INITIAL REVIEW DRAFT

Environmental Assessment/ Regulatory Impact Review/ Initial Regulatory Flexibility Analysis for Proposed Amendment to the Fishery Management Plan for Groundfish of the Bering Sea/Aleutian Islands Management Area

AI Pacific Cod Directed Fishing Allowance and Delivery Requirement

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Abstract: This Regulatory Impact Review/Environmental Assessment/Initial Regulatory Flexibility Analysis analyzes proposed management measures that would apply to catcher vessels (CVs) targeting Pacific cod in the Bering Sea (BS) and Aleutian Islands (AI). The management measures under consideration would limit the AI Pacific cod fishery during a specific period to CVs exclusively and designate the AI Pacific cod total allowable catch (TAC) for delivery to shoreplants in the AI. If during that period, less than 50 percent has been landed, the requirement to delivery AI Pacific cod to shoreplants in the AI would not apply for that year. The proposed action would also limit the harvest of Pacific cod by trawl CVs in the BS to encourage the catching and processing of Pacific cod in the AI and to reduce the potential for the CV sector to harvest its entire A season Pacific cod TAC allocation in the BS.

List of Acronyms and Abbreviations

[REVISE ACCORDINGLY based on what is actually used in document]

‘	feet
AAC	Alaska Administrative Code
ABC	acceptable biological catch
ADF&G	Alaska Department of Fish and Game
AEQ	adult equivalent
AFA	American Fisheries Act
AFSC	Alaska Fisheries Science Center
AGDB	Alaska Groundfish Data Bank
AKFIN	Alaska Fisheries Information Network
ANILCA	Alaska National Interest Lands Conservation Act
BASIS	Bering Sea-Aleutian Salmon International Survey
BEG	biological escapement goal
BOF	Board of Fish
BSAI	Bering Sea and Aleutian Islands
CAS	Catch Accounting System
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
COAR	Commercial Operators Annual Report
Council	North Pacific Fishery Management Council
CP	catcher/processor
CV	CV
CWT	coded-wire tag
DPS	distinct population segment
E	East
E.O.	Executive Order
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
EFH	essential fish habitat
EIS	Environmental Impact Statement
ESA	Endangered Species Act
ESU	endangered species unit
FMA	Fisheries Monitoring and Analysis
FMP	fishery management plan
FONSI	Finding of No Significant Impact
FR	*Federal Register*
FRFA	Final Regulatory Flexibility Analysis
ft	foot or feet
GHL	guideline harvest level
GOA	Gulf of Alaska
ID	Identification
IRFA	Initial Regulatory Flexibility Analysis
IPA	Incentive Plan Agreement
IQF	individually quick frozen
JAM	jeopardy or adverse modification
lb(s)	pound(s)
LEI	long-term effect index
LLP	license limitation program
LOA	length overall
m	meter or meters

Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
MMPA	Marine Mammal Protection Act
MSST	minimum stock size threshold
mt	metric ton
NAO	NOAA Administrative Order
NEPA	National Environmental Policy Act
NMFS	National Marine Fishery Service
NOAA	National Oceanographic and Atmospheric Administration
NPAFC	North Pacific Anadromous Fish Commission
NPFMC	North Pacific Fishery Management Council
NPPSD	North Pacific Pelagic Seabird Database
Observer Program	North Pacific Groundfish Observer Program
OEG	optimal escapement goal
OMB	Office of Management and Budget
PBR	potential biological removal
PSC	prohibited species catch
PPA	Preliminary preferred alternative
PRA	Paperwork Reduction Act
PSEIS	Programmatic Supplemental Environmental Impact Statement
PWS	Prince William Sound
RFA	Regulatory Flexibility Act
RFFA	reasonably foreseeable future action
RIR	Regulatory Impact Review
RPA	reasonable and prudent alternative
RSW	refrigerated seawater
SAFE	Stock Assessment and Fishery Evaluation
SAR	stock assessment report
SBA	Small Business Act
Secretary	Secretary of Commerce
SEG	sustainable escapement goal
SET	sustainable escapement threshold
SNP	single nucleotide polymorphism
SPLASH	Structure of Populations, Levels of Abundance, and Status of Humpbacks
SRKW	Southern Resident killer whales
SSFP	Sustainable Salmon Fisheries Policy
SW	southwest
TAC	total allowable catch
U.S.	United States
USCG	United States Coast Guard
USFWS	United States Fish and Wildlife Service
VMS	vessel monitoring system
W	West

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Executive Summary

This document analyzes proposed management measures that would prioritized a portion of the Aleutian Islands (AI) Pacific cod to catcher vessels (CVs) and designate it be delivered to shoreplants in the AI, with some constraints on the amount and dates by which the prioritization and the delivery requirement would be removed. To accommodate the AI Pacific cod fishery for trawl CVs, the proposed action would also limit harvest of the A season trawl CV sector's Bering Sea (BS) Pacific cod allocation so as not to allow the sector to harvest its entire A season allocation in the BS prior to the end of the A season AI Pacific cod fishery.

Purpose and Need

For several years, the Council has periodically requested information to help determine the need for community protections in the AI that have evolved due to the implementation of rationalization programs for various fisheries. This rationalization has resulted in excess processing capacity that has been used in the AI Pacific cod fishery. The specific rationalization programs are American Fisheries Act (AFA), Bering Sea and Aleutian Islands (BSAI) crab rationalization, and BSAI Amendment 80. These programs provide benefits to processing vessels and afford opportunities for consolidation, thus freeing some processing capacity to target the non-rationalized BSAI Pacific cod fishery. At the same time, the Council has delayed action on AI community protections in order to anticipate the effects of several dynamic factors in the AI Pacific cod fishery, not the least of which has been the anticipation of a BSAI total allowable catch (TAC) split and Steller sea lion protection measures.

Given that Pacific cod split for the BS and AI was implemented in 2014, and new Steller sea lion protection measures are likely to be implemented early next year, the Council adopted the following problem statement to originate new community protection measures on February 8, 2014.

> *The American Fisheries Act, BSAI Crab Rationalization, and BSAI Amendment 80 management programs provided benefits to processing vessels that were intended to protect their investments in, and dependence on, the respective fishery resources. Each of these programs has also afforded participants opportunities for consolidation, allowing for increased participation in the non-rationalized BSAI Pacific cod fishery in the Aleutian Islands, thus diminishing the historical share of other industry participants and communities that depend on shorebased processing in the region.*

Alternatives

The Council adopted the following alternatives for analysis in February 2014.

Alternative 1. No Action

Alternative 2. Prior to [**options:** March 15, 21] the A season trawl CV Pacific cod harvest in the Bering Sea shall be limited to an amount equal to the BSAI aggregate trawl CV sector A season allocation minus the lessor of the AI directed fishing allowance **or** [**options:** 3,000 mt; 5,000 mt]. Harvest of the AI Pacific cod directed fishing allowance is limited to CVs delivering to shoreplants west of 170 degrees longitude in the AI prior to [**options:** March 7, 15].

Option: If less than 50% of the AI Pacific cod directed fishing allowance has been landed by [**options:** March 7, 15], the restriction on delivery to other processors shall be removed.

Regulatory Impact Review

Alternative 1- No Action

Alternative 1 is the no action alternative. This alternative would not establish an AI Pacific cod directed fishing allowance for the CV sector or require AI Pacific cod to be delivered to shoreplants west of 170 degrees longitude in the AI. This alternative would not limit trawl CV A season Pacific cod harvest in the BS to prevent the sector from harvesting their allocation before the AI Pacific cod fishery is completed. The following is a brief description of status quo.

The proportion of retained Pacific cod catch in the BS and AI management areas, excluding Community Development Quota (CDQ) data and State guideline harvest level (GHL) fishery catch, has changed dramatically. During the 2003 and 2004 period, retained catch of Pacific cod from the AI was approximately 15 percent of the combined BSAI retained catch. In 2014, the proportion of retained Pacific cod catch from the AI had declined to 4 percent. Among the sectors that have been active in the AI Pacific cod fishery, the trawl CV and trawl catcher processor (CP) are the most active. The trawl CV sector on average retained 30 percent of the BSAI Pacific cod from the AI during 2003 through 2014, while the trawl CP sector harvested on average 20 percent of their combined BSAI Pacific cod from the AI. Both sectors have seen a dramatic decline in the AI Pacific cod as a percent of their combined BSAI Pacific cod harvest, which is likely due in part to Steller sea lion protection measures implemented in 2011 and lower AI Pacific cod biomass.

The only other sector that has consistently participated in the AI Pacific cod fishery on annual basis is the hook-and-line CP. The hook-and-line CP sector had a much lower total annual harvest than the trawl CP and CV sectors with an average harvest of 3 percent of the AI Pacific cod fishery. In 2014, only one hook-and-line CP vessel participated in the AI Pacific cod fishery prior to the fishery closed on March 16.

Timing of the A season AI Pacific cod fishery in relation to the BS fishery is very different. In the BS, the fishery starts in earnest on January 20 with a peak in fishing around mid-February followed by a slow decline in catch during the month of March. In the AI, the season is significantly short with fishing effort ramping up during the last two weeks in February with a peak in early March, followed by a dramatic decline in catch over the next two weeks.

Historically, AI Pacific cod has been processed both by shoreplants and offshore vessels. The shoreplant percentage has ranged from 0 percent in 2011 to a high of 49 percent in 2013 and 2014, with an average across the 2003 through 2014 period of 27 percent. There are currently two shoreplants in the AI management area, Adak and Atka. The most predominate of these two shoreplants is Adak.

The offshore sector's portion of the AI Pacific cod processed ranged from a low of 51 percent in 2013 and 2014 to a high of 100 percent in 2011, with an average, across all years, of 72 percent. Other shoreplants outside the AI management area have generally processed less than 1 percent of the total AI Pacific cod processed during 2003 through 2014.

Alternative 2

<u>CV Directed Fishing Allowance</u>

Under Alternative 2, the AI Pacific cod directed fishing allowance would be reserved for CVs until (Council option: March 7 or March 15), at which point the directed fishing allowance will open to all vessels with available BSAI Pacific cod sector allocation and the appropriate endorsements on their LLPs to fish in the AI Pacific cod fishery. Given the directed fishing allowance would be reserved for CVs, and

the trawl CV sector has been the most active in the AI Pacific cod fishery during 2003 through 2014, this sector will likely benefit the most from the proposed action. During 2003 through July 2014, the number of CVs ranged from a low of 9 in 2014 to a high of 34 in 2007. From an exvessel gross revenue perspective, the trawl CV sector had an average of $7.7 million from AI Pacific cod during the 2003 through 2013 period, which was 8 percent of their total exvessel gross revenue received from all fisheries.

The trawl and hook-and-line CP sectors would likely be negatively impacted from the proposed action since they would be restricted from harvesting AI Pacific cod before the Council selected date of March 7 or March 15. Amongst the trawl CP sector, there were 10 trawl CPs active in the fishery in 2014. On average, this group of vessels harvested 29 percent of the AI Pacific cod fishery during 2003 through July 2014, with an average first wholesale gross value through 2013 of $9.7 million. Relative to the total first wholesale gross revenue from all fisheries for this group, the AI Pacific cod fishery contributed on average 6 percent. The hook-and-line CP sector harvested on average 13 percent of the AI Pacific cod during 2003 through July 2014. The number of hook-and-line CPs during this period ranged from a low of one in 2014 to a high of 11 in 2003 and 2010. The average first wholesale gross revenue from the AI Pacific cod fishery during 2003 through 2013 was $4.7 million, which was 3.6 percent of their total first wholesale gross revenue from all fisheries. Currently limiting this sector's ability to participate in the AI Pacific cod fishery is the combination of both AI and BS Pacific cod split and the A season start date of March 1 from the Steller sea lion protection measure implemented in 2011.

Sectors displaced from the AI Pacific cod fishery would likely respond to the fishing area restriction by redeploying their vessels to the BS Pacific cod fishery, in effort to offset the burden of the action, and minimize costs of the new restriction. However, whereas in earlier years there was a single Pacific cod TAC for the entire BSAI, from 2014 forward there will be separate Pacific cod TACs for the AI and for the BS. Because of this, if the BS TAC would otherwise have been fully harvested, a sector shift from the AI to the BS can only take place at the expense of another sector's ability to harvest Pacific cod in the BS. Another limiting factor for displaced vessels is the halibut PSC rates. Estimated average prohibited species catch rates per ton of CVs is 0.0013 in the AI and .014 in the BS, from 2004 through 2012. As a result, halibut PSC limits could potentially prevent trawl CVs and CPs that historically participated in the AI Pacific cod fishery from catching their sector allocation in the BS. There could also be some disadvantages to these sectors from lower prices for BS Pacific cod relative to AI Pacific cod, and some lost economies of scale for some CP vessels that operate in the AI Pacific cod fishery since they also participate in other AI fisheries. Finally, vessels displaced from the AI Pacific cod fishery could have limited opportunities for redeployment into other BSAI or GOA groundfish fisheries.

Shoreplant Delivery Requirement

The action alternative stipulates that prior to (Council option: March 7 or March 15), the AI Pacific cod directed fishing allowance to CVs will be delivered to shoreplants west of 170 degrees longitude. After the Council selected date, the directed fishing allowance is no longer limited to CVs and harvest of AI Pacific cod can be delivered to offshore processors and shoreplants east of 170 degrees longitude for the remainder of the year.

The language in the alternative specifies that the AI Pacific cod will be delivered to shoreplants in the AI management area, but a shoreplant is not defined in federal regulations. Given there is currently no definition of shoreplant in federal regulations, the existing shoreside processor definition will have to be modified specific to this action or shoreplant will have to be defined in federal regulations. To assist in modifying the existing definition of shoreside processor or defining shoreplant in federal regulations, the Council may want to provide greater clarity of what it intends as a shoreplant for purposes of this action.

Since Adak and Atka are currently the only AI communities with AI shorebased processing facility at this time, these shoreplants are likely the primary communities that will benefit from a regionalized delivery requirement. For Adak, the proposed action would likely result in substantial community-level impacts in the form of increased economic activity from processing of AI Pacific cod. The proposed delivery requirement would also likely increase CV port visits to Adak and thus increase demand for goods and services in the community. However, any increase in economic activity in Adak as a result of an increase in CV port visits will likely be offset by a decrease in economic activity in the Adak community from a reduction in CP port visits.

Atka, on the other hand, has not been an important logistical support base for the AI Pacific cod fishery and has not impacted by transfers of product to CPs. In addition, prior to 2012, Atka Pride Seafoods, the local shoreplant, did not take deliveries of, or process, Pacific cod. Since 2012, the shoreplant has taken a very small amount of Pacific cod for processing and plans to expand production in the very near future. Any increase in deliveries of, or processing of Pacific cod at the local shoreplant as a result of the proposed delivery requirement would likely benefit the community through increased economic activity. Increased deliveries of, and processing of AI Pacific cod in the local shoreplant may lead to similar changes in port visits by trawl and non-trawl CVs.

The proposed delivery requirement of AI Pacific cod to AI shoreplants will negatively impact offshore processing vessels that have historically participated in the AI Pacific cod fishery. From 2003 through 2013, the average exvessel gross revenue was $4 million and the average first wholesale gross revenue was nearly $8 million. Mitigating some of the lost economic activity from processing AI Pacific cod is the potential for these vessels to redeploy to the BS Pacific cod fishery. Both groups of CPs receive sector allocations of Pacific cod that they may fish in either the AI or BS.

Since CVs will be required to delivery AI Pacific cod to one of two potential shoreside processing facilities in the AI, CV participants will have substantially less ability to use processor competition for AI Pacific cod landings to leverage higher prices in negotiations. One potential source of negotiating leverage is the threat of not fishing their directed fishing allowance allocation. The extent to which a CV participant in the AI Pacific cod fishery can assert leverage depends on the importance of the AI Pacific cod fishery to the CVs and the AI shoreplants.

AI Pacific Cod Options

To prevent stranding of AI Pacific cod TAC (i.e., unharvested catch) and to allow CP sectors to participate in the later part of the A season, the Council included an option that would remove the AI Pacific cod directed fishing allowance for CVs and the delivery requirement to shoreplants in the AI management area on (Council option: March 7 or March 15). Given the historical fishing pattern of the trawl CV sector in the AI Pacific cod fishery, both March 7 and March 15 would likely allow the CV trawl sector to harvest their directed fishing allowance and delivery it to AI shoreplants for processing, while also allowing CP sectors to harvest any remaining AI Pacific cod prior to the end of the A season. In general, during years of high AI Pacific cod directed fishing allowance, CP sectors will likely have greater opportunity to fish in the AI Pacific cod fishery after March 7 or March 15, while during years of low directed fishing allowance, there will likely be little opportunity for CP sectors to participate in the AI Pacific cod fishery.

To prevent stranding of AI Pacific cod due to insufficient AI shoreplant processing capacity, the Council included an option that removes the delivery requirement to the AI shoreplants if less than 50 percent of the AI Pacific cod is harvested by (Council option: March 7 or March 15). By removing the delivery requirement, CVs could deliver their directed fishing allowance to offshore processors or shoreplants outside the AI management area. Given the historical fishing pattern of the trawl CV sector in the AI Pacific cod fishery, both March 7 and March 15 would likely be too late in the season to prevent some stranding of AI Pacific cod. By March 7 or March 15, the fishery is normally nearing its peak harvest or starting to diminish, which would likely be too short of notice to harvest and process any remaining AI Pacific cod.

If the Council is concerned about the potential stranding of AI Pacific cod due to insufficient processing capacity, the Council could include a harvest performance standard earlier in the AI Pacific cod fishery to provide sufficient time for additional processing capacity to move into the AI Pacific cod fishery to prevent stranding of TAC. Another approach would be to allow NMFS to determine if there is sufficient processing capacity in the AI Pacific cod fishery, and if not, NMFS would terminate the delivery requirement for that fishing year.

Trawl CV Pacific Cod Harvest Limit For BS 'A' Season

To prevent the trawl CV sector from harvesting its entire BSAI A season Pacific cod allocation in the BS prior to completion of the AI Pacific cod fishery, the proposed action would limit the amount of A season trawl CV Pacific cod harvest in the BS prior to (Council option: March 15 or March 21). The A season BS Pacific cod harvest limitation for the trawl CV sector would be an amount equal to the BSAI aggregate trawl CV sector A season allocation minus the lessor of the AI directed fishing allowance or (Council option: 3,000 mt or 5,000 mt). The trawl CV sector has been placed on bycatch status prior to the end of the A season every year since 2004, and during seven of those 12 years, the fishery was placed on bycatch status before March 15. During 2012, the fishery was placed on bycatch status on February 29, which is early enough in the AI Pacific cod fishery to have preempted it.

In those occasions that the BS Pacific cod fishery is closed to directed fishing to prevent preemption of the AI Pacific cod fishery, the effect of this limitation would be a redistribution of Pacific cod from trawl CVs operating in the BS to trawl CVs operating in the AI. Those trawl CVs that participate only in the BS Pacific cod fishery would have some loss of exvessel gross revenue since they would not recoup their lost revenue in the AI Pacific cod fishery.

Environmental Assessment

Target Groundfish Species

AI Pacific Cod

Changes from the proposed alternative on Pacific cod in the AI would be limited to changes in the location of harvest. Based on past fishing patterns of trawl CPs and trawl CVs operating in the AI, limiting the AI Pacific cod directed fishing allowance to CVs will result in reduced concentration of fishing in locations in Area 543 along the shelf north of Agattu Island and greater concentration of catch by trawl CVs in areas near the ports of Adak and Atka. Atka North Cape is the most important area to this sector and vessels harvesting fish in this area deliver to Adak. The area southeast of the port of Adak also is important to these vessels. Despite these potential changes in harvest location, none of the alternatives are expected to impact Pacific cod stock status in the AI. The Pacific cod stock would not be overfished or experience overfishing because the current harvest specifications process for setting TACs and managing harvests within the limits would continue. Any potential impacts on prey availability and habitat are not likely to affect the sustainability of the Pacific cod stock.

Marine Mammals

Incidental Take Effects

Changes from the proposed alternative on Pacific cod in the AI would be limited to changes in the location of harvest. Based on past fishing patterns of trawl CPs and trawl CVs operating in the AI, limiting the AI Pacific cod directed fishing allowance to CVs will result in reduced concentration of fishing in locations in Area 543 along the shelf north of Agattu Island and greater concentration of catch by trawl CVs in areas near the ports of Adak and Atka. This change in harvest location likely reduces the potential for incidental takes of marine mammals in fishing areas frequented by CPs and CVs delivering AI Pacific cod to motherships and increases the potential for incidental takes of marine mammals in fishing areas frequented by CVs delivering to shoreplants. Because the effects of the fisheries on incidental take for marine mammals are not likely to result in adverse population level effects, the proposed alternative would have insignificant impact on incidental takes of marine mammals.

Harvest of Prey Species Effects

The proposed alternative limiting AI Pacific cod directed fishing allowance for CVs and requiring the directed fishing allowance to be delivered to shoreplants in the AI management area would likely change AI Pacific cod harvest distribution. Based on past fishing patterns of trawl CPs and trawl CVs operating in the AI, limiting the AI Pacific cod directed fishing allowance to CVs delivering to AI shoreplants will result in reduced concentration of fishing in locations frequented by CPs and CVs that deliver AI Pacific cod to motherships and greater concentration of catch near Adak and Atka. This change in harvest location likely reduces the potential for impacts on prey availability in fishing areas frequented by CPs and CVs delivering AI Pacific cod to motherships and increase the potential for impacts on prey availability in fishing areas near Adak and Atka. With the current Steller sea lion protection measures place, fishing impacts from any potential change in harvest location will likely minimize any impacts on prey availability. Some of these protection measures in area 541 include closing 0 to 10 nautical miles (nm) of critical habitat year round to directed fishing for Pacific cod by all federally permitted vessels, and limiting the amount of catch that can be taken in the 10 nm—20 nm area of critical habitat based on gear type used to directed fish for Pacific cod (January 1 to March 1 for non-trawl and June 10 to November 1 for trawl). Because the effects of the fisheries on prey availability for marine mammals are

not likely to result in adverse population level effects due to the protection measures that are in place, the proposed alternative would have insignificant impact on prey availability.

Disturbance Effects on Marine Mammals

Changes from the proposed alternative on Pacific cod in the AI would be limited to changes in the location of harvest. Based on past fishing patterns of trawl CPs and trawl CVs operating in the AI, limiting the AI Pacific cod directed fishing allowance to CVs will result in reduced concentration of fishing in locations in Area 543 along the shelf north of Agattu Island and greater concentration of catch by trawl CVs in areas near the ports of Adak and Atka. This change in harvest location likely reduces the potential for incidental takes of marine mammals in fishing areas frequented by CPs and CVs delivering AI Pacific cod to motherships and increases the potential for incidental takes of marine mammals in fishing areas frequented by CVs delivering to shoreplants. However, current Steller sea lion protection measures will likely reduce the potential for incidental takes of marine mammals in fishing areas frequented by CVs delivering to AI shoreplants.

1 Introduction

This document analyzes proposed management measures that would prioritized a portion of the Aleutian Islands (AI) Pacific cod to catcher vessels (CVs) and designate it be delivered to shoreplants in the AI, with some constraints on the amount and dates by which the prioritization and the delivery requirement would be removed. To accommodate the AI Pacific cod fishery for trawl CVs, the proposed action would also limit harvest of the A season trawl CV sector's Bering Sea (BS) Pacific cod allocation so as not to allow the sector to harvest its entire A season allocation in the BS prior to the end of the A season AI Pacific cod fishery.

This document is a Regulatory Impact Review/Environmental Assessment/Initial Regulatory Flexibility Analysis (RIR/EA/IRFA). An RIR/EA/IRFA provides assessments of the economic benefits and costs of the action alternatives, as well as their distribution (the RIR), the environmental impacts of an action and its reasonable alternatives (the EA), and the impacts of the action on directly regulated small entities (the IRFA). This RIR/EA/IRFA addresses the statutory requirements of the Magnuson Stevens Fishery Conservation and Management Act, the National Environmental Policy Act, Presidential Executive Order 12866, and the Regulatory Flexibility Act. An RIR/EA/IRFA is a standard document produced by the North Pacific Fishery Management Council (Council) and the National Marine Fisheries Service (NMFS) Alaska Region to provide the analytical background for decision-making.

2 Regulatory Impact Review

The preparation of an RIR is required under Presidential Executive Order (E.O.) 12866 (58 FR 51735: October 4, 1993). The requirements for all regulatory actions specified in E.O. 12866 are summarized in the following Statement from the E.O.:

> *In deciding whether and how to regulate, agencies should assess all costs and benefits of available regulatory alternatives, including the alternative of not regulating. Costs and Benefits shall be understood to include both quantifiable measures (to the fullest extent that these can be usefully estimated) and qualitative measures of costs and benefits that are difficult to quantify, but nonetheless essential to consider. Further, in choosing among alternative regulatory approaches agencies should select those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity), unless a statute requires another regulatory approach.*

E.O. 12866 requires that the Office of Management and Budget review proposed regulatory programs that are considered to be "significant." A "significant regulatory action" is one that is likely to:

- Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, local or tribal governments or communities;
- Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
- Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in this Executive Order.

2.1 Statutory Authority

Under the Magnuson-Stevens Fishery and Conservation Act (Magnuson-Stevens Act) (16 USC 1801, *et seq*.), the United States has exclusive fishery management authority over all marine fishery resources found within the exclusive economic zone (EEZ). The management of these marine resources is vested in the Secretary of Commerce (Secretary) and in the regional fishery management councils. In the Alaska Region, the Council has the responsibility for preparing fishery management plans (FMPs) and FMP amendments for the marine fisheries that require conservation and management, and for submitting its recommendations to the Secretary. Upon approval by the Secretary, NMFS is charged with carrying out the federal mandates of the Department of Commerce with regard to marine and anadromous fish.

The AI Pacific cod fishery in the EEZ off Alaska is managed under the FMP for Groundfish of the BSAI. The proposed action under consideration would amend this FMP and Federal regulations at 50 CFR 679. Actions taken to amend FMPs or implement other regulations governing these fisheries must meet the requirements of Federal law and regulations.

2.2 Purpose and Need for Action

For several years, the Council has periodically requested information to help determine the need for community protections in the AI that have evolved due to the implementation of rationalization programs

for various fisheries. This rationalization has resulted in excess processing capacity that has been used in the AI Pacific cod fishery. The specific rationalization programs are American Fisheries Act (AFA), Bering Sea and Aleutian Islands (BSAI) crab rationalization, and BSAI Amendment 80. These programs provide benefits to processing vessels and afford opportunities for consolidation, thus freeing some processing capacity to target the non-rationalized BSAI Pacific cod fishery. At the same time, the Council has delayed action on AI community protections in order to anticipate the effects of several dynamic factors in the AI Pacific cod fishery, not the least of which has been the anticipation of a BSAI total allowable catch (TAC) split and Steller sea lion protection measures.

In December 2013, the Council adopted separate TACs for the BS and AI populations of Pacific cod. This action was tied to concerns about the declining AI Pacific cod population. The 2014 BS Pacific cod TAC was set at 246,897 mt and the AI Pacific cod TAC was set at 6,997 mt. The TAC for the AI is significantly lower than what was anticipated several years ago and it is not anticipated that TAC for AI Pacific cod will increase in the near-term. Affected by these changes in the AI Pacific cod fishery are two shoreplants in the AI and these two communities critically depend on those shore plants. Primary amongst these shore plants is Adak, which in the past received a vast majority of the cod landings in the AI from both the state and federal Pacific cod fisheries. In the past, Pacific cod deliveries to Adak shore plant alone were in the 6,000 mt to 10,000 mt range. As the AI TAC is now set separately and is relatively low, the risk of processing vessels with excess capacity closing the AI Pacific cod fishery earlier and eroding the historical share of shoreside processor is very high. Consideration of action to provide some stability to these shoreside operations and communities is warranted.

Given that Pacific cod split for the BS and AI was implemented in 2014, and new Steller sea lion protection measures are likely to be implemented early next year, the Council adopted the following problem statement to originate this action on February 8, 2014.

> *The American Fisheries Act, BSAI Crab Rationalization, and BSAI Amendment 80 management programs provided benefits to processing vessels that were intended to protect their investments in, and dependence on, the respective fishery resources. Each of these programs has also afforded participants opportunities for consolidation, allowing for increased participation in the non-rationalized BSAI Pacific cod fishery in the Aleutian Islands, thus diminishing the historical share of other industry participants and communities that depend on shorebased processing in the region.*

2.3 History of this Action

In 2008, the Council initiated a discussion of a proposal to establish processing sideboards on processing vessels eligible under the AFA, BSAI crab rationalization program, and BSAI Amendment 80 program that receive deliveries of Pacific cod harvest in the Eastern and Central AI (Areas 541 and 542). In effect, catcher processors (CPs), floating processors, and motherships in the three catch share programs noted above would be limited in the amount of CV deliveries they could receive of Pacific cod harvested in Area 541 and/or 542 on an annual basis, or prohibited from taking deliveries prior to a specific date. The impetus for that proposed action was to ensure that the historical share of Pacific cod delivered shoreside, primarily to Adak, would continue.

The Council reviewed two discussion papers in December 2008 and February 2009, and then requested that an initial review draft analysis be prepared for a future Council meeting, emphasizing the general need to ensure that it fully explores the ability to protect communities from the additional offshore processing capacity resulting from rationalization programs. The Council originally requested that initial review be scheduled for late 2009, in order to coincide with the review of the ongoing Biological Opinion

(BiOp), which among other things, addressed the effects of the status quo BSAI Pacific cod fishery on Steller sea lions. As the BiOp was rescheduled for release in late 2010, the Council rescheduled review of the AI processing sideboard action in early 2011. A supplement to the initial review draft analysis was prepared for the February 2011 Council meeting, but was postpone and not reviewed.

In April 2013, the Council, concerned with shoreside processing protections in the context of the Steller sea lion environmental impact statement (EIS), received an updated discussion paper of the AI Pacific cod processing sideboard analysis. The paper also reviewed the implications of pending Science and Statistical Committee (SSC) action to set separate BSAI acceptable biological catch (ABC) in 2014 for BSAI Pacific cod. The discussion paper clarified that the combined BSAI sector allocations was the approach the Council determined most feasible in October 2011. This approach provides the greatest flexibility for sectors and is the simplest for National Marine Fisheries Service (NMFS) to monitor relative to previous alternatives considered in the past. After reviewing the discussion paper, the Council tasked staff to prepare a revised discussion paper addressing a CV allocation of Area 541/542 Pacific cod with a regionalized requirement to AI shoreplants. The Council also requested the paper explore the need for and impacts of measures to avoid stranding AI initial total allowable catch (ITAC), such as allowing CVs activity after a certain date or a higher ITAC levels. Also included in the request to provide historical catch and processing distribution across the various sectors (gears and operational type) in the AI management area as well as a discussion of current processing capacity and activities in the two AI shoreplants, Adak and Atka.

At the October 2013 meeting, the Council, after reviewing the discussion paper, postponed further action on this issue until February 2014. The Council recognized that any proposed action on the AI Pacific cod fishery would be extremely difficult given the uncertainty surrounding this fishery to include:

- Establishing separate OFLs and ABCs for Pacific cod in the BS and AI for the 2014 fishing season
- Changes to the AI Pacific cod fishery from the Steller sea lion mitigation measures, and
- Alaska Board of Fish proposal that would increase the State water GHL Pacific cod fishery from 3 percent to 4.5 percent.

Since October, all three of these issues have been clarified. The Council separated the OFLs and ABCs for Pacific cod in the BS and AI. The Board of Fish proposal to increase the State water GHL Pacific cod fishery from 3 percent to 4.5 percent has been removed from consideration. In April 2, 2014, NFMS published their Aleutian Islands Groundfish Fishery BiOp. After reviewing the current status of the endangered western distinct population segment (WDPS) of Steller sea lions, the environmental baseline for the action area, the proposed action for the Aleutian Islands Atka mackerel, Pacific cod, and pollock fisheries, and the cumulative effects, it is NMFS's biological opinion that the action, as proposed, is not likely to jeopardize the continued existence of the WDPS of Steller sea lions or destroy or adversely modify designated critical habitat (NMFS, 2014).

At its February 2014 meeting, the Council reviewed an updated discussion paper on a CV apportionment of AI Pacific cod (Area A541/542) with a regionalized delivery requirement to AI shoreplants. After reviewing the discussion paper and receiving recommendations from the Advisory Panel (AP) and testimony from the public, the Council initiated this analysis.

2.4 Description of alternatives

This analysis evaluates two primary alternatives. **Alternative 1** is the no action alternative, which reflects the status quo (i.e., no limitation on AI Pacific cod for CVs and no delivery requirement to AI

shoreplants). **Alternative 2** would prioritize AI Pacific cod directed fishing allowance (TAC minus Community Development Quota (CDQ) and incidental catch allowance (ICA)) for CVs and require delivery of AI Pacific cod to shoreplants in the AI management area, with performance standards on the amount and dates by which the measures would be removed. The alternative would also reserve an amount of harvest that trawl CV sector can take from the BS in the A season, such that their entire A season allocation is not harvested only in the BS.

The Council adopted the following alternatives for analysis in February 2014.

Alternative 1. No Action

Alternative 2. Prior to [**options:** March 15, 21] the A season trawl CV Pacific cod harvest in the Bering Sea shall be limited to an amount equal to the BSAI aggregate trawl CV sector A season allocation minus the lessor of the AI directed fishing allowance **or** [**options:** 3,000 mt; 5,000 mt]. Harvest of the AI Pacific cod directed fishing allowance is limited to CVs delivering to shoreplants west of 170 degrees longitude in the AI prior to [**options:** March 7, 15].

Option: If less than 50% of the AI Pacific cod directed fishing allowance has been landed by [**options:** March 7, 15], the restriction on delivery to other processors shall be removed.

This approach has several advantages compared to options the Council has considered in the past. For example, the action alternative proposed would make the following changes:

- The proposed action would maintain the sector allocations implemented under Amendment 85 and each sector would have access to their entire cod allocation. This action would modify who can harvest AI Pacific cod early in the fishing year.
- The proposed action would remove the AI trawl CV fishery from a race with the BS trawl CV fishery, and addresses the increasing shift of effort early in the year primarily by pollock CVs.[1]
- The proposed action would limit increased participation by surplus processing capacity from rationalized sectors, by creating a date before which offshore processing sectors cannot participate.
- The proposed action also provides an option that is intended to reduce unharvested AI Pacific cod TAC. For example, in fishing years where half of the directed fishing allowance has not been delivered by a date certain, the processing restrictions are removed.

2.5 Methodology for analysis of impacts

The evaluation of impacts in this analysis is designed to meet the requirement of E.O. 12866, which dictates that an RIR evaluate the costs and benefits of the alternatives, to include both quantifiable and qualitative considerations. Additionally, the analysis should provide information for decision makers "to maximize net benefits (including potential economic, environment, public health and safety, and other advantages; distributive impacts; and equity), unless a statute requires another regulatory approach." The costs and benefits of this action with respect to these attributes are described in the sections that follow,

[1] This has been recognized as one of the primary issues with previous alternatives. Whereas the Council can provide a regulatory structure to allow for a catcher vessel fishery in the AI, as long as there were not separate area sector allocations, the Council could not prevent the trawl catcher vessel sector in the AI from using its entire A season Pacific cod allocation in the BS prior to the AI fishery even getting started. The proposed alternative in this action attempts to address that issue.

comparing the No Action Alternative 1 with the action alternatives. The analyst then provides a qualitative assessment of the net benefit to the Nation of each alternative, compared to no action.

This analysis was prepared using data from the NMFS catch accounting system, which is the best available data to estimate total catch in the groundfish fisheries off Alaska. Total catch estimates are generated from information provided through a variety of required industry reports of harvest and at-sea discard, and data collected through an extensive fishery observer program. In 2003, NMFS changed the methodologies used to determine catch estimates from the NMFS blend database (1995 through 2002) to the catch accounting system (2003 through present).

The catch accounting system was implemented to better meet the increasing information needs of fisheries scientists and managers. Currently, the catch accounting system relies on data derived from a mixture of production and observer reports as the basis of the total catch estimates. The 2003 modifications in catch estimation included providing more frequent data summaries at finer spatial and fleet resolution, and the increased use of observer data. Redesigned observer program data collections were implemented in 2008, and include recording sample-specific information in lieu of pooled information, increased use of systematic sampling over simple random and opportunistic sampling, and decreased reliance on observer computations. As a result of these modifications, NMFS is unable to recreate blend database estimates for total catch and retained catch after 2002. Therefore, NMFS is not able to reliably compare historical data from the blend database to the current catch accounting system.

2.6 Background

2.6.1 BSAI Pacific cod Management

Pacific cod (*Gadus macrocephalus*) is a transoceanic species, occurring at depths from shoreline to 500 meters. Pacific cod is distributed widely over the eastern Bering Sea as well as in the Aleutian Islands. Prior to 2014, the BSAI Pacific cod ABC and TAC was managed as single stock throughout the BSAI management area.[2] At the December 2012 Council meeting, the SSC stated that it would recommend separate OFLs and ABCs for Bering Sea and Aleutian Islands Pacific cod for the 2014 and 2015 harvest specifications cycle based on the best available data at the time. The stock assessment for Aleutian Islands Pacific cod was evaluated at the September 2013 BSAI Groundfish Plan Team meeting and October 2013 Council meeting. The Council received a recommendation from the Groundfish Plan Team and SSC regarding the 2014 and 2015 stock assessments to split the Pacific cod stock to an Aleutian Islands stock and a Bering Sea stock. This split was implemented in the 2014. Table 1 provides ABCs, TACs, and ITACs of BSAI Pacific cod from 2003 through 2013, and ABCs, TACs, and ITACs for BS Pacific cod and AI Pacific cod for 2014 and 2015.

[2] The regulations governing the Pacific cod TAC may be found in 50 CFR 679.20(a)(7)(i) and (ii) and the final 2013 and 2014 harvest specifications for groundfish of the BSAI (79 FR 12108 March 4, 2014).

Table 1 BSAI Pacific cod ABC, TAC, and ITAC 2003 to 2013 and BS and AI Pacific cod ABC, TAC, and ITAC 2014 and 2015 (amounts in metric tons)

Year	BSAI			BS			AI		
	ABC	TAC	ITAC	ABC	TAC	ITAC	ABC	TAC	ITAC
2003	223,000	207,500	191,938						
2004	223,000	215,500	199,338						
2005	206,000	206,000	190,550						
2006	194,000	194,000	174,067						
2007	176,000	170,720	157,916						
2008	176,000	170,720	152,453			N/A			
2009	182,000	176,540	157,650						
2010	174,000	168,780	150,721						
2011	235,000	227,950	203,559						
2012	314,000	261,000	233,073						
2013	307,000	260,000	232,180						
2014	N/A			255,000	246,897	220,479	15,100	6,997	6,248
2015				272,000	251,712	224,779	15,100	6,487	5,793

Source: NMFS Final Specifications

While separate OFLs, ABCs, and TACs, have been created for the AI and for the BS, the actual sector allocations (except CDQ allocations) remain BSAI-wide allocations. Sector allocations are calculated as a percent of the summed AI and BS TACs, after adjustments are made to account for CDQ allocations (which receive 10.7 percent). The ITAC is allocated among nine non-CDQ sectors. The percentages for the allocation of the TAC among the nine non-CDQ sectors, shown in descending order, by size of allocation, are:

- Hook-and-line CPs – 48.7 percent
- Trawl CVs – 22.1 percent
- Amendment 80 trawl CPs – 13.4 percent
- Pot CVs greater than or equal to 60 feet length overall – 8.4 percent
- AFA trawl CPs – 2.3 percent
- Hook-and-line and pot CVs less than 60 feet length overall – 2 percent
- Pot CPs – 1.5 percent
- Jig vessels – 1.4 percent
- Hook-and-line CVs greater than or equal 60 feet in length overall 0.2 percent

CDQ allocations, and non-CDQ sector TAC allowances, are subject to seasonal apportionment each year. Apportionments differ by sectors. The allocation of TAC among the nine sectors, with seasonal apportionments, creates a large number of separate sectorial-seasonal allocations.

The Council did not revise sector allocations to account for the Aleutian Islands and Bering Sea Pacific cod split and therefore sector allocations currently in effect will continue to apply at the BSAI-side level. Operations fishing CDQ, and each of the non-CDQ sectors that receives an allocation, may fish their allocation within the Aleutian Islands or the Bering Sea, subject only to its overall harvest limit, and any seasonal, or other restrictions on harvests. This approach is consistent with the Council's intent concerning sector allocations. The Council recognized the dynamic nature of the AI Pacific cod fishery

and the difficulty in predicting the likely outcomes of a TAC split, given that (1) all gear sectors have varied the proportion of total Pacific cod harvest in the AI over time; (2) Steller sea lion protection measures reduce a large portion of the fishable area in the AI; and (3) it is unknown how sectors will change their fishing patterns and redeploy in response to the Steller sea lion protection measures.

In addition, the State of Alaska has managed a GHL fishery for Pacific cod in State waters in the Aleutian Islands subarea since 2006. State regulations provide for a GHL of 3 percent of the BSAI Pacific cod ABC. This amount is deducted from the AI ABC when calculating the AI TAC. See section 2.6.3 for a more detailed explanation of the AI GHL fishery for Pacific cod. Starting in 2014, the State of Alaska has provided opportunity for a new Pacific cod GHL fishery in the Bering Sea subarea. State regulations provide for an additional GHL of 3 percent of the BSAI Pacific cod ABC, which is deducted from the BS ABC when calculating the BS TAC.

2.6.2 Seasonal Allowance

BSAI Pacific cod allocations are managed at the BSAI level. Because there are no sector allocations specific to each area, there would not be any gear specific seasonal allowances by each area. This is because there are no separate BS or AI allocations to apportion on a seasonal basis under a combined BSAI sector allocation, there is only be one BSAI Pacific cod allocation per sector. While the overall guideline for the BSAI Pacific cod fishery continues to be a 70%–30% seasonal split, the seasonal allowances vary by gear type taking into account changes to the season dates from 2014 Steller sea lion protection measures (Table 2).

Table 2 BSAI Pacific cod seasonal allowances

Pot	Jan 1 – June 10 (51%), Sept 1 – Dec 31 (49%) Pot CVs <60' do not have seasonal allowances.	Trawl CV	Jan 20 – April 1 (74%), April 1 – June 10 (11%); June 10 – Nov 1 (15%)
Hook and Line	Jan 1 – June 10 (51%), June 10 – Dec 31(49%) Hook-and-line CVs <60' do not have seasonal allowances.	Trawl CP	Jan 20 – April 1 (75%), April 1 – June 10 (25%); June 10 – Nov 1 (0%)
Jig	Jan 1 – Apr 30 (60%) Apr 30 – Aug 31 (20%) Aug 31 – Dec 31 (20%)	Trawl CP	Jan 20 – April 1 (75%), April 1 – June 10 (25%); June 10 – Nov 1 (0%)

One consequence of having seasonal allowances at the combined BSAI level and sector allocations at the combined level is the possibility the entire AI ITAC can be harvested in the A season. Table 3 provides the BSAI Pacific cod sector apportionment and BSAI Pacific cod seasonal allowance for the 2014 fishing year. What is apparent when comparing the AI ITAC provided in Table 1 for 2014 (6,248 mt) with the BSAI seasonal allowance for the trawl CV sector in Table 3 (37,079 mt), is that the entire AI ITAC can be harvested by the trawl CV sector during the A season, which leaves nothing for a B season fishery.

Table 3 BSAI Pacific cod sector apportionment and BSAI Pacific cod seasonal allowance for 2014

Sector	BSAI Sector Apportionment (mt)	BSAI Season allowance (mt)	
		A	B
H&L/pot < 60'	4,518	No seasonal allowance	
H&L CV≥ 60'	452	231	221
H&L CP	110,016	56,108	53,908
Pot CV ≥ 60'	18,976	9,678	9,298
Pot CP	3,389	1,728	1,661

Sector	BSAI Sector Apportionment (mt)	BSAI Season allowance (mt)		
		A	B	C
Jig vessels	3,174	1,904	635	635
AFA trawl CP	5,215	3,911	978	0
Amendment 80	30,381	22,786	5,696	0
Trawl CV	50,107	37,079	5,512	7,516

Source: NMFS Final Specifications

2.6.3 State AI GHL Fishery

The State-managed AI fishery was established by the Alaska Board of Fisheries in 2006, and comprises 3% of the Federal BSAI Pacific cod ABC. This fishery is managed by the State and has different sector requirements and seasons than the Federal Pacific cod fishery. The state-waters Pacific cod GHL is split between an A and B season, where the A season is allocated 70% of the GHL and the B season 30%. Unharvested A season GHL may be rolled over to the B season; however, the total GHL available during the B season may not exceed 70 of the entire state-waters GHL. The state-waters season is closed when the GHL has been reached. Provided below is a summary when the GHL fishery opens and closes by inside and outside 175° W long to 178° W long and the fishing gear authorized in the GHL fishery (Table 4 and Table 5). Table 6 provides harvest of AI state-waters Pacific cod GHL fishery from 2006 through 2013.

Table 4 AI Pacific cod A season GHL opening and closing dates by inside and outside 175° W long to 178° W long and authorized fishing gear

Area	Season	GHL Opens	GHL Closes	Gear
Inside*	A	GHL Opens January 1	A season GHL remains open until A season GHL reached or June 9	60' or less using trawl, pot, and jig and vessels 58' or less using longline gear
				March 15 - no trawl gear greater than 100', pot gear greater than 125', and mechanical jig and longline greater than 58'
Outside*	A	4 days after federal CV trawl closure	If there is state-water A season GHL by April 1 and federal CV trawl B season opens	60' or less using trawl, pot, and jig and vessels 58' or less using longline gear
		Noon March 15 if federal CV trawl fishery still open on noon March 14 and A season GHL remains		March 15 - No trawl gear greater than 100', pot gear greater than 125', and mechanical jig and longline greater than 58'
		If federal CV trawl B season closes and A season GHL remains	Remains open until A season GHL reached or June 9	

***Inside** is defined as 175° W long to 178° W long; **Outside** is defined as outside 175° W long to 178° W long

Table 5 AI Pacific cod B season GHL opening and closing dates and authorized fishing gear

Area*	Season	GHL Opens	GHL Closes	Gear
Inside and outside	B	June 10	September 1 if all B season GHL has been taken	From June 10 through July 31, a vessel cannot exceed 60'
				Beginning August 1, pot vessels cannot exceed 125' while vessel with other gear cannot exceed 60'
		If there is B season GHL when federal CV pot B season closes	Whenever B season GHL is all harvested or December 31	Pot vessels cannot exceed 125' while vessel with other gear cannot exceed 60'

***Inside** is defined as 175° W long to 178° W long; **Outside** is defined as outside 175° W long to 178° W long

Table 6 Aleutian Islands state-waters Pacific cod fishery guideline harvest level and harvest from 2006-2013

Year	Season	Initial GHL[a]	Harvest[a]	Number of	
				Vessels	Deliveries
2006	A season	8,981,540	8,502,781	26	68
	B season	3,849,232 [b]	CF	5	CF
	TOTAL	12,830,772	CF	30 [c]	CF
2007	A season	8,148,202	8,229,931	27	97
	B season	3,492,086 [d]	3,409,070	15	106
	TOTAL	11,640,288	11,639,001	41 [c]	203
2008	A season	8,148,202	7,477,507	30	116
	B season	3,492,086 [e]	4,241,692	18	77
	TOTAL	11,640,288	11,719,199	45 [c]	193
2009	A season	8,425,981	5,537,886	22	50
	B season	3,611,135 [e]	CF	5	CF
	TOTAL	12,037,116	CF	27	CF
2010	A season	8,055,608	7,959,514	16	84
	B season	3,452,404 [e]	CF	3	CF
	TOTAL	11,508,012	CF	16 [c]	CF
2011	A season	10,879,701	CF	3	CF
	B season	4,662,729 [e]	CF	4	CF
	TOTAL	15,542,430	595,289	6 [c]	18
2012	A season	14,537,132	11,462,339	21	201
	B season	6,230,200 [e]	CF	7	CF
	TOTAL	20,767,332	CF	26 [c]	CF
2013	A season	14,213,056	10,562,744	12	150
	B season	6,091,310 [e]	CF	1	CF
	TOTAL	20,304,366	CF	13	CF

Note: CF = Confidential

[a] In whole pounds.
[b] ADF&G made 3.5 million pounds of the GHL available to National Marine Fisheries effective on September 1.
[c] Some vessels participated in both seasons.
[d] Overage from the A season was deducted from the B season GHL. Initial GHL shown.
[e] A season GHL was not fully harvested, remaining A season GHL rolled over into B season GHL. Initial GHL shown.

2.6.4 Steller Sea Lion EIS

Since January 1, 2011, the groundfish fisheries in the AI have been managed under the 2011 Steller sea lion protection measures (75 FR 77535, December 13, 2010), corrected 75 FR 81921, December 29, 2010). These protection measures are effective until revised through subsequent rulemaking. The Environmental Assessment for the Revisions to the Steller Sea Lion Protection Measures (NMFS 2010b)

contains a summary of the management measures for Pacific cod and Atka mackerel and changes to fisheries management since 2003 and is incorporated by reference into this document.

On March 5, 2012, NMFS was ordered by the U.S. District Court of Alaska to prepare an EIS on the Steller sea lion protection measures implemented in January 2011. The Court ordered NMFS to prepare an EIS for the Steller sea lion protection measures because NMFS had failed to provide sufficient environmental information for informed public comment to the agency decision-making when it prepared the environmental assessment for this action in 2010, and failed to provide for adequate public participation. The Court ordered the completion of the final EIS by March 2, 2014. The Court also ordered that any subsequent rulemaking for the BSAI groundfish fisheries as a result of the EIS must be completed by January 1, 2015.

At its April 2012 meeting, the Council chose to reconvene its Steller Sea Lion Mitigation Committee. This committee met repeatedly during the spring, summer, and fall of 2012, and proposed two new alternatives to the Council at its December 2012 meeting. At this meeting, the Council adopted a statement of purpose and need, and recommended a suite of four alternatives for evaluation in the EIS. Following the Council's meeting, NMFS reviewed the alternatives in light of the statement of purpose and need, and the requirements of the ESA and National Environmental Policy Act, and adopted a set of five alternatives and a protection option for analysis in the EIS. These alternatives are described in detail in Chapter 2 of the May 2014 EIS (NMFS, 2014).

In April 2013, the Council recommended Alternative 5 as the preliminary preferred alternative for the public's consideration during review and comment period on the draft Steller sea lion EIS and to provide a proposed action that could be analyzed in the ESA Section 7 consultation. The features of the Alternative 5 specific to Pacific cod are as follows:

- Establish seasonal apportionments based on the BSAI-wide TAC, as required under Amendment 85
- Set the seasons as follows:
    - Non-trawl gear:
        - Hook and line:
            - A season: 1/1—6/10
            - B season: 6/10—12/31
        - Pot:
            - A season: 1/1—6/10
            - B season:9/1—12/31
        - Jig
            - A season: 1/1—4/30
            - B season: 4/30—8/31
            - C season: 8/31—12/31
    - Trawl CVs and AFA CPs:
        - A season: 1/20—4/1
        - B season: 4/1—6/10
        - C season: 6/10-11/1
    - CDQ trawl and Amendment 80
        - A season: 1/20—4/1
        - B season: 4/1—6/10

- C season: 6/10—12/31

Area 543

- Remove the area-wide retention prohibition
- Establish a catch limit for Pacific cod based on abundance in Area 543 as determined by the annual stock assessment process.
- Prohibited directed fishing for Pacific cod in waters 0—3 nm of haulouts and 0—10 nm of rookeries by trawl gear vessels (Figure 1).
- Prohibit directed fishing for Pacific cod in waters 0—3 nm from haulouts and 0—10 nm Buldir Island for hook-and-line and pot vessels (Figure 2).

Area 542

- Prohibit directed fishing for Pacific cod with trawl gear in waters 0-3 nm from haulouts and 0-10 nm from rookeries (Figure 1).
- Prohibit directed fishing for Pacific cod with hook-and-line and pot in waters 0-3 nm from rookeries (Figure 2).

Area 541

- Prohibit directed fishing for Pacific cod in the Seguam foraging area with hook-and-line, pot, jig, and trawl gears (Figure 2 and Figure 1).
- Prohibit directed fishing for Pacific cod with trawl gear in waters 0-3 nm from haulouts and 0-10 nm from rookeries, except prohibit directed fishing for Pacific cod with trawl gear in waters 0-20 nm from Agligadak (Figure 1).
- Prohibit directed fishing for Pacific cod with hook-and-line and pot gear in waters 0-3 nm from rookeries west of 172.59° W longitude and in critical habitat east of 172.59° W long (Figure 2).

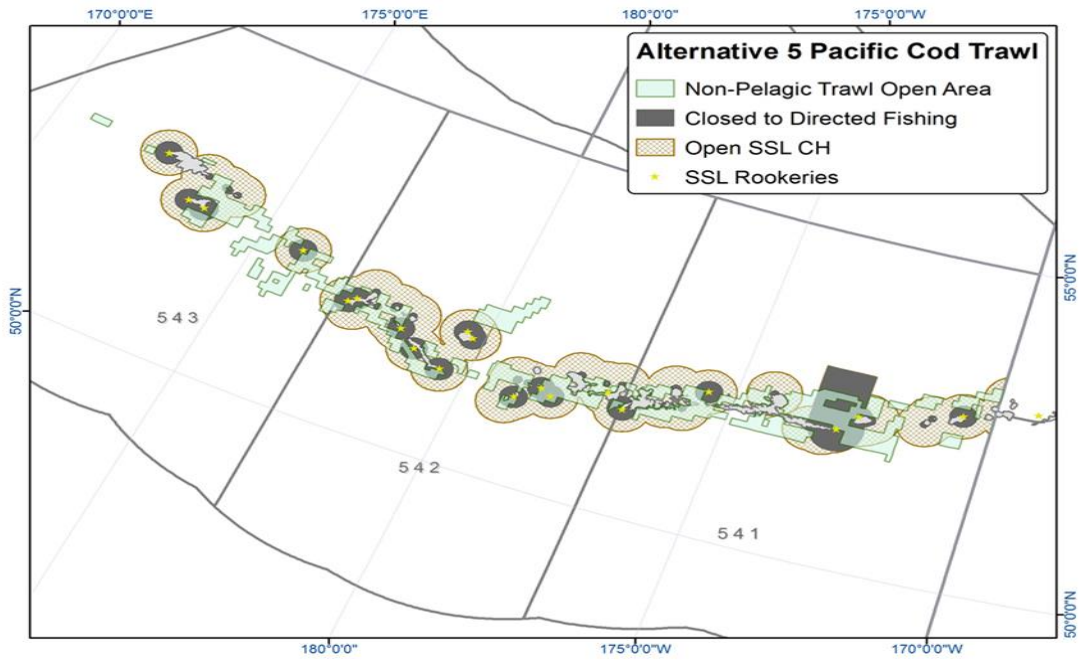


Figure 1 Pacific cod trawl closures under Alternative 5

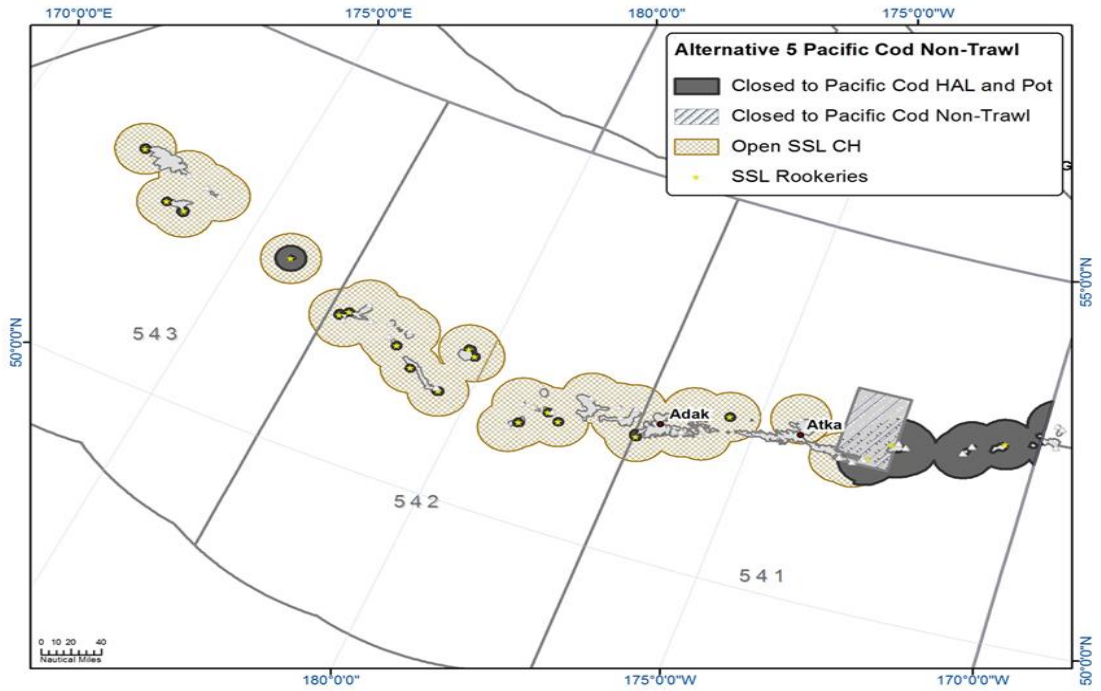


Figure 2 Pacific cod non-trawl closures under Alternative 5

The Council considered recommendations from its Steller Sea Lion Mitigation Committee, SSC, AP, and public testimony in developing their recommended preliminary preferred alternative (PPA) for the draft EIS. The Steller sea lion PPA is built from management measures for the four fisheries analyzed under the other alternatives and includes area catch limits for pollock fishery.

In October 2013, after review of the draft EIS, draft Comment Analysis Report, and consideration of public testimony, the Council recommended Alternative 5 as the preferred alternative. The Council selected Alternative 5 based on the understanding that the results of the Center for Independent Experts and State of Alaska and Washington reviews of the FMP BiOp indicate that Alternative 5 is not likely to result in jeopardy of continued existence of Steller sea lions or adverse modification or destruction of their designated critical habitat.

In April 2014, NMFS completed the 2014 BiOp on the Alternative 5 and found that these protection measures insure the fisheries are not likely to jeopardize the continued existence or adversely modify or destroy critical habitat for the WDPS of Steller sea lions. Based on this ESA determination, Alternative 5 is also NMFS's preferred alternative.

The following is a brief summary of the effects of the Council selected preferred alternative specific to the AI Pacific cod fishery that was provided in the May 2014 Final EIS for Steller sea lion protection measures.

For trawl CPs and CVs, the average annual gross revenues would likely increase, while the extended C-season end date for Amendment 80 trawl vessels and those fishing Pacific cod CDQ, from November 1 to December 31 would help address potential regulatory discards after November 1. This change in closing dates may affect reallocation of Pacific cod later in the year, if a trawl CV fishery becomes viable at that time.

For non-trawl CPs and CVs, the change in average gross revenues between status quo and preferred alternative are not enough to make it possible to discriminate between. The non-trawl CP fleet is currently prohibited from directed fishing for Pacific cod in the Aleutian Island after November 1, but the preferred alternative will relax this November 1 season end date and allow directed fishing until the end of the year. The freezer-longline portion of this sector operates under a voluntary cooperative and directed fishing for Pacific cod in the BSAI last all year. The relaxation of this season end date would allow some of this fishing to occur after November 1 in the Aleutian Islands. However, during periods of low AI TAC, this season date extension is unlikely to be advantage for the sector. It is also unlikely to be of advantage to the pot portion of this sector, as these vessels typically close directed fishing prior to November 1. For CVs, the extension of the fishing season until the end of the year would have little impact on this group of vessels, which typically does not operate in the AI in the late fall.

From a community perspective, Adak is the community likely to be most impacted by the preferred alternative. Atka, the only other AI community, is not as involved with the Pacific cod fishery, so the impacts from the preferred alternative are likely more long term as Atka completes its ongoing infrastructure improvements, which will facilitate increased participation in the Pacific cod fishery. The preferred alternative will likely be associated with more port visits to Adak, and associated sales of goods and services relative to the current Steller sea lion protection measures.

2.6.5 Affected Sectors

The following is a description of each the different sectors directly affect by the proposed action. The background data provided here in this section utilizes retained harvests from 2003 through July 15, 2014. The source of the data is from NMFS Catch Accounting System.

For further description on the sectors, "Fishing Fleet Profiles" prepared by the Council provides descriptions of the different sectors noted in this section that participate in the Bering Sea and Aleutian Islands fisheries (NPFMC 2012).

2.6.5.1 Trawl CPs

This sector includes AFA vessels and Amendment 80 vessels. The AFA specifically lists 20 CPs eligible to participate in the offshore fisheries. In addition, a head-and-gut CP (Ocean Peace) met the requirements in the AFA that allows it to harvest and process up to 0.5 percent of the direct BSAI pollock allocation to CPs. Of the 21 AFA qualified CPs, 17 vessels actively fished in 2011, as determined by landing targeted and processed pollock by a vessel holding an AFA permit.

Separate allocations of the BS pollock TAC are made annually to the offshore CP vessels. This allocation of pollock is not further subdivided by NMFS among the vessels or companies participating in this offshore CP group. However, through formation of cooperatives and under private contractual arrangement, participants in the offshore CP group further subdivide their respective pollock allocations among the participants in their group. The purpose of these cooperatives is to manage the allocations made under the cooperative agreements to ensure that individual vessels and companies do not harvest more than their agreed upon share. The cooperatives also facilitate transfers of pollock among the cooperative members, enforcement of contract provisions, and participate in the voluntary rolling hotspot system intercooperative agreement.

Sideboards prevent the AFA fleet from impacting participants in other fisheries. The 20 CPs listed in the AFA are prohibited from harvesting any GOA groundfish. In the BS, AFA CPs are allowed to harvest no more than their "traditional catch" levels in the non-pollock BSAI groundfish fisheries. The Council has generally defined traditional catch to be the retained catch in 1995 through 1997 from all fisheries by

these vessels relative to the total catch. AFA CPs are also sideboarded by PSC limit amounts, based on the percentage of PSC limits used from 1995 through 1997. Specifically, AFA CPs are capped at 8.4 percent of the halibut PSC, 15.3 percent of the *opilio* PSC, 14 percent of the *bairdi* in Zone 1, and 5 percent of the Zone 2 *bairdi* crab PSC each year. Prohibited species catch of Chinook salmon and chum salmon has been a major issue for the fleet, and numerous regulations and voluntary measures have been implemented over the years to minimize salmon PSC in the pollock fishery.

Amendment 80 identified groundfish trawl catcher/processors that were not covered by the AFA (i.e., the head-and-gut fleet for Amendment 80 vessels) and established a framework for future fishing by this fleet. The framework provided for an allocation of the TACs of six groundfish species among trawl fishery sectors, created Amendment 80 quota share for these vessels, facilitated the development of cooperative arrangements among the vessels, and provided for competitive fishery among Amendment 80 vessels not entering a cooperative. The fleet currently includes 23 vessels.

Amendment 80 established criteria for harvesters in the Amendment 80 sector to apply for and receive quota share, and for NMFS to initially allocate and transfer quota share. Vessels may choose to operate in a cooperative or in an open access fishery. Cooperative participants could consolidate fishing operations on a specific Amendment 80 vessel or subset of Amendment 80 vessels, thereby reducing monitoring, enforcement, and other operational costs, and permitting more efficient harvest. The opportunity to trade harvest privileges among cooperatives encourages efficient harvesting, and discourages waste.

Each Amendment 80 cooperative receives an exclusive allowance of crab and halibut PSC, which the cooperative may use while harvesting in the BSAI. This halibut and crab PSC cooperative quota is assigned to a cooperative in an amount proportionate to the amounts of Amendment 80 quota share held by its members, and is not based on the amount of crab or halibut PSC historically removed by the cooperative members.

A cooperative structure may allow Amendment 80 vessel operators to better manage PSC rates than do operators who must race to harvest fish as quickly as possible before PSC causes a fishery closure. By reducing PSC through more efficient cooperative operations (such as through gear modifications or "hot spot" avoidance) Amendment 80 vessel operators may also increase the harvest of valuable targeted groundfish species and improve revenues that would otherwise be foregone.

Amendment 80 cooperatives may receive a reallocation of an additional amount of cooperative quota, if a portion of the Amendment 80 species, or of crab or halibut PSC allotted to the BSAI trawl limited access sector, is projected to go unharvested. This reallocation to the Amendment 80 cooperatives is at the discretion of NMFS, based on projected harvest rates in the BSAI trawl limited access sector and other criteria. Each Amendment 80 cooperative would receive an additional amount of cooperative quota based on the proportion of the Amendment 80 quota share held by the Amendment 80 cooperative, as compared with all other Amendment 80 cooperatives.

The Amendment 80 program established groundfish and halibut PSC sideboards to limit the ability of Amendment 80 firms to expand their harvest efforts in the GOA. Groundfish harvesting sideboard limits were established for all Amendment 80 vessels, other than the F/V *Golden Fleece*. All targeted or incidental catch of sideboard species made by Amendment 80 vessels will be deducted from the sideboard limits.

Table 7 provides the annual number of trawl catcher/processors with retained catch of Pacific cod in the AI from both directed and incidental catch. The number of trawl CPs ranged between 10 and 16 during the 2003 through 2014 period. Fleet size decreased from a high of 16 vessels in 2007 to 11 vessels for

most years since that 2007 high. Also provided in the table is the annual retained catch of Pacific cod in the AI as well as the percent of AI total retained catch. Retained catch of Pacific cod by the trawl CP sector has been declining from the high of 13,759 mt in 2003 to a low of 648 mt for 2014 (through July 15). As a percent of total AI retained catch, the trawl CP sector has been catching incrementally smaller portions of the AI total, with the lowest in 2014 at 13 percent, from its high of 52 percent in 2005.

Table 7 Number of trawl CPs with retained catch of AI Pacific cod and their associated retained catch (mt) and the percent of AI total retained catch from 2003 through July 15, 2014

Year	Number of vessels	Retained catch (mt)	% of AI total retained catch
2003	14	13,759	43
2004	15	11,839	42
2005	13	11,079	52
2006	15	9,563	50
2007	16	11,899	43
2008	11	4,677	19
2009	11	4,924	19
2010	11	3,721	17
2011	13	1,448	14
2012	11	2,092	18
2013	11	1,107	16
2014*	10	648	13

Source: AKFIN, July 15, 2014.

Table orginates from pivot file BSAI_PCOD_SECTOR(07-15)

* 2014 data as of July 15, 2014

Table 8 provides annual first wholesale gross revenue from trawl CPs that retained AI Pacific cod. First wholesale gross revenue from the AI Pacific cod fishery ranged from a low of less than one million in 2013 to a high of $23 million in 2007. As a percent of their total first wholesale gross revenue, the AI Pacific cod fishery contributed less than one percent during the past three years to over 12 percent in 2007. Since the peak in 2007, the number of vessels, catch and first wholesale gross revenue has been in decline.

Table 8 AI and BS Pacific cod first wholesale gross revenue and total first wholesale gross revenue for trawl CPs that retained AI Pacific cod, 2003 through 2013

Year	Aleutian Islands		Bering Sea		Total first wholesale gross revenue ($)
	Pacific cod first wholesale gross revenue ($)	Pacific cod revenue as a % of total first wholesale gross revenue	Pacific cod first wholesale gross revenue ($)	Pacific cod revenue as a % of total first wholesale gross revenue	
2003	15,513,530	11.9	7,658,293	5.9	130,620,075
2004	12,989,754	10.5	13,145,864	10.7	123,139,663
2005	14,220,355	8.6	15,074,662	9.2	164,460,591
2006	15,882,314	9.1	19,002,519	10.9	174,530,629
2007	23,188,477	12.7	18,327,979	10.1	181,889,262
2008	8,982,009	4.6	13,409,345	6.8	195,768,134
2009	5,642,162	3.2	11,957,253	6.8	176,989,977
2010	5,022,869	2.3	15,782,461	7.2	220,176,221
2011	1,544,449	0.5	22,221,879	7.1	311,442,348
2012	2,650,772	0.9	21,217,484	7.1	300,124,077
2013	741,845	0.3	22,713,737	10.0	226,906,113

Source: AKFIN, August 7, 2014.

Table orginates from pivot file AI_PCOD_DIV(08-07)

2.6.5.2 Hook-and-line CPs

The primary target species in the freezer longline fisheries are Pacific cod, sablefish, and Greenland turbot. At the end of 2011, 35 licenses carried AI CP hook-and-line Pacific cod endorsements. There were 31 licensed vessels (three vessels carried two license limitation program [LLP] licenses, and one LLP was not attached to a vessel). All of these licenses carried similar endorsements for the BS. (AKR RAM LLP license list for 2011)

Since 2006, most of the persons holding LLPs endorsed for freezer longline CPs in the BSAI have been members of the Freezer Longline Conservation Cooperative (FLCC). In June 2010, the remaining LLP holders joined the cooperative, so that with the start of the 2010 B season on August 15, all holders of LLPs authorizing the use of these vessels were members of the cooperative.

Each year, an allocation is made to the freezer longline CP sector through the annual harvest specifications process. Cooperative members each receive a share of the quota for harvest; shares are issued in proportion to historical fishing activity with the LLP. Cooperative members are free to exchange their quota shares among themselves, and to stack shares on individual vessels.

A harvest cooperative running an individual quota program, such as the FLCC, creates the conditions for reorganization of fishing activity. Individual operations now have effectively guaranteed harvest quotas each year, and have the opportunity to fish these in the way that they find most profitable. While it is difficult to project exactly how the fishery will evolve, given the technology used in the freezer longline Pacific cod sector, reductions in the number of active vessels, reductions in the speed of the harvest, improvements in product quality, or a lengthening of the fishing season are all possible. Harvest rates declined, the season lengthened, and few vessels were actively participating when the 2011 Steller sea lion protection measures were implemented (NMFS 2012).

Table 9 shows the number of hook-and-line CPs with retained catch of Pacific cod from the AI during 2003 through July 15, 2014. The table shows that the number of hook-and-line CPs ranged from one in 2014 to 11 in 2003 and 2010. The number of non-trawl CPs with retained AI Pacific cod catch has been in decline since 2010. Retained catch of AI Pacific cod by the freezer longline increased annually from 851 mt in 2003 to a high of 4,748 mt in 2010, followed by an annual decline through July 15, 2014. The percent of AI Pacific cod retained by the freezer longline sector relative to the total retained catch for AI has fluctuated from a low of three percent in 2003 to a high of 27 percent in 2012.

Before 2011, the vessels in this sector generally began fishing for Pacific cod on January 1 and continued until the initial seasonal allocation was fully harvested in February, March, or April. They subsequently returned to fishing Pacific cod from August 15, when the next halibut PSC allowance became available, through November or December. In 2011, the A season remained open until June 10, possible because the introduction of the voluntary cooperative slowed the harvest rate and spread out effort. Also in 2011, the harvest specifications for halibut PSC in this fleet were modified, to release the halibut PSC limit on June 10, as well as August 15. In 2011 and 2012, the fleet operated during more of the year than in the past. (NMFS 2014b)

During the 2014 season, the combination of AI and BS Pacific cod split and the Steller sea lion protection measures implemented in 2011 have limited the ability of the freezer longline sector to participate in the AI Pacific cod fishery. With an AI ITAC of 6,248 mt for 2014, the existing Steller sea lion restrictions that prohibit hook-and-line CPs from fishing in the AI until March 1st, and with the closure of the AI Pacific cod fishery on March 16, only one freezer longline vessel reported retained catch of AI Pacific cod. Since only one freezer longline vessel retained AI Pacific cod during 2014, the catch data was masked since it was confidential.

Table 9 Number of hook-and-line CPs with retained catch of AI Pacific cod and their associated retained catch (mt) and the percent of AI total retained catch from 2003 through July 15, 2014

Year	Number of vessels	Retained catch (mt)	% of AI total retained catch
2003	11	851	3
2004	8	2,937	10
2005	7	2,128	10
2006	9	2,253	12
2007	8	2,268	8
2008	10	4,048	16
2009	10	4,748	19
2010	11	4,576	21
2011	7	1,146	11
2012	7	3,140	27
2013	4	909	13
2014	1	**	**

Source: AKFIN, July 15, 2014.

Table orginates from pivot file BSAI_PCOD_SECTOR(07-15)

* 2014 data as of July 15, 2014

**Denotes confidentiality

Table 10 provides first wholesale gross revenue and total first wholesale gross revenue from all fishing for the hook-and-line and pot CPs that retained AI Pacific cod, of which the largest share is from hook-and-line CP vessels. First wholesale gross revenue from the AI Pacific cod fishery ranged from a low of less than one million in 2003 to a high of 12 million in 2008. As a percent of total first wholesale gross revenue, the AI Pacific cod fishery has ranged from slightly less than one percent in 2013 to nearly 8 percent in 2008. In contrast, the BS Pacific cod fishery has contributed between 52 percent and 64 percent to the total first wholesale gross revenue since 2003. The portion of total first wholesale gross revenue from AI Pacific cod fishery has also been in decline since the peak in 2008. The downward trend in participation, catch, and first wholesale gross revenue for the hook-and-line and the pot CPs is likely due in part to the Steller sea lion protection measures implemented in 2011 and the separation of the AI OFLs, ABCs, and TACs from the BS starting in 2014 combined with lower AI Pacific cod biomass.

Table 10 AI and BS Pacific cod first wholesale gross revenue and total first wholesale gross revenue for hook-and-line and pot CPs that retained AI Pacific cod, 2003 through 2013

Year	Aleutian Islands		Bering Sea		Total first wholesale gross revenue ($)
	Pacific cod first wholesale gross revenue ($)	Pacific cod revenue as a % of total first wholesale gross revenue	Pacific cod first wholesale gross revenue ($)	Pacific cod revenue as a % of total first wholesale gross revenue	
2003	987,001	1.0	61,555,281	60.9	101,153,443
2004	3,442,056	3.6	60,281,833	62.2	96,955,852
2005	2,952,484	2.3	78,876,222	61.5	128,267,851
2006	4,087,413	3.0	84,032,605	62.7	134,034,741
2007	4,943,643	3.7	79,735,602	59.7	133,480,368
2008	12,251,729	7.8	82,994,046	52.7	157,550,540
2009	6,898,598	6.3	56,825,454	52.3	108,666,431
2010	7,888,836	6.5	58,883,424	48.6	121,100,976
2011	1,927,446	1.3	86,544,689	56.2	154,082,636
2012	4,705,513	3.1	96,779,775	63.6	152,122,883
2013	1,069,555	0.9	75,965,449	64.2	118,290,104

Source: AKFIN, August 7, 2014.

Table orginates from pivot file AI_PCOD_DIV(08-07)

2.6.5.3 Pot CPs

As with other fleets, the pot CP sector Pacific cod allocation is a BSAI wide allocation and may be caught in the BS and/or in the AI. To fish for Pacific cod with pot gear in the AI, a vessel must have an AI sub-area endorsement on its LLP, as well as a non-trawl endorsement, and a Pacific cod pot gear endorsement if the vessel is 60 feet or greater, length overall. Vessels active in the fishery also fish for halibut and sablefish, crab, or target Pacific cod for use as crab bait.

In 2011, five distinct vessels carried five distinct licenses to fish for Pacific cod in the AI as CPs with pot gear. These licenses also carried five endorsements to fish as CPs with pot gear in the BS, four endorsements to fish with hook-and-line gear in the AI (three as CP and one as CV), three endorsements to fish with hook-and-line gear in the Central and/or Western GOA, and one to fish with pot gear in the Western GOA (AKR RAM LLP license list for 2011).

Table 11 provides estimates on the number of pot CPs, retained catch, and percent of that retained catch relative to the total retained catch for the AI. During the 2003 through July 15, 2014 period, pot CPs were active in the AI Pacific cod fishery only six years. During that period, only two years of catch data could be reported due to small number of pot CPs that participated in the fishery. The largest number of pot CPs that were active in the AI Pacific cod was four in 2008. Those four vessels retained 1,895 mt of AI Pacific cod, which was 8 percent of the total retained catch of Pacific cod in the AI.

Table 11 Number of pot CPs with retained catch of AI Pacific cod and their associated retained catch (mt) and the percent of AI total retained catch from 2003 through July 15, 2014

Year	Number of vessels	Retained catch (mt)	% of AI total retained catch
2003	0	0	0
2004	0	0	0
2005	0	0	0
2006	1	**	**
2007	1	**	**
2008	4	1,895	8
2009	3	767	3
2010	2	**	**
2011	1	6	0
2012	0	0	0
2013	0	0	0
2014	0	0	0

Source: AKFIN, July 15, 2014.
Table orginates from pivot file BSAI_PCOD_SECTOR(07-15)
* 2014 data as of July 15, 2014
**Denotes confidentiality

Table 10 provides estimates of AI and BS Pacific cod first wholesale gross revenue and total first wholesale gross revenue from all fishing for the hook and line CPs and the pot CPs that retained AI Pacific cod. See 2.6.5.2 for more details concerning first wholesale gross revenue for pot CP sector that participated in the AI Pacific cod fishery.

2.6.5.4 Trawl CVs

Trawl CVs active in the AI fish against the 22.1 percent BSAI trawl CV allocation of Pacific cod. Many of the vessels that participate in the directed AI fishery are AFA trawl CVs. These vessels have a sideboard limit of 86.09 percent of the seasonal allocation of trawl CV Pacific cod. Between 2004 and 2011, the AFA trawl CVs harvested an average of 65 percent of the total BSAI trawl CV Pacific cod harvest. However, AFA trawl CVs harvested an average of 85 percent of the total amount of Pacific cod

caught by trawl CVs in the AI. The remaining amount of Pacific cod was harvested by unaffiliated trawl CVs.

CVs deliver their products to several outlets. These include CPs acting as motherships, shoreside processors, or floating processors. Within the AI management area, a small group of CPs (AFA, Amendment 80 and from Crab Rationalization programs) have operated in the AI Pacific cod fishery. There are also shoreside processing plants at Adak and Atka. Although Atka shoreplant has not processed Pacific cod in the past, the plant in Adak has processed large amounts of Pacific cod. Relatively small amounts of AI Pacific cod harvested by trawl CVs have also been delivered to several other ports for processing at shoreplants. Finally, floating processors are vessels that anchor within state waters and accept deliveries. As an example, the May 2014 Steller Sea Lion EIS states that the M/V Independence has processed Pacific cod in the winter and spring season. The M/V Independence could buy Pacific cod from as many as 20 CVs, independents as well as Trident boats. These deliveries were primarily from trawlers, but there were some non-trawl vessels as well (NMFS 2014b).

CVs fish in federally managed fisheries under the authority of licenses issued under a license limitation program. Vessel licenses carry endorsements, authorizing fishing in different areas with trawl and non-trawl gears. Forty-three CVs have LLP endorsements to trawl in the AI; 12 of these also have endorsements allowing them to use non-trawl (hook-and-line or pot) gear in the AI. Many of these vessels have endorsements allowing them to fish in other management areas as well. Forty-two have endorsements to trawl in the BS; 11 have endorsements to fish with non-trawl gear in the BS. Five have endorsements to trawl in the Western GOA, while 10 have endorsements to use non-trawl gear in the Western GOA. Four have endorsements to use trawl gear in the Central GOA, while seven have endorsements to use non-trawl gear in the Central GOA (AKR RAM LLP license list for 2011).

Table 12 provides the annual number of trawl vessels with retained catch of Pacific cod in the AI. The number of trawl vessels ranged between a low of 9 in 2014 to a high of 34 in 2007. The number of trawl CVs active in the AI Pacific cod has been declining since 2007. Also provided in the table is the annual retained catch of Pacific cod in the AI as well as the percent of AI total retained catch. Retained catch of Pacific cod by the trawl CV sector has been declining from the high of 14,993 mt in 2009 to a low of 4,237 mt for 2014 (through July 15). As a percent of total retained AI Pacific cod for all sectors combined, the trawl CV sector catches the majority of the AI Pacific cod. During the 2003 through July 15, 2014, the percent of AI total retained catch for trawl CV has ranged from a low of 36 percent in 2006 to a high of 87 percent in 2014.

Table 13 provides estimates of exvessel gross revenues from trawl CVs that retained AI Pacific cod. Exvessel gross revenue from the AI Pacific cod fishery ranged from a low of $2.6 million in 2013 to a high of $17 million in 2008. As a percent of total exvessel gross revenue, AI Pacific cod has ranged from a low of 2.7 percent in 2013 to a high of 15.7 percent in 2003. Since the peak in 2007, exvessel gross revenue from the AI Pacific cod fishery as well as the percent of total exvessel gross revenue from AI Pacific cod has been in decline.

Table 12 Number of trawl CVs with retained catch of AI Pacific cod and their associated retained catch (mt) and the percent of AI total retained catch from all sectors from 2003 through July 15, 2014

Year	Number of vessels	Retained catch (mt)	% of AI total retained catch
2003	32	17,208	54
2004	21	13,439	48
2005	16	7,973	38
2006	16	6,907	36
2007	34	13,172	48
2008	31	13,980	56
2009	26	14,993	59
2010	24	12,724	59
2011	14	7,726	74
2012	15	6,239	54
2013	10	5,097	72
2014	9	4,237	87

Source: AKFIN, July 15, 2014.

Table orginates from pivot file BSAI_PCOD_SECTOR(07-15)

* 2014 data as of July 15, 2014

Table 13 AI and BS Pacific cod exvessel gross revenue and total exvessel gross revenue for trawl CVs that retained AI Pacific cod, 2003 through 2013

Year	Aleutian Islands		Bering Sea		
	Pacific cod exvessel gross revenue ($)	Pacific cod AI exvessel revenue as a % of total exvessel gross revenue	Pacific cod exvessel gross revenue ($)	Pacific cod BS exvessel revenue as a % of total exvessel gross revenue	Total exvessel gross revenue ($)
2003	13,650,262	15.7	7,173,932	8.3	86,706,623
2004	6,345,888	8.2	5,861,501	7.6	77,158,825
2005	4,233,506	4.9	6,202,834	7.1	87,262,208
2006	5,375,186	5.6	9,630,382	10.0	96,491,626
2007	12,599,689	12.6	7,284,769	7.3	99,604,142
2008	17,235,691	15.5	8,173,197	7.3	111,223,518
2009	7,777,232	9.8	3,073,577	3.9	79,338,611
2010	6,378,970	8.2	2,861,724	3.7	78,065,680
2011	4,705,230	4.3	9,866,358	9.1	108,875,690
2012	4,265,847	3.6	13,327,842	11.3	117,756,488
2013	2,638,546	2.7	10,326,451	10.4	99,102,338

Source: AKFIN, August 7, 2014.

Table orginates from pivot file AI_PCOD_DIV(08-07)

2.6.5.5 Non-trawl CVs

This sector includes CVs retaining AI Pacific cod with jig, hook-and-line, or pot gear. Pot CVs target Pacific cod with square or conical pots, usually set on single lines. Pot CVs less than 60 feet length overall share 2 percent of the BSAI TAC with hook-and-line vessels in that size class, while pot CVs 60 feet or over are allocated 8.4 percent of the TAC. As with other fleets, the pot CV Pacific cod allocations are BSAI wide and may be caught in the BS and/or AI. Vessels active in the Pacific cod fishery may also fish for halibut, sablefish, and crab, if licensed to do so, or target Pacific cod for use as crab bait.

To fish for Pacific cod with pot gear in the AI, a vessel must have an AI subarea endorsement on its LLP, as well as a non-trawl endorsement, and a Pacific cod pot gear endorsement, if the vessel is 60 feet length

overall or greater. Three LLP licenses have this combination of endorsements. Two of these licenses carry endorsements allowing them to fish for Pacific cod with pots in the BS, and one has an endorsement allowing it to fish for Pacific cod with pots in the Western GOA. These licenses have no other Pacific cod endorsements (AKR RAM LLP license list for 2011).

Jig vessels target Pacific cod using fishing lines with baited hooks, dropped vertically from the vessel. The action of the lines is controlled by machines that move the jigs up and down a modest amount to induce the fish to bite. Machines are adjusted to haul back when the tension on the line indicates a target weight of fish has been hooked. Jig vessels are less than 60 feet length overall, and no LLP is required for CVs in this length class using jig gear. In the BSAI, the jig sector is allocated 1.4 percent of the Pacific cod TAC. As with other Pacific cod allocations, this may be fished in the AI and/or in the BS (NPFMC 2012).

Longliners deploy ground lines, anchored at each end, along the sea bottom. Shorter lines with baited hooks diverge from the longline at intervals. CVs might deploy 12,300 fathom lengths of longline at a time (73,800 feet or nearly 14 miles), for soak times lasting from two to 24 hours. Longliners under 60 feet length overall share two percent of the Pacific cod TAC with pot vessels of the same length. Longline CVs 60 feet or greater receive an allocation of 0.2 percent of the TAC. As with other Pacific cod allocations, this allocation may be fished in the AI and/or in the BS (NPFMC 2012).

To fish for Pacific cod with longline gear in the AI, a vessel must have an AI sub-area endorsement on its LLP, as well as a non-trawl endorsement, and a Pacific cod longline gear endorsement if the vessel is 60 feet in length overall, or greater. Seven LLP licenses carry the hook-and-line CV endorsement allowing them to fish for Pacific cod in the AI. Four of these licenses also carry endorsements to fish for Pacific cod with CVs in the BS. Licenses also carry a selection of other Pacific cod endorsements (one for BS CPs pot gear, one for AI CV pot gear, one for Western GOA CPs pot gear, one for Western GOA CV pot gear, and one for Central GOA CV hook-and-line gear) (AKR RAM LLP license list for 2011).

Table 14 provides the annual number of non-trawl vessels with retained catch of Pacific cod in the AI. The number of non-trawl vessels ranged between a low of 3 in 2014 to a high of 40 in 2008. Also provided in the table is the annual retained catch of Pacific cod in the AI as well as the percent of AI total retained catch. Retained catch of Pacific cod by the non-trawl CV sector has been declining from the high of 411 mt in 2008 to a low of 2 mt for 2014 (through July 15). As a percent of total AI retained Pacific cod catch, the non-trawl CV sector catches the majority. During the 2003 through July 15, 2014, the percent of AI total retained catch for non-trawl CVs has not exceeded 2 percent in any year, and in most cases is 1 percent or less.

Table 15 provides exvessel gross revenue for non-trawl CVs that retained AI Pacific cod. Exvessel gross revenue from the AI Pacific cod fishery ranged from a low of slightly more than three thousand dollars in 2009, 2010, and 2012 to a high of slightly less than a half a million dollars in 2008. Overall, the AI Pacific cod fishery contributes very little to the bottom line for the fixed gear CVs. As a percent of total exvessel gross revenue, the AI Pacific cod fishery in general was less 1 percent for most years.

Table 14 Number of non-trawl CVs with retained catch of AI Pacific cod and their associated retained catch (mt) and the percent of AI total retained catch from 2003 through 2013

Year	Number of vessels	Retained catch (mt)	% of AI total retained catch
2003	27	40	0
2004	23	72	0
2005	24	35	0
2006	30	333	2
2007	21	199	1
2008	40	411	2
2009	17	17	0
2010	19	19	0
2011	16	53	1
2012	19	26	0
2013	11	6	0
2014*	3	2	0

Source: AKFIN, July 15, 2014.

Table orginates from pivot file BSAI_PCOD_SECTOR(07-15)

* 2014 data as of July 15, 2014

Table 15 AI Pacific cod exvessel gross revenue ($), total exvessel gross revenue ($), and AI Pacific cod exvessel revenue as a percent of total exvessel gross revenue for non-trawl CVs, 2003 through 2013

Year	AI Pacific cod exvessel gross revenue ($)	Total exvessel gross revenue ($)	AI Pacific cod exvessel revenue as a percent of total exvessel gross revenue
2003	14,287	23,706,332	0.06%
2004	31,850	25,519,073	0.12%
2005	15,869	40,953,307	0.04%
2006	284,378	24,137,977	1.18%
2007	180,227	58,494,519	0.31%
2008	486,619	43,746,985	1.11%
2009	3,567	19,054,826	0.02%
2010	3,397	26,791,153	0.01%
2011	26,363	40,850,014	0.06%
2012	3,689	32,184,062	0.01%
2013	*	31,715,452	0.00%
Total	1,051,115	367,153,700	0.29%

Source: AKFIN, August 7, 2014.

Table orginates from pivot file AI_PCOD_DIV(08-07)

* Denotes confidential data

2.6.6 Affected Communities of Adak and Atka

Adak and Atka are the two communities located in the AI with shoreside processing plants that the delivery requirement is intended to protect, by prioritizing a portion of AI Pacific cod for delivery to shoreplants in the AI, with some constraints on the amount and dates by which the measure would be removed. Limited profiles of Atka and Adak are provided here from the Final Environmental Impact Statement, Steller Sea Lion Protection Measures for Groundfish Fisheries in the BSAI Management Area, May 2014. Data provided in the section on vessel deliveries and amount (mt) to Adak and Atka shoreside processors originated from ADF&G fish tickets. Fish ticket data for 2014 was not yet available, so deliveries for that year were not included in the analysis at this point.

Adak

Adak is located on Kuluk Bay on Adak Island in the Aleutian chain. It is the southernmost community in Alaska. It lies 350 miles west of Unalaska in the Aleutian Island chain and is not a CDQ community. The Aleut Corporation acquired the majority of Adak's former military facilities in 2004. Since that time, the Aleut Corporation has continued its efforts to develop Adak as a civilian community with a private sector economy focused heavily on commercial fishing. Adak is pursuing a broad range of fisheries for a resident fleet to be able to deliver to Adak Fisheries, the shoreside processor located on Adak.

The development of a local residential fleet has been a goal of the local leadership, but currently the locally-owned CV fleet is small. Three residents held commercial fishing permits as of 2010 for sablefish, salmon, groundfish, and halibut. Adak is not currently eligible to participate in the CDQ program, but is considered a Community Quota Entity which allows Adak to purchase halibut CV quota share assigned to Area 4B and sablefish quota share assigned to the AI. While Adak is not a CDQ community, as a result of Congressional action it receives an allocation of Western AI golden king crab to help foster the development and maintenance of sustained fisheries participation. Congressional action has also provided an allocation of AI pollock to the Aleut Corporation for the benefit of Adak outside of the CDQ program.

Despite the lack of a local residential fleet, Adak has a substantial degree of engagement in the AI Pacific cod fishery. Adak is home to a large shore-based processing plant. Most commercial fishing deliveries to the Adak shoreplant are from larger vessels from outside the area. Of the species processed, Pacific cod, halibut, and sablefish have been the primary species. The community has also seen some crab and Pacific cod activity related to other companies, but these companies are not physically located in the community. When operational, the Adak processing plant was most activate from January through March followed by a relatively quiet period from April through June, and then running about half-speed from July through September before activity tapering off from October into November. The A season Pacific cod fishery is the main source of income for the plant (and raw fish tax revenue for the City of Adak), accounting for about 75% of the plant revenue. The plant has the capability to process one million round pounds (454 mt.) of Pacific cod daily.[3]

Utilizing a previous waiver of confidentiality from the December 2009 Initial Review Draft to Establish Aleutian Islands Pacific cod Processing Sideboards that provided the amount of delivered fish by species to the Adak shoreplant from 2003 through 2008 and additional waivers of confidentiality for delivered fish from 2009 through July 15, 2014, Table 16 provides information on vessel deliveries and metric tons of Pacific cod and other species landed at the Adak shoreplant. The volume of Pacific cod landings from the AI subarea processed at Adak shoreplant was substantial, accounting for an average of 63% of the total CV landings of Pacific cod from the AI subarea. In some years, the proportion of Pacific cod from the AI subarea landings processed at the shore plant was over 80%. The high level of processing at the

[3] Source: Dave Fraser, Adak Community Development Corporation, July 2013.

Adak facility suggests an overwhelming importance the plant plays in the AI Pacific cod fishery. The vast majority of AI Pacific cod comes from Area 541.

Adak shoreplant has had numerous ownership changes since its establishment in 1999 as Adak Seafoods. In mid-July 2000, Norquest became a predominant partner. In January 2002, Icicle Seafoods became a relatively equal partner in the operation, which operated as Adak Fisheries, LLC. Other ownership changes ensued, although until recently, the company still operated as Adak Fisheries, LLC. In 2009, the price of Pacific cod dropped to less than half of the 2008 price. As a result, Adak Fisheries, LLC. struggled to meet its financial obligations, and in the end, filed for Chapter 11 bankruptcy in September 2009. During 2010 and 2011 fishing years, financial difficulties surrounding the Adak shoreplant resulted in no processing of Pacific cod. In 2012, the shoreplant, operated by Icicle Seafood, was once again open for business, processing a large portion of AI Pacific cod. In April 2013, Icicle Seafoods closed its operation in Adak citing concerns about the health of the region's Pacific cod resource and increased regulatory uncertainty surrounding AI Pacific cod. In June 2013, the City of Adak was the highest bidder in an auction for the processing equipment formerly owned by Adak Seafood, LLC. The intent of the purchase by the City was to keep the processing equipment in place as a turnkey operation in order to facilitate the expedited reopening of the plant. In September 2013, Aleut Corporation's subsidiary Aleut Fisheries signed a 20-year lease with Adak Cod Cooperative to operate the Adak seafood processing facility.

In a discussion on January 23, 2014, with John Lowrance, President of Adak Cod Cooperative, the Adak seafood processing facility underwent significant changes. The Adak seafood processing facility has been renovated from a headed and gutted operation into a fillet operation. The renovated shore plant will begin processing AI Pacific cod in early February utilizing six trawl CVs, four greater than 60' in length and two that are 58' in length. Given the limited AI Pacific cod ITAC for the 2014 fishing year, Mr. Lowrance indicated during the discussion that US Seafoods, working closely with Adak Cod Cooperative, agreed to process only incidental caught AI Pacific cod while targeting other AI fisheries, which allows for a greater share of the AI Pacific cod to be processed at Adak seafood processing facility.

With no other shore-based processor in the community, the Pacific cod processing activity at the Adak shoreplant accounted for a large proportion of effort and local employment in Adak. The A season Pacific cod fishery "overwhelms anything else that happens during the rest of the year, not just in terms of volume at the plant, but in terms of crew utilizing local businesses (the fuel, dock, store, and bar); without A season cod, the plant does not survive" (EDAW 2008).

The community of Adak also acts as a port of embarkation and disembarkation for CPs and CVs immediately before and immediately after trips targeting Pacific cod in the AI subarea, as well as AI Atka mackerel and/or AI pollock. As a port of embarkation and disembarkation, Adak receives a substantial amount of economic activity that multiplies locally for a range of goods and services present in the small community. The annual average port calls for CPs (trawl and non-trawl combined) immediately before and after trips targeting AI Atka mackerel and Pacific cod in the AI subarea during 2004 through 2010 was 43.6 and 28.9 times, respectively and for 2011, the number of port visits was 28 and 13 times, respectively (NMFS 2014b). For CVs (trawl and non-trawl combined) immediately before and after tips targeting Pacific cod in the AI subarea was 119.7 times on an annual average basis, with the analogous data related to CV AI Atka mackerel being confidential, and for 2011, the number of port calls was 11 for AI Pacific cod, while for AI Atka mackerel the number of port calls was confidential (NMFS 2014b).

Although Adak has a relatively low economic multiplier, the money spent on goods and services by vessels making port calls does circulate in the small economy of Adak. Vessels may use these port visits

for crew transfers, purchasing provisions and fuel, offloading product, and purchases of other local goods and services.

Table 16 Number of vessels delivering and amount (mt) to Adak and Atka shoreside processors from 2003 through 2013

Year	Data	Adak		Atka	
		Vessels	Metric tons	Vessels	Metric tons
2002	AI Pacific cod	37	8,527	0	0
	BS and GOA Pacific cod	0	0	0	0
	State GHL Pacific cod	0	0	0	0
	Halibut	39	1,049	9	231
	Sablefish	25	468	1	*
	Crab	29	810	0	0
	Other Groundfish	32	569	1	0
2003	AI Pacific cod	30	8,729	0	1
	BS and GOA Pacific cod	0	0	0	0
	State GHL Pacific cod	0	0	0	0
	Halibut	40	624	7	363
	Sablefish	26	245	6	6
	Crab	23	858	0	0
	Other Groundfish	27	296	6	6
2004	AI Pacific cod	33	9,475	0	0
	BS and GOA Pacific cod	0	0	0	0
	State GHL Pacific cod	0	0	0	0
	Halibut	34	438	6	234
	Sablefish	22	113	4	7
	Crab	9	691	0	0
	Other Groundfish	31	158	4	7
2005	AI Pacific cod	25	6,462	0	0
	BS and GOA Pacific cod	0	0	0	0
	State GHL Pacific cod	0	0	0	0
	Halibut	30	342	5	157
	Sablefish	19	276	3	2
	Crab	8	175	0	0
	Other Groundfish	20	293	3	2
2006	AI Pacific cod	24	6,321	1	*
	BS and GOA Pacific cod	0	0	0	0
	State GHL Pacific cod	5	200	0	0
	Halibut	20	132	5	155
	Sablefish	11	67	4	123
	Crab	1	*	0	0
	Other Groundfish	18	1,001	4	124
2007	AI Pacific cod	35	9,625	1	*
	BS and GOA Pacific cod	0	0	0	0
	State GHL Pacific cod	31	2,939	0	0
	Halibut	34	176	5	139
	Sablefish	16	72	3	77
	Crab	6	190	0	0
	Other Groundfish	17	1,509	3	77
2008	AI Pacific cod	36	4,327	1	*
	BS and GOA Pacific cod	1	*	0	0
	State GHL Pacific cod	26	1,288	0	0
	Halibut	29	168	6	169
	Sablefish	13	127	3	9
	Crab	4	380	0	0
	Other Groundfish	22	801	2	*

Source: AKFIN, August 13, 2014.
Table orginates from pivot file AI_PCOD_PROC_DIV(08-13)

Table 16 continued

Year	Data	Adak		Atka	
		Vessels	Metric tons	Vessels	Metric tons
2009	AI Pacific cod	18	8,005	0	0
	BS and GOA Pacific cod	0	0	0	0
	State GHL Pacific cod	14	372	0	0
	Halibut	10	0	0	0
	Sablefish	1	*	0	0
	Crab	3	0	0	0
	Other Groundfish	2	*	0	0
2010	AI Pacific cod	0	0	1	*
	BS and GOA Pacific cod	0	0	0	0
	State GHL Pacific cod	0	0	0	0
	Halibut	0	0	8	249
	Sablefish	0	0	5	99
	Crab	0	0	1	*
	Other Groundfish	0	0	4	99
2011	AI Pacific cod	6	23	0	0
	BS and GOA Pacific cod	1	*	0	0
	State GHL Pacific cod	3	30	0	0
	Halibut	16	265	9	248
	Sablefish	11	120	5	149
	Crab	1	*	1	*
	Other Groundfish	11	122	5	155
2012	AI Pacific cod	16	3,173	0	0
	BS and GOA Pacific cod	0	0	0	0
	State GHL Pacific cod	23	4,383	0	0
	Halibut	33	398	13	203
	Sablefish	16	103	8	278
	Crab	5	86	0	0
	Other Groundfish	23	129	8	283
2013	AI Pacific cod	6	3,568	1	*
	BS and GOA Pacific cod	0	0	0	0
	State GHL Pacific cod	12	4,829	0	0
	Halibut	12	4	18	189
	Sablefish	0	0	8	133
	Crab	2	*	1	*
	Other Groundfish	5	4	8	136

Source: AKFIN, August 13, 2014.
Table orginates from pivot file AI_PCOD_PROC_DIV(08-13)

Atka

The community of Atka is located on Atka Island on the Aleutian Chain, about 100 miles east of Adak and 350 miles west of Unalaska. Atka encompasses 8.7 square miles of land and 27.4 square miles of water. Aside from Adak, it is the only civilian community in the AI subarea.

The island has been occupied for over 2,000 years by Aleut residents and became a major trade site for Russian settlers in the 1700s. By the 1920s, Atka had become a center for fox farming. The island was evacuate during World War II after the Japanese military attacked Unalaska and landed on Attu and Kiska. After World War II, former residents of Attu, Kiska, and Atka relocated to the island.

Atka was incorporated as a second class city in 1988. The population for the community is relatively small, estimated at 61 total persons by the latest U.S. Census. Residents of Atka are primarily Alaska

Native (Aleut), and a Federally-recognized tribe is located in the community (the Native Village of Atka IRA).

The economy is predominantly based on subsistence living as well as commercial halibut and sablefish fishing. According to the Commercial Fisheries Entry Commission (CFEC), 4 commercial permits were held by residents. No other permits were held in Atka for other fisheries (CFEC 2012). Atka is a CDQ community and a member of the APICDA CDQ group. As a member of Aleutian Pribilof Island Community Development Association (APICDA), the community benefits from the Community Development Quota (CDQ) shares in a number of commercial fisheries, including Pacific cod, Atka mackerel, yellowfin sole, rock sole, Greenland turbot, arrowtooth flounder, flathead sole, Pacific ocean perch, Pacific halibut, various crab fisheries, and Chinook salmon. In 2011, specific to AI Pacific cod, APICDA had an effective allocation within the CDQ reserve of 15.45 percent. In recent years, APICDA has used CDQ funds to construct small and large dock facilities, add infrastructure to Atka's harbor, improve the Alaska Pride Seafood plant, and construct a new inn for visitors.

As indicated in Table 16, Atka was not directly engaged in the AI Pacific cod fishery during 2003 through 2013 through local ownership of participating CVs, local ownership of participating CPs, or processing operations at the local shore-based processor in the community. Atka had essentially no dependency on the AI Pacific cod fishery.

The processing plant that is located in Atka is a joint venture between APICDA Joint Ventures and the Atka Fisherman's Association. They formed Atka Pride Seafoods in 1994, began processing in 1995, and have processed every year since. The primary species processed are halibut and sablefish, and the commercial fleet delivering to Atka is involved mainly in those fisheries. According to senior APICDA staff, Pacific cod is seen as the linchpin for the future of processing in the community, an assessment that has led to substantial infrastructure investments by the group. The shore processor recently completed a $4 million expansion, and will begin another major round of improvement in 2014 to make the plant a year-round operation. Once these improvements are completed sometime in late 2014 or 2015 at the latest, the processing capacity of the shoreplant will be no more than 400,000 round pounds of Pacific cod per day (181 mt.)[4].

There is also interest in developing processing capacity for Western AI golden king crab at the plant, with both APICDA and the Atxam Corporation (Atka's Alaska Native Claim Settlement Act (ANCSA) village corporation) having acquired processor quota shares for that species.[5] According to APICDA staff, impediments to crab processing in the community have included lack of deep water vessel access (now addressed through the new dock), and the fact that the Western AI golden king crab fishery is essentially a one-vessel fishery with deliveries made approximately once every two weeks during the fishing season. For efficiency reasons, other relatively high volume processing needs are needed at the plant to justify both investment in increased processing capacity and retention of a sufficient number of processing workers, therefore AI Pacific cod processing seen as the answer to both of the latter needs.

[4] Source: Larry Cotter and John Sevier, APICDA, August 2013.

[5] Under the BSAI crab rationalization program, half of the Western AI golden king crab quota shares have a western share landing/processing region designation and half do not. While processors in Adak and Atka, the two communities in the western share landing/processing region, did not qualify for an initial history-based allocation of Western AI golden king crab processor quota shares, some processor quota shares for Western AI golden king crab were subsequently acquired from Unalaska/Dutch Harbor shore-based processors by APICDA and Atxam through a divestiture process described elsewhere (AECOM 2010). To date, processing of these share has variously occurred in Adak or un Unalaska (with the latter occurring under custom processing agreements when processing capacity was otherwise not available in the western share landing/processing region.

In terms of overall community development, it is an explicit goal of APICDA to have processing occur year-year in Atka. According to APICDA staff, communities in the region with a stable or growing population base and local economy are those communities with a year-round shore-based processing plant, which has driven the targeted investments in Atka. It is assumed that four or five of the existing vessels in the community fleet could fish Pacific cod, but none of the local vessels are higher volume deep water vessels; developing year-round processing and harvesting capacity is an evolving process and will require additional capital investments in Atka, including additional harbor improvements.

2.6.7 State and Municipal Fishery Taxes

The State of Alaska taxes fish processed outside of and first landing in Alaska, fish processed in Alaska, and raw fish exported from Alaska, and shares of portion of these revenues with qualified boroughs and/or municipalities in Alaska. The amount of money distributed depends on the taxes collected during the program base year as defined in Alaska statute and on other factors. These other factors include the organization of each borough in which processing or landings occur and number of incorporated cities in each borough. The two cities highlighted in this section, Adak and Atka all lie within the Aleutian West Census Area, and are not in an organized borough. The State of Alaska also retains portions of the revenues raised from these taxes for its own use.

Both Fisheries Business Taxes and Fisheries Resource Landing taxes are generally levied against fishery resources processed, landed, or exported in the preceding calendar year. For example, fiscal year 2012 payments or shared fishery tax revenues were generally derived from taxes collected in calendar year 2011.

The Fisheries Business Tax is generally paid by the first processor of processed fish, or the exporter of unprocessed fish, on raw fish landed in the State of Alaska, and is based on the exvessel price of unprocessed fish. The tax rates vary from 1 percent to 5 percent, depending on whether the fishery resource is considered "established" or "developing," and whether it was processed by a shore-based or floating processor. Currently, the tax rates for established fisheries are 3 percent for fishery resources processed at shorebased plants and 5 percent for those processed at floating processors (As 43.75.015).

The State retains half of the Fisheries Business Tax and returns the balance to communities and organized boroughs where, or near where, fish were landed and processed. Revenues for fish landed within a municipality's boundaries are shared with communities by the Alaska Department of Revenue (DOR). Revenues for landed outside of municipal boundaries are shared with communities by the Division of Community and Regional Affairs (DCRA) of the Alaska Department of Commerce. The DCRA first allocates the revenues raised statewide in proportion to share of statewide pounds of fish and shellfish processed in 19 different Fishery Management Areas (FMA), then within FMAs by formulas that may vary by FMA. The Aleutian Islands communities most directly affected by this action, Adak and Atka, fall in the FMA that distributes 60 percent of these latter revenues equally among four affected communities (in addition to the two mentioned, Akutan and Dutch Harbor are included) and the Aleutians East Borough, and 40 percent in proportion to the populations of the four communities. The shared revenues for Adak and Atka are summaries in Table 17 and Table 18.

In addition to the share Fishery Business tax, and the shared Fisheries Resource Landing tax, described above, municipalities may collect their own raw fish taxes on landings. Municipal raw fish taxes vary by community, and, where they exist, range from approximately 1 percent to 3 percent of the unprocessed value of the fishery resources. Municipalities may impose other taxes that may be affected by fishing activity, including sales taxes, bed taxes, and fuel transfer taxes.

Adak levies a 4 percent sales tax and a $0.02/gallon fuel transfer tax. Of the $1.64 million in FY 2013 estimated taxes, 30.9 percent are from Fisheries Business and Resource Landing taxes. Through 2012, Adak did not levy a dedicated local raw fish tax, although a portion of its sales tax was derived from fish sales. The amount of the sales tax attributed to fish sales is not reported in the Alaska Department of Commerce, Community, and Economic Development data, but approximately 1/3 of the tax base for Adak originated from actives associated with the fishing industry. In December 2012, Adak voted to adopt a 2 percent raw fish tax, and to modify sales tax so that it no longer applied to raw fish sales by fishermen. The raw fish tax was implemented in January 2013. This was done to set Adak's fish tax rate at a level comparable to other Aleutian Islands and Bristol Bay communities (NMFS 2014b).

Atka levies a 2 percent raw fish tax, and a 10 percent bed tax; these taxes rates have been in place for several years, and were not revised for 2013. In 2012, of approximately $921,734 in total municipal revenues in Atka, approximately $250,000 came from the local raw fish tax, the shared Fisheries Business Tax, and the shared Resource Landing Tax. Aggregate fisheries taxes represent approximately 27 percent of the fiscal year 2012 revenues for the municipality.

Table 17 State fisheries business tax revenues for Adak

Department of Revenue FY reporting year	CY of fishing activity	Deparment of Revenue		Division of Community and Regional Affairs	
		Fishery Business Tax - shared ($)	Landing Tax-shared ($)	Fishery Business Tax - shared ($)	Landing Tax-shared ($)
2008	2007	254,359	128,199	124,918	131,352
2009	2008	311,439	97,736	107,123	201,055
2010	2009	13,567	54,949	98,973	92,919
1011	2010	143,848	40,219	122,742	165,964
2012	2011	75,469	61,035	145,816	115,360

Provided be Division of Community and Regional Affairs, January 6, 2013

Table 18 State fisheries business tax revenues for Atka

Department of Revenue FY reporting year	CY of fishing activity	Deparment of Revenue		Division of Community and Regional Affairs	
		Fishery Business Tax - shared ($)	Landing Tax-shared ($)	Fishery Business Tax - shared ($)	Landing Tax-shared ($)
2008	2007	18,349	16,413	119,953	126,132
2009	2008	80,923	14,134	99,901	187,500
2010	2009	0	9,682	93,115	87,420
1011	2010	57,861	10,377	106,976	144,645
2012	2011	51,168	18,946	126,575	100,138

Provided be Division of Community and Regional Affairs, January 6, 2013

2.7 Expected Effects of the Alternatives

This section presents a discussion of aspects of the economic and distributional effects that might be expected to occur as a result of prioritizing AI Pacific cod directed fishing allowance for CVs and require delivery of AI Pacific cod to shoreplants in the AI management area. The impetus for the proposed action originated with shoreside processor and community representatives from Adak, and the concern that increased entry by processing vessels (motherships, CPs, and floating processors) would erode the historical shoreside processing share of the AI Pacific cod.

Assessing the effects of the alternatives and options involves some degree of speculation. In general, the effects arise from the actions of individual participants in the fisheries, under the incentives created by different alternatives and options. Predicting these individual actions and their effects is constrained by incomplete information concerning the fisheries, including the absences of complete economic information and well-tested models that predict behavior under different institutional structures. In addition, exogenous factors, such as stock fluctuations, market dynamics, and macro conditions in the global economy, will influence the response of the participants under each of the alternatives and options.

2.7.1 Alternative 1: No action

Alternative 1 is the no action alternative. Alternative 1 would not establish an AI Pacific cod directed fishing allowance for the CV sector or require AI Pacific cod to be delivered to shoreplants west of 170 degrees longitude in the AI. Alternative 1 would also not limit A season trawl CV Pacific cod harvest in the BS to prevent the sector from harvesting their A season allocation before the AI Pacific cod fishery is completed. Alternative 1 would be expected to retain the status quo, in which sectors that are currently active in the AI Pacific cod fishery will likely continue to be active in the fishery for the foreseeable future. Thus this section provides background information intended to characterize the status quo.

2.7.1.1 Harvest distribution of AI Pacific cod

Table 19 shows the amount and proportion of retained Pacific cod catch in the BS and AI management areas, excluding CDQ data and State GHL fishery catch data. The data in the table show that retained catch from the AI was between 15% and 16% of the combined BSAI retained catch from 2003 through 2004. In 2005 and 2006, retained catch from the AI declined to about 11% each year. From 2007 through 2010 period, retained catch in the AI relative to the combined BSAI catch increased, ranging from 15% to almost 18%. In 2011 through 2013, harvest from the AI declined significantly due to the implementation of the Steller sea lion protection measures and other factors. In 2011, retained harvest from the AI accounted for 5% of the total, while in 2012 and through July 15, 2014, the AI accounted for between 5% and 3% of the total harvest. During the 2014 fishing season, 4,888 mt of the 6,248 AI Pacific cod ITAC was harvested before the fishery was closed to directed fishing on March 16. The remaining 1,360 mt of AI Pacific cod was reserved for bycatch in other directed fisheries.

Table 19 Pacific cod catch in the Aleutian Islands and Bering Sea from 2003 through July 15, 2014 (in metric tons and percent of total)

Year	AI		BS		Total BSAI retained catch (mt)
	Retained catch (mt)	% of total	Retained catch (mt)	% of total	
2003	31,859	17	158,506	83	190,365
2004	28,287	15	165,885	85	194,172
2005	21,214	11	166,328	89	187,542
2006	19,138	11	153,520	89	172,658
2007	27,678	18	127,620	82	155,298
2008	25,012	17	121,869	83	146,881
2009	25,449	17	127,886	83	153,335
2010	21,702	15	125,658	85	147,359
2011	10,378	5	184,498	95	194,876
2012	11,497	5	207,287	95	218,785
2013	7,119	3	207,910	97	215,029
2014*	4,888	4	132,931	96	137,819

Source: AKFIN, July 15, 2014.
Table orginates from pivot file BSAI_PCOD_SECTOR(07-15)
* 2014 data as of July 15, 2014

Table 20 shows retained Pacific cod harvest by sector for AI and BS from 2003 through July 15, 2014, excluding CDQ harvest and State GHL harvest. Some of these data are not provided due to confidentiality; other data are masked to protect confidential data that would otherwise be evident due to simple subtraction.

Table 20 Retained Pacific cod catch (mt) and percent of total Pacific cod catch in AI and percent of total Pacific cod catch in the Bering Sea and Aleutian Islands areas, by sector, 2003 through July 15, 2014

Year	Sectors	AI			BS			BSAI	
		Vessels	Metric tons	% of BSAI	Vessels	Metric tons	% of sector BSAI	Vessels	Metric tons
2003	HAL CP	11	851	1	39	92,786	99	50	93,637
	HAL CV	26	40	8	29	484	92	55	524
	JIG	1	*	*	14	*	*	15	156
	POT CP	0	0	0	3	1,547	100	3	1,547
	POT CV	0	0	0	69	18,232	100	69	18,232
	TRW CP	14	13,759	42	39	19,077	58	53	32,836
	TRW CV	32	17,208	40	113	26,225	60	145	43,433
Total		84	31,859	17	306	158,506	83	390	190,365
2004	HAL CP	8	2,937	3	39	91,442	97	47	94,379
	HAL CV	23	72	10	26	624	90	49	696
	JIG	0	0	0	16	231	100	16	231
	POT CP	0	0	0	3	3,234	100	3	3,234
	POT CV	0	0	0	72	13,957	100	72	13,957
	TRW CP	15	11,839	29	40	29,018	71	55	40,858
	TRW CV	21	13,439	33	105	27,379	67	126	40,817
Total		67	28,287	15	301	165,885	85	368	194,172
2005	HAL CP	7	2,128	2	39	96,616	98	46	98,744
	HAL CV	22	22	2	42	1,109	98	64	1,130
	JIG	2	*	*	17	*	*	19	117
	POT CP	0	0	0	2	*	*	2	*
	POT CV	0	0	0	60	13,702	100	60	13,702
	TRW CP	13	11,079	32	39	23,807	68	52	34,886
	TRW CV	16	7,973	22	104	27,652	78	120	35,625
Total		60	21,214	11	303	166,328	89	363	187,542
2006	HAL CP	9	2,253	3	39	82,343	97	48	84,596
	HAL CV	26	21	3	46	634	97	72	655
	JIG	1	*	*	11	*	*	12	91
	POT CP	1	*	*	3	*	*	4	3,148
	POT CV	3	305	2	61	15,831	98	64	16,136
	TRW CP	15	9,563	28	39	25,102	72	54	34,664
	TRW CV	16	6,907	21	100	26,461	79	116	33,367
Total		71	19,138	11	299	153,520	89	370	172,658
2007	HAL CP	8	2,268	3	37	65,776	97	45	68,044
	HAL CV	18	46	10	48	427	90	66	473
	JIG	1	*	*	9	*	*	10	83
	POT CP	1	*	*	3	*	*	4	2,755
	POT CV	2	*	*	61	*	*	63	14,728
	TRW CP	16	11,899	32	39	25,836	68	55	37,735
	TRW CV	34	13,172	42	103	18,308	58	137	31,480
Total		80	27,678	18	300	127,620	82	380	155,298
2008	HAL CP	10	4,048	5	37	71,495	95	47	75,543
	HAL CV	30	173	15	62	983	85	92	1,156
	JIG	9	156	89	6	19	11	15	176
	POT CP	4	*	*	2	*	*	6	3,671
	POT CV	1	*	*	56	*	*	57	15,514
	TRW CP	11	4,677	23	39	15,359	77	50	20,036
	TRW CV	31	13,980	45	102	16,804	55	133	30,784
Total		96	25,012	17	304	121,869	83	400	146,881
2009	HAL CP	10	4,748	6	38	78,406	94	48	83,154
	HAL CV	17	17	3	41	582	97	58	600
	JIG	0	0	0	3	13	100	3	13
	POT CP	3	*	*	2	*	*	5	3,513
	POT CV	0	0	0	44	10,552	100	44	10,552
	TRW CP	11	4,924	19	36	21,188	81	47	26,112
	TRW CV	26	14,993	51	100	14,398	49	126	29,390
Total		67	25,449	17	264	127,886	83	331	153,335
2010	HAL CP	11	4,576	6	36	66,986	94	47	71,562
	HAL CV	19	19	5	39	387	95	58	406
	JIG	0	0	0	7	344	100	7	344
	POT CP	2	*	*	3	*	*	5	3,361
	POT CV	0	0	0	45	16,728	100	45	16,728
	TRW CP	11	3,721	14	34	23,233	86	45	26,955
	TRW CV	24	12,724	45	96	15,280	55	120	28,004
Total		67	21,702	15	260	125,658	85	327	147,359

Source: AKFIN, July 15, 2014.

Table orginates from pivot file BSAI_PCOD_SECTOR(07-15)

* Denotes confidentiality

** 2014 data as of July 15, 2014

Table 20 continued

Year	Sectors	AI			BS			BSAI	
		Vessels	Metric tons	% of BSAI	Vessels	Metric tons	% of sector BSAI	Vessels	Metric tons
2011	HAL CP	7	1,146	1	29	95,202	99	36	96,348
	HAL CV	16	53	10	38	463	90	54	515
	JIG	0	0	0	11	505	100	11	505
	POT CP	1	*	*	4	*	*	5	3,102
	POT CV	0	0	0	48	23,938	100	48	23,938
	TRW CP	13	1,448	5	36	29,354	95	49	30,802
	TRW CV	14	7,726	19	104	31,939	81	118	39,666
Total		51	10,378	5	270	184,498	95	321	194,876
2012	HAL CP	7	3,140	3	31	109,846	97	38	112,987
	HAL CV	19	26	4	29	589	96	48	615
	JIG	0	0	0	5	85	100	5	85
	POT CP	0	0	0	5	4,178	100	5	4,178
	POT CV	0	0	0	48	21,006	100	48	21,006
	TRW CP	11	2,092	6	35	31,608	94	46	33,700
	TRW CV	15	6,239	14	105	39,975	86	120	46,214
Total		52	11,497	5	258	207,287	95	310	218,785
2013	HAL CP	4	909	1	30	104,755	99	34	105,664
	HAL CV	11	6	1	31	1,032	99	42	1,038
	JIG	0	0	0	16	15	100	16	15
	POT CP	0	0	0	3	6,317	100	3	6,317
	POT CV	0	0	0	52	20,836	100	52	20,836
	TRW CP	11	1,107	3	34	36,656	97	45	37,763
	TRW CV	10	5,097	12	101	38,299	88	111	43,396
Total		36	7,119	3	267	207,910	97	303	215,029
2014**	HAL CP	1	*	*	29	*	*	30	57,780
	HAL CV	3	2	0	11	1,888	100	14	1,889
	POT CP	0	0	0	4	1,711	100	4	1,711
	POT CV	0	0	0	43	15,623	100	43	15,623
	TRW CP	10	648	3	34	20,179	97	44	20,828
	TRW CV	9	4,237	11	95	35,751	89	104	39,988
Total**		23	4,888	4	216	132,931	96	239	137,819

Source: AKFIN, July 15, 2014.

Table orginates from pivot file BSAI_PCOD_SECTOR(07-15)

* Denotes confidentiality

** 2014 data as of July 15, 2014

From 2003 through July 15, 2014, the majority of the sectors' harvest of Pacific cod is from the BS, but there continue to be several sectors with notable portions of catch in the AI. The trawl CV and trawl CP sectors were the most active in the AI. The trawl CV sector retained the most AI Pacific cod in terms of metric tons and percentage during the twelve year period; 11 percent to 51 percent of their BSAI Pacific cod was harvested in the AI with an overall average of 30 percent. The trawl CP sector, second to the trawl CV sector, harvested from 3 percent to 42 percent of their combined BSAI Pacific cod from the AI and had an overall average of 20 percent over the twelve year period. As noted in Figure 3, AI harvest as a percent of each sector's combined BSAI Pacific cod harvest has diminished significantly. Looking at these two sectors in relation to total AI Pacific cod harvest, the trawl CV sector has generally increased their share of the AI Pacific cod harvest since 2006 harvesting nearly 90 percent of the AI Pacific cod in 2014, while the trawl CP share of the AI Pacific cod has generally diminished their share since 2005 harvesting slightly over 10 percent in 2014 (Figure 4).

The hook-and-line sectors are the only other sectors that have consistently participated in the AI Pacific cod fishery on annual basis since 2003. The hook-and-line CP sector had a much lower total annual harvest and allocation than the trawl CV or CP sectors, but until 2014, typically harvested some portion of its BSAI Pacific cod in the AI. The hook-and-line CP sector has harvested from 1 percent to 6 percent of their combined BSAI Pacific cod from the AI during the twelve year period for an average of 3 percent. In 2014, only one hook-and-line CP vessel participated in the AI Pacific cod fishery prior to the fishery closing on March 16. Since only one hook-and-line CP participated in 2014 AI Pacific cod fishery, the catch data is not provided to confidentiality. The last sector that has routinely harvested AI Pacific cod on

an annual basis is the hook-and-line CV sector. During 2003 through July 15, 2014, the hook-and-line CV sector harvest of the AI Pacific cod ranged from 1 percent to 15 percent, for an average over the twelve year period of 6 percent. In 2014, three hook-and-line CVs participated in the AI Pacific cod fishery harvesting 2 mt prior to its closing on March 16, which was less than 1 percent of the sector's BSAI Pacific cod catch.

The remaining sectors, pot CP, pot CV, and jig, have not consistently participated in the AI Pacific cod fishery on an annual basis. The pot CP participated from 2003 through 2010, the pot CV sector participated from 2006 through 2008, and the jig sector participated in 2003 and 2005 through 2008.

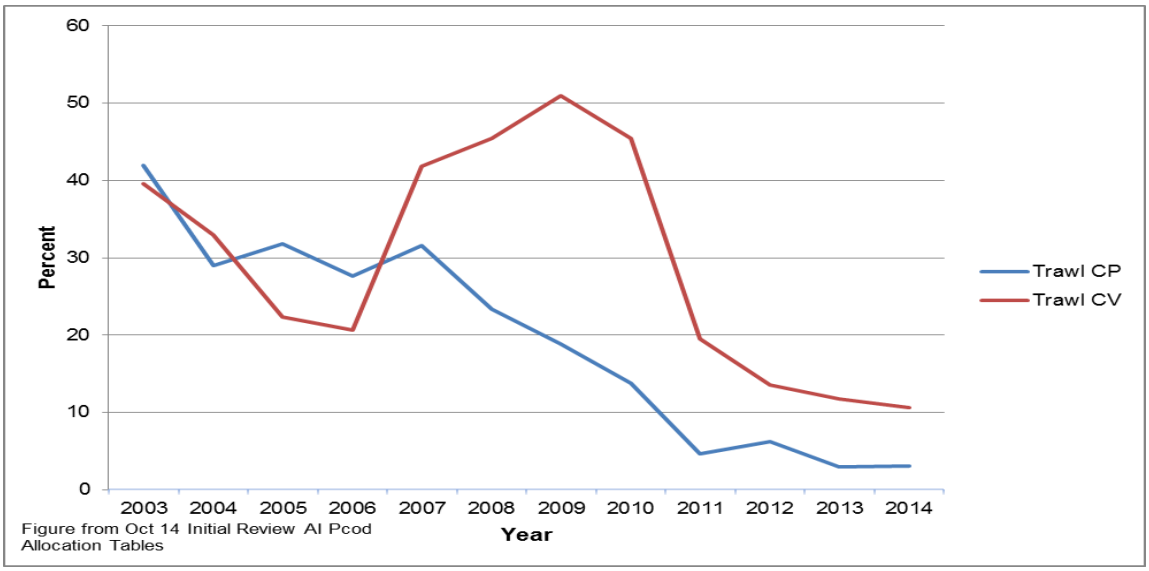


Figure 3 Annual percent of AI Pacific cod harvest relative to the sector's combined BSAI Pacific cod harvest for trawl CP and trawl CV, 2003 through 2014

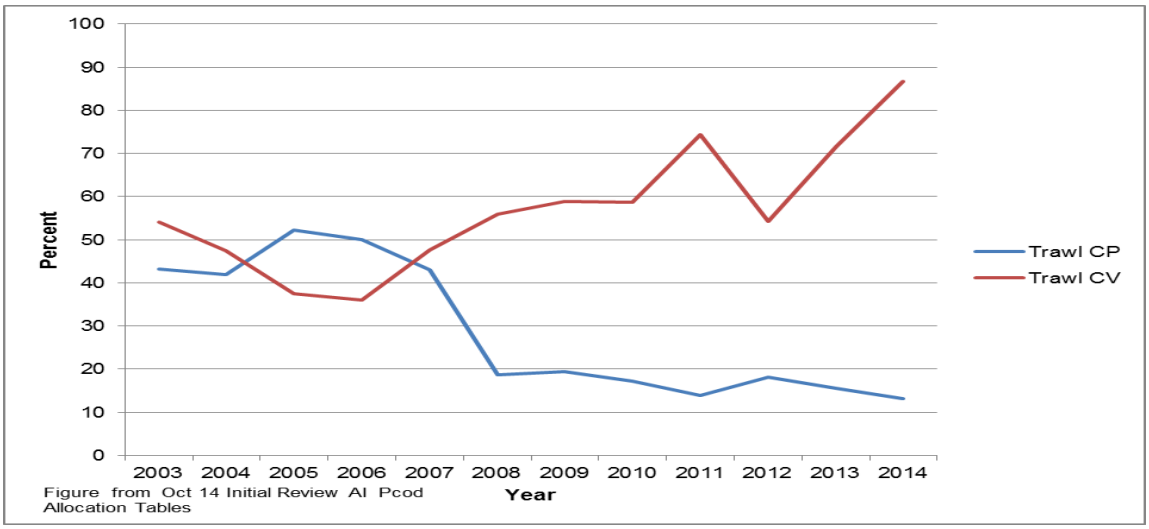


Figure 4 Annual percent of AI Pacific cod harvest by trawl CP and trawl CV sectors relative to total harvest of AI Pacific cod, 2003 through 2014

Timing of the AI Pacific cod fishery in relation to the BS Pacific cod fishery has differed slightly over the last several years. As noted in Figure 5, during 2010 through 2014, the Pacific cod fishery in the BS starts in earnest following the January 20 opener with a usual peak in fishing around mid-February followed by a slow decline in fishing effort during March and April. In the AI Pacific cod fishery, fishing effort tends to ramp up during the last couple of weeks in February with a peak in fishing effort around mid-March followed by a dramatic declined in fishing effort over the next couple of weeks (Figure 6).

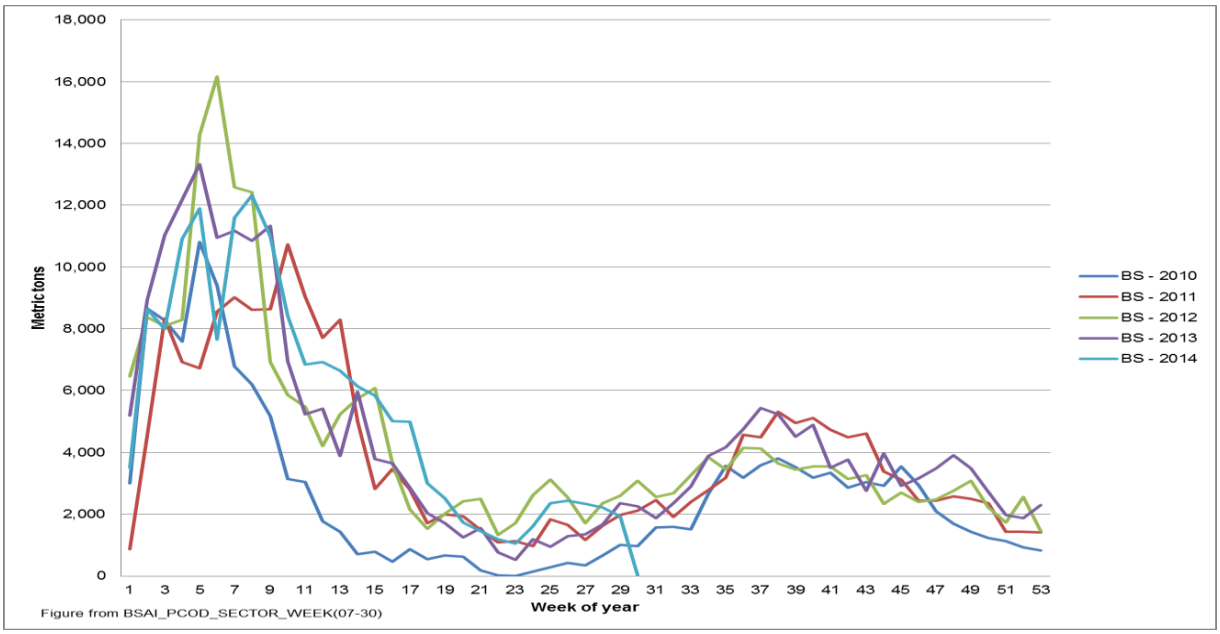


Figure 5 Total retained harvest of Bering Sea Pacific cod by week, 2010 through July 2014

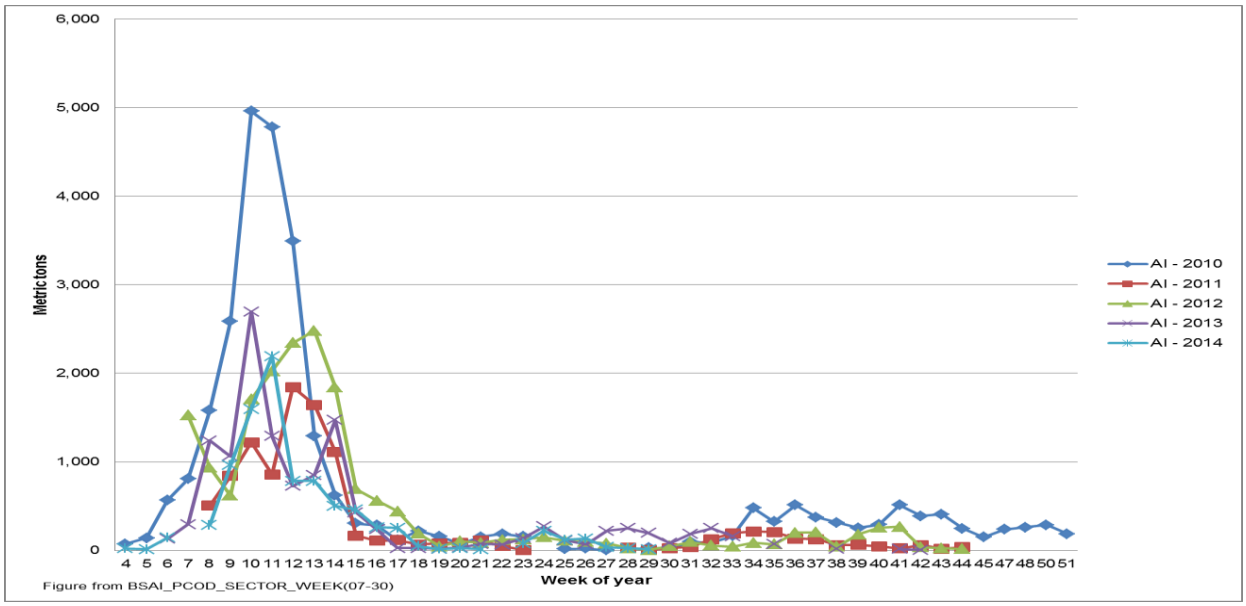


Figure 6 Total retained harvest of Aleutian Islands Pacific cod by week, 2010 through July 2014

Figure 7 and Figure 8 provide average weekly harvest of BS and AI Pacific cod for the trawl CV sector for two periods, 2009 through 2011 and 2012 through July 2014. As seen from the figures, the catch of BS A season Pacific cod for the trawl CV sector tended to peak in week 8 during 2009 through 2011, while during the 2012 through 2014 period catch tended to peak in week 5, a shift of three weeks. During 2009 through 2011, the A season Pacific cod fishery for the CV trawl sector tended to wrap-up at the end of the A season, while in 2012 through 2014, the A season tended to wrap-up in weeks 10 and 11. In the AI Pacific cod fishery, catch by trawl CV sector has tended to peak during week 10 and 11 over the past six years, while the fishery tended to wrap-up at the end of the A season. One of the factors attributing to the late start of the AI Pacific cod fishery is due to Pacific cod aggregating in the Aleutian Islands during this time period, which allows efficient harvest by trawl vessels. Catch of Pacific cod outside of that time period is mostly incidental catch in other fisheries. Fishermen have indicated that it is hard to find aggregations of Pacific cod in sufficient amounts to warrant trawling after mid-April. The second peak in the BS is associated with B season fishery.

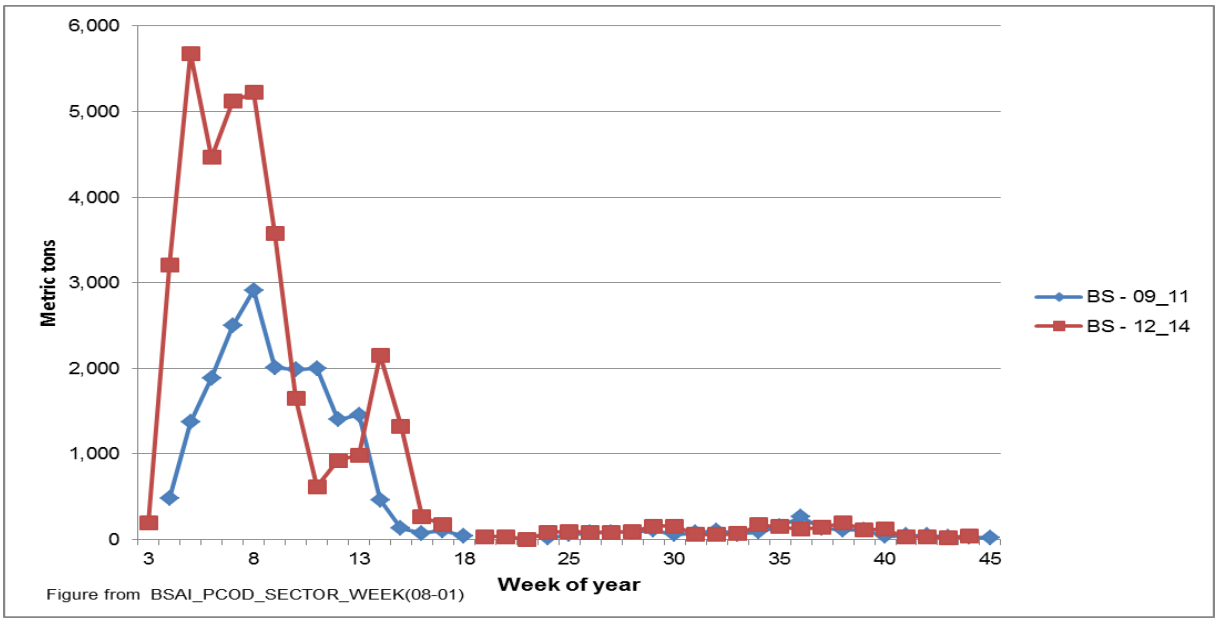


Figure 7 Average retained harvest of Bering Sea Pacific cod by week for the trawl CV sector, 2009 through 2011 and 2012 through July 2014

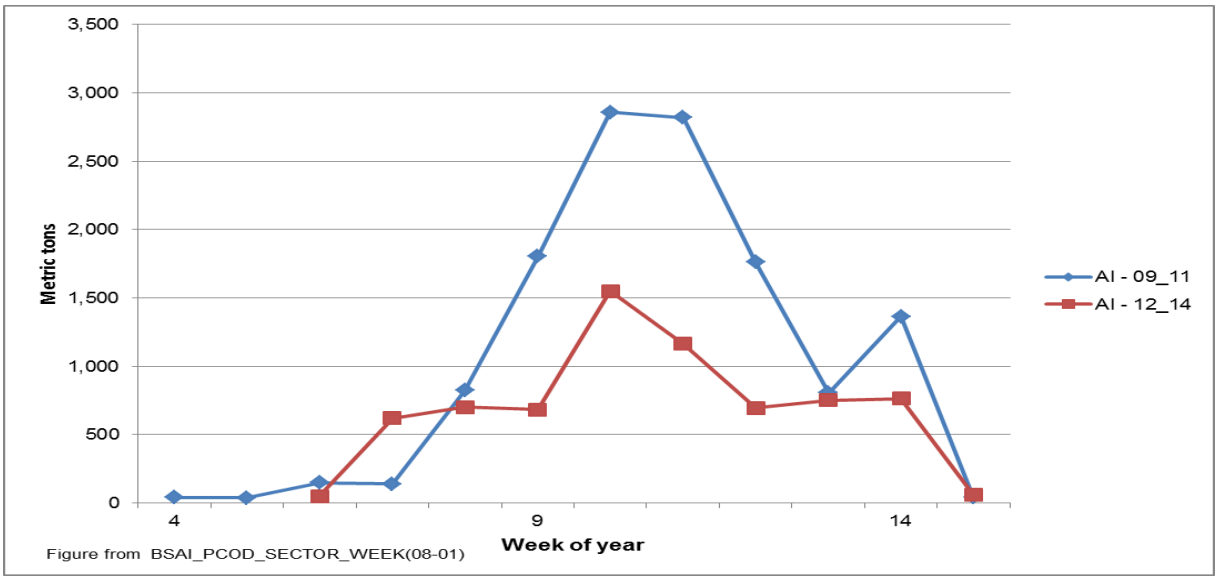


Figure 8 **Average retained harvest of Aleutian Islands Pacific cod by week for the trawl CV sector, 2009 through 2011 and 2012 through July 2014**

2.7.1.2 Distribution of AI Pacific cod processing

This section provides a summary of Pacific cod processing history in the AI from 2003 through July 2014. Historically, a portion of the BSAI Pacific cod ITAC allocated to CVs has been harvested in the AI and processed onshore. A portion of this AI harvest has also typically been processed offshore, by motherships, floating processors, or CPs acting as motherships. Included in Table 21 is annual metric tons of AI Pacific cod processed at-sea, Adak and Atka shoreside processing plants, and all other shoreside processing to include Akutan, Dutch Harbor, and other Alaska communities from 2003 through July 31, 2014.

Since Atka shoreside processor processed little or no AI Pacific cod during 2003 through 2014, the data in Table 21 shows that the Adak shoreplant processing activity ranged from a low of 0 percent in 2011 to a high of 49 percent in 2013 and 2014, with an average across the period of 27 percent. In contrast, the at-sea sectors processed a low of 51 percent of the AI Pacific cod in 2013 and 2014 to a high of 100 percent in 2011, with an average across all years of 72 percent. Other shoreplant processing of AI Pacific cod was generally less than 1 percent of the total AI Pacific cod processed during 2003 through 2014.

Table 21 Amount of AI Pacific cod processed onshore at the Adak and Atka plants and all other processing of AI Pacific cod at at-sea and other shoreside plants to include Dutch Harbor, Akutan, and other Alaska communities

Year	At-sea processing			Adak and Atka shoreside processing			Other shorebased processing			Total AI Pacific cod processed (mt)	Total BSAI Pacific cod processed (mt)
	mt	% of AI	% of BSAI	mt	% of AI	% of BSAI	mt	% of AI	% of BSAI		
2003	22,819	72	12	8,716	27	5	324	1.0	0.2	31,859	190,365
2004	18,930	67	10	9,282	33	5	75	0.3	0.0	28,287	194,172
2005	14,728	69	8	6,440	30	3	46	0.2	0.0	21,214	187,542
2006	14,255	74	8	4,763	25	3	120	0.6	0.1	19,138	172,658
2007	17,514	63	11	10,000	36	6	164	0.6	0.1	27,678	155,298
2008	20,242	81	14	4,679	19	3	91	0.4	0.1	25,012	146,881
2009	17,172	67	11	8,268	32	5	10	0.0	0.0	25,449	153,335
2010	21,404	99	15	177	1	0	121	0.6	0.1	21,702	147,359
2011	10,327	100	5	39	0	0	12	0.1	0.0	10,378	194,876
2012	8,288	72	4	3,166	28	1	43	0.4	0.0	11,497	218,785
2013	3,602	51	2	3,511	49	2	6	0.1	0.0	7,119	215,029
2014*	2,605	51	2	2,477	49	2	4	0.1	0.0	5,086	141,848

Source: AKFIN, July 31, 2014
Table orginates from pivot table BSAI_PCOD_PROC_CNT(07-31)
* 2014 data as of July 31, 2014

2.7.2 Alternative 2: CV directed fishing allowance with delivery requirement

Alternative 2 would prioritize AI Pacific cod directed fishing allowance (TAC minus CDQ and ICA) for CVs and require delivery of AI Pacific cod to shoreplants in the AI management area. Included in the directed fishing allowance action is to have the CV allowance and the delivery requirement terminate on Council selected option of March 7 or March 15 of each year, after which any sector with remaining allocation would be allowed to target AI Pacific cod and processing would not be restricted until either the sector has exhausted their BSAI Pacific cod allocation or the AI Pacific cod fishery is closed to directed fishing, whichever comes first. In addition, the alternative includes an option to allow CVs to deliver their directed fishing allowance to offshore processors and processors outside the AI management area if less than 50% of the AI Pacific cod directed fishing allowance has been landed by March 7 or March 11. Finally, an option is included in the action alternative that would limit the amount of A season BS Pacific cod that could be harvested by trawl CV sector prior to a Council selected date of March 15 or March 21.

The proposed delivery requirement for AI Pacific cod to shoreplants in the AI management area is likely authorized based on two relatively broad and discretionary management measures of the MSA. In other regionalized delivery requirements, the authority for a delivery requirement was mandated by Congress as in the case of Crab Rationalization or the Central GOA Rockfish Pilot Program or based on the authority in the Limited Access Privilege Program (LAPP) of the Magnuson-Stevens Act (MSA) as in the Central GOA Rockfish Program.

The first of these two broad and discretionary management measures is § 301(a)(8) of the MSA (National Standard 8), which requires that conservation and management measures in fishery management plans "shall, consistent with the conservation requirements of this Act, take into account the importance of fishery resources to fishing communities in order to (1) provide for the sustained participation of such communities, and (2) to the extent practicable, minimize adverse economic impacts on such communities." The second measure is § 303(a)(9) of the MSA, which requires fishing communities to be considered in the development of the fishery impact statement. The MSA defines fishing community as a community which is substantially dependent on or substantially engaged in the harvest or processing of

fishery resources to meet social and economic needs, and includes fishing vessel owners, operators, and crew and U.S. fish processors that are based in such communities. Based on that definition of community, it is clear that Adak and Atka meet the definition of community since they both are heavily dependent on fishery resources and are heavily engaged in processing of fishery resources and therefore the Council has the authority to provide for the sustained participation of the AI communities and to minimize the adverse economic impacts on the AI communities from the rationalized fisheries through diminished historical share of the AI Pacific cod fishery.

As noted in the article "Protecting Community Interests," there is balance between the different national standards. Although National Standard 8 recognizes the importance of fishery resources to fishing communities and requires the Council to consider community impacts, there is a fundamental question of how to balance the requirements of this standard with other National Standards in the MSA. National Standard 8 states that "conservation and management shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities…" [MSA 301(a)(8)]. Thus, it is fairly clear that measures to protect community interests must remain consistent with the overall conservation goal of fisheries management to "prevent overfishing, while achieving, on a continuing basis, the optimum yield from each fishery for the U.S. fishing industry" [MSA 301(a)(1)]. In effect, if a core conservation measure is necessary, it follows that community interests are of secondary priority. However, greater ambiguity exists when balancing national standards other than National Standard 1 against one another, as there is no explicit hierarchy to their importance. Requirements that the Council consider efficiency in the utilization of fishery resources, as state in National Standard 5, for example, may or may not take precedence over the consideration of community interests under National Standard 8. In this example, the proposed action could be a potential barrier to efficient business and financial decision-making, thus the action could make the AI Pacific cod fishery uneconomical. In the end, the Council must balance National Standard 8 with other national standards other than National Standard 1, particularly when there is inherent tension among specific standards and the proposed conservation or management measure at issue is intended to serve multiple purposes.

2.7.2.1 Directed fishing allowance

Under this alternative, the AI Pacific cod directed fishing allowance (TAC minus CDQ and ICA) would be reserved for CVs until March 7 or March 15 (Council option discussed in 2.7.2.3), at which point the directed fishing allowance will open to all vessels with available BSAI Pacific cod sector allocation and the appropriate endorsements on their LLPs to fish in the AI Pacific cod fishery.

Since the AI Pacific cod directed fishing allowance will be reserved for only CVs and the trawl CV sector has been the most active in the AI Pacific cod fishery amongst all of the CV sectors, this harvest sector will likely benefit to the most from the proposed exclusivity of the AI Pacific cod directed fishing allowance. As noted in Table 22, between 2003 through July 2014, the trawl CV sector harvested on average 57 percent of the AI Pacific cod retained catch. During 2003 through July 2014, the number of CVs ranged from a low of 9 in 2014 to a high of 34 in 2007. From an exvessel gross revenue perspective, the trawl CV sector had an average of $7.7 million from AI Pacific cod during the 2003 through 2013 period, which was 8 percent of their total exvessel gross revenue received from all fisheries (Table 23). An important trend to note in the AI Pacific cod fishery that could reduce the benefits of this proposed action is the declining number of participating vessels as well as the harvest and exvessel gross revenue since the sector's peak harvest in 2008. The downward trend of AI Pacific cod harvest for the trawl CV sector is likely due in part to declining AI Pacific cod biomass, Steller sea lion protection measures implemented starting in 2011, and the separation of the AI OFLs, ABCs, and TACs from the BS starting in 2014.

Amongst the trawl CVs active in the AI Pacific cod fishery, some CVs also deliver AI Pacific cod to CPs and floaters. AI Pacific cod harvested by CVs that is delivered to the offshore sector would only be allowed after the Council selected March 7 or March 15. As noted in Table 24**,** the number of CVs delivering AI Pacific cod to CPs and floaters has ranged from a low of 8 in 2014, to a high of 23 in 2010. The amount of AI Pacific cod delivered to CPs and floaters ranged from a low of 1,521 mt in 2005 to a high of 12,443 mt in 2010. Likely the 2010 peak in offshore deliveries can be attributed to the closing of the Adak shoreplant during 2010 and most of 2011. Since that high of 2010, the amount of AI Pacific cod delivered to CPs and floaters by trawl CVs has been trending downward since the Adak shoreplant start operating in 2012. In addition, in 2014, there was an agreement amongst some offshore companies with the operator of the Adak shoreplant to not participate in the AI Pacific cod fishery.

The trawl CP sector, another group of vessels that will likely be displaced from the AI Pacific cod fishery as a result of the directed fishing allowance for CVs, has harvested an average of 29 percent of the AI Pacific cod during the 2003 through July 2014, with an average first wholesale gross revenue through 2013 of $9.7 million. During this period, the number of trawl CPs has remained relatively stable with a low of 10 vessels in 2014 to a high of 16 vessels in 2007. Relative to the total first wholesale gross revenue from all fisheries for these vessels, the AI Pacific cod fishery contributed on average 6 percent. Similar to the catch patterns in the trawl CV sector, the amount of AI Pacific cod harvested by the trawl CP sector and the proportion of AI Pacific cod harvested has been trending downward since 2007. Table 7 shows harvest of AI Pacific cod peak for the trawl CP sector in 2007 at 11,899 mt and has declined to a low of 648 mt in 2014. Similar to the trawl CV sector, the downward trend of AI Pacific cod harvest is likely in part due to Steller sea lion protection measures implemented in 2011, separating the AI OFLs, ABCs, and TACs from the BS starting in 2014 combined with lower AI Pacific cod biomass, and agreements among some offshore companies and the operator of the Adak shoreplant to not participate in the 2014 AI Pacific cod fishery.

As for the hook-and-line CP sector, their average percent of AI Pacific cod harvested is 13 percent during 2003 through July 2014. During this period, the number of hook-and-line CPs has ranged from a low of one in 2014 to a high of 11 in 2003 and 2010, while harvest has ranged a low of 909 mt in 2013 to high of 4,748 mt in 2009. The average first wholesale gross revenue from the AI Pacific cod fishery for the fixed gear CP sectors during this period was $4.7 million, which was 3.6 percent of the their total first wholesale gross revenue from all fisheries. The hook-and-line CP sector also experienced a decline in participation, harvest, and first wholesale gross revenue since its peak in the AI Pacific cod fishery. The downward trend in harvest and participation for the hook-and-line CPs are also likely due to declining biomass, the separation of the AI OFL and ABC from the BS, and the Steller sea lion protection measures implemented starting in 2011.

Table 22 Retained Pacific cod catch (mt) in the AI and the percent of total retained catch in the AI for trawl CVs and CPs, and hook-and-line CPs

Year	CV Trawl			CP Trawl			CP HAL			AI total retained catch
	Vessels	Metric tons	% of AI	Vessels	Metric tons	% of AI	Vessels	Metric tons	% of AI	Metric tons
2003	32	17,208	54	14	13,759	43	11	851	3	31,859
2004	21	13,439	48	15	11,839	42	8	2,937	10	28,287
2005	16	7,973	38	13	11,079	52	7	2,128	10	21,214
2006	16	6,907	36	15	9,563	50	9	2,253	12	19,138
2007	34	13,172	48	16	11,899	43	8	2,268	8	27,678
2008	31	13,980	56	11	4,677	19	10	4,048	16	25,012
2009	26	14,993	59	11	4,924	19	10	4,748	19	25,449
2010	24	12,724	59	11	3,721	17	11	4,576	21	21,702
2011	14	7,726	74	13	1,448	14	7	1,146	11	10,378
2012	15	6,239	54	11	2,092	18	7	3,140	27	11,497
2013	10	5,097	72	11	1,107	16	4	909	13	7,119
2014**	9	4,237	87	10	648	13	1	*	*	4,888
Average	21	10,308	57	13	6,396	29	8	2,417	13	19,518

Source: AKFIN, July 15, 2014.

Table orginates from pivot file BSAI_PCOD_SECTOR(07-15)

* Denotes confidentiality

** 2014 data as of July 15, 2014

Table 23 First wholesale gross revenue for trawl and fixed gear CPs and exvessel gross revenue for trawl CVs from AI Pacific cod and total of all groundfish, 2003 through 2013

Year	Trawl CV			Trawl CP			Fixed gear CP		
	AI Pacific cod		Total exvessel gross revenue (millions of $)	AI Pacific cod		Total first wholesale gross revenue (millions of $)	AI Pacific cod		Total first wholesale gross revenue (millions of $)
	Exvessel Gross Revenue (millions of $)	% of total		First Wholesale Revenue (million of $)	% of total		First Wholesale Revenue (million of $)	% of total	
2003	13.7	15.7	86.7	15.5	11.9	130.6	1.0	1.0	101.2
2004	6.3	8.2	77.2	13.0	10.5	123.1	3.4	3.6	97.0
2005	4.2	4.9	87.3	14.2	8.6	164.5	3.0	2.3	128.3
2006	5.4	5.6	96.5	15.9	9.1	174.5	4.1	3.0	134.0
2007	12.6	12.6	99.6	23.2	12.7	181.9	4.9	3.7	133.5
2008	17.2	15.5	111.2	9.0	4.6	195.8	12.3	7.8	157.6
2009	7.8	9.8	79.3	5.6	3.2	177.0	6.9	6.3	108.7
2010	6.4	8.2	78.1	5.0	2.3	220.2	7.9	6.5	121.1
2011	4.7	4.3	108.9	1.5	0.5	311.4	1.9	1.3	154.1
2012	4.3	3.6	117.8	2.7	0.9	300.1	4.7	3.1	152.1
2013	2.6	2.7	99.1	0.7	0.3	226.9	1.1	0.9	118.3

Source: AKFIN, August 7, 2014.

Table orginates from pivot file AI_PCOD_DIV(08-07)

Table 24 Number of CVs and metric tons of AI Pacific cod (target and incidental) delivered to CPs acting as mothership and floaters and the number of CVs and metric tons of AI Pacific cod delivered to shoreplants, 2003 through August 5, 2014

	CVs delivering AI Pacific cod to CPs and floaters			CVs delivering to shoreplants		
Year	# CVs	# of CPs and floaters	Metric tons	# of CVs	# of shoreplants	Metric tons
2003	18	3	8,209	50	9	9,040
2004	12	4	4,153	36	6	9,357
2005	9	3	1,521	30	5	6,486
2006	11	4	2,355	38	6	4,883
2007	13	5	3,206	44	5	10,164
2008	21	6	9,621	58	8	4,769
2009	13	5	6,732	34	5	8,278
2010	23	5	12,443	23	7	298
2011	14	4	7,726	16	6	51
2012	13	4	3,056	28	6	3,209
2013	9	3	1,587	17	5	3,516
2014	8	4	1,762	8	4	2,480

Source: AKFIN, July 15, 2014.

Table orginates from pivot file BSAI_PCOD_SECTOR(08-05)-1

** 2014 data as of August 5, 2014

Since the harvest sectors displaced from the AI Pacific cod fishery receive sector allocations of Pacific cod that they may fish in either the AI or the BS, these sectors displaced from the AI Pacific cod fishery would likely respond to the fishing area restrictions by redeploying their vessels to the BS Pacific cod fishery, in effort to offset the burden of the action, and minimize the costs of any new restrictions.

However, whereas in earlier years there was a single Pacific cod TAC for the entire BSAI, from 2014 forward there will be separate Pacific cod TACs for the AI and for the BS. Because of this, if the BS TAC would otherwise have been fully harvested, a sector shift from the AI to the BS as a result of this proposed action can only take place at the expense of another sector's ability to harvest Pacific cod in the BS. Trawl CVs and CPs may be at a relative advantage to the hook-and-line CPs and pot CPs with respect to this, since a large proportion of their seasonal allocations of Pacific are received in the winter and spring, while large proportions of hook-and-line and pot CPs allocation are received in the summer and fall. Many trawl CPs and CVs are also part of the AFA or Amendment 80 programs, operating under a quota system that extends to Pacific cod, and this should provide a framework for structuring intra-sector harvesting and controlling competition. In addition, in a normal year, trawlers are unable to fully harvest their Pacific cod allocations, and some of the trawl gear allocations are reallocated to non-trawl sectors. If trawlers tended to harvest a larger portion of their BSAI allocations in the BS because of being displaced from the AI Pacific cod fishery, reallocations to non-trawl sectors may be reduced.

One factor that could limit the ability of displaced vessels, particularly trawl CVs and CPs, from harvesting their AI Pacific cod in the BS is the halibut PSC rates. As noted in Table 8-62 of the Final EIS for Steller Sea Lion Protection Measures, the estimated average prohibited species catch rates per ton of CVs is 0.0013 in the AI and .014 in the BS, from 2004 through 2012. As a result, halibut PSC limits could potentially prevent trawl CVs and CPs that historically participated in the AI Pacific cod fishery from catching as much Pacific cod in the BS.

In addition, there are likely some disadvantages to these sectors from being displaced from the AI Pacific cod fishery that make recouping lost revenue more challenging. Vessels shifting their Pacific cod harvests from the AI to the BS may receive a lower price for Pacific cod in the BS compared to prices received in the AI, given the reported differences in fish size from observer data and antidotal prices reported by the industry between the two areas. In addition, there are likely some economies of scale for some CP vessels that operate in the AI Pacific cod fishery since they also participate in other AI fisheries. Revenue from the AI Pacific cod helps defray operating costs while participating in AI fisheries, so the lost revenue from the AI Pacific cod fishery could make it more costly for these offshore vessels and CVs that delivery to these vessels and shoreplants outside the AI management area to participate in the few remaining AI fisheries.

Vessels displaced from the AI Pacific cod fishery have limited opportunities for redeployment into other BSAI or GOA groundfish fisheries. For Amendment 80 vessels displaced from the AI Pacific cod fishery, these vessels may increase harvests in other Amendment 80 species to include Atka mackerel, Pacific ocean perch in the AI, rock sole, yellowfin sole, and flathead sole. The opportunities to increase production in these fisheries are limited by the vessel or firm's unfished Amendment 80 quota share holdings, its ability to lease quota share from other Amendment 80 firms, to lease CDQ, or to acquire vessels with Amendment 80 quota attached. Another limiting factor is the availability of other allocated species that may be caught incidentally, and the viability of a market for these species. For AFA CPs and CVs, access to most BSAI flatfish species is precluded as a result of Amendment 80 allocations, and pollock is fully allocated under the provisions for the AFA. Access to species such as arrowtooth flounder, Greenland turbot, and Kamchatka flounder are precluded, because there is no halibut PSC allowance for those fisheries. Only a few trawl CVs rely solely on Pacific cod in the BS. Hook-and-line and pot CPs can fish for halibut and sablefish, but these are individual fishing quota species and would create few issues as vessels shift into these species will have to fish their own individual fishing quota. Potentially, the displaced hook-and-line may increase fishing effort for Greenland turbot in the BSAI. This could increase conflicts with Amendment 80 vessels that also target Greenland turbot.

2.7.2.2 Shoreplant delivery requirement

The action alternative stipulates that prior to March 7 or March 15 (Council option that is discussed in 2.7.2.3), the AI Pacific cod directed fishing allowance to CVs will be delivered to shoreplants west of 170 degrees longitude. After the Council selected date, the directed fishing allowance is no longer limited to CVs and AI Pacific cod can be delivered to offshore processors and shoreplants east of 170 degrees longitude for the remainder of the year.

The language in the alternative specifies the AI Pacific cod be delivered to shoreplants in the AI management area, but a shoreplant is not defined in federal regulations. A definition does exist for shoreside processor in federal regulations. In § 679.2, a shoreside processor is defined as any person or vessel that receives, purchases, or arranges to purchase, or arranges to purchase, unprocessed groundfish except CPs, motherships, buying stations, restaurants, or persons receiving groundfish for personal consumption or bait). The federal definition of a shoreside processor does not specifically exclude a stationary floating processor, which is defined as a vessel of the U.S. operating as a processor in Alaska State waters that remains anchored or otherwise remains stationary in a single geographic location while receiving or processing groundfish harvested in the GOA or BSAI. Given the definition of shorebased processor does not exclude stationary floating processors that remain in single geographic location, this definition appears to be at odds with Council's intent of this proposed action, which is to limit deliveries of AI Pacific cod directed fishing allowance to fishing processing plants that are located inland of the ocean. During the February 2014 discussion of the proposed action, the Council noted that there are currently two shoreplants west of 170 degrees, Adak and Atka. Given there is currently no definition of

shoreplant in federal regulations, the existing shoreside processor definition will have to be modified specific to this action or shoreplant will have to be defined in federal regulations. To assist in modifying the existing definition of shoreside processor or defining shoreplant in federal regulations, the Council may want to provide greater clarity of what it intends as a shoreplant for purposes of this action.

As outlined in the Council discussion concerning the action alternative in February 2014, the intent of the directed fishing allowance landing requirement is to provide some stability to these shoreplants and the communities in which they reside. In the past, Pacific cod deliveries to the Adak shoreplant, one of two shoreplants currently in the AI, often ranged from 6,000 to over 9,000 mt. Starting in 2014, the AI TAC is now set separately and relatively low, which could increase the risk of processing vessels with excess capacity closing the AI to Pacific cod in record time and eroding the historical share of shoreside processors is greater. The requirement to deliver the directed fishing allowance of AI Pacific cod to shoreplants in the AI management area could provide some stability to these shoreplants and communities these shoreplants are located. As noted in recent article in Marine Policy, increased harvesting opportunities can provide a means for communities to increase the size and diversification of their fishery portfolio (Sethi et. Al. 2014). The article states that commercial fisheries can be, by their nature, sporadic in their ability to provide a reliable economic engine for the community due to the variable market conditions, fluctuating catches and stocks, changes in fishery regulations, and environment changes. As result, communities that are more heavily dependent on commercial fisheries, like Adak and Atka, can suffer a higher degree of economic loss from unpredictable fishery conditions. Reducing the risk to communities from volatile fishery conditions is its ability to limit its exposure to those volatile conditions. This might include diversification into many different fisheries or investing in harvesting and processing opportunities. However, in the case of Adak, their ability to reduce their exposure to volatile fishery conditions is likely limited due to the community's proximity to commercial fisheries. There are very few fisheries in and around Adak that are sufficient enough in quantity and value to reduce their economic risk from volatile fishery conditions.

Implicit in the statement of increased economic activity from a directed fishing allocation to CV with a regionalized delivery requirement is the assumption that Pacific cod processing is economically viable at Adak. However, this assumption may not hold. Processing margins at Adak may be smaller than elsewhere, given its remote location; at least one operation went bankrupt trying to operate in Adak and another company citing concerns about the health of the region's Pacific cod resource and increased regulatory uncertainty operated the Adak processing facility for only two years. In addition, the AI and BS Pacific cod split has led to initial reductions in AI Pacific cod harvests.

Since Adak and Atka are currently the only AI communities with the potential AI shorebased processing facility at this time, these processors are likely the primary communities that will benefit from a regionalized delivery requirement. Looking first at Adak, the communities dependency on the shore-based processing of Pacific cod from the AI would likely result in substantial community-level impacts in the form of increased economic activity from the proposed delivery requirement of the allocated AI Pacific cod directed fishing allowance to AI shoreplants. The Adak community is a small and remote. The U.S. Census reported there were 326 residents in April 2010. Commercial fisheries are crucial to the community. There is a fish processing plant at Adak that provides a significant benefit to the community through shore-based processing of Pacific cod harvested in the AI management area. As noted in Table 25, the exvessel value paid to the CVs delivering AI Pacific cod to the shoreside processors, of which the Adak is the largest, reached upwards of nearly $10 million in 2007 and averaged on annual basis of $3.8 million from 2003 through 2013. Looking at first wholesale value of AI Pacific cod processed at shorebased processing plants, the high was nearly $17 million in 2007 and averaged $7.2 million from 2003 through 2013.

Table 25 Exvessel and first wholesale value of AI Pacific cod for the offshore processing and shoreside processing

Year	CV deliveries to AFA/Crab/AM80 motherships and floaters for AI Pacific cod		Shoreside landings for AI Pacific cod[1]		Total ex-vessel value for AI Pacific cod ($)	Total wholsale value for AI Pacific cod ($)
	Ex-vessel value ($)	Wholesale value ($)	Ex-vessel value ($)	Wholesale value ($)		
2003	8,272,110	7,986,764	5,403,402	9,567,112	13,675,513	17,553,877
2004	1,438,632	4,215,241	4,947,860	8,972,774	6,386,492	13,188,015
2005	834,218	1,851,187	3,423,701	8,638,794	4,257,918	10,489,981
2006	1,968,466	3,896,066	3,699,834	6,896,036	5,668,300	10,792,102
2007	2,897,627	5,948,419	9,923,253	16,900,972	12,820,879	22,849,391
2008	11,785,673	17,665,075	5,958,874	8,416,003	17,744,548	26,081,078
2009	3,351,795	6,213,482	4,435,706	9,831,311	7,787,501	16,044,793
2010	6,242,250	18,260,850	146,588	428,544	6,388,838	18,689,394
2011	4,705,230	13,024,867	35,344	87,248	4,740,575	13,112,115
2012	2,072,937	4,654,657	2,211,362	5,239,108	4,284,300	9,893,764
2013	788,214	1,932,981	1,853,913	4,488,810	2,642,127	6,421,791

Source: AKFIN, July 15, 2014.

Table orginates from pivot file BSAI_Pcod_Value (08-18)

[1]Includes value of shoreside landings from Adak, Akutan, Dutch Harbor, and other Alaska communities

Port visits to Adak, associated with Pacific cod fishing by both CPs and CVs, may create demand for goods and services in the community. Vessel services may include support for crew rotations, fuel supplies, and emergency medical services at the local clinic. The local fuel distributor has indicated that the large volume of fuel sold to fishing vessels allows the firm to sell fuel to residential and commercial customers in Adak at lower prices than it otherwise would be able to. A review of catch and VMS records, summarized in Table 10-12 and Table 10-13 of Chapter 10 of the Steller Sea Lion Protection Measures Final EIS shows during 2004 through 2010 there was on average 118 CV port visits per year and 44 CP port visits per year. The proposed delivery requirement of AI Pacific cod could increase CV port visits to Adak and thus could increase demand for goods and services in the community. However, any increase in economic activity in Adak as a result of increased CV port visits will likely be offset to some degree by a decrease in economic activity in the Adak community from a reduction in CP port visits.

Because of Adak's small size, its residents must import a large proportion of the goods they consume. Moreover, a large part of the processor work force is made up of temporary workers who come to town for the season and who leave when it is over. They spend money in the town while they are there, but a large part of their income would be spent elsewhere. Other sources of personal income and inducted impact may be so limited, however, that induced impacts (sales at the local grocery store for home consumption, for example) may have importance. Adak shares in the State's fisheries business tax revenues and its fishery resource landing tax revenues and any changes in landings or offloads in the municipal limits, or in the unorganized borough (Aleutian West census area) are likely to impact Adak city revenues.

Looking at the community of Atka, fishing vessels from Atka have primarily targeted halibut and sablefish, and not Pacific cod. Atka has not been an important logistical support base and is not impacted by transfers of product to CPs or tramp steamers. In the past, Atka Pride Seafoods did not take deliveries of, or process, Pacific cod. However, the plant began to take Pacific cod for processing in the summer of 2012, and plans to expand production in the future. Any increase in the deliveries of, or processing of Pacific cod at the Atka Pride Seafood plant as a result of the proposed action would likely benefit the community through increased economic activity. In addition, increased deliveries of, and processing of AI Pacific cod may lead to similar changes in port visits by trawl and non-trawl CVs. Atka shares in the State's fisheries business tax and fishery resource landing tax revenues, and increase in these revenues is

likely from increased deliveries of AI Pacific cod to Atka. Atka has a 2 percent raw fish tax, and an increase in Pacific cod deliveries may create new revenues for the community.

In contrast to the increased economic activity for the Adak and Atka shoreplants from the proposed delivery requirement of AI Pacific cod, those offshore processing vessels that have historically participated in the AI Pacific cod fishery will likely experience a reciprocal decline in economic activity from the loss of AI Pacific cod harvesting and processing. As noted in Table 25, from 2003 through 2013, the largest reported exvessel value and the first wholesale value of AI Pacific cod fishery for the offshore fleets was nearly $12 million exvessel gross revenue and $18 million first wholesale gross revenue. From 2003 through 2013, the average exvessel gross revenue was $4 million and the average first wholesale gross revenue was nearly $8 million.

Mitigating some of the lost economic activity associated with processing AI Pacific cod by offshore vessels is the potential for these vessels to redeploy to the BS Pacific cod fishery. Both groups of CPs receive sector allocations of Pacific cod that they may fish in either the AI or BS. Therefore, if these fleets are unable to harvest and process Pacific cod in the AI as they have in the past, they may be able to make up part, or all, of the loss in the BS. See Section 2.7.2.1 for further details concerning these impacts.

As a port of goods and services for CPs and CVs that delivered to CPs, in the AI Pacific cod fishery, Adak has historically received a substantial amount of economic activity from these port visits. As a result of the proposed management measures to require AI Pacific cod directed fishing allowance to AI shoreplants, there will likely be a reduction in the number of port visits by CPs and CVs that deliver their AI Pacific cod catch to Adak. As indicated in the Steller Sea Lion Protection Measures Final EIS, these port visits by CPs and their associated CVs may be a source of significant economic activity for Adak. Vessels may use these port visits for crew transfers, purchasing provisions and fuel, product offloads, and purchases of other local goods and services, among other activities. The proposed delivery requirement and the likelihood of reduced port visits by CPs and their associated CVs will likely result in lost economic activity for Adak.

Since CVs will be required to deliver AI Pacific cod to one of the two potential shoreside processing plants in the AI west of 170 degrees longitude, CV participants will have substantially less ability to use processor competition for AI Pacific cod landings to leverage higher prices in negotiations. However, a potential source of negotiating leverage might be exploited under this alternative. First, CV participants could use the threat of not fishing their directed fishing allowance allocation, instead choosing to either not fish the AI Pacific cod at all, or fish their allocation in the BS Pacific cod fishery. The extent to which a CV participant in the AI Pacific cod fishery can assert leverage depends on the importance of the AI Pacific cod fishery to the participant. If the AI Pacific cod fishery is an important component of the CV's operations, the ability to withhold fishing to leverage a better price is very limited. Similarly, the effectiveness of withholding catch from the processor for negotiating leverage also depends on the importance of AI Pacific cod to the processor. However, processors that are more dependent on AI Pacific cod are likely to be more responsive to CVs withholding catch. For example, AI Pacific cod is the primary source of revenue for the Adak shoreplant, which improves the potential for CVs to withhold landings to assert negotiating leverage.

In addition, as with other constraints on landings, regionalized delivery requirements to only a few buyers can reduce market and processing innovations that might be developed without the constraints. From 2003 through 2014, there were on average 10 offshore processors and shoreplants in the AI Pacific cod fishery. Competition amongst these 10 processors generally creates an environment of market and processing innovation as these 10 processors compete to capture an increasing share of the AI Pacific cod

market. By limiting the AI Pacific cod fishery to only two processors, competition would be limited and thus the incentive to improve market and processing innovations would be reduced.

2.7.2.3 AI Pacific cod Options

To prevent stranding of AI Pacific cod and to allow CP sectors an opportunity to participate in the fishery, the Council included an option that would remove the AI Pacific cod directed fishing allowance for CVs and the delivery requirement to shoreplants in the AI management area on March 7 or March 15. The AI Pacific cod fishery for the trawl CV sector, historically the most active CV sector, usually starts in mid-February with a sharp increase in fishing and processing during the first two weeks in March and rapid decline in fishing and processing active over the next two weeks. Figure 8 provides average weekly harvest of AI Pacific cod for the trawl CV sector for two periods, 2009 through 2011 and 2012 through July 2014. As seen from the figure, catch by trawl CV sector has tended to peak during the first week in March and generally was in decline during the second week in March and there has not been a B season fishery for this sector in the AI. In contrast, Figure 9 shows that the other sectors, primarily the trawl CP and hook-and-line CP, historical harvest AI Pacific cod starting in early February with a sharp increase during the first two weeks in March. Following this peak, harvest of AI Pacific cod by these sectors has tended to decline over the next several weeks with a short peak early in the B season followed by a small fishery throughout the rest of the B season.

Given the historical fishing pattern of the trawl CV sector in the AI Pacific cod fishery, both March 7 and 15 would likely allow the CV trawl sector to harvest the directed fishing allowance and deliver it to AI shoreplants while also allowing CP sectors to harvest any remaining AI Pacific cod. As noted in Figure 8, the CV trawl sector and the AI shoreplants have usually harvested and processed their greatest share of the AI Pacific cod during these two weeks in March. As for the remaining sectors, including an end date for the directed fishing allowance and delivery requirement could provide fishing opportunities in the AI Pacific cod fishery for these sectors. In general, during years of high AI Pacific cod directed fishing allowance, CP sectors will likely have greater opportunity to fish in the AI Pacific cod fishery after March 7 or March 15, while during years of low directed fishing allowance, there will likely be little opportunity for other sectors to participate in the AI Pacific cod fishery after March 7 or March 15.

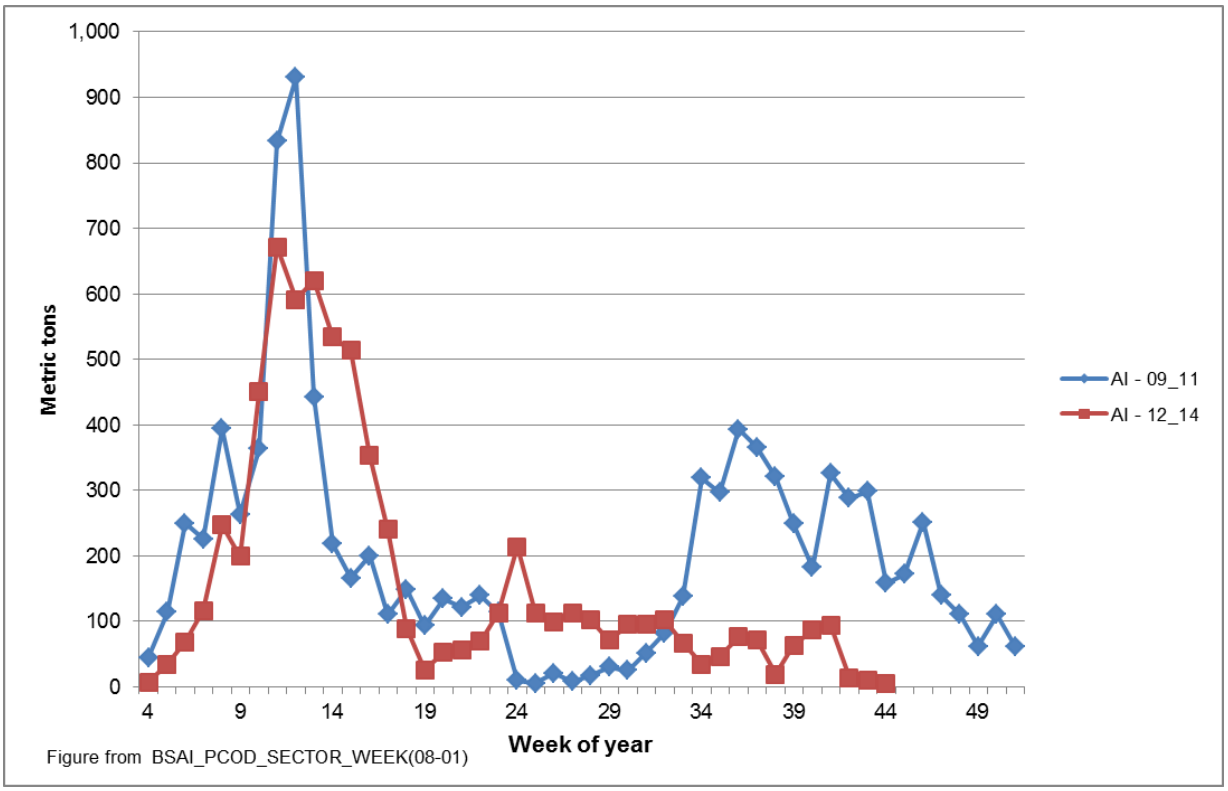


Figure 9 **Average retained harvest of Aleutian Islands Pacific cod by week for all harvest sectors except trawl CV sector, 2009 through 2011 and 2012 through July 2014**

To prevent stranding of AI Pacific cod due to insufficient AI shoreplant processing capacity, the Council included an option that removes the delivery requirement if less than 50 percent of the AI Pacific cod is harvested by March 7 or March 15. By removing the delivery requirement, CVs could deliver their directed fishing allowance to offshore processors and shoreplants outside of the AI management area.

Given the historical fishing pattern of the trawl CV sector in the AI Pacific cod fishery, both March 7 and 15 would likely result in some stranding of AI Pacific cod. As noted in Figure 8, the AI Pacific cod fishery for the trawl CV sector is very short. The CV trawl sector and the AI shoreplants have usually harvested and processed their greatest share of the AI Pacific cod during these two weeks in March, and the fishery is quickly diminishing over the next few weeks. In essence, by the time the regionalized delivery requirement is removed on March 7 or March 15 due to insufficient processing by AI shoreplants, the fishery is nearly over and trawl CV sector and offshore processing sectors could not reaction with sufficient time to harvest and process the remaining directed fishing allowance.

Given the existing option for removing the regionalized delivery requirement may not prevent stranding AI Pacific cod there may be a need for an exemption from the regionalized delivery requirement earlier in the AI Pacific cod fishery than what is currently proposed in the action. Since there will likely only be two AI shoreplants in the immediate future and the Atka shoreplant is estimated to only be capable of processing 5,000 mt of Pacific cod in a 28 day period, both shoreplants are likely necessary in processing the AI Pacific cod directed fishing allowance greater than 5,000 mt. [6] The processing capacity of the Adak

[6] Source: Larry Cotter and John Sevier, APICDA, August 2013.

plant is one million round pounds (454 mt) of Pacific cod daily or 12,700 mt over a 28 day period.[7] Combined, the processing capacity during a four-week fishery is approximately 17,700 mt of Pacific cod. Comparing this processing capacity to the current directed fishing allowance, there appears to be sufficient processing capacity. However, given the inconsistent processing history of the Adak shoreplant and the plant did not operate during the year, the Atka plant would likely not provide sufficient processing capacity for a directed fishing allowance greater than 5,000 mt in a four-week fishery.

In addition, since the Council is already proposing to terminate the delivery requirement every year in early March, the additional option to terminate the delivery requirement if less than 50 percent of the AI Pacific cod directed fishing allowance has been landed by March 7 or March 15 appears to duplicate the termination of the delivery requirement at about the same time.

If the Council is concerned about the potential stranding AI Pacific cod TAC due to insufficient processing capacity, the Council instead could include a harvest performance standard early in the AI Pacific cod season. For example, if less than 10 percent of AI cod directed fishing allowance for the CVs has been not been landed at AI shoreplants by mid-February (week 7), the delivery requirement would be terminated for that year. The idea is to design a landing performance measure low enough and early enough in the season that would be easily met if there is sufficient shoreplant processing capacity in the AI management area, but high enough that if one of the two AI shoreplants is not open, there is sufficient time for additional processing capacity to move into the AI Pacific cod fishery to prevent stranding of TAC.

Another approach that could be simpler and provide greater flexibility to the AI Pacific cod fishery is allow NMFS to determine if there is sufficient processing capacity in the AI Pacific cod fishery and if they determine there is insufficient processing capacity because one or both AI shoreplants are not operating and/or the directed fishing allowance is sufficiently high enough that could result in potential stranding of AI Pacific cod TAC, NMFS would terminate the delivery requirement for that fishing year.
A similar approach has been utilized in managing sector allocations for the BSAI Pacific cod fishery. NMFS has broad authority at 50 CFR 679.20(a)(7)(ii)(C0 to reallocate Pacific cod that is projected to remain unused from either the trawl or non-trawl sectors through Federal Register notice. The benefit of allowing NMFS to determine if sufficient processing capacity is available during the fishing season relative to a performance standard is the delivery requirement could be removed prior to the beginning of the fishing season, thus allowing more time for the AI Pacific cod industry to react to change in the fishery and potentially reducing the chance of stranding TAC.

2.7.2.4 Trawl CV Pacific cod harvest limit for BS 'A' season

With Pacific cod sector allocations remaining BSAI-wide, the timing of the BS Pacific cod fishery relative to the AI Pacific cod fishery for the trawl CV sector is crucial in the success of the proposed AI community protections. As noted in Section 2.7.1.1, the BS Pacific cod fishery for the trawl CV sector tends to start well before the AI Pacific cod fishery. However, in recent years, the fishery has experienced an increase in fishing effort by the trawl CV sector that has shortened the season by approximately three weeks. Since sector allocations are still allocated BSAI-wide and the pace of fishing in the BS Pacific cod A season fishery for the trawl CV sector has increased, there is the potential that the trawl CV sector could catch all of their A season allocation in the BS prior to the sector harvesting all of the proposed AI Pacific cod directed fishing allowance. To prevent the trawl CV sector from harvesting its entire BSAI Pacific cod A season allocation in the BS prior to completion of the AI Pacific cod fishery, the proposed action would limit the amount of A season trawl CV Pacific cod harvest in the BS prior to Council selected date of either March 15 or March 21. In essence, the BS limitation is a set aside for the sector to

[7] Source: Dave Fraser, Adak Community Development Corporation, July 2013.

continue fishing in the AI if the sector has harvested its A season allocation minus the BS limitation prior to either March 15 or March 21, whichever date the Council selects. If the sector has not harvested its A season allocation prior to the Council selected date, the BS limitation would no longer apply for that year. Also, if the AI closes prior to the Council selected date of March 15 or March 21, the BS limitation would also no longer apply for that year. The A season BS Pacific cod harvest limitation for the trawl CV sector would be an amount equal to the BSAI aggregate trawl CV sector A season allocation minus the lessor of the AI directed fishing allowance or the Council selected option of either 3,000 mt or 5,000 mt.

As seen in Table 26, the trawl CV sector has been restricted to bycatch status in their A season BSAI Pacific cod fishery every year from 2004 through 2014. During seven of the past 12 years, the fishery was on bycatch status before March 15. The earliest closure for the trawl CV sector was February 29 in 2012, while the latest closure prior the normal end of the A season was March 26 in 2011. Comparing the A season Pacific cod closures for the trawl CV sector with trawl CV Pacific cod catch in the BS and AI by week ending date in Table 27 shows that the proposed action could have been effective in preempting the AI Pacific cod fishery in 2012. During that year, the sector was put on bycatch status on February 29. As seen in Table 27, the sector had harvested upwards of 30,000 mt of the 38,117 mt Pacific cod allocation in the BS in just five weeks. At the time of the directed fishing closure, the AI fishery was only two weeks into what is normally a six week AI Pacific cod fishery for the sector. During those two weeks, the trawl CV sector harvested approximately 2,500 mt. The remaining AI Pacific cod catch after the directed fishing closure was from incidental catch in other directed fisheries. If in the future, a situation similar to 2012 is repeated and there is not a trawl CV limitation of BS harvest, the trawl CV sector would likely not be able to harvest their AI directed fishing allowance resulting in AI Pacific cod remaining unharvested.

In those occasions that the BS Pacific cod fishery is closed to directed fishing to prevent preemption of the AI Pacific cod fishery, the effect of this limitation would be a redistribution of Pacific cod from trawl CVs operating in the BS to trawl CVs operation in the AI. On average, from 2012 through 2014, the number of trawl CVs fishing in the BS Pacific cod during the month of March ranges from a low of 78 vessels to a high of 86 vessels. The distributional loss for trawl CVs operating in the BS would be less than or equal to the AI directed fishing allowance or the Council selected BS limitation of 3,000 mt or 5,000 mt, whichever is less. In 2012, the exvessel price of trawl caught BS Pacific cod was $0.314, which if applied to the BS catch limit of 3,000 mt and 5,000 mt, the exvessel gross value of that BS catch limit, in 2012, would be $2.1 million and $3.5 million, respectively. This exvessel value of the BS catch limit represents a redistribution of exvessel value from the BS trawl CV operators to the AI trawl CV operators. If the BS Pacific cod A season trawl CV Pacific cod fishery is restricted to bycatch, those trawl CVs that participate only in the BS Pacific cod fishery would have some loss of exvessel gross revenue since they would not recoup their lost revenue in the AI Pacific cod fishery.

Table 26 Annual date of A season closure for the trawl CV sector allocation of BSAI Pacific cod

Year	A season closure date
2014	AI closed 16-Mar
2013	11-Mar
2012	Feb-29
2011	26-Mar
2010	12-Mar
2009	21-Mar
2008	6-Mar
2007	12-Mar
2006	8-Mar
2005	13-Mar
2004	23-Mar
2003	Never closed

Table 27 Weekly and cumulative total catch of BS and AI Pacific cod by trawl CV sector and remaining trawl CV A season Pacific cod allocation by week ending date, 2010 through 2014

Year	Week ending date	Weekly total BS Pacific cod catch by trawl CVs (mt)	Cumulative weekly total BS Pacific cod catch by trawl CVs (mt)	Remaining trawl CV A season Pacific cod allocation (mt)	Cumulative weekly total AI Pacific cod catch by trawl CVs (mt)	Remaining AI Pacific cod ITAC (mt)*
2014	125	2,728	2,728	34,351	3	6,245
	201	4,525	7,252	29,827	14	6,234
	208	2,231	9,483	27,596	154	6,094
	215	4,941	14,424	22,655	244	6,004
	222	4,685	19,109	17,970	625	5,623
	301	4,141	23,250	13,829	1,307	4,941
	308	2,850	26,100	10,979	2,429	3,819
	315	1,529	27,629	9,450	4,184	2,064
	322	2,490	30,119	6,960	4,195	2,053
	329	1,263	31,382	5,697	4,219	2,029
2013	126	4,503	4,503	33,468	0	4,194
	202	6,127	10,630	27,341	0	4,194
	209	3,688	14,319	23,652	7	4,187
	216	5,098	19,417	18,554	255	3,939
	223	4,854	24,271	13,700	1,044	3,150
	302	4,948	29,218	8,753	1,818	2,376
	309	1,812	31,031	6,940	4,109	85
	316	176	31,206	6,765	4,194	0
	323	200	31,407	6,564	0	0
	330	111	31,518	6,453	0	0
2012	121	571	571	37,546	0	4,836
	128	2,418	2,989	35,128	0	4,836
	204	6,456	9,445	28,672	0	4,836
	211	7,526	16,971	21,146	0	4,836
	218	5,382	22,354	15,763	1,527	3,309
	225	6,209	28,562	9,555	2,470	2,366
	303	1,695	30,258	7,859	2,862	1,974
	310	291	30,549	7,568	2,965	1,871
	317	141	30,690	7,427	2,990	1,846
	324	101	30,791	7,326	3,262	1,574
	331	1,581	32,372	5,745	4,836	0
2011	122	339	339	32,951	0	6,622
	129	2,387	2,726	30,564	0	6,622
	205	2,687	5,413	27,877	0	6,622
	212	3,329	8,742	24,548	9	6,613
	219	2,982	11,724	21,566	515	6,107
	226	2,104	13,829	19,461	1,355	5,267
	305	3,368	17,196	16,094	2,452	4,170
	312	3,478	20,674	12,616	3,234	3,388
	319	2,589	23,263	10,027	5,080	1,542
	326	4,095	27,359	5,931	6,622	0
2010	123	309	309	24,340	36	12,647
	130	1,371	1,680	22,969	66	12,617
	206	1,869	3,549	21,100	211	12,472
	213	2,631	6,180	18,469	525	12,158
	220	3,381	9,561	15,088	1,666	11,017
	227	2,072	11,633	13,016	3,840	8,843
	306	1,135	12,768	11,881	8,314	4,369
	313	1,184	13,952	10,697	12,494	189
	320	161	14,113	10,536	12,650	33
	327	160	14,272	10,377	12,683	0

Source: AKFIN, August 20, 2014.

Table orginates from pivot file BS_CUM(08-20)-1

* For 2010 through 2013, trawl CV catch in the AI was used as substitue for AI ITAC

2.8 Implementation Issues

NMFS would be able to track CV catch of AI Pacific cod using existing reporting methods. Currently, CVs are required to report that catch using eLandings (Interagency Electronic Reporting System). These reports require that vessels delivering catch report the State of Alaska statistical areas where the catch occurred. NMFS can determine the management area where catch occurred from these statistical area reports, verify the catch was from a CV, and determine if the landing was delivered to an AI shorebased processor. NMFS would continue to sum all directed Pacific cod landings by CVs and delivered to all AI shorebased processors and close the fishery as necessary when the limit has been reached.

Looking at the option to limit the amount of A season trawl CV Pacific cod harvest in the BS, this option appears manageable from NMFS's perspective, but this proposed limitation on harvest in the BS is splitting the BS TACs for Pacific cod into smaller portions which increases the burden on management to manage this ever smaller allocations.

2.9 Net Benefit to the Nation

Overall, this action is likely to have a limited effect on net benefits to the Nation. In large part, the action affects distributional equities among various sectors eligible to harvest and process AI Pacific cod. To the extent that the AI Pacific cod directed fishing allowance is allocated to the CV sectors during most of the A season and processing of AI Pacific cod is limited to only shoreplants in the AI management area, which limits harvest and processing by the three rationalized sectors at issue (AFA, crab, and Amendment 80). As a result, this action has primarily distributional effects on the universe of existing participants, but there would likely be some economic inefficiency introduced into the AI Pacific cod fishery from the proposed action, which could result in some reduced net benefits to the nation.

3 Environmental Assessment

This section evaluates the impacts of the alternatives and options on the various environmental components. The socio-economic impacts of this action are described in detail in the Regulatory Impact Review (RIR) and Initial Regulatory Flexibility Analysis portions of this analysis (Sections 2 and 4).

Recent and relevant information, necessary to understand the affected environment for each resource component, is summarized in the relevant subsection. For each resource component, the analysis identifies the potential impacts of each alternative, and uses criteria to evaluate the significance of these impacts. If significant impacts are likely to occur, preparation of an EIS is required. Although an EIS should evaluate economic and socioeconomic impacts that are interrelated with natural and physical environmental effects, economic and social impacts by themselves are not sufficient to require the preparation of an EIS (see 40 CFR 1508.14).

The National Environmental Protection Act (NEPA) also requires an analysis of the potential cumulative effects of a proposed action and its alternatives. An environmental assessment or environmental impact statement must consider cumulative effects when determining whether an action significantly affects environmental quality. The Council on Environmental Quality (CEQ) regulations for implementing NEPA define cumulative effects as:

> *"the impact on the environment, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 CFR 1508.7*).

The discussion of past and present cumulative effects is addressed with the analysis of direct and indirect impacts for each resource component below. The cumulative impact of reasonably foreseeable future actions is addressed in Section 3.7.

3.1 Purpose and Need

For several years, the Council has consistently requested information to help determine the need for community protections in the AI that have evolved due to the implementation of rationalization programs for various fisheries. This rationalization has resulted in excess processing capacity that has been used in the AI Pacific cod fishery. Three specific rationalization programs are American Fisheries Act (AFA), Bering Sea and Aleutian Islands (BSAI) crab rationalization, and BSAI Amendment 80. These programs provide benefits to processing vessels and afford opportunities for consolidation, thus freeing some processing capacity to target the non-rationalized BSAI Pacific cod fishery. At the same time, the Council has delayed action on AI community protections in order to anticipate the effects of several dynamic factors in the AI Pacific cod fishery, not the least of which has been the anticipation of a BSAI total allowable catch (TAC) split and Steller sea lion protection measures.

In December 2013, the Council adopted separate TACs for the BS and AI populations of Pacific cod. This action was tied to concerns about the declining AI Pacific cod population. The 2014 BS Pacific cod TAC was set at 246,897 mt and the AI Pacific cod TAC was set at 6,997 mt. The TAC for the AI is significantly lower than what was anticipated several years ago and it is not anticipated that TAC for AI Pacific cod will increase in the near-term. Affected by these changes in the AI Pacific cod fishery are two shoreplants in the AI and these two communities critically depend on those shore plants. Primary amongst

these shoreplants is Adak, which in the past received a vast majority of the cod landings in the AI from both the state and federal Pacific cod fisheries. In the past, Pacific cod deliveries to Adak shore plant alone were in the 6,000 mt to 10,000 mt range. As the AI TAC is now set separately and is relatively low, the risk of processing vessels with excess capacity closing the AI Pacific cod fishery earlier and eroding the historical share of shoreside processor is very high. Consideration of action to provide some stability to these shoreside operations and communities is warranted.

The action alternative proposed would effectively prioritize a portion of the AI Pacific cod directed fishing allowance (TAC remaining after Community Development Quota (CDQ) and incidental catch allowance (ICA)) for delivery to shoreplants in the AI management area, with some constraints on the amount and dates by which the measures would be removed. The proposed action would also reserve an amount of A season BS allocation the trawl CV sector cannot harvest prior to Council determined date. This approach has several advantages compared to options the Council has considered in the past. For example, the action alternative proposed would make the following changes:

- First and foremost, the proposed action would maintain the sector allocations implemented under Amendment 85 and each sector would have access to their entire cod allocation. This action would modify who can harvest AI Pacific cod early in the fishing year.
- The proposed action would remove the AI trawl CV fishery from a race with the BS trawl CV fishery, and addresses the increasing shift of effort early in the year primarily by pollock CVs.[8]
- The proposed action would limit increased participation by surplus processing capacity from rationalized sectors, by creating a date before which offshore processing sectors cannot participate.
- The proposed action also provides an option that is intended to prevent stranded TAC. For example, in fishing years where half of the directed fishing allowance has not been delivered by a date certain, the processing restrictions are removed.

The Council adopted the following problem statement to originate this action on February 8, 2014.

> *The American Fisheries Act, BSAI Crab Rationalization, and BSAI Amendment 80 management programs provided benefits to processing vessels that were intended to protect their investments in, and dependence on, the respective fishery resources. Each of these programs has also afforded participants opportunities for consolidation, allowing for increased participation in the non-rationalized BSAI Pacific cod fishery in the Aleutian Islands, thus diminishing the historical share of other industry participants and communities that depend on shorebased processing in the region.*

3.2 Proposed Alternatives

All of the alternatives were designed to effectively prioritize a portion of the AI Pacific cod directed fishing allowance for delivery to shoreplants in the AI management area, with some constraints on the amount and dates by which the measures would be removed.

This analysis evaluates two primary alternatives. Alternative 1 is the no action alternative, which reflects the status quo (i.e., no limitation on AI Pacific cod for CVs and no delivery requirement to AI

[8] This has been recognized as one of the primary issues with previous alternatives – that while the Council can provide a regulatory structure to allow for a catcher vessel fishery in the AI, as long as there were not separate area sector allocations, it could not prevent the trawl catcher vessel sector in the AI from using its entire A season Pacific cod allocation in the BS prior to the AI fishery even getting started. The proposed alternative in this action attempts to address that issue.

shoreplants). Alternative 2 would prioritize AI Pacific cod directed fishing allowance for CVs and require delivery of AI Pacific cod to shoreplants in the Al management area, with performance standards on the amount and dates by which the measures would be removed. The alternative would also reserve an amount of harvest that trawl CV sector can take from the BS in the A season, such that their entire A season allocation is not harvested only in the BS.

The Council adopted the following alternatives for analysis in February 2014.

Alternative 1. No Action

Alternative 2. Prior to [**options:** March 15, 21] the A season trawl CV Pacific cod harvest in the Bering Sea shall be limited to an amount equal to the BSAI aggregate trawl CV sector A season allocation minus the lessor of the AI directed fishing allowance **or** [**options:** 3,000 mt; 5,000 mt]. Harvest of the AI Pacific cod directed fishing allowance is limited to CVs delivering to shoreplants west of 170 degrees longitude in the AI prior to [**options:** March 7, 15].

Option: If less than 50% of the AI Pacific cod directed fishing allowance has been landed by [**options:** March 7, 15], the restriction on delivery to other processors shall be removed.

3.3 Description of Action Area

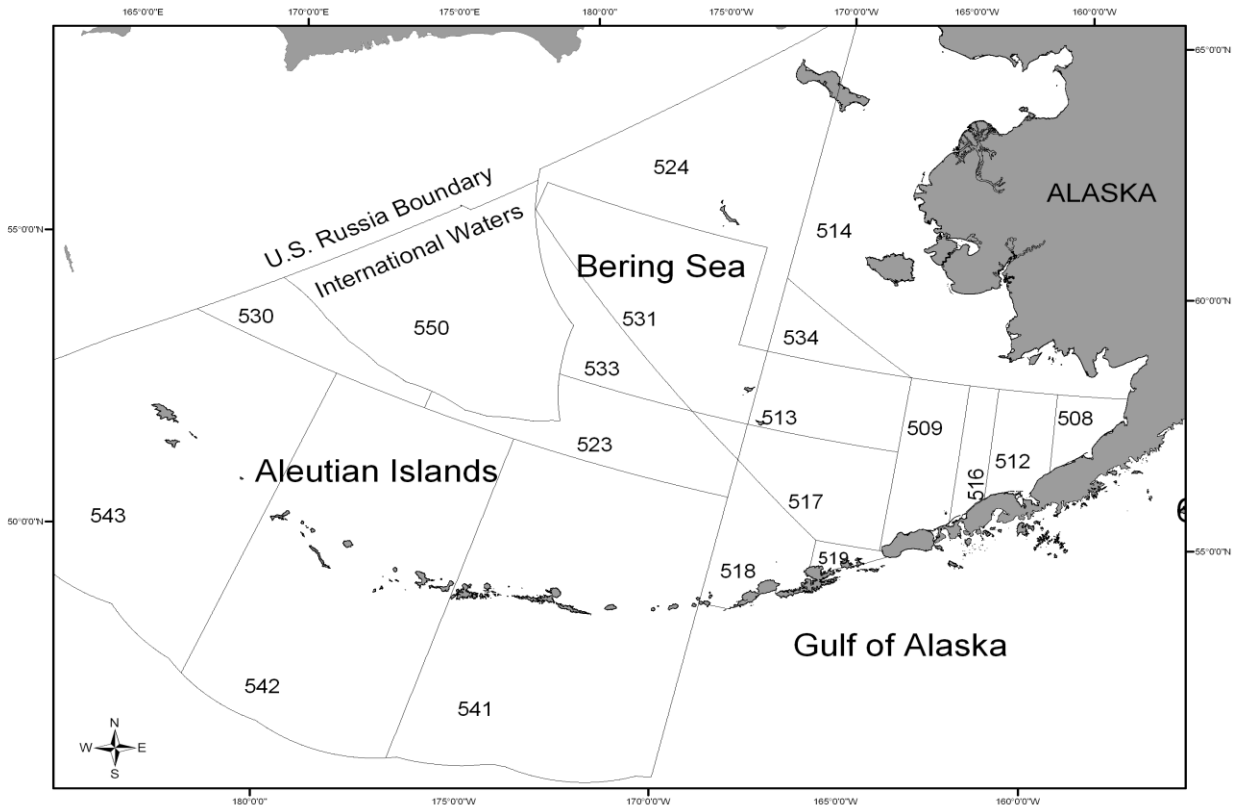
The Council motion clarifies that the action would affect Pacific cod harvested in the AI from the Federally-managed and State parallel fisheries. The motion also notes that Pacific cod harvested by trawl CV sector in the BS would also be affected. Therefore the proposed action focuses on the Pacific cod fishery in the AI (Areas 541, 542, and 543) and the BS (refer to **Figure** 10 for a map of these areas). The BSAI includes water of the Economic Exclusive Zone (EEZ) from 3 nm to 200 nm off Alaska. State of Alaska waters are those from 0 nm to 3 nm offshore.

The State parallel fishery is opened at the same time as the Federal fishery in Federal waters. State parallel fishery harvests accrue toward the Federal TAC and Federally-permitted vessels move between State and Federal waters during the concurrent parallel and Federal fisheries. The State opens the parallel fisheries through emergency order by adopting the groundfish seasons, bycatch limits, and allowance gear types that apply in the adjacent Federal fisheries.[9]

The proposed action would not affect the State-managed Pacific cod fishery that occurs in State waters in both the BS and AI. The BS and AI fisheries were established by the Alaska Board of Fisheries, but the BS was established in 2014 and the AI was established in 2006. Both State-managed Pacific cod fisheries comprise 3 percent of Federal BSAI Pacific cod ABC. Both fisheries are managed by the State and have different sector requirements and seasons than the Federal Pacific cod fishery. Additional back background information on the BS and AI State waters Pacific cod fishery are provided in 2.6. The State-managed BS and AI Pacific cod fisheries would not be affected by the proposed action, nor are the harvests in these fisheries used to calculate the proposed AI Pacific cod limit for CVs and the delivery requirement of AI Pacific cod to AI shoreplants.

[9] In some cases, the State may establish additional gear or vessel size restrictions in State waters that would apply even during the parallel fishery (i.e., if the State establishes a general prohibition on trawl gear in State waters, that continues to apply during the parallel fishery).

Figure 10 Regulatory and reporting areas in the BS and AI.



3.4 Analytical method

The proposed regulatory amendment to prioritize the AI Pacific cod for delivery to shoreplants in the AI management area will not likely affect all environmental components of the BSAI. As a result of the proposed action, three are potentially two components: groundfish, marine mammals, and socioeconomic. The effects on the alternatives on the resource components would be caused by limiting the AI Pacific cod fishery to primarily CVs, which could shift harvest distribution in the AI Pacific cod fishery thereby affecting groundfish and marine mammals in the AI management area. The socioeconomic environment would be affected through the prioritizing AI Pacific cod directed fishing allowance for CVs and the requirement that the directed fishing allowance to be delivered to shoreplants in the AI management. The affected resource component in relation to each alternative is discussed in detail below.

3.5 Target groundfish species

3.5.1 Pacific cod

Model predictions indicate that this stock is neither overfished nor approaching an overfished condition. Further information on Pacific cod, including effects of fishing on the age and size structure of Pacific cod stocks, may be found in the Pacific cod chapter of the annual *Stock Assessment and Fishery Evaluation* report (Thompson and Lauth 2013), Steller Sea Lion Protection Measures EIS (NMFS 2014), Groundfish PSEIS (NMFS 2004) and the EFH EIS (NMFS 2005). These documents are incorporated by

reference. Relevant information from these documents is summarized in this section. This section also contains recent information on Pacific cod and its fishery.

Pacific cod (*Gadus macrocephalus*) is a transoceanic species, occurring at depths from shoreline to 500 m. Pacific cod is distributed widely over the eastern Bering Sea as well as in the Aleutian Islands. Unlike Atka mackerel, the BSAI Pacific cod ABC and TAC are not allocated by districts; a single ABC and a single TAC currently limit harvests throughout the BSAI management area. Operations fishing CDQ, and each of the non-CDQ sectors that receives an allocation, may fish their allocation within the Aleutian Islands or the Bering Sea, subject only to its overall harvest limit, and any seasonal, or other, restrictions on harvests. Information related to stock assessment parameters, biomass estimates, and survey design can be found in the 2013 BSAI Pacific cod stock assessment.

The Pacific cod assessment is based on a stock synthesis model that uses multiple data sources. It includes both fishery and survey data from the Eastern Bering Sea trawl surveys. In the 2012 stock assessment, spawning biomass is estimated to be well above B40 percent, and is projected to increase further. These increases are fueled largely by the 2006, 2008, and 2010 year classes, whose strengths have now been confirmed by multiple surveys. In addition, the 2011 year class also appears to be very strong, although this estimate must be regarded as highly preliminary.

Currently the stock assessment model for Pacific cod is configured to represent the portion of the Pacific cod population inhabiting the Bering Sea survey area. The model projections are then adjusted to include biomass in the Aleutian Islands survey area. Model predictions indicate that this stock is neither overfished nor approaching an overfished condition.

From 1980 through 2009, the BSAI TAC averaged about 80 percent of ABC and aggregate commercial catch averaged about 90 percent of TAC. The history of ABC and TAC levels is summarized and compared with the time series of aggregate (i.e., all-gear, combined area) commercial catches in Table 28.

As shown in Table 28, the Council tends to set TACs below ABCs by larger amounts when the ABC is unusually large. The Council did not set TACs equal to ABC for any ABC above 280,000 metric tons during this period.

Tagging studies (Shimada 1994) have demonstrated significant migration both within and between the Bering Sea, Aleutian Islands, and GOA. Although at least one previous genetic study (Grant, Zhang, and Kobayashi 1987) failed to show significant evidence of stock structure within these areas, current genetic research underway at the AFSC is providing additional information on the issue of stock structure of Pacific cod within the BSAI (M. Canino, AFSC, personal communication, 2012). Pacific cod is not known to exhibit any special life history characteristics that would require it to be assessed or managed differently from other groundfish stocks in the Bering Sea or Aleutian Islands. The best estimate of long-term average biomass distribution is 93 percent in the Bering Sea and 7 percent in the Aleutian Islands (NPFMC 2012).

Table 28 BSAI Pacific cod ABC, TAC, and total catch 1981 to 2013 (amounts in metric tons)

Year	ABC	TAC	Catch
1981	160,000	78,700	63,941
1982	168,000	78,700	69,501
1983	298,200	120,000	103,231
1984	291,300	210,000	133,084
1985	347,400	22,000	150,384
1986	249,300	229,000	142,511
1987	400,000	280,000	163,110
1988	385,300	200,000	208,236
1989	370,600	230,681	182,865
1990	417,000	227,000	179,608
1991	229,000	229,000	220,038
1992	182,000	182,000	207,272
1993	164,500	164,500	167,362
1994	191,000	191,000	193,802
1995	328,000	250,000	245,033
1996	305,000	270,000	240,676
1997	306,000	270,000	257,765
1998	210,000	210,000	193,256
1999	177,000	177,000	173,998
2000	193,000	193,000	191,060
2001	188,000	188,000	176,749
2002	223,000	200,000	197,356
2003	223,000	207,500	196,495
2004	223,000	215,500	212,161
2005	206,000	206,000	205,635
2006	194,000	194,000	189,304
2007	176,000	170,720	170,296
2008	176,000	170,720	166,391
2009	182,000	176,540	173,652
2010	174,000	168,780	168,015
2011	235,000	227,950	219,866
2012	314,000	261,000	245,367
2013	307,000	260,000	245,366

Source: NPFMC 2013 and NMFS Catch Accounting System

The differences between Aleutian Islands and Bering Sea Pacific cod were compiled in 2008. The purpose of the report was to compile all known data available for Pacific cod in the Eastern Bering Sea and Aleutian Islands subarea and discuss the differences between the areas. The report found that genetic information suggested Pacific cod in the Aleutian Islands were distinct from those along the Alaska Peninsula. Size difference of Pacific cod between the Aleutian Islands and Bering Sea were also identified. Both length at age and commercial trawl catch information found that Pacific cod were larger in the Aleutian Islands. Age composition also suggested that Pacific cod harvested in the Aleutian Islands were older than Bering Sea Pacific cod harvest. Pacific cod density (t/km2) and fishery exploitation rates were also identified as being higher in the Aleutian Islands than the Bering Sea (Ormseth et al. 2008).

Prior to 2014, the BSAI Pacific cod ABC and TAC was managed as single stock throughout the BSAI management area.[10] At the December 2012 Council meeting, the Science and Statistical Committee (SSC)

[10] The regulations governing the Pacific cod TAC may be found in 50 CFR 679.20(a)(7)(i) and (ii) and the final 2013 and 2014 harvest specifications for groundfish of the BSAI (79 FR 12108 March 4, 2014).

stated that it would recommend separate OFLs and ABCs for Bering Sea and Aleutian Islands Pacific cod for the 2014 and 2015 harvest specifications cycle based on the best available data at the time. The stock assessment for Aleutian Islands Pacific cod was evaluated at the September 2013 BSAI Groundfish Plan Team meeting and October 2013 Council meeting. The Council received a recommendation from the Groundfish Plan Team and SSC regarding the 2014 and 2015 stock assessments to split the Pacific cod stock to an Aleutian Islands stock and a Bering Sea stock. This split was implemented in the 2014 and 2015 final harvest specifications and ABC, TAC, and ITAC are presented in Table 29.

Table 29 BSAI Pacific cod ABC, TAC, and ITAC 2014 & 2015 (amounts in metric tons)

Year	BS			AI		
	ABC	TAC	ITAC	ABC	TAC	ITAC
2014	255,000	246,897	220,479	15,100	6,997	6,248
2015	272,000	251,712	224,779	15,100	6,487	5,793

Source: NMFS Final Specifications

Pacific cod fishing largely occurs in depths less than 200 m. According to observer data from 2004 through 2010, 95 percent of Pacific cod harvested by trawl vessels was harvested in depths less than 175 m. The average depth was 137 m. Non-trawl gear depth of fishing estimates appear to be slightly shallower with an average of 125 m, however, non-trawl fishing depths recorded in observer data are not considered representative of actual fishing depth.

Figure 11 shows the average location of Pacific cod harvest by trawl CPs for the AI management area from 2004 through 2010. Targeted catch was primarily located in Area 543 along the shelf north of Agattu Island. Further east in Area 542, catch occurred along Kiska and Amchika Islands and on Petral Banks. In Area 541, the majority of the catch occurred off of Atka North Cape with some fishing between Adak and Atka. Most of the Pacific cod catch was in critical habitat except the fishing in areas on Petrel Bank, west of Atka North Cape, and southeast of Seguam Pass. The area off Atka North Cape seems to be important area for most sectors. Figure 12 shows the catch that occurred in 2011 and 2012 by trawl CPs. Due to the closures in Area 543, overall catch by trawl CPs decreased and was primarily located off Atka North Cape, Petrel Banks, and southeast of Seguam Pass.

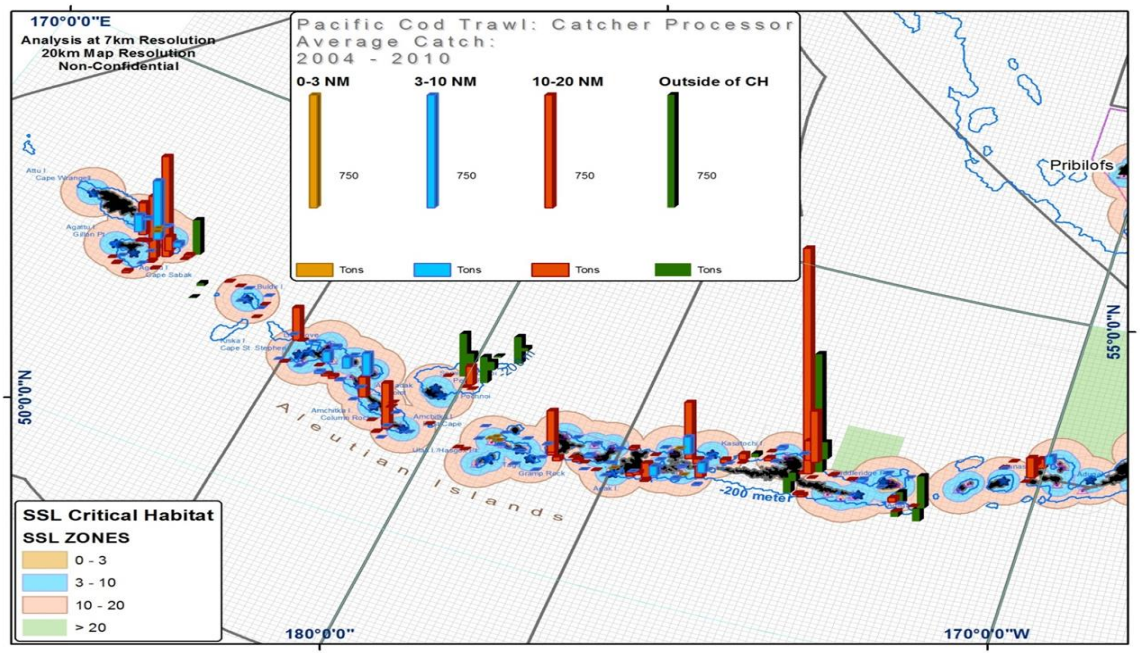


Figure 11 2004 through 2010 average location of Pacific cod harvest by trawl CPs

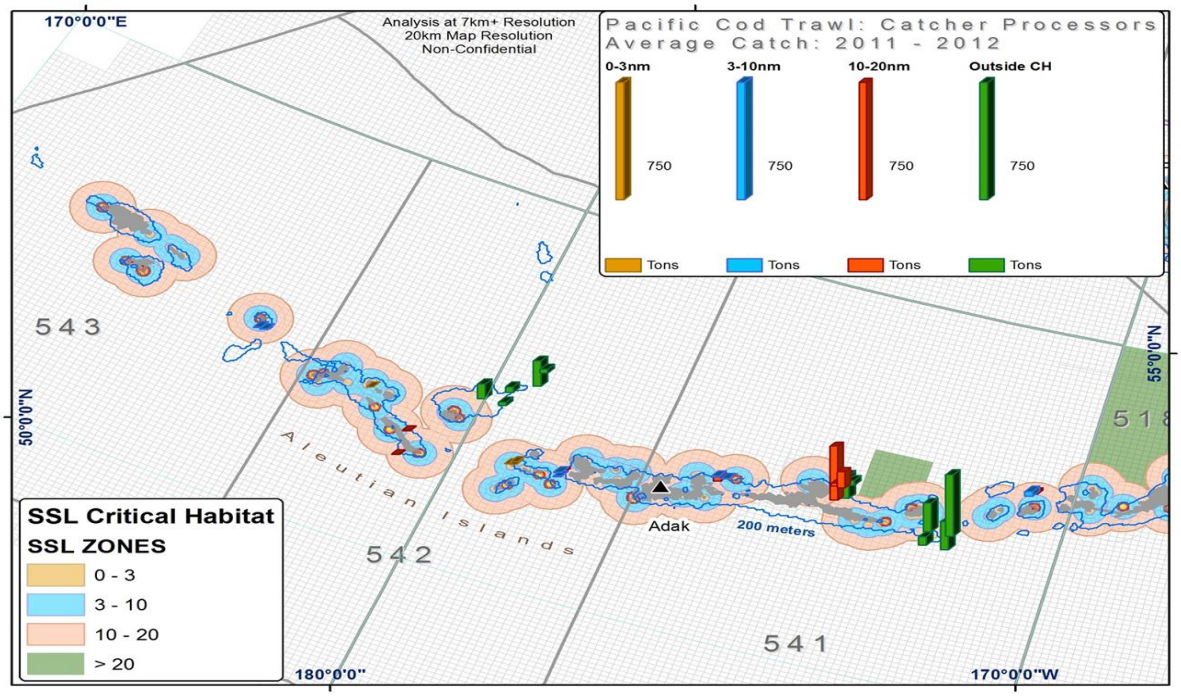


Figure 12 2011 through 2012 average location of Pacific cod by trawl CPs

Figure 13 and Figure 15 show the average location of Pacific cod catch by trawl CVs from 2004 through 2010. This represents catch patterns that occurred prior to the current Steller sea lion RPA. Figure 13 represents the locations used by trawl CVs that deliver to shoreside processors. As a result of being associated to fixed shoreside locations, most of the catch is concentrated in areas near the ports of Adak

and Atka. Atka North Cape is the most important area to this sector and vessels harvesting fish in this area deliver to Adak, Akutan, and Dutch Harbor. The area southeast of the port of Adak also is important to these vessels.

Figure 15 shows the CVs that deliver to motherships. These vessels are not associated to a processor with a fixed location. This catch is not as concentrated in areas near a port, but more of this catch is in Area 543. The area used by these vessels is similar to the area used by trawl CPs. This is primarily because vessels that operate as motherships are also vessels that operate as trawl CPs. Outside of Area 543, Atka North Cape also is important to these vessels.

Figure 14 and Figure 16 show the average location of Pacific cod catch by trawl CVs from 2011 and 2012. This represents where catch occurs under the existing Steller sea lion RPAs. As expected, the catch by vessels delivering to motherships did not occur in Area 543 because of the retention prohibition. Catch by vessels delivering shoreside remained in similar locations as prior years, though in amounts less than had been observed from 2004 through 2010. Overall, the catch seems to have concentrated into the area east of Atka North Cape that has shown to be an important area for all trawl sectors.

In 2011 and 2012, there were many factors for the decrease of catch in the Aleutian Islands. One possible factor is the implementation of the Steller Sea lion RPA management measures. However, factors other than the interim final rule's Steller sea lion protection measures are believed to have had a greater impact on total Pacific cod catch by trawl CVs in the Aleutian Islands.

In the early months of 2011, there was no operating shoreside processor in the Aleutian Islands. CVs delivering to shoreside processors fished in the Bering Sea, closer to operating processors in Akutan and Dutch Harbor. In 2011 and 2012, fishermen indicated that the catch rates and size of Pacific cod in January and February were above average. Vessels fished where they were experiencing good Pacific cod fishing and indicated that they were unlikely to move to the Aleutian Islands until it was warranted. In 2012, CVs that could not reach profitable pollock fishing grounds due to the ice edge advance fished for Pacific cod longer than usual. This resulted in an overall increase in Bering Sea trawl CV Pacific cod effort. The result of all these factors was that the 2012 fishery closed about a month earlier than normal. In 2012, there was an operating shoreside processor in the Aleutian Islands. However, the A season trawl catch vessel Pacific cod allocation was reached soon after vessels began moving to the Aleutian Islands in late February.

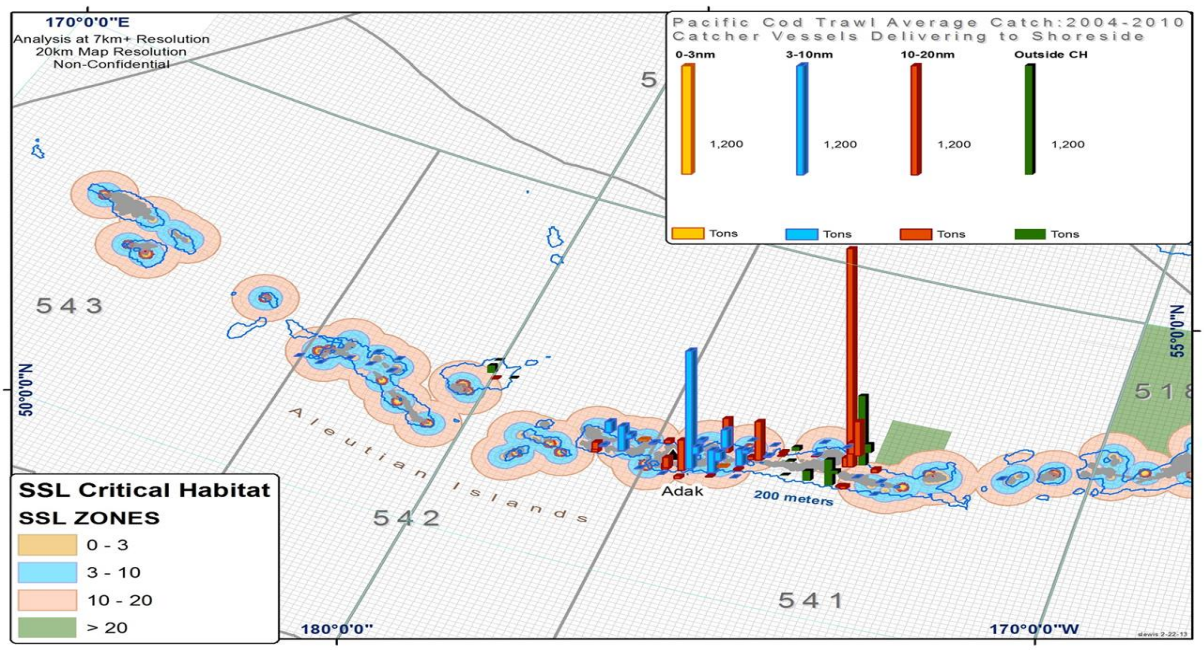


Figure 13 2004 through 2010 average location of Pacific cod harvested by trawl CVs delivering to shoreside plants

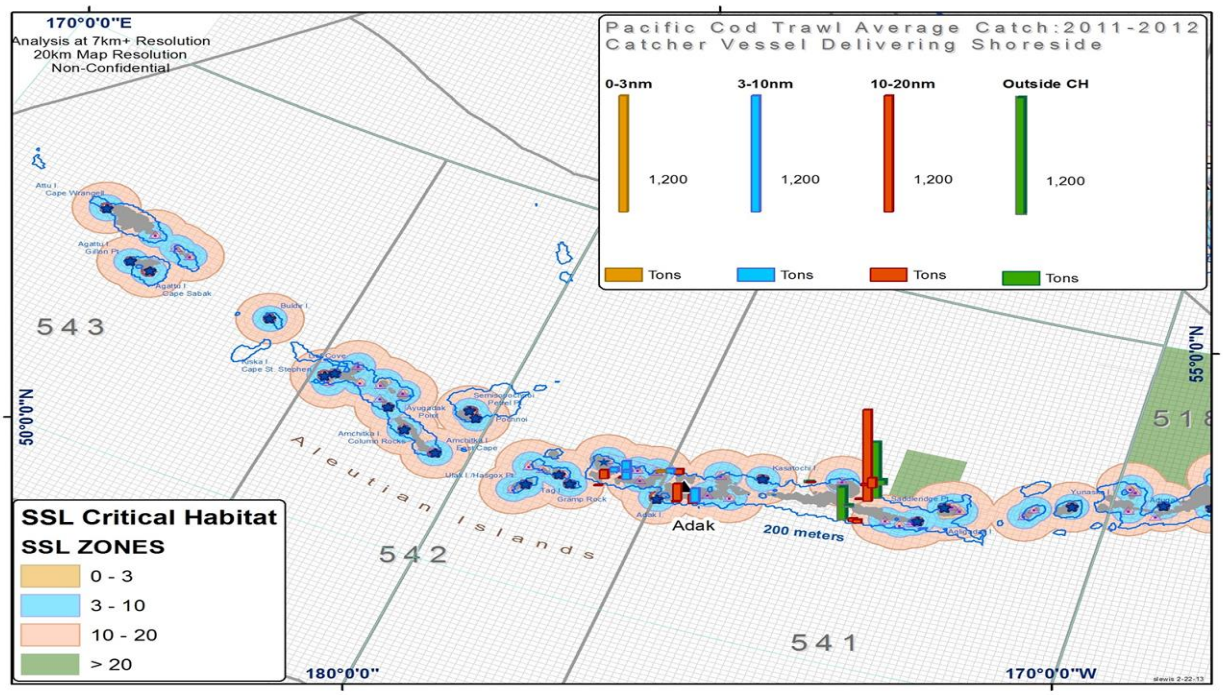


Figure 14 2011 through 2012 average location of Pacific cod harvested by trawl CVs delivering to shoreside plants

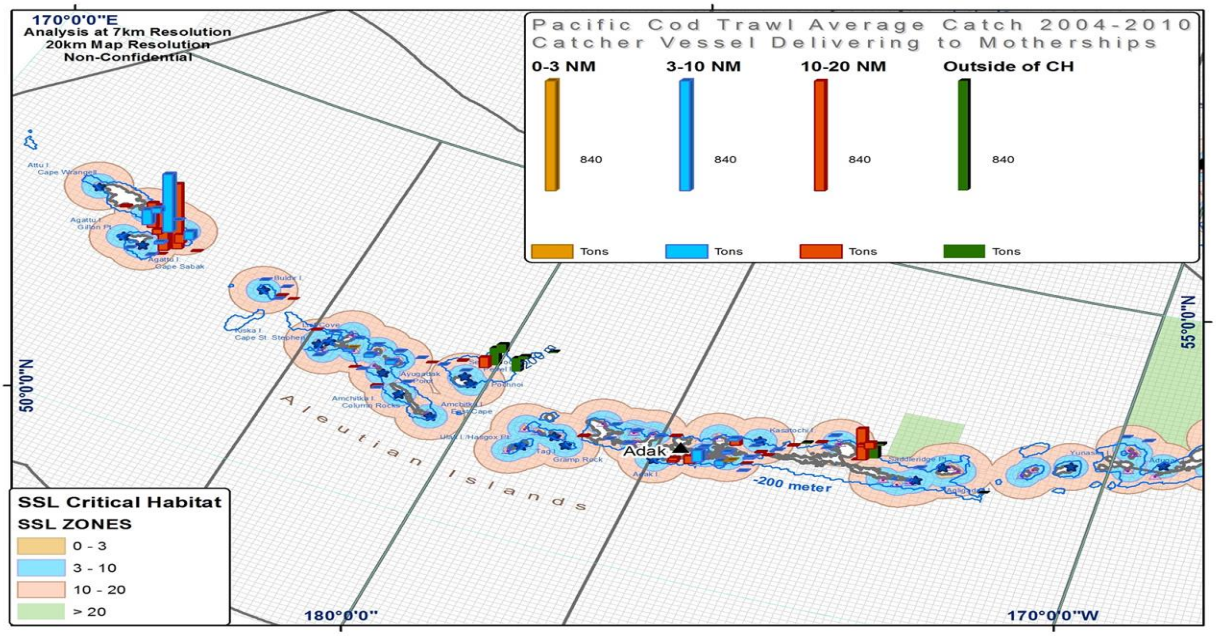


Figure 15 2004 through 2010 average location of Pacific cod harvested by trawl CVs delivering to motherships

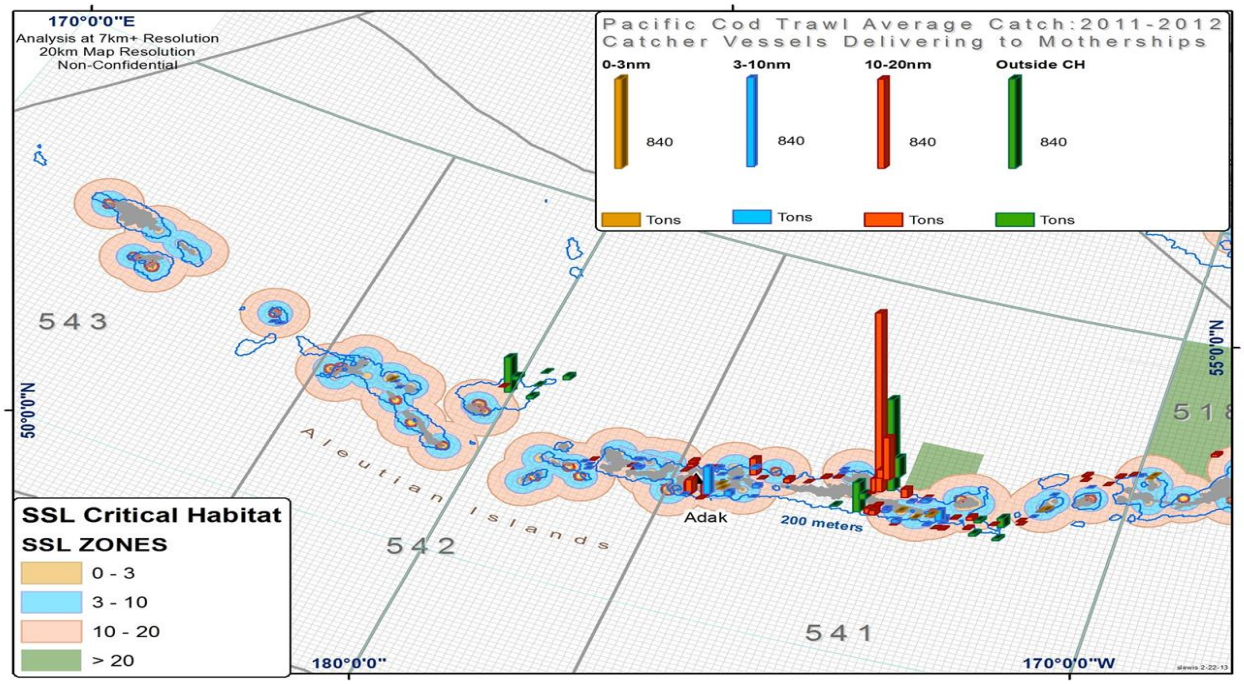


Figure 16 2011 through 2012 average location of Pacific cod harvested by trawl CVs delivering to motherships

Figure 17 shows the average location of harvest by non-trawl vessels from 2004 through 2010. Compared to trawl vessels, the catch by non-trawl vessels is not concentrated in several specific areas. Non-trawl catch seems to occur in all areas where depths are less than 200 m and fishing is allowed. As a result, the majority of catch by these vessels occurs in critical habitat.

Figure 18 shows where harvest occurred in 2011 and 2012 under regulations similar to Steller sea lion RPA. As a result, no fishing occurred in Area 543 and fishing concentrated more in Area 541 where the shelf edge is broader than other areas. The broader shelf edge gave the non-trawl vessels the area required to deploy their gear efficiently.

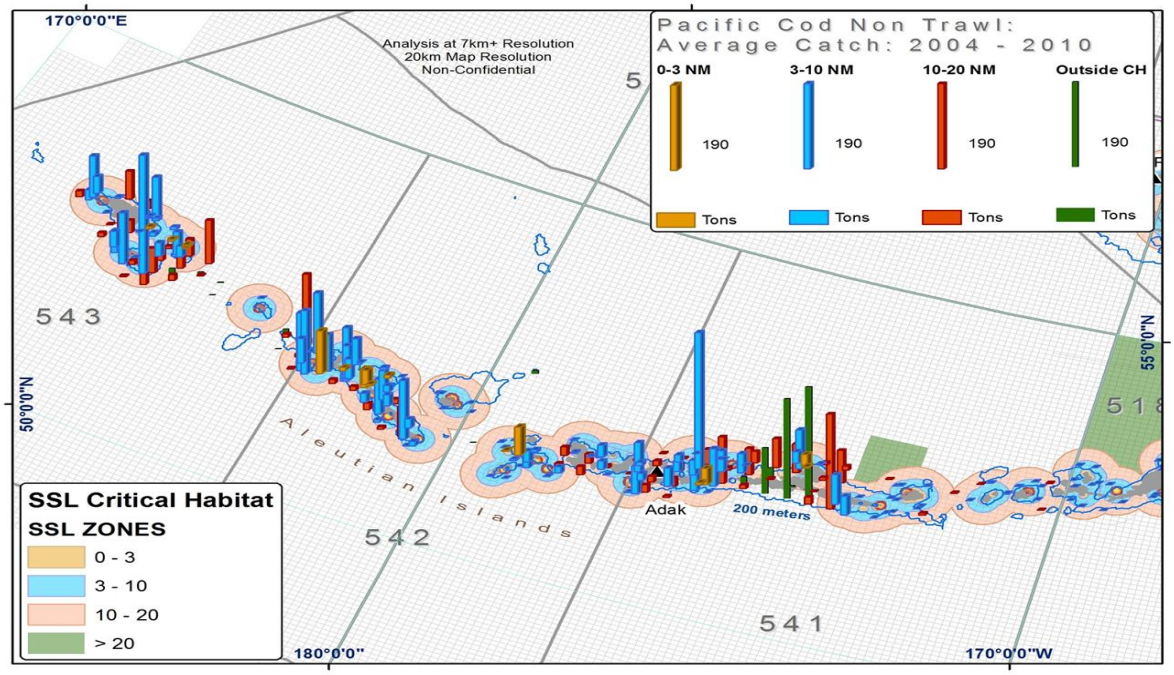


Figure 17 2004 through 2010 average location of Pacific cod harvested by non-trawl vessels (hook-and-line, pot, and jig gear)

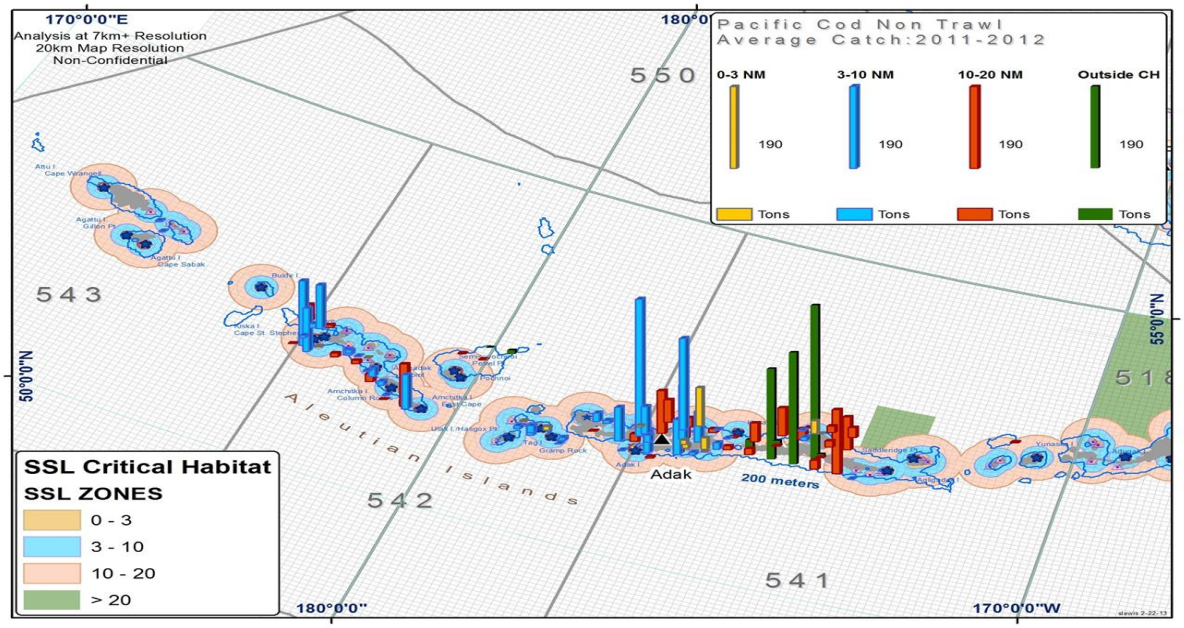


Figure 18 2011 through 2012 average location of Pacific cod harvested by non-trawl vessels (hook-and-line, pot, and jig gear)

3.5.2 Effects of the Alternatives

Changes from the proposed alternative on Pacific cod in the AI would be limited to changes in the location of harvest. Based on past fishing patterns of trawl CPs and trawl CVs operating in the AI, limiting the AI Pacific cod directed fishing allowance to CVs will result in reduced concentration of fishing in locations in Area 543 along the shelf north of Agattu Island and greater concentration of catch by trawl CVs in areas near the ports of Adak and Atka. Atka North Cape is the most important area to this sector and vessels harvesting fish in this area deliver to Adak. The area southeast of the port of Adak also is important to these vessels. Despite these potential changes in harvest location, none of the alternatives are expected to impact Pacific cod stock status in the AI. The Pacific cod stock would not be overfished or experience overfishing because the current harvest specifications process for setting TACs and managing harvests within the limits would continue. Any potential impacts on prey availability and habitat are not likely to affect the sustainability of the Pacific cod stock.

3.6 Marine Mammals

Alaska supports one of the richest assemblages of marine mammals in the world. Twenty-two species are present from the orders Pinnipedia (seals and sea lions), Carnivora (sea otters), and Cetacea (whales, dolphins, and porpoises). Some marine mammal species are resident throughout the year, while others migrate into or out of Alaska fisheries management areas. Marine mammals occur in diverse habitats, including deep oceanic waters, the continental slope, and the continental shelf (Lowry et al. 1982).

A number of concerns may be related to marine mammals and potential impacts of fishing. For individual species, these concerns include—

- listing as endangered or threatened under the Endangered Species Act (ESA);
- protection under the Marine Mammal Protection Act (MMPA);
- declining populations in a manner of concern to State or Federal agencies;
- being vulnerable to direct or indirect adverse effects from some fishing activities.

Marine mammals have been given various levels of protection under the current fishery management plans of the Council, and are the subjects of continuing research and monitoring to further define the nature and extent of fishery impacts on these species. The Alaska groundfish harvest specifications environmental impact statement (NMFS 2007) and the final environmental impact statement for Steller Sea Lion Protection Measures for the Bering Sea and Aleutian Islands Management Area Groundfish Fisheries (NMFS 2014b) provide the most recent analysis of effects on marine mammals from the groundfish fisheries that may be impacted by the action. The most recent status information is available in the Marine Mammal Stock Assessment Reports (SARs) for each species (Allen and Angliss 2013). The effects descriptions in the harvest specifications EIS and the EIS for the Steller Sea Lion Protection Measures, and the status information in the 2012 Marine Mammal Stock Assessment Reports are incorporated by reference. Relevant information from these documents is summarized in this section, and more recent information is included.

Marine mammals, including those currently listed as endangered or threatened under the ESA, that may be present in the action area are listed in Table 30. All of these species are managed by NMFS, with the exception of Northern sea otters, which are managed by USFWS. ESA Section 7 consultations with respect to the actions of the Federal groundfish fisheries have been completed for all of the ESA-listed species, either individually or in groups. Of the species listed under the ESA and present in the action area, several species may be adversely affected by commercial groundfish fishing. These include Steller sea lions, humpback whales, fin whales, and sperm whales (NMFS 2010a).

Table 30 Marine mammals likely to occur in the Aleutian Islands subarea.

Common Name	Scientific Name	ESA Status
North Pacific Right Whale	Balaena glacialis	Endangered
Blue Whale	Balaenoptera musculus	Endangered
Fin Whale	Balaenoptera physalus	Endangered
Humpback Whale	Megaptera novaeangliae	Endangered
Sperm Whale	Physeter macrocephalus	Endangered
Steller Sea Lion[1]	Eumetopias jubatus	Endangered
Minke Whale	Balaenoptera acutorostrata	None
Killer Whale	Orcinus orca	None
Dall's Porpoise	Phocoenoides dalli	None
Harbor Porpoise	Phocoena phocoena	None
Pacific White-sided Dolphin	Lagenorhynchus obliquidens	None
Beaked Whales	Berardius bairdii and Mesoplodon spp.	None
Northern Fur Seal	Callorhinus ursinus	None
Pacific Harbor Seal	Phoca vitulina	None
Northern Sea Otter[2]	Enhydra lutris	Threatened
Ribbon Seal	Phoca fasciata	None

[1] Steller sea lions are listed as endangered west of Cape Suckling, 144° W longitude.
[2] Southwestern DPS of Northern sea otters are listed as threatened, and are under the jurisdiction of the USFWS.

The PSEIS (NMFS 2004) provides descriptions of the range, habitat, diet, abundance, and population status for marine mammals. Marine mammal stock assessment reports (SARs) are prepared annually for the strategic marine mammal stocks (Steller sea lions, northern fur seals, harbor porpoise, North Pacific right whales, humpback whales, sperm whales, and fin whales)[11]. The SARs provide population estimates, population trends, and estimates of the potential biological removal (PBR) levels for each stock. The SARs also identify potential causes of mortality and whether the stock is considered a strategic stock under the MMPA. The information from the PSEIS and the SARs is incorporated by reference.

The Alaska Groundfish Harvest Specifications EIS provides information on the effects of the groundfish fisheries on marine mammals (NMFS 2007). This document is also incorporated by reference. Direct and indirect interactions between marine mammals and groundfish fishing vessels may occur due to overlap in the size and species of groundfish harvested in the fisheries that are also important marine mammal prey, and due to temporal and spatial overlap in marine mammal occurrence and commercial fishing activities. This discussion focuses on those marine mammals that may interact with or be affected by Pacific cod in the AI subarea. These species are listed in Table 31 and Table 32.

[11]The SARs are available on the NMFS Protected Resources Division website at http://www.nmfs.noaa.gov/pr/sars/region.htm.

Table 31 Status of Pinnipedia and Carnivora stocks potentially affected by the action.

Pinnipedia and Carnivora species and stock	Status under the ESA	Status under the MMPA	Population trends	Distribution in action area
Steller sea lion – Western (W) and Eastern (E) Distinct Population Segment (DPS)	Endangered (W)	Depleted & a strategic stock	For the WDPS, overall the population is increasing at an average rate of 1.67% per year though trends vary across the range. The population is in steep decline in the Western AI (NMFS 2014b). The EDPS is steadily increasing and is delisted.	WDPS inhabits Alaska waters from Prince William Sound westward to the end of the Aleutian Island chain and into Russian waters. EDPS inhabit waters east of Prince William Sound to Dixon Entrance. Occur throughout AK waters, terrestrial haulouts and rookeries on Pribilof Islands, Aleutian Islands, St. Lawrence Island, and off the mainland. Use marine areas for foraging. Critical habitat designated around major rookeries, haulouts, and foraging areas.
Northern fur seal Eastern Pacific	None	Depleted & a strategic stock	Recent pup counts show a continuing decline in the number of pups surviving in the Pribilof Islands. NMFS researchers found an approximately 9% decrease in the number of pups born between 2004 and 2006. The pup estimate decreased most sharply on St. Paul Island.	Fur seals occur throughout Alaska waters, but their main rookeries are located in the Bering Sea on Bogoslof Island and the Pribilof Islands. Approximately 55% of the worldwide abundance of fur seals is found on the Pribilof Islands (NMFS 2007b). Forages in the pelagic area of the Bering Sea during summer breeding season, but most leave the Bering Sea in the fall to spend winter and spring in the N. Pacific.
Harbor seal – Gulf of Alaska	None	None	A moderate to large population decline has occurred in the GOA stock.	GOA stock found primarily in the coastal waters and may cross over into the Bering Sea coastal waters between islands.
Ribbon seal Alaska	None*	None	Reliable data on population trends are unavailable.	Widely dispersed throughout the Bering Sea and Aleutian Islands in the summer and fall. Associated with ice in spring and winter and may be associated with ice in summer and fall. Occasional movement into the GOA (Boveng et al. 2008)
Northern sea otters – SW Alaska	Threatened**	Depleted & a strategic stock	The overall population trend for the southwest Alaska stock is believed to be declining, particularly in the Aleutian Islands.	Coastal waters from Central GOA to W Aleutians within the 40 m depth contour. Critical habitat designated in primarily nearshore waters with few locations into federal waters in the GOA.

Sources: Allen and Angliss 2013; List of Fisheries for 2013 (78 FR 53336, August 29, 2013). Northern fur seal pup data available from http://www.alaskafisheries.noaa.gov/newsreleases/2007/fursealpups020207.htm.

*NMFS determined that ribbon seals were not to be listed on September 23, 2008. The Center for Biological Diversity and Greenpeace filed suit against NMFS regarding this decision on September 3, 2009.

**Northern sea otter information from http://www.nmfs.noaa.gov/pr/pdfs/sars/seaotter2008_ak_sw.pdf and 74 FR 51988, October 8, 2009.

Table 32 Status of Cetacea stocks potentially affected by the action.

Cetacea species and stock	Status under the ESA	Status under the MMPA	Population trends	Distribution in action area
Killer whale – AT1 Transient, E N Pacific transient, W Coast transient, Alaska resident, Southern resident	Southern resident endangered; remaining stocks none	AT1 depleted and a strategic stock, Southern Resident depleted. The rest of the stocks: None	Southern residents have declined by more than half since 1960s and 1970s. Unknown abundance for the Alaska resident; and Eastern North Pacific GOA, Aleutian Islands, and Bering Sea transient stocks. The minimum abundance estimate for the Eastern North Pacific Alaska Resident stock is likely underestimated because researchers continue to encounter new whales in the Alaskan waters.	Southern resident do not occur in GOA. Transient-type killer whales from the GOA, Aleutian Islands, and Bering Sea are considered to be part of a single population.
Dall's porpoise Alaska	None	None	Reliable data on population trends are unavailable.	Found in the offshore waters from coastal Western Alaska throughout the GOA.
Pacific white-sided dolphin	None	None	Reliable data on population trends are unavailable.	Found throughout the GOA.
Harbor porpoise GOA	None	Strategic	Reliable data on population trends are unavailable.	Primarily in coastal waters in the GOA, usually less than 100 m.
Humpback whale – Western and Central North Pacific	Endangered and under status review	Depleted & a strategic stock	Increasing. The Structure of Populations, Levels of Abundance, and Status of Humpbacks (SPLASH) abundance estimate for the North Pacific represents an annual increase of 4.9% since 1991–1993. SPLASH abundance estimates for Hawaii show annual increases of 5.5% to 6.0% since 1991–1993 (Calambokidis et al. 2008).	W. Pacific and C. North Pacific stocks occur in GOA waters and may mingle in the North Pacific feeding area.
North Pacific right whale Eastern North Pacific	Endangered	Depleted & a strategic stock	This stock is considered to represent only a small fraction of its precommercial whaling abundance and is arguably the most endangered stock of large whales in the world. A reliable estimate of trend in abundance is currently not available.	Before commercial whaling on right whales, concentrations were found in the GOA, eastern Aleutian Islands, south-Central Bering Sea, Sea of Okhotsk, and Sea of Japan (Braham and Rice 1984). During 1965–1999, following large illegal catches by the U.S.S.R., there were only 82 sightings of right whales in the entire eastern North Pacific, with the majority of these occurring in the Bering Sea and adjacent areas of the Aleutian Islands (Brownell et al. 2001). Critical habitat near Kodiak Island in the GOA
Fin whale Northeast Pacific	Endangered	Depleted & a strategic stock	Abundance may be increasing but surveys only provide abundance information for portions of the stock in the Central-eastern and southeastern Bering and coastal waters of the Aleutian Islands and the Alaska Peninsula. Much of the North Pacific range has not been surveyed.	Found in the GOA, Bering Sea and coastal waters of the Aleutian Islands.

Cetacea species and stock	Status under the ESA	Status under the MMPA	Population trends	Distribution in action area
Beluga whale-Cook Inlet	Endangered	Depleted & a strategic stock	2008 abundance estimate of 375 whales is unchanged from 2007. Trend from 1999 to 2008 is not significantly different from zero.	Occurrence only in Cook Inlet.
Minke whale Alaska	None	None	There are no data on trends in Minke whale abundance in Alaska waters.	Common in the Bering and Chukchi Seas and in the inshore waters of the GOA. Not common in the Aleutian Islands.
Sperm whale North Pacific	Endangered	Depleted & a strategic stock	Abundance and population trends in Alaska waters are unknown.	Inhabit waters 600 m or more depth, south of 62°N lat. Widely distributed in North Pacific. Found year-round In GOA.
Baird's, Cuvier's, and Stejneger's beaked whale	None	None	Reliable data on population trends are unavailable.	Occur throughout the GOA.

Sources: Allen and Angliss 2013; List of Fisheries for 2013 (78 FR 53336, August 29, 2013); http://www.nmfs.noaa.gov/pr/species/mammals/cetaceans/spermwhale.htm. North Pacific right whale included based on NMFS (2006a) and Salveson (2008). AT1 Killer Whales information based on 69 FR 31321, June 3, 2004. North Pacific Right Whale critical habitat information: 73 FR 19000, April 8, 2008. For beluga whales: 73 FR 62919, October 27, 2008.

3.6.1 Effects on Marine Mammals

3.6.1.1 Significant Criteria for Marine Mammals

Table 33 contains the significance criteria for analyzing the effects of the proposed action on marine mammals. Significantly beneficial impacts are not possible with the management of groundfish fisheries as no beneficial impacts to marine mammals are likely with groundfish harvest. Generally, changes to the fisheries do not benefit marine mammals in relation to incidental take, prey availability, and disturbances; changes increase or decrease potential adverse impacts. The only exception to this may be in instances when marine mammals target prey from fishing gear, as seen with killer whales and sperm whales removing fish from hook-and-line gear. In this example, the prey availability is enhanced for these animals because they need less energy for foraging.

Table 33 Criteria for determining significance of impacts to marine mammals

	Incidental take and entanglement in marine debris	Prey availability	Disturbance
Adverse impact	Mammals are taken incidentally to fishing operations or become entangled in marine debris.	Fisheries reduce the availability of marine mammal prey.	Fishing operations disturb marine mammals.
Beneficial impact	There is no beneficial impact.	Generally, there are no beneficial impacts.	There is no beneficial impact.
Significantly adverse impact	Incidental take is more than PBR or is considered major in relation to estimated population when PBR is undefined.	Competition for key prey species likely to constrain foraging success of marine mammal species causing population decline.	Disturbance of mammal is such that population is likely to decrease.
Significantly beneficial impact	Not applicable	Not applicable	Not applicable
Unknown impact	Insufficient information available on take rates.	Insufficient information as to what constitutes a key area or important time of year.	Insufficient information as to what constitutes disturbance.

3.6.1.2 Incidental Take Effects

The Alaska Groundfish Harvest Specifications EIS contains a detailed description of the incidental take effects of the groundfish fisheries on marine mammals (chapter 8 in NMFS 2007) and is incorporated by reference. Marine mammals can be taken in groundfish fisheries by entanglement in gear (e.g., trawl, longline, and pot) and, rarely, by ship strikes for some cetaceans. Table x lists the species of marine mammals taken in the BSAI Pacific cod longline and trawl fisheries as published in the List of Fisheries for 2013(76 FR 73912, November 29, 2011). The List of Fisheries for 2012 is based on the 2010 Marine Mammal Stock Assessment Reports, which include data through 2008.

The BSAI Pacific cod trawl fishery is Category III fisheries based on annual mortality and serious injury of a marine mammal stock being less than or equal to 1 percent of the potential biological removal (PBR) level. The BSAI Pacific cod longline fishery is Category II fishery because they have annual mortality and serious injury of a marine mammal stock greater than 1 percent and less than 50 percent of the PBR level (76 FR 73912, November 29, 2011). More marine mammals are taken in the BSAI Pacific cod longline fishery than in the Pacific cod trawl fishery. Overall, very few marine mammals are reported taken in the BSAI longline and trawl fisheries.

Changes from the proposed alternative on Pacific cod in the AI would be limited to changes in the location of harvest. Based on past fishing patterns of trawl CPs and trawl CVs operating in the AI, limiting the AI Pacific cod directed fishing allowance to CVs will result in reduced concentration of fishing in locations in Area 543 along the shelf north of Agattu Island and greater concentration of catch by trawl CVs in areas near the ports of Adak and Atka. This change in harvest location likely reduces the potential for incidental takes of marine mammals in fishing areas frequented by CPs and CVs delivering AI Pacific cod to motherships (see Figure 11, Figure 12, Figure 15, and Figure 16) and increases the potential for incidental takes of marine mammals in fishing areas frequented by CVs delivering to shoreplants (see Figure 13 and Figure 14). Because the effects of the fisheries on incidental take for marine mammals are not likely to result in adverse population level effects, the proposed alternative would have insignificant impact on incidental takes of marine mammals.

3.6.1.3 Harvest of Prey Species Effects

The Steller Sea Lion Protection Measures EIS contains a detailed description of the groundfish fisheries effects on the harvest of prey species and on the disturbance of habitat for prey species for marine mammals (NMFS 2014b) and is incorporated by reference.

The proposed alternative limiting AI Pacific cod directed fishing allowance for CVs and requiring the directed fishing allowance to be delivered to shoreplants in the AI management area would likely change AI Pacific cod harvest distribution. Based on past fishing patterns of trawl CPs and trawl CVs operating in the AI (see Figure 11, Figure 12, Figure 13, Figure 14, Figure 15, Figure 16, Figure 17, and Figure 18), limiting the AI Pacific cod directed fishing allowance to CVs delivering to AI shoreplants will result in reduced concentration of fishing in locations frequented by CPs and CVs that deliver AI Pacific cod to motherships and greater concentration of catch near Adak and Atka. This change in harvest location likely reduces the potential for impacts on prey availability in fishing areas frequented by CPs and CVs delivering AI Pacific cod to motherships and increase the potential for impacts on prey availability in fishing areas near Adak and Atka. With the current Steller sea lion protection measures place, fishing impacts from any potential change in harvest location will likely minimize any impacts on prey

availability. Some of these protection measures in area 541 include closing 0 to 10 nautical miles (nm) of critical habitat year round to directed fishing for Pacific cod by all federally permitted vessels, and limiting the amount of catch that can be taken in the 10 nm—20 nm area of critical habitat based on gear type used to directed fish for Pacific cod (January 1 to March 1 for non-trawl and June 10 to November 1 for trawl). Because the effects of the fisheries on prey availability for marine mammals are not likely to result in adverse population level effects due to the protection measures that are in place, the proposed alternative would have insignificant impact on prey availability.

3.6.1.4 Disturbance Effects on Marine Mammals

Changes from the proposed alternative on Pacific cod in the AI would be limited to changes in the location of harvest. Based on past fishing patterns of trawl CPs and trawl CVs operating in the AI, limiting the AI Pacific cod directed fishing allowance to CVs will result in reduced concentration of fishing in locations in Area 543 along the shelf north of Agattu Island and greater concentration of catch by trawl CVs in areas near the ports of Adak and Atka. This change in harvest location likely reduces the potential for incidental takes of marine mammals in fishing areas frequented by CPs and CVs delivering AI Pacific cod to motherships (see Figure 11, Figure 12, Figure 15, and Figure 16) and increases the potential for incidental takes of marine mammals in fishing areas frequented by CVs delivering to shoreplants (see Figure 13 and Figure 14). However, current Steller sea lion protection measures will likely reduce the potential for incidental takes of marine mammals in fishing areas frequented by CVs delivering to AI shoreplants.

3.7 Cumulative Effects

NEPA requires an analysis of the potential cumulative effects of a proposed federal action and its alternatives. Cumulative effects are those combined effects on the quality of the human environment that result from the incremental impact of the proposed action when added to other past, present, and reasonably foreseeable future actions, regardless of which federal or non-federal agency or person undertakes such other actions (40 CFR 1508.7, 1508.25(a) and 1508.25(c)). Cumulative impacts can result from individually minor, but collectively significant, actions taking place over a period of time. The concept behind cumulative effects analysis is to capture the total effects of many actions over time that would be missed if evaluating each action individually. Concurrently, the Council on Environmental Quality (CEQ) guidelines recognize that it is most practical to focus cumulative effects analysis on only those effects that are truly meaningful. Based on the preceding analysis, the effects that are meaningful are potential effects on [specify which resource components]. The cumulative effects on the other resources have been analyzed in numerous documents and the impacts of this proposed action and alternatives on those resources is minimal, therefore there is no need to conduct an additional cumulative impacts analysis.

This EA analyzes the cumulative effects of each alternative and the effects of past, present, and reasonably foreseeable future actions (RFFA). The past and present actions are described in the previous sections in this chapter.

This section provides a review of the RFFA that may result in cumulative effects on [specify which resource components]. Actions are understood to be human actions (e.g., a proposed rule to designate northern right whale critical habitat in the Pacific Ocean), as distinguished from natural events (e.g., an ecological regime shift). CEQ regulations require consideration of actions, whether taken by a government or by private persons that are reasonably foreseeable. This requirement is interpreted to indicate actions that are more than merely possible or speculative. In addition to these actions, this cumulative effects analysis includes climate change.

Actions are considered reasonably foreseeable if some concrete step has been taken toward implementation, such as a Council recommendation or NMFS's publication of a proposed rule. Actions only "under consideration" have not generally been included because they may change substantially or may not be adopted, and so cannot be reasonably described, predicted, or foreseen. Identification of actions likely to impact a resource component within this action's area and time frame will allow the public and Council to make a reasoned choice among alternatives.

Since January 1, 2011, the groundfish fisheries in the AI have been managed under the 2011 Steller sea lion protection measures (75 FR 77535, December 13, 2010), corrected 75 FR 81921, December 29, 2010). These protection measures are effective until revised through subsequent rulemaking. The Environmental Assessment for the Revisions to the Steller Sea Lion Protection Measures (NMFS 2010b) contains a summary of the management measures for Pacific cod and Atka mackerel and changes to fisheries management since 2003.

On March 5, 2012, NMFS was ordered by the U.S. District Court of Alaska to prepare an EIS on the Steller sea lion protection measures implemented in January 2011. The Court ordered NMFS to prepare an EIS for the Steller sea lion protection measures because NMFS had failed to provide sufficient environmental information for informed public comment to the agency decision-making when it prepared the environmental assessment for this action in 2010, and failed to provide for adequate public participation. The Court ordered the completion of the final EIS by March 2, 2014. The Court also ordered that any subsequent rulemaking for the BSAI groundfish fisheries as a result of the EIS must be completed by January 1, 2015.

At its April 2012 meeting, the Council chose to reconvene its Steller Sea Lion Mitigation Committee. This committee met repeatedly during the spring, summer, and fall of 2012, and proposed two new alternatives to the Council at its December 2012 meeting. At this meeting, the Council adopted a statement of purpose and need, and recommended a suite of four alternatives for evaluation in the EIS. Following the Council's meeting, NMFS reviewed the alternatives in light of the statement of purpose and need, and the requirements of the ESA and National Environmental Policy Act, and adopted a set of five alternatives and a protection option for analysis in the EIS. These alternatives are described in detail in Chapter 2 of the May 2014 EIS (NMFS, 2014b).

In April 2013, the Council recommended Alternative 5 as the preliminary preferred alternative for the public's consideration during review and comment period on the draft Steller sea lion EIS and to provide a proposed action that could be analyzed in the ESA Section 7 consultation. The Council considered recommendations from its Steller Sea Lion Mitigation Committee, SSC, Advisory Panel, and public testimony in developing their recommended preliminary preferred alternative (PPA) for the draft EIS. The Steller sea lion PPA is built from management measures for the four fisheries analyzed under the other alternatives and includes area catch limits for pollock fishery.

In October 2013, after review of the draft EIS, draft Comment Analysis Report, and consideration of public testimony, the Council recommended Alternative 5 as the preferred alternative. The Council selected Alternative 5 based on the understanding that the results of the Center for Independent Experts and State of Alaska and Washington reviews of the FMP BiOp indicate that Alternative 5 is not likely to result in jeopardy of continued existence of Steller sea lions or adverse modification or destruction of their designated critical habitat.

In April 2014, NMFS completed the 2014 BiOp on the Alternative 5 and found that these protection measures insure the fisheries are not likely to jeopardize the continued existence or adversely modify or

destroy critical habitat for the WDPS of Steller sea lions. Based on this ESA determination, Alternative 5 is also NMFS's preferred alternative.

The features of the Alternative 5 specific to Pacific cod are as follows:

- Establish seasonal apportionments based on the BSAI-wide TAC, as required under Amendment 85
- Set the seasons as follows:
    - Non-trawl gear:
        - Hook and line:
            - A season: 1/1—6/10
            - B season: 6/10—12/31
        - Pot:
            - A season: 1/1—6/10
            - B season:9/1—12/31
        - Jig
            - A season: 1/1—4/30
            - B season: 4/30—8/31
            - C season: 8/31—12/31
    - Trawl CVs and AFA CPs:
        - A season: 1/20—4/1
        - B season: 4/1—6/10
        - C season: 6/10-11/1
    - CDQ trawl and Amendment 80
        - A season: 1/20—4/1
        - B season: 4/1—6/10
        - C season: 6/10—12/31

Area 543

- Remove the area-wide retention prohibition
- Establish a catch limit for Pacific cod based on abundance in Area 543 as determined by the annual stock assessment process.
- Prohibited directed fishing for Pacific cod in waters 0—3 nm of haulouts and 0—10 nm of rookeries by trawl gear vessels (Figure 19).
- Prohibit directed fishing for Pacific cod in waters 0—3 nm from haulouts and 0—10 nm Buldir Island for hook-and-line and pot vessels (Figure 20).

Area 542

- Prohibit directed fishing for Pacific cod with trawl gear in waters 0-3 nm from haulouts and 0-10 nm from rookeries (Figure 19).
- Prohibit directed fishing for Pacific cod with hook-and-line and pot in waters 0-3 nm from rookeries (Figure 20).

Area 541

- Prohibit directed fishing for Pacific cod in the Seguam foraging area with hook-and-line, pot, jig, and trawl gears (Figure 19 and Figure 20).

- Prohibit directed fishing for Pacific cod with trawl gear in waters 0-3 nm from haulouts and 0-10 nm from rookeries, except prohibit directed fishing for Pacific cod with trawl gear in waters 0-20 nm from Agligadak (Figure 19).
- Prohibit directed fishing for Pacific cod with hook-and-line and pot gear in waters 0-3 nm from rookeries west of 172.59° W long. and in critical habitat east of 172.59° W long (Figure 20).

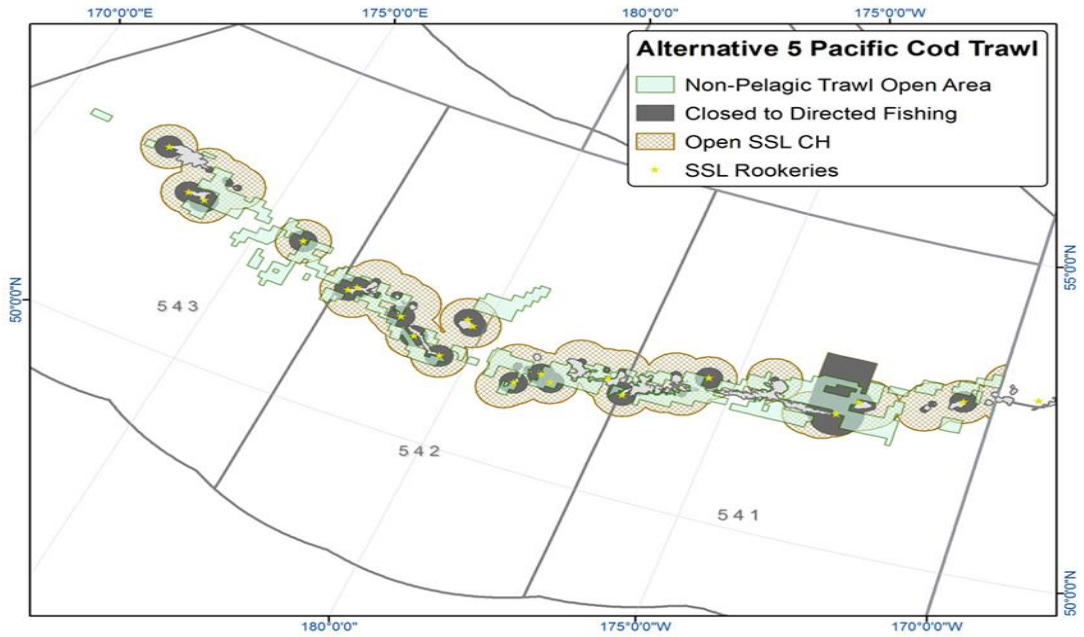


Figure 19 Pacific cod trawl closures under Alternative 5

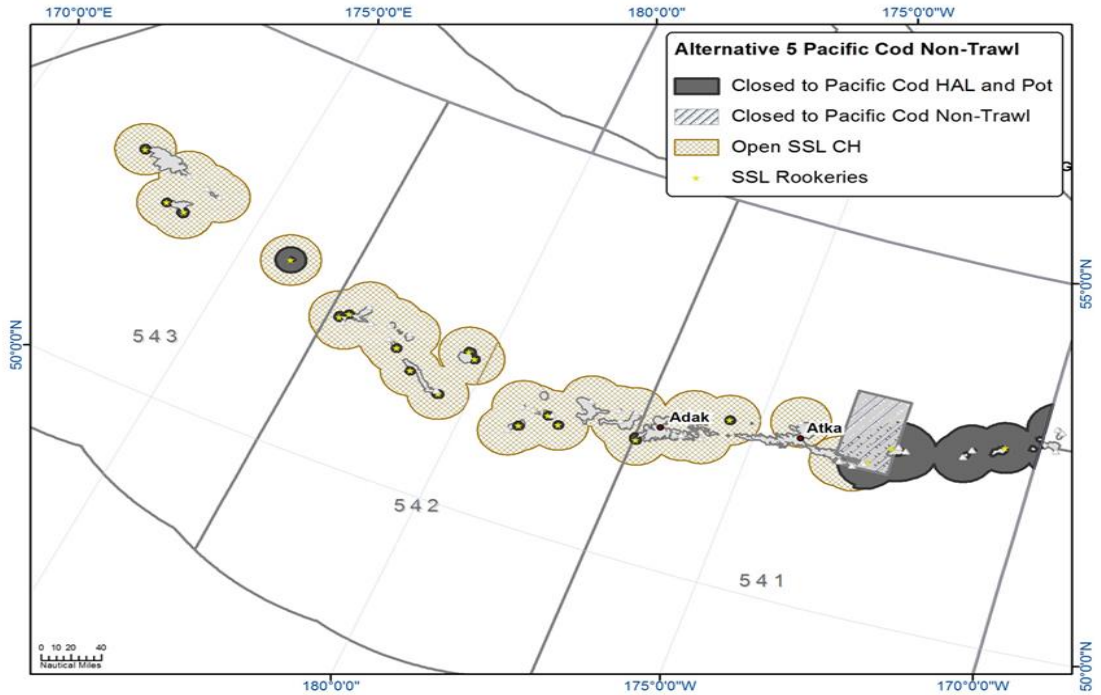


Figure 20 Pacific cod non-trawl closures under Alternative 5

The following is a brief summary of the effects of the Council selected preferred alternative specific to the AI Pacific cod fishery that was provided in the May 2014 Final EIS for Steller sea lion protection measures.

For trawl CPs and CVs, the average annual gross revenues would likely increase, while the extended C-season end date for Amendment 80 trawl vessels and those fishing Pacific cod CDQ, from November 1 to December 31would help address potential regulatory discards after November 1. This change in closing dates may affect reallocation of Pacific cod later in the year, if a trawl CV fishery becomes viable at that time.

For non-trawl CPs and CVs, the change in average gross revenues between status quo and preferred alternative are not enough to make it possible to discriminate between. The non-trawl CP fleet is currently prohibited from directed fishing for Pacific cod in the Aleutian Island after November 1, but the preferred alternative will relax this November 1 season end date and allow directed fishing until the end of the year. The freezer-longline portion of this sector operates under a voluntary cooperative and directed fishing for Pacific cod in the BSAI last all year. The relaxation of this season end date would allow some of this fishing to occur after November 1 in the Aleutian Islands. However, during periods of low AI TAC, this season date extension is unlikely to be advantage for the sector. It is also unlikely to be of advantage to the pot portion of this sector, as these vessels typically close directed fishing prior to November 1. For CVs, the extension of the fishing season until the end of the year would have little impact on this group of vessels, which typically does not operate in the AI in the late fall.

From a community perspective, Adak is the community likely to be most impacted by the preferred alternative. Atka, the only other AI community, is not as involved with the Pacific cod fishery, so the impacts from the preferred alternative are likely more long term as Atka completes its ongoing infrastructure improvements, which will facilitate increased participation in the Pacific cod fishery. The preferred alternative will likely to be associated with more port visits to Adak, and associated sales of goods and services relative to the current Steller sea lion protection measures.

4 Initial Regulatory Flexibility Analysis

4.1 Introduction

This Initial Regulatory Flexibility Analysis (IRFA) addresses the statutory requirements of the Regulatory Flexibility Act (RFA) of 1980, as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (5 U.S.C. 601-612). This IRFA evaluates the potential adverse economic impacts on small entities directly regulated by the proposed action.

The RFA, first enacted in 1980, was designed to place the burden on the government to review all regulations to ensure that, while accomplishing their intended purposes, they do not unduly inhibit the ability of small entities to compete. The RFA recognizes that the size of a business, unit of government, or nonprofit organization frequently has a bearing on its ability to comply with a federal regulation. Major goals of the RFA are: (1) to increase agency awareness and understanding of the impact of their regulations on small business, (2) to require that agencies communicate and explain their findings to the public, and (3) to encourage agencies to use flexibility and to provide regulatory relief to small entities.

The RFA emphasizes predicting significant adverse economic impacts on small entities as a group distinct from other entities, and on the consideration of alternatives that may minimize adverse economic impacts, while still achieving the stated objective of the action. When an agency publishes a proposed rule, it must either 'certify' that the action will not have a significant adverse economic impact on a substantial number of small entities, and support that certification with the 'factual basis' upon which the decision is based; or it must prepare and make available for public review an IRFA. When an agency publishes a final rule, it must prepare a Final Regulatory Flexibility Analysis, unless, based on public comment, it chooses to certify the action.

In determining the scope, or 'universe', of the entities to be considered in an IRFA, NMFS generally includes only those entities that are directly regulated by the proposed action. If the effects of the rule fall primarily on a distinct segment, or portion thereof, of the industry (e.g., user group, gear type, geographic area), that segment would be considered the universe for the purpose of this analysis.

4.2 IRFA Requirements

Until the North Pacific Fishery Management Council (Council) makes a final decision on a preferred alternative, a definitive assessment of the proposed management alternatives cannot be conducted. In order to allow the agency to make a certification decision, or to satisfy the requirements of an IRFA of the preferred alternative, this section addresses the requirements for an IRFA. Under 5 U.S.C., section 603(b) of the RFA, each IRFA is required to contain:

- A description of the reasons why action by the agency is being considered;
- A succinct statement of the objectives of, and the legal basis for, the proposed rule;
- A description of and, where feasible, an estimate of the number of small entities to which the proposed rule will apply (including a profile of the industry divided into industry segments, if appropriate);
- A description of the projected reporting, record keeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities that will be subject to the requirement and the type of professional skills necessary for preparation of the report or record;
- An identification, to the extent practicable, of all relevant federal rules that may duplicate, overlap, or conflict with the proposed rule;

- A description of any significant alternatives to the proposed rule that accomplish the stated objectives of the proposed action, consistent with applicable statutes, and that would minimize any significant economic impact of the proposed rule on small entities. Consistent with the stated objectives of applicable statutes, the analysis shall discuss significant alternatives, such as:

    1. The establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities;
    2. The clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities;
    3. The use of performance rather than design standards;
    4. An exemption from coverage of the rule, or any part thereof, for such small entities.

In preparing an IRFA, an agency may provide either a quantifiable or numerical description of the effects of a proposed action (and alternatives to the proposed action), or more general descriptive statements, if quantification is not practicable or reliable.

4.3 Definition of a Small Entity

The RFA recognizes and defines three kinds of small entities: (1) small businesses, (2) small non-profit organizations, and (3) small government jurisdictions.

Small businesses. Section 601(3) of the RFA defines a 'small business' as having the same meaning as 'small business concern', which is defined under Section 3 of the Small Business Act (SBA). 'Small business' or 'small business concern' includes any firm that is independently owned and operated and not dominant in its field of operation. The SBA has further defined a "small business concern" as one "organized for profit, with a place of business located in the United States, and which operates primarily within the United States or which makes a significant contribution to the U.S. economy through payment of taxes or use of American products, materials or labor…A small business concern may be in the legal form of an individual proprietorship, partnership, limited liability company, corporation, joint venture, association, trust or cooperative, except that where the firm is a joint venture there can be no more than 49 percent participation by foreign business entities in the joint venture."

The SBA has established size criteria for all major industry sectors in the United States, including fish harvesting and fish processing businesses. Effective July 22, 2013, a business involved in *finfish harvesting* is a small business if it is independently owned and operated and not dominant in its field of operation (including its affiliates) and if it has combined annual gross receipts not in excess of $19.0 million for all its affiliated operations worldwide. A business involved in *shellfish harvesting* is a small business if it is independently owned and operated and not dominant in its field of operation (including its affiliates) and if it has combined annual gross receipts not in excess of $5.0 million for all its affiliated operations worldwide. A *seafood processor* is a small business if it is independently owned and operated, not dominant in its field of operation, and employs 500 or fewer persons on a full-time, part-time, temporary, or other basis, at all its affiliated operations worldwide. A business that *both harvests and processes* fish (i.e., a catcher/processor) is a small business if it meets the criteria for the applicable fish harvesting operation (i.e., finfish or shellfish). A wholesale business servicing the fishing industry is a small business if it employs 100 or fewer persons on a full-time, part-time, temporary, or other basis, at all its affiliated operations worldwide.

The SBA has established "principles of affiliation" to determine whether a business concern is "independently owned and operated." In general, business concerns are affiliates of each other when one

concern controls or has the power to control the other, or a third party controls or has the power to control both. The SBA considers factors such as ownership, management, previous relationships with or ties to another concern, and contractual relationships, in determining whether affiliation exists. Individuals or firms that have identical or substantially identical business or economic interests, such as family members, persons with common investments, or firms that are economically dependent through contractual or other relationships, are treated as one party with such interests aggregated when measuring the size of the concern in question. The SBA counts the receipts or employees of the concern whose size is at issue and those of all its domestic and foreign affiliates, regardless of whether the affiliates are organized for profit, in determining the concern's size. However, business concerns owned and controlled by Indian Tribes, Alaska Regional or Village Corporations organized pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. 1601), Native Hawaiian Organizations, or Community Development Corporations authorized by 42 U.S.C. 9805 are not considered affiliates of such entities, or with other concerns owned by these entities solely because of their common ownership.

Affiliation may be based on stock ownership when (1) a person is an affiliate of a concern if the person owns or controls, or has the power to control 50 percent or more of its voting stock, or a block of stock which affords control because it is large compared to other outstanding blocks of stock, or (2) if two or more persons each owns, controls or has the power to control less than 50 percent of the voting stock of a concern, with minority holdings that are equal or approximately equal in size, but the aggregate of these minority holdings is large as compared with any other stock holding, each such person is presumed to be an affiliate of the concern.

Affiliation may be based on common management or joint venture arrangements. Affiliation arises where one or more officers, directors, or general partners, controls the board of directors and/or the management of another concern. Parties to a joint venture also may be affiliates. A contractor and subcontractor are treated as joint venturers if the ostensible subcontractor will perform primary and vital requirements of a contract or if the prime contractor is unusually reliant upon the ostensible subcontractor. All requirements of the contract are considered in reviewing such relationship, including contract management, technical responsibilities, and the percentage of subcontracted work.

Small organizations. The RFA defines "small organizations" as any not-for-profit enterprise that is independently owned and operated, and is not dominant in its field.

Small governmental jurisdictions. The RFA defines "small governmental jurisdictions" as governments of cities, counties, towns, townships, villages, school districts, or special districts with populations of fewer than 50,000.

4.4 Reason for Considering the Proposed Action

For several years, the Council has consistently requested information to help determine the need for community protections in the AI that have evolved due to the implementation of rationalization programs for various fisheries. This rationalization has resulted in excess processing capacity that can be used in the AI Pacific cod fishery. Three specific rationalization programs are American Fisheries Act (AFA), Bering Sea and Aleutian Islands (BSAI) crab rationalization, and BSAI Amendment 80. These programs provide benefits to processing vessels and afford opportunities for consolidation, thus freeing some processing capacity to target the non-rationalized BSAI Pacific cod fishery. At the same time, the Council has delayed action on AI community protections in order to anticipate the effects of several dynamic factors in the AI Pacific cod fishery, not the least of which has been the anticipation of a BSAI total allowable catch (TAC) split and Steller sea lion protection measures.

In December 2013, the Council adopted separate TACs for the BS and AI populations of Pacific cod. This action was tied to concerns about the declining AI Pacific cod population. The 2014 BS Pacific cod TAC was set at 246,897 mt and the AI Pacific cod TAC was set at 6,997 mt. The TAC for the AI is significantly lower than what was anticipated several years ago and it is not anticipated that TAC for AI Pacific cod will increase in the near-term. Affected by these changes in the AI Pacific cod fishery are two shoreplants in the AI and these two communities critically depend on those shore plants. Primary amongst these shore plants is in Adak which received in the past vast majority of cod landings in the AI and thus extremely dependent on Pacific cod from both the state and federal Pacific cod fishery. In the past, Pacific cod deliveries to Adak shore plant along were in the 6,000 mt to 10,000 mt range. As the AI TAC is now set separately and relatively low, the risk of processing vessels with excess capacity closing the AI Pacific cod fishery very early and eroding the historical share of shoreside processors is very high. Consideration of action to provide some stability to these shoreside operations and communities is warranted.

The action alternative proposed would effectively prioritize a portion of the AI Pacific cod directed fishing allowance (TAC remaining after Community Development Quota (CDQ) and incidental catch allowance (ICA) for delivery to shoreplants in the AI management area, with some constraints on the amount and dates by which the measures would be removed. The proposed action would also reserve an amount of harvest the trawl CV sector can take from the BS in the A season, such that their entire allocation is not harvested in the BS. This approach has several advantages compared to options the Council has considered in the past. For example, the action alternative proposed would make the following changes:

- First and foremost, the proposed action would maintain the sector allocations implemented under Amendment 85 and each sector would have access to their entire cod allocation. This action would modify who can harvest AI Pacific cod early in the new fishing year.
- The proposed action would remove the AI trawl CV fishery from a race with the BS trawl CV fishery, and addresses the increasing shift of effort early in the year primarily by pollock CVs.[12]
- The proposed action would limit increased participation by surplus processing capacity from rationalized sectors, by creating a date before which offshore processing sectors cannot participate.
- The proposed action also provides an option that is intended to prevent stranded TAC. For example, in fishing years where half of the directed fishing allowance has not been delivered by a date certain, the processing restrictions are removed.

The Council adopted the following problem statement to originate this action in February 8, 2014.

> *The American Fisheries Act, BSAI Crab Rationalization, and BSAI Amendment 80 management programs provided benefits to processing vessels that were intended to protect their investments in, and dependence on, the respective fishery resources. Each of these programs has also afforded participants opportunities for consolidation, allowing for increased participation in the non-rationalized BSAI Pacific cod fishery in the Aleutian Islands, thus diminishing the historical share of other industry participants and communities that depend on shorebased processing in the region.*

[12] This has been recognized as one of the primary issues with previous alternatives – that while the Council can provide a regulatory structure to allow for a catcher vessel fishery in the AI, as long as there were not separate area sector allocations, it could not prevent the trawl catcher vessel sector in the AI from using its entire A season Pacific cod allocation in the BS prior to the AI fishery even getting started. The proposed alternative in this action attempts to do that.

4.5 Objectives of Proposed Action and its Legal Basis

Under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), the Secretary of Commerce (NMFS Alaska Regional Office) and the North Pacific Fishery Management Council have the responsibility to prepare fishery management plans and associated regulations for the marine resources found to require conservation and management. NMFS is charged with carrying out the Federal mandates of the Department of Commerce with regard to marine fish, including the publication of Federal regulations. The Alaska Regional Office of NMFS, and Alaska Fisheries Science Center, research, draft, and support the management actions recommended by the Council. The Bering Sea and Aleutian Islands (BSAI) groundfish fisheries are managed under the Fishery Management Plan for Groundfish of the BSAI Management Area. The proposed action represents an amendment, as required, to the fishery management plan, as well as amendments to associated Federal regulations.

Two principal objectives of the FMP amendment and proposed regulations are to prioritize a portion of the AI Pacific cod directed fishing allowance for delivery to shoreplants in the AI management area, consistent with National Standard 8 of the Magnuson-Stevens Act, and to enable Pacific cod harvests to contribute to the achievement of optimum yield on a continuing basis in the AI groundfish fishery, consistent with National Standard 1 of the Magnuson-Stevens Act.

4.6 Number and Description of Directly Regulated Small Entities

This section provides estimates of the number of harvesting vessels that are considered small entities. These estimates may overstate the number of small entities (and conversely, understate the number of large entities). The RFA requires a consideration of affiliations between entities for the purpose of assessing if an entity is small. The estimates do not take into account all affiliations between entities. There is not a strict one-to-one correlation between vessels and entities; many persons and firms are known to have ownership interests in more than one vessel, and many of these vessels with different ownership, are otherwise affiliated with each other. For example, vessels in the American Fisheries Act (AFA) CV sectors are categorized as "large entities" for the purpose of the RFA under the principles of affiliation, due to their being part of the AFA pollock cooperatives. However, vessels that have other types of affiliation, (i.e., ownership of multiple vessel or affiliation with processors), not tracked in available data, may be misclassified as a small entity.

The entities directly regulated by this action are those entities that participate in harvesting of groundfish from the Federal or parallel Pacific cod target fisheries of the Aleutian Islands. It does not include entities that only harvest Pacific cod from a State waters GHL fishery in the Aleutian Islands.

From 2012 through 2014, there were 29 CVs that are considered small entities that would have been directly regulated by the proposed action. Fishing vessels are considered small entities if their total annual gross receipts, from all their activities combined, are less than $19.0 million. There were 10 CVs that fished for Pacific cod in the AI during 2012 through 2014 that are considered large entities.

4.7 Recordkeeping and Reporting Requirements

NMFS would be able to track CV catch of AI Pacific cod using existing reporting methods. Currently, CVs are required to report that catch using eLandings (Interagency Electronic Reporting System). These reports require that vessels delivering catch report the State of Alaska statistical areas where the catch occurred. NMFS can determine the management area where catch occurred from these statistical area reports, verify the catch was from a CV, and determine if the landing was delivered to an AI shorebased

processor. NMFS would continue to sum all directed Pacific cod landings by CVs and delivered to all AI shorebased processors and close the fishery as necessary when the limit has been reached.

Looking at the option to limit the amount of A season trawl CV Pacific cod harvest in the BS, this option appears manageable from NMFS's perspective, but this proposed limitation on harvest in the BS is splitting the BS TACs for Pacific cod into smaller portions which increases the burden on management to manage this ever smaller allocations.

4.8 Federal Rules that may Duplicate, Overlap, or Conflict with Proposed Action

No relevant Federal rules have been identified that would duplicate or overlap with the proposed action. Some current Federal regulations would need modification to implement the proposed action. These regulatory changes are described in detail in the Regulatory Impact Review and Environmental Assessment.

4.9 Description of Significant Alternatives to the Proposed Action that Minimize Economic Impacts on Small Entities

An IRFA also requires a description of any significant alternatives to the proposed action(s) that accomplish the stated objectives, are consistent with applicable statutes, and that would minimize any significant economic impact of the proposed rule on small entities. Upon final action, this section will be updated to discuss the Council's preferred alternative.

5 Magnuson-Stevens Act and FMP Considerations

5.1 Magnuson-Stevens Act National Standards

Below are the 10 National Standards as contained in the Magnuson-Stevens Fishery and Conservation Act (Magnuson-Stevens Act), and a brief discussion of how each alternative is consistent with the National Standards, where applicable. In recommending a preferred alternative, the Council must consider how to balance the national standards.

National Standard 1 — Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery.

None of the alternatives considered in this action would affect overfishing of Pacific cod in the AI or BS. The alternatives, as designed currently, could affect the ability to achieve the optimum yield from the AI Pacific cod fishery. In those cases where the Adak shoreplant is not operating during February and March, there is the potential for a large portion of the AI Pacific cod directed fishing allowance to go unprocessed given the limited processing of the Atka shoreplant and the available options for removing the delivery restriction to AI shoreplants. Currently the action alternative does not include an option for exemption from the regionalized delivery requirement prior to the beginning of the fishing year. There may be a need for an exemption form the regionalized delivery requirement given the following reasons: 1) there will likely only be two AI shoreplants in the immediate future, 2) the Adak shoreplant has an inconsistent processing history over the last decade which could continue in the future, and 3) the Atka shoreplant is estimated to only be capable, when completed, of processing 5,000 mt of Pacific cod in a 28-day period. Only the Adak shoreplant has the potential to process a significant amount of AI Pacific cod at one million round pounds (454 mt) daily. If the Adak shoreplant is not operating, the Atka plant would not provide sufficient processing capacity for a directed fishing allowance greater than 6,000 mt in a four-week fishery thereby stranding any remaining directed fishing allowance not processed by the Atka plant.

National Standard 2 — Conservation and management measures shall be based upon the best scientific information available.

The analysis for this amendment is based upon the most recent and best scientific information available.

National Standard 3 — To the extent practicable, an individual stock of fish shall be managed as a unit throughout its range, and interrelated stocks of fish shall be managed as a unit or in close coordination.

The proposed action is consistent with the management of individual stocks as a unit or interrelated stocks as a unit or in close coordination.

National Standard 4 — Conservation and management measures shall not discriminate between residents of different states. If it becomes necessary to allocate or assign fishing privileges among various U.S. fishermen, such allocation shall be (A) fair and equitable to all such fishermen, (B) reasonably calculated to promote conservation, and (C) carried out in such a manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.

In the previous AI Pacific cod sideboard action, NOAA GC had suggested the Council should, in particular, address several issues under National Standards 4 and 5 during the development of the rationale for the Council's action, should the action alternative be selected. Given the nature of this

action, these NOAA GC suggestions appear applicable to this action. The following two bullets highlight some of the issues suggested to be addressed under National Standard 4.

- How does the proposed action result in an allocation of fishing privileges that is fair and equitable?

  The proposed action does not change any sectors Pacific cod allocation. Every sector would continue to have access to their entire cod allocation. What changes under the proposed action is what vessels can harvest AI Pacific cod early in the new fishing year. Given that CVs have in the past been significant players in AI Pacific cod fishery, this action would continue that participation by those vessels in the fishery. For those displaced from the AI Pacific cod fishery under the proposed action, they could continue to harvest their Pacific cod allocation in the BS or in the AI after [Council selected option: March 7 or March 15]. In addition, many of the recent participants in the AI Pacific cod fishery are members of limited access program that provided opportunities to consolidate harvest privileges in other fisheries, thus allowing for increased participation in other fisheries like the AI Pacific cod fishery thus diminishing the historical share of these historical participants.

- How might the Council design the proposed action to avoid allowing any single processing entity to acquire an excessive share of processing privileges?

  The proposed action does not limit the delivery of the AI Pacific cod directed fishing allowance to any one specific shoreplant west of 170 degrees longitude. Currently, there are two shoreplants in the AI management area that could process AI Pacific cod, but in the future there could be other shoreplants in the AI management area that could process Pacific cod. In addition, the proposed action includes an option to exempt CVs from the delivery requirement in the event that less than 50 percent of the AI Pacific cod directed fishing allowance has not been landed by [Council selected option: March 7 or March 15], which would allow delivery to offshore processors or shoreplants outside the AI management area. If the Council includes an additional option to exempt CVs from the delivery requirement prior to the AI Pacific cod fishing season if there is insufficient processing capacity in the AI management area, then AI Pacific cod could be delivered to offshore processors or processors outside the AI management area.

National Standard 5 — Conservation and management measures shall, where practicable, consider efficiency in the utilization of fishery resources, except that no such measure shall have economic allocation as its sole purpose.

The following bullets highlight some of the issues suggested by NOAA GC in the previous AI Pacific cod sideboard action to be addressed by the Council under National Standard 5.

- Does the proposed action promote efficient utilization of fishery resources?

  The proposed action would serve to limit the markets available to all CVs harvesting Pacific cod in the AI, during some or all of the Pacific cod A season, and thus reduce the operational flexibility and negotiating leverage of AI CVs, which could potentially lead to a lower price for their catch.

- What are the purposes of this action, aside from economic allocation?

  The Council may wish to address the management approach stated in the BSAI FMP and the management objectives of the Programmatic Supplemental EIS (PSEIS) that are related to potential societal benefits, such as 'providing socially and economically viable fisheries for the well-being of fishing communities' and 'balancing many competing uses of marine resources and different social and economical goals for sustainable fishery management, including protection of the long-term health of the resource and the optimization of yield.'

National Standard 6 — Conservation and management measures shall take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches.

The proposed alternative is not expected to affect the availability of and variability in the AI or BS Pacific cod fishery resource in future years. The harvest would be managed to and limited by the TAC, regardless of the proposed action considered in this amendment.

National Standard 7 — Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.

The proposed action does not duplicate any other management action.

National Standard 8 — Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities.

The primary impetus for this action is to limit the amount of AI Pacific cod harvested by CVs that can be delivered to and processed by motherships/floaters/CPs in three specific BSAI rationalization programs, in order to protect shoreside processing opportunities for AI Pacific cod and benefit processing communities west of 170 degrees longitude. The shoreside processor that has received the majority of AI Pacific cod harvested by CVs is located in Adak. While this action would not limit deliveries to shoreside processors in any other communities in the AI, the only other shoreside processor located in the AI is in Atka. The Atka shoreplant was not directly engaged in the AI Pacific cod fishery during the 2003 through 2013 period. The shoreplant recently completed a $4 million expansion, and will begin another major round of improvements this year to make the plant a year-round facility. Once these improvements are completed sometime later this year or 2015, the processing facility will have a processing capacity of 400,000 round pounds (181 mt) of Pacific cod per day.

Proponents of the action from Adak contend that the lack of restrictions on offshore processing preempts a significant opportunity for Pacific cod harvest in these areas to benefit CVs operating out of Adak and delivering their catch to its shorebased processor. The transient markets provided by motherships and floating processors (and CPs acting as motherships) undermine community stability by operating only during the most profitable part of the season. Allowing the shore of AI Pacific cod harvested by motherships to potentially increase in future years (i.e., Alternative 1, no action) may make it difficult for shorebased processors to remain in business and provide the year-round markets necessary for smaller vessels engaged in a suite of different fisheries.

Complicating this issue is the past financial issues with the Adak shoreplant. During 2010 and 2011, financial difficulties surrounding the Adak shoreplant resulted in little or no processing during those years. The plant once again opened in 2012, but in April 2013 the plant closed in operation citing concerns about the health of the region's Pacific cod resource and increased regulatory uncertainty surrounding AI Pacific cod. With a new leased signed, the shoreplant open for processing during the 2014 fishing season. Given the past financial difficulty of the Adak shoreplant, it is uncertain whether a shorebased plant will be operational in Adak in the near or long-term future.

National Standard 9 — Conservation and management measures shall, to the extent practicable, (A) minimize bycatch, and (B) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch.

The proposed amendment is not expected to have an effect on bycatch in the AI Pacific cod fishery.

National Standard 10 — Conservation and management measures shall, to the extent practicable, promote the safety of human life at sea.

The alternative proposed should have no significant effect on safety at seas.

5.2 Section 303(a)(9) Fisheries Impact Statement

Section 303(a)(9) of the Magnuson-Stevens Act requires that a fishery impact statement be prepared for each FMP amendment. A fishery impact statement is required to assess, specify, and analyze the likely effects, if any, including the cumulative conservation, economic, and social impacts, of the conservation and management measures on, and possible mitigation measures for (a) participants in the fisheries and fishing communities affected by the plan amendment; (b) participants in the fisheries conducted in adjacent areas under the authority of another Council; and (c) the safety of human life at sea, including whether and to what extent such measures may affect the safety of participants in the fishery.

The EA/RIR/IRFA prepared for this plan amendment constitutes the fishery impact statement. The likely effects of the proposed action are analyzed and described throughout the EA/RIR/IRFA. The effects on participants in the fisheries and fishing communities are analyzed in the RIR/IRFA sections of the analysis (Sections 2 and 4). Based on the information reported in this section, there is no need to update the Fishery Impact Statement included in the FMP.

The proposed action affects the groundfish fisheries in the EEZ off Alaska, which are under the jurisdiction of the North Pacific Fishery Management Council. Impacts on participants in fisheries conducted in adjacent areas under the jurisdiction of other Councils are not anticipated as a result of this action.

6 Preparers and Persons Consulted

Preparers

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