the consequent redistribution of catch. At a minimum, the agency would make an informal consultation to make a determination of whether the effects were previously considered; however, whether a change in one or more of the openings would require formal consultations under the Section 7 of the ESA cannot be answered at this time.

### **Other considerations**

The upcoming season (2012) will be the first season of fishing under both new recency action and sector split of the Pacific cod TACs. These actions are likely to have considerable effects on the Pacific cod fisheries, changing opportunities within each sector and reducing competition among sectors. Managers have no experience managing the fisheries under those actions and participants have no experience fishing under the actions. Depending on the action, altering season openings could reduce the effectiveness of those actions in unpredictable ways by creating unintended opportunities for vessels to move among fisheries or by preventing a fleet from realizing maximum benefit from the new division of the TACs. In considering this action, analysts and the Council will need to assess these uncertainties, but

any such consideration will be exacerbated by the lack of experience with and evidence of the changes driven by the actions.

The sector splits and recency actions may create opportunities to pursue an alternative to the regulatory change of the A season opening date. As an alternative to a change in season openings, it may be possible for participants to organize fleetwide standdowns in a fishery. If the standdown is fleetwide, it is possible that little or no catch would be sacrificed by those electing not to fish; however, if others fish through a standdown, it is possible that a substantial portion of the TAC could be harvested (or a disproportionate share of the available prohibited species catch limit may be used) before the participants in the standdown enter the fishery. The potential for and extent of this effect is likely to vary across fisheries. In a fishery where the TAC is harvested over a short period, it is possible that a standdown by a few vessels could leave those vessels with little catch. Although coordinated standdowns may be feasible in some fisheries, others are likely to have too much diversity of interests among qualified vessels to be able to organize a fleetwide standdown.<sup>8</sup> Portions of a fleet may elect not to join the standdown to gain advantage in the fishery. If surplus licenses are available, it is also possible that the standdown may entice opportunistic entry by vessels able to gain use of those surplus licenses. If the standdown is for an extended time period or a large number of vessels choose not to abide by the standdown, participating vessels may choose to abandon the standdown altogether. If a few vessels choose not to abide by a short standdown it is likely that some of the benefits of the standdown may be lost; however, the standdown may be generally effective and would likely be continued.

Voluntary standdowns, where feasible, could present a reasonable alternative to a regulatory change of a season opening. Preferred season openings may change with conditions or over time. For example, in some years, fishing early may be preferred, if TACs are large or fish aggregations occur earlier than expected. Similarly, a standdown that is meant to allow vessels to enter another fishery could be lifted in years in which that other fishery does not open. Regulatory changes to season openings would offer no flexibility. Whether a voluntary standdown is a reasonable alternative to a change in the season opening will depend on the fishery and the ability of participants to achieve a broad enough consensus to protect their interests.

At first blush, an action to delay an A season opening for a single area/gear/operation type would appear to be a relatively simple action, the effects of which are readily ascertainable. Yet, the spillover effects of such an action could be significant, give the variety of participation patterns in Gulf fisheries where some vessels use multiple gear types and participate in fisheries in multiple jurisdictions (State/federal) and areas for a variety of species. The complexity (and uncertainty) of effects increases, if additional area/gear/operation types are included in an action. If two fishery openings are delayed, it is possible that two sets of participants may be freed up to move among fisheries until their respective seasons open. The delays together could compound the negative effects of a single closure. In addition, delaying an opening in a second fishery could prevent the realization of benefits intended by the first delayed opening. The interactions become less tractable with each modification to the opening dates, as each fleet may perceive new opportunities and see others disappear depending on the specific season openings. These interactions are further complicated by the uncertainties of the newly implemented sector split of the Pacific cod TACs in the Gulf.

### **A case study**

In order to illustrate potential variety of effects of an A season delay, a simple example is presented as a case study. For this case study, we consider potentially effects of a delay of the opening of the WGOA

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<sup>8</sup> For example interests may diverge concerning some religious holidays, as the portion of the fleet that does not celebrate the holiday may choose not to standdown.

Pacific cod trawl fishery from its current January 20 opening to February 20<sup>th</sup> and a delay in the opening of the pot gear fishery from its January 1<sup>st</sup> opening to February 1<sup>st</sup>. Due to uncertainties and the lack of Council definition of alternatives, the following discussion is both speculative and hypothetical. As such, the discussion is only intended to illustrate the complexities that are likely to arise from interactive effects of the actions.

Pot fishermen might support the delay as a means of reducing costs associated with targeting cod prior to their aggregation. The action might also allow those vessels 58 feet or less in length to participate in the State water Tanner crab fishery that opens on January 15<sup>th</sup>. Vessels 58 feet or longer would not be permitted to fish in the Tanner crab fisheries, but might attempt to enter other fisheries. Currently, 82 licenses are available for participation in the catcher vessel pot cod fishery in the Western Gulf. In the last two years, fewer than 40 vessels participated in the fishery, possibly as a result of the large GHL in the South Peninsula Tanner crab fishery and the opening of the Chignik Area Tanner crab fishery (both of which open on the 15<sup>th</sup> of January). In the mid-2000s, as many as 80 vessels participated in the fishery. The delayed opening could allow vessels to participate in both the Pacific cod fishery and a Tanner crab fishery, when those fisheries are open. In considering the action, the Council would need to consider the potential increase in participation in State water Tanner crab fisheries during years of low GHLs. Currently, vessels choosing to target Tanner crab may sacrifice some early participation in the Pacific cod fishery, since the Tanner crab fishery prohibits participating vessels from using pots in the same area in the 14 days preceding the opening of the Tanner crab fishery. In addition, if the Tanner crab fisheries were closed or had small TACs, the delayed opening of the Pacific cod fishery could contribute to more intense and concentrated effort in the cod fishery immediately after the opening. Alternatively, some vessels may look for opportunities in other Gulf fisheries, most likely in the Central Gulf, if an appropriately endorsed license could be obtained – currently 11 of the 82 Western Gulf pot cod licenses are also endorsed for participation in the Central Gulf pot cod fishery. Additional participation opportunities in both the Central Gulf and Western Gulf fisheries could arise through the CQE program licenses. Those licenses are limited to area residents, so Western Gulf vessels could not access those licenses to participate in Central Gulf fisheries, but the delay could aid some CQE participants in developing a working participation pattern moving from the Tanner crab fishery to the Pacific cod fishery in the early part of the year. The delay in the opening would delay the processing of Gulf deliveries until landings from the Tanner crab fishery started. Currently, plants start processing fixed gear landings shortly after the New Year. Instead, plants would begin processing with only deliveries from the crab fisheries after their January 15<sup>th</sup> opening.<sup>9</sup> The delay could also result in the pot TAC not being taken prior to the opening of the State water fisheries in Chignik (March 1<sup>st</sup>) and South Peninsula (March 7<sup>th</sup>, at the latest). Pot vessels that historically have participated in both the federal and State water fisheries could lose some fishing opportunities, if forced to choose between the fisheries.

A delay in the opening of the trawl fishery might also be adopted to allow Pacific cod to aggregate prior to fishing and to allow some of the trawl fleet to participate in other fisheries. The smaller combination trawl vessels (58 feet or under) would likely choose to fish for Tanner crabs using pots on the January 15<sup>th</sup> opening of those fisheries. This fleet would still need to choose between fishing pollock or Tanner crab, but the delay in the Pacific cod opening would remove any conflict between the Pacific cod and Tanner crab fisheries. The larger vessels in the fleet (and those unable or choosing not to fish Tanner crab) would likely choose to pollock when it opens January 20—or stand-down until later when the pollock are most aggregated and pollock roe is at its peak, as has been the case in the WGOA in recent years—and continue trawling until the season ends, usually after several days. Vessels in the Tanner crab fishery would likely convert their vessels for pollock trawling, if the crab fishery closed quickly and sufficient pollock TAC remained. It is also possible that some of the larger vessels may choose to fish pollock or

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<sup>9</sup> It is possible that some Bering Sea fixed gear deliveries of groundfish would be processed after the January 1<sup>st</sup> opening of those fisheries.

Pacific cod in the Central Gulf, depending on license availability and conditions in those fisheries. Many of the Western Gulf trawl licenses also carry Pacific cod endorsements and recent participation in the Pacific cod trawl fishery in the Central Gulf has been substantially below the number of licenses, suggesting that some opportunity may exist to move into the Central Gulf fishery. Such a move could be disruptive to Central Gulf fishery participants, particularly if they attempt to undertake standdowns to allow pollock or Pacific cod to aggregate or pollock roe to mature. These moves would likely depend on relative TACs and whether the delayed opening allowed sufficient time to move among the fisheries. There is some potential that CV trawl vessels could use the idle time in early February to harvest shallow water flatfish and flathead sole, if a processor would take deliveries. Halibut PSC usage in these fisheries would accrue towards the seasonal shallow water PSC apportionment that also includes Pacific cod fisheries, however. Processing activity could be further disrupted by the season opening delay, if a substantial portion of the trawl vessels chose to enter Central Gulf fisheries prior to fishing Western Gulf pollock. The season opening delays might drive such an effect, if a portion of the fleet elected to fish Tanner crab and a large part of the remainder elected to enter Central Gulf fisheries. It is also possible that the delayed opening could attract non-AFA trawl catcher vessels from the Bering Sea into the Western Gulf fishery, if those vessels were able to secure LLP licenses with Western Gulf trawl endorsements. These vessels could concentrate their Bering Sea Pacific cod effort at the January 20<sup>th</sup> opening of that fishery, then move to the Western Gulf fishery when it opens on February 20.

The AFA catcher vessel fleet may also modify their fishing practices in the GOA in response to a delay in the Pacific cod season. Most vessels are limited by sideboard caps, and others are exempted from the sideboard caps. The exemption is conditioned on the vessel not leasing its BS pollock allocation. A delay in the Western Gulf Pacific cod fishery opening may increase the opportunity for these vessels in that fishery, as additional time will be available to harvest their Bering Sea pollock allocations prior to moving into the Gulf cod fishery.

Some of the intended (and unintended) effects of the two actions could overlap or interact. For example, to the extent that the delay of a trawl opening might be intended to reduce gear conflicts, a delay in the pot fishery opening could negate that result, if pot vessels have not moved off the grounds when the trawl fisheries opens. Similarly, if both sectors perceive an opportunity to enter the Tanner crab fisheries, vessels that in the past have elected to prioritize those fisheries may be crowded and have reduced catches and less incentive to enter the fishery. To the extent that vessels are able to access licenses to enter other federal fisheries that maintain their current openings (particularly those in the Central Gulf) participants in those other fisheries may lose fishing opportunities. These losses of opportunities may compound the loss of opportunities arising from the issuance of new CQE licenses. In addition, the added competition could make Central Gulf CQE fishing opportunities less appealing and workable.

Each of the various effects will depend on the specific fisheries affected by the delayed opening, the extent of the delay (or delays), and the responses of participants. In addition, with each new revision to an opening opportunities with change. Some interactions may be very difficult to predict, as they may occur only as a result of secondary (or tertiary) responses to the actions of others. These uncertainties are compounded by the impending implementation of the Pacific cod sector split, which could also result in some unpredicted effects.

### **Council direction and next steps**

If the Council chooses to advance this action for further discussion and eventual analysis, it will need to develop a concise statement of Purpose and Need. To better advance this action, the Council could also formulate a set of options of opening dates for gear types (i.e., sectors) and management areas for further discussion and further analysis.

### **Purpose and Need Statement**

The Council's purpose and need statement should be a direct reflection of the perceived problems arising from the current Pacific cod A season openings and its intent for the action. Based on a review of notes from Council deliberations and discussions with stakeholders, the Council could consider adapting the following discussion to develop its purpose and need statement for this action:

In the GOA, Pacific cod are thought to aggregate prior to spawning and remain aggregated through the spawning period. These aggregations occur in the late winter and early spring, although the specific timing likely varies each year based on temperature and other environmental conditions. According to fishermen, these aggregations allow higher catch rates, and during a time when the prices are at the highest due to the roe and milt markets. Timing the fisheries to occur at the peak of roe and milt value, and when the catch rates are highest, would provide optimum economic returns to participating fishermen. A primary objective of delaying the season opening date would be to harvest during optimal conditions.

In past years, the race for fish (e.g., the Pacific cod TAC) in the GOA would have made a proposal to delay the season entirely unworkable. However, two recent amendments provide conditions that may allow a season delay to work, at least in some situations. First, Amendment 86 has reduced the number of latent licenses in the fixed gear fisheries, and requires a Pacific cod endorsement for all fixed gear vessels >26 ft., which prevents new vessels (those without historic participation) from entering the fishery without obtaining an already existing LLP with the appropriate Pacific cod endorsement. Second, Amendment 83, which will be implemented for the 2012 fishing year, has established explicit allocations of Pacific cod TAC by gear, vessel size, and processing type. This allows individual sectors to harvest their Pacific cod without the competition of other sectors within their gear group.

Another objective of delaying the Pacific cod season, for at least some sectors, would be to provide vessels with additional fishing opportunities. In particular, the State managed fisheries for Tanner Crab in the WGOA (State regulatory Area M), and Central GOA areas of Chignik (Area L), and Kodiak (Area K) have been open in recent years. State regulations prohibit any vessel fishing with pot gear for two weeks prior to the opening for Tanner crab, which occurs January 15. The fixed gear opening for Pacific cod in the federal WGOA and CGOA is currently January 1, but the State waters Tanner crab fisheries open January 15. Therefore, participants using pot gear are forced to choose whether to fish for Pacific cod the first two weeks of the year and forego fishing for Tanner crab, or to refrain from fishing cod with pot gear and fish Tanner when the season opens. Vessels using trawl gear are similarly conflicted, due to the close opening of the Tanner crab fishery and the Pacific cod fishery when the season opens on January 20. Some of the smaller vessels in the WGOA in particular, are combination vessels that can fish with different gear types such as trawl, pot, and seine.

### **Possible alternatives to consider**

If the Council intends to initiate an analysis at this time, it would need to specify alternatives to be considered. In identifying alternatives, the Council should consider that greater specificity and focus will contribute to a more coherent and informative analysis. An alternative (or amalgam of alternatives) that simply suggests that the Council would like to consider moving A season openings from their current dates to some time on or before February 20<sup>th</sup> with the ability to select different dates for each area/gear type/operation type make the analysis intractable. To develop tractable alternatives, the Council should attempt to identify specific sectors that will be subject to the action and the specific dates on which fisheries would be opened. Even with such focus, if the action affects several fleets, it is likely that the

analysis will be quite complex and could require extensive staff and Council time for development of the analytical package. To aid the Council, staff has developed the following alternatives for the consideration, based on previous Council discussions of this issue:

Alternative 1: Status Quo. WGOA and CGOA Pacific cod fisheries open on January 1 for fixed gear and January 20 for trawl gear.

Alternative 2: Change A season opening dates for all sectors in the WGOA and CGOA Pacific cod fisheries to February 20.

Alternative 3: Change A season opening dates for any combination of sectors in the WGOA and/or CGOA Pacific cod fisheries to February 20 or some other date.

Option 1: Western GOA (area 610)

Gear type

1. Jig

Opening date

- (1) February 1
- (2) February 20

2. Pot

Opening date

- (1) February 1
- (2) February 20

3. Longline

Catcher vessel (CV)

Opening date

- (1) February 1
- (2) February 20

Catcher processor (CP)

Opening date

- (1) February 1
- (2) February 20

4. Trawl

Catcher vessel (CV)

Opening date

- (1) February 1
- (2) February 20

Catcher processor (CP)

Opening date

- (1) February 1
- (2) February 20

Option 2: Central GOA (area 620 and 630)

Gear type

1. Jig

Opening date

- (1) February 1
- (2) February 20

2. Pot

Opening date

- (1) February 1
- (2) February 20

3. Longline

Catcher vessel (CV)

Opening date

- (1) February 1
- (2) February 20

Catcher processor (CP)

Opening date

- (1) February 1
- (2) February 20

4. Trawl

Catcher vessel (CV)

Opening date

- (1) February 1
- (2) February 20

Catcher processor (CP)

Opening date

- (1) February 1
- (2) February 20

Rather than set the season opening date by gear and operation type, the Council could also consider adding further definition by defining the season based on the sector definitions of Amendment 83, if different dates were desired for each sector. Doing so would only require separation of the hook and line in the Central Gulf by vessel length (i.e., less than 50 feet/greater than or equal to 50 feet).

Even if the Council decided to examine only a few specific alternatives for analysis, it is likely that the Council action would not be possible until late in 2012. Given the lengthy rulemaking and regulatory process, the earliest possible implementation of a delayed A season for Pacific cod would likely be in 2014, if approved and given a high priority for tasking; however, this timeline could be extended, especially if it is determined that the proposed action would require a formal ESA Section 7 consultation relative to Steller sea lions.

## Appendix 1. Analytical Issues Identified

Implied by the Council's motion language and inferred intent, following is an outline of the myriad of issues that will likely be affected by any change to the GOA Pacific cod A season opening date and thus will require discussion and analysis:

- A. Magnitude of effects based on length of delay
  - a. Evaluation of the different magnitudes of potential effects due to delaying the A season opening date
    - i. E.g., 3 days, vs. 1 week, vs. 2 weeks, vs. 1 month → possible Council motion options
    - ii. Analysis: catch effort by day, week, 2 weeks, etc.
  - b. Impact on A season closing dates, because the changed A season opening date would be fixed), and B season opening and closing dates
- B. *What would happen in each of the Pacific cod fisheries?* Discuss by management area and gear type:
  - a. Would the fish be more concentrated as pre-spawning aggregations on the grounds during the season?
  - b. How would it affect vessel operating costs?
  - c. Would it affect the number of participating vessels?
    - i. Analysis: participation in the GOA Pacific cod fisheries
  - d. Would it affect any BSAI fisheries, especially Tanner crab fisheries?
  - e. How might it change total ex-vessel value of cod? Of roe and milt?
    - i. Analysis: revenues from the GOA Pacific cod fisheries
    - ii. How might it change the quality of roe?
  - f. How would it change pacific cod catch rates?
  - g. How would it affect delivery schedules
  - h. Would gear group conflicts arise?
  - i. Are there other fisheries where catch would be stranded?
  - j. What have been the trends in each fishery?
    - i. E.g., the GOA Pacific cod jig fishery have generally harvested less than 1 percent of its annual TAC, but there has been a notable increase in fishing effort in the State waters GHF fishery
- C. American Fisheries Act (AFA) sideboard and sideboard exempt vessels' fishing patterns
  - a. Introduction: "Sideboards" are restrictions placed on vessels and/or LLP licenses to prevent "spillover" effects from potential increases in effort when management programs free up vessels from participation in other fisheries. These include the AFA, crab rationalization, rockfish pilot program, and Amendment 80, all of which authorize vessel cooperatives. Sideboards apply to non-AFA crab vessels that fished snow crab from 1996-2000 and to any vessels fishing under any LLP groundfish licenses derived from those vessels. Any transferable LLP license derived from an AFA vessel is transferable for use only on another AFA vessel.
  - b. Analysis: amounts, recent latency, List of GOA Sideboard Vessels, etc.
    - i. Tanner crab in Western Area (and BSAI), AFA vessels, and pot and trawl vessels
    - ii. Central Area?
- D. Prohibited Species Catch (PSC) and bycatch rates
  - a. *How would a delay change bycatch rates for halibut and Chinook and chum salmon?*
    - i. E.g., Introduction: "To meet the management objectives for GOA Pacific cod fisheries and the seasonal harvest targets set during the harvest specification process, NMFS requires vessel operators fishing in Federal waters to comply with various restrictions, including fishery time and area closures and halibut prohibited species catch (PSC) limits. PSC limits and caps on the removal of PSC species, such as halibut, Chinook, and chum salmon, can limit fishing activity once those limits are taken."

- b. Estimation of PSC and bycatch rates for halibut, Chinook, and chum
    - i. Halibut – “The fisheries that result in the highest halibut PSC in the GOA are the Pacific cod trawl and longline/HAL fisheries
      - 1. *For the purpose of setting halibut PSC limits, the GOA Groundfish FMP sets separate PSC limits for trawl fisheries (2,000 mt) and hook-&-line (HAL, or longline) fisheries (300 mt). The Pacific halibut PSC HAL limits are apportioned between demersal shelf rockfish (typically, 10 mt) and all species other than demersal shelf rockfish (typically, 290 mt). The Pacific halibut PSC trawl limits are apportioned between the deep-water species complex and the shallow-water species complex. Pacific cod is a shallow-water species complex.*
      - 2. *Current PSC limits of Pacific halibut concern the Council because these limits have remained unchanged since their implementation in 1986 for trawl fisheries at 2,000 mt and reduced to 300 mt in 1995.*
      - 3. *Recent declines in halibut biomass, particularly in the GOA, have exacerbated general Council concerns about levels of incidental removals of PSC in GOA groundfish fisheries because of the potential effect of PSC on reduced availability of halibut to other user groups.”*
      - 4. Council Actions updates
        - a. Halibut Catch Share Program – delayed; IPHC upcoming meeting
        - b. Amd 83 (December 2009)
        - c. GOA Central Rockfish Catch Share Program (June 2010)
    - ii. Chinook salmon – “Chinook salmon is a prohibited species in the GOA and its capture must be avoided. There have not been, however, specific management measures to minimize the capture of PSC Chinook.”
      - 1. Council Action(s) update:
        - a. *In June 2011 Council adopted a PSC limit of 25,000 Chinook salmon for the western and central GOA pollock fisheries. Upon implementation the annual cap would be apportioned by area, and would close the pollock fishery in each area once the PSC limit is reached.*
  - c. Relationships of delayed A Season opening dates to rates
  - d. Bycatch in Western versus Central – differences?
  - e. Analysis:
    - i. halibut Discard Mortality Rates (DMRs) by gear type and area
    - ii. halibut PSC limits, allowances, and seasonal apportionments
    - iii. between trawl gear (deep- and shallow-water), HAL
- E. Other GOA non-cod fisheries
  - a. *How might a delay affect participation and catch in other fisheries the vessels prosecute?*
  - b. Non-cod groundfish fisheries to analyze (non-exhaustive): pollock, sablefish, rockfish, sharks, octopuses, sculpins, skates, etc.
  - c. \*Crab PSC – FMP delegating to the State, State regulations and seasons
    - i. E.g., AFA fishes on A season quota early in the season in the Pollock fishery
  - d. Salmon PSC – Salmon FMP revisions and updates, Pacific Salmon Treaty (PST) limits
  - e. Halibut – IPHC meeting, Treaty limits, NMFS CSP, Halibut Act
    - i. Seasonal halibut apportionment – 4 releases for trawl gear, deep- shallow-water components: *would need to adjust to accommodate the season date change*
  - f. Analysis: TAC amounts from the most recent harvest specifications
    - i. *Would they be able to take the entire TAC?*
  - g. SSL mitigation measures in other fisheries affected by a change in the A season date
- F. Processing Considerations
  - a. *How might a delay affect processors and communities?*

- b. Inshore (shoreside plants, stationary floating processors, CPs and motherships < 125 ft.); offshore (all others)
- c. Changes under Amd 83 – inshore/offshore requirement eliminated; now A (60%) and B (40%) considerations
  - i. E.g., Processors would likely prefer not to change the A season opening dates because they are able to start up their plants to process Pacific cod starting January 1. Delaying the opening of the A season could force processors to process more Pacific cod in February when processors are very busy processing Pollock.
- G. Impacts on Steller Sea Lion (SSL) protection measures
  - a. *Would a delay have positive or negative impacts on SSLs?*
  - b. *What would be the effects on existing mitigation measures?*
    - i. E.g., Introduction: Harvest control rules for Pacific cod have been established so that fishing rates drop abruptly at low biomass levels to account for Steller sea lion prey needs.
  - c. *Would the change require a formal or informal ESA consultation?*
    - i. E.g., ‘Trigger’ language: “Based on the most recent completed biological opinion, these harvest restrictions decrease the likelihood of disturbance, incidental take, and competition for prey to ensure the groundfish fisheries do not jeopardize the continued existence or modify the designated critical habitat of the western DSP of SSL. Any changes to these restrictions on the GOA Pacific cod fishery are likely to require re-initiation of ESA Section 7 consultations.”
  - d. SSL protection measures and distribution of catch between A and B seasons (RPAs)
    - i. Information on the flexibility under SSL mitigation measures to adjust season dates
- H. Maximum Retainable Amounts – incorporate NMFS inseason management?
  - a. E.g., Introduction: In the GOA Federal regulatory areas, all incidentally caught Pacific cod must be retained during the directed Pacific cod season. When the directed fishing for Pacific cod is closed, incidentally caught Pacific cod in Federal waters (3 nm to 200 nm), can only be retained up to a maximum retainable amount (MRA) established at 20 percent (§ 679.20(e)(1)). The MRA limits the amount of catch for species not open for directed fishing that may be retained to a percentage of those species open for directed fishing. Vessels fishing in the halibut and sablefish individual fishing quota (IFQ) fisheries are required to retain Pacific cod up to the MRA (see § 679.27(c)(2)), unless NMFS has prohibited the retention of this species (see § 679.7(f)(8)(i)(B)).
  - b. Analysis: MRA rates for most recent full year, by gear type
- I. Community and Socio-Economic considerations
  - a. NMFS: Orthodox calendar, boat repairs, stand-down times, etc.
  - b. Is there any economic value added that is derived from a delay?

Etc. – this outline is not exhaustive