

INITIAL REVIEW
Regulatory Impact Review
to the Fishery Management Plan for Groundfish of the Bering Sea and
Aleutian Islands Management Area

AI Pacific Cod Harvest Set-Aside Adjustment
October 2018

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Abstract: This Regulatory Impact Review analyzes 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 adjust Amendment 113 to the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area. The intent of this action is to adjust Amendment 113 such that the prosecution of the BSAI Pacific cod fishery aligns with the Council's original objective of providing stability to AI shoreplant operations, AI harvesters, and AI fishing communities dependent on AI Pacific cod harvesting and shoreside processing activity.

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List of Acronyms and Abbreviations

ABC	acceptable biological catch
ADF&G	Alaska Department of Fish and Game
AFA	American Fisheries Act
AFSC	Alaska Fisheries Science Center
AI	Aleutian Islands
AKRO	NMFS Alaska Regional Office
AP	Advisory Panel
APICDA	Aleutian Pribilof Island Community Development Association
BiOp	Biological Opinion
BOF	Board of Fish
BS	Bering Sea
BSAI	Bering Sea and Aleutian Islands
CAS	Catch Accounting System
CDQ	Community Development Quota
CEQ	Council on Environmental Quality
CFEC	Commercial Fisheries Entry Commission
CFR	Code of Federal Regulations
Council	North Pacific Fishery Management Council
CP	catcher/processor
CV	catcher vessel
DCRA	Division of Community and Regional Affairs
DFA	directed fishing allowance
DPS	distinct population segment
E.O.	Executive Order
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
EFH	essential fish habitat
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FFP	federal fisheries permit
FLCC	Freezer Longline Conservation Cooperative
FMA	Fisheries Monitoring and Analysis
FMP	fishery management plan
FONSI	Finding of No Significant Impact
FR	<i>Federal Register</i>
FRFA	Final Regulatory Flexibility Analysis
GHL	guideline harvest level
GOA	Gulf of Alaska
H&G	head and gut
ICA	incidental catch allowance
IRFA	Initial Regulatory Flexibility Analysis
ITAC	initial total allowable catch

JAM	jeopardy or adverse modification
JV	joint venture
LAPP	Limited Access Privilege Program
LLP	license limitation program
LOA	length overall
MSA	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 Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPFMC	North Pacific Fishery Management Council
Observer Program	North Pacific Groundfish Observer Program
OFL	overfishing level
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
RAM	Restricted Access Management
RFA	Regulatory Flexibility Act
RFFA	reasonably foreseeable future action
RIR	Regulatory Impact Review
RPA	reasonable and prudent alternative
SAFE	Stock Assessment and Fishery Evaluation
SAR	stock assessment report
SBA	Small Business Act
Secretary	Secretary of Commerce
SSC	Science and Statistical Committee
SSL	Steller sea lion
TAC	total allowable catch
U.S.	United States
USCG	United States Coast Guard
USFWS	United States Fish and Wildlife Service
WDPS	Western distinct population segment

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Executive Summary

This document analyzes 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 adjust Amendment 113 to the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area. The intent of this action is to adjust Amendment 113 such that the prosecution of the BSAI Pacific cod fishery aligns with the Council's original objective of providing stability to AI shoreplant operations, AI harvesters, and AI fishing communities dependent on AI Pacific cod harvesting and shoreside processing activity.

History of Action

Since 2008, the Council has been evaluating the need for community protections in the AI due to the implementation of rationalization programs from various fisheries. The specific rationalization programs of interest are the American Fisheries Act (AFA), the BSAI crab rationalization program, and BSAI Amendment 80 program. Among other outcomes, rationalization has provided benefits to processing vessels, affording opportunities for consolidation; thus, freeing some processing capacity to target and process non-rationalized BSAI groundfish. These programs have resulted in excess surplus processing capacity that has been used in the AI Pacific cod fishery.

In October 2015, the Council took final action to provide stability to AI shoreplant operations and the communities dependent on shoreside processing activity by prioritizing a portion of the AI Pacific cod total allowable catch (TAC) for access by CVs delivering their AI Pacific cod catch to shoreplants in the AI. The Secretary of Commerce (SOC) approved the Council's recommendation (Amendment 113) which had an effective date of November 23, 2016. The amendment modified the management of the BSAI Pacific cod fishery to set aside a portion of the AI Pacific cod TAC for harvest by catcher vessels directed fishing for AI Pacific cod and delivering their catch for processing to a shoreside processor located on land west of 170° W. longitude in the AI. The harvest set-aside applies only if specific notification and performance requirements are met, and only during the first few months of the fishing year. This harvest set-aside provides the opportunity for vessels, AI shoreplants, and the communities where AI shoreplants are located to receive benefits from a portion of the AI Pacific cod fishery. The notification and performance requirements preserve an opportunity for the complete harvest of the BSAI Pacific cod resource if the set-aside is not fully harvested.

The Council in February of 2018 identified a regulatory issue that is counter to the intent of providing community protections in the AI. Amendment 113 created an AI unrestricted fishery which allows for any amount of the AI directed fishing allowance (DFA)¹ Pacific cod above the AI CV harvest set-aside to be available to any sector for directed fishing and processing by any eligible processor. Amendment 113 also established a BS trawl CV A-Season Pacific cod sector limitation to ensure that some of the BSAI trawl CV sector's A-season Pacific cod allocation remains available for harvest in the AI by trawl CVs that deliver to AI shoreplants for processing.

However, since the AI unrestricted fishery and the AI CV harvest set-aside are administered simultaneously, when the BS Pacific cod trawl CV fishery is closed to fishing, AI Pacific cod catch that is delivered to offshore or non-AI shoreplants by trawl CVs is deducted from both the AI unrestricted fishery and the portion of BSAI trawl CV A-season allocation remaining after the BS trawl CV A-season trawl CV sector is closed to directed fishing. The deduction of AI Pacific cod delivered to offshore processors or non-AI shoreplants from the remaining portion of the BSAI trawl CV A-season allocation after the BS closes, runs counter to the intent of the Council to provide stability to AI shoreplant operations and the communities dependent on shore processing activity. The remaining portion of BSAI

¹ Directed fishing allowance is equal to non-CDQ TAC minus the incidental catch allowance.

trawl CV A-season Pacific cod allocation after the BS closes to the sector was intended for use by trawl CVs for harvest and delivery of AI Pacific cod to AI shoreplants.

For 2018, the AI DFA was set at 11,516 mt. That DFA was specified as 6,516 mt for the AI unrestricted fishery and 5,000 mt for the AI CV harvest set-aside for delivery to AI shoreplants. The unrestricted fishery is the amount of AI Pacific cod that is available, prior to March 15, to any eligible vessel for directed fishing and processing by any eligible processor. In February 2018, participants began to realize that, under the current regulations, the AI shoreplant would not be able to take deliveries of the entire 5,000 mt AI set-aside after the BSAI trawl CV sector was closed to directed fishing for the A season². With the BS trawl CV A-season Pacific cod fishery closed to directed fishing on February 11, the trawl CVs that harvested AI Pacific cod in the unrestricted fishery were reducing the amount of the remaining 5,000 mt of the BSAI non-CDQ trawl CV A season allocation that was intended for AI shoreplants.

In April 2018, the Council developed a purpose and need statement and requested that staff develop an analysis of three action alternatives to adjust Amendment 113 regulations implementing the AI Pacific cod set-aside for CVs delivering to shoreplants in the AI to prioritize the AI Pacific cod CV harvest set-aside fishery before the AI unrestricted fishery.

At the April 2018 meeting, the Council also tasked staff to provide a discussion of the tradeoffs and benefits of combining the Amendment 113 adjustment action with the broader BS Pacific cod offshore limitation that was initiated at the December 2017 Council meeting. After reviewing that discussion during their June 2018 meeting, the Council clarified that the AI Pacific cod set-aside amendment and the BS Pacific cod offshore limitation should not be combined into one large amendment package. Combining the two amendments would likely delay implementation of the adjustment to Amendment 113, and the Council indicated the need for a faster time line for completing the adjustment to the Amendment 113.

Purpose and Need

The Council adopted the following purpose and need statement in April 2018.

Amendment 113 to the Bering Sea and Aleutian Islands Fishery Management Plan (BSAI) was intended to address the Council's concern of the continued risk of increased processing participation by rationalized sectors in the non-rationalized Aleutian Island cod fishery. In the first year Amendment 113 was in effect, changes in fishery participation patterns and total allowable catches in the BSAI resulted in the fishery progressing in a manner that may have been counter to the intent of providing community protections in the Aleutian Islands. The Council intends to modify Amendment 113 such that the prosecution of the BSAI Pacific cod fishery aligns with the Council's original objective of addressing the risk that participants in the BSAI rationalized fisheries may diminish the historical share of the BSAI Pacific cod of other industry participants and communities that depend on shoreplant processing in the region.

Alternatives

The following is a description of the alternatives.

Alternative 1 is the no action alternative. Alternative 1 would continue to set aside a portion of the AI Pacific cod total allowable catch for harvest by vessels directed fishing for AI Pacific cod and delivering their catch for processing to shoreside processors located on land west of 170° W. longitude in the AI. The alternative would also continue to allow trawl CV AI Pacific cod catch that is delivered to offshore or

² The pot, HAL, and jig gear fisheries could provide some deliveries but may not be enough to reach the 5,000 mt AI set-aside.

non-AI shoreplants be deducted from the BSAI non-CDQ trawl CV A-season allocation limitation after the BS trawl CV fishery closes to the sector.

The alternative would continue to set aside a portion of the AI Pacific cod total allowable catch for harvest by vessels directed fishing for AI Pacific cod and delivering their catch for processing to a shoreside processor located on land west of 170° W. longitude in the AI. Specifically, prior to March 21, the A-season trawl CV sector Pacific cod harvest in the BS would be limited to an amount equal to the BSAI aggregate CV trawl sector A-season allocation minus the lesser of the AI directed Pacific cod non-CDQ TAC or 5,000 mt. Directed fishing for non-CDQ AI Pacific cod would continue to be prohibited for all vessels except CVs delivering their catch of AI Pacific cod to shoreplants west of 170° longitude in the AI for processing prior to March 15, unless the harvest set-aside is removed earlier to prevent AI Pacific cod TAC from going unharvested or there is sufficient AI directed Pacific cod non-CDQ TAC above the AI CV harvest set-aside. The harvest set-aside would continue to apply only if specific notification and performance requirements are met and only during the first few months of the fishing year. The no action alternative would also continue to authorize vessels to participate in the unrestricted fishery if sufficient AI Pacific cod TAC remained in the AI unrestricted fishery. This unrestricted fishery could be delivered to offshore or non-AI shoreplants.

Alternative 2 would amend Amendment 113 to allow, prior to March 15, trawl CVs to fish in the AI Pacific cod fishery until the BS A-season trawl CV fishery closes. After the BS A-season trawl CV fishery closes, trawl CVs delivering to AI shoreplants could continue to participate in the AI Pacific cod fishery, but no trawl CV participation would be allowed in the unrestricted fishery. In other words, the alternative would restrict the AI trawl CV Pacific cod fishery to only those delivering to AI shoreplants once the BS A-season trawl CV fishery closes.

Alternative 3 would amend Amendment 113 to prohibit trawl CVs from harvesting AI Pacific cod from the unrestricted fishery until the earlier of March 15 or until the entire AI Pacific cod set-aside has been landed. In other words, even with an unrestricted AI Pacific cod fishery, trawl CVs are prohibited from delivering AI Pacific cod to offshore processors or non-AI shoreplants until March 15 or until the entire set-aside is landed. The trawl CV restriction would be in place even if the BS Pacific cod fishery is still open for directed fishing by the trawl CV sector. This alternative would not change the current regulations that prior to March 21, the A-season trawl CV Pacific cod harvest in the BS shall be limited to an amount equal to the BSAI aggregate CV trawl sector A-season allocation minus the lesser of the AI Pacific cod DFA or 5,000 mt. The alternative would also continue to allow other CV sectors to target AI Pacific cod from the set-aside for delivery to AI shoreplants and would continue to allow CPs and non-trawl CVs to participate in the AI unrestricted Pacific cod fishery when there is sufficient Pacific cod TAC available for a fishery. All other elements of Amendment 113, including the annual notification process and minimum landing requirements, would remain unchanged under this alternative.

Alternative 4 would amend Amendment 113 so that prior to March 21, A-season trawl CV harvest of BS and AI Pacific cod, except Pacific cod delivered to AI shoreplants, will be limited to the amount equal to the BSAI trawl CV A-season sector allocation minus the AI Pacific cod DFA or 5,000 mt whichever is less. The remaining amount after removing the AI Pacific cod DFA or 5,000 mt (whichever is less) is referred to as the BS trawl CV limitation. Under this alternative, harvest by the trawl CVs from the unrestricted fishery will be included in the BS trawl CV limitation when determining the closure of the BS subsection. Under Alternatives 1 and 2, the BS trawl CV limitation only takes into account Pacific cod harvested from the BS when determining the closure of the BS subsection. In other words, under Alternative 4, the BS would close once the harvest from the BS and unrestricted AI Pacific cod fishery was equal to the BSAI CV trawl Pacific cod A-season allocation minus the BS trawl CV limitation.

Upon closure of the BS Pacific cod A-season for the trawl CV sector (thereby leaving only the BS trawl CV limitation in place), directed fishing for AI Pacific cod would be prohibited for all trawl CVs except

those trawl CVs delivering AI Pacific cod to AI shoreplants. Any trawl CV AI Pacific cod TAC remaining after the BS A-season trawl CV sector closure is available for harvest by the sector for delivery only to AI shoreplants. The alternative would also continue to allow non-trawl CV sectors to target AI Pacific cod for delivery to AI shoreplants, and would continue to allow CPs and non-trawl CVs to participate in the AI unrestricted Pacific cod fishery when there is sufficient Pacific cod unrestricted TAC available for a fishery. All other elements of Amendment 113, including annual notification process and minimum landing requirements, would remain unchanged under this alternative.

Table ES-1 provides a summary of the key differences by alternative.

Table ES-1 Summary of differences between alternatives

Inseason Scenarios		Alt 1*	Alt 2*	Alt 3*	Alt 4*
<ul style="list-style-type: none"> •BS A season is open •AI set-aside is available •AI unrestricted is open 	Timing <ul style="list-style-type: none"> • AI set-aside • BS Trawl CV A-season limitation 	Jan 20 – Mar 15 Jan 20 – Mar 21	Jan 20 – Mar 15 Jan 20 – Mar 21	Jan 20 – Mar 15 Jan 20 – Mar 21	Jan 20 – Mar 15 Jan 20 – Mar 21
	Authorized trawl CVs fishing in the AI Pacific cod fishery	All trawl CVs can fish and deliver anywhere	All trawl CVs can fish and deliver anywhere	Trawl CVs can only deliver shoreside within AI	All trawl CVs can fish and deliver anywhere
	Recording of AI Pacific cod catch	<u>BSAI Limitation</u> Any trawl CV catch that is harvested in the AI comes off the BSAI limitation <u>AI Set-aside</u> Any trawl CV catch that is delivered to AI shoreplants comes off the AI set-aside	<u>BSAI Limitation</u> Any trawl CV cod catch that is harvested in the AI comes off the BSAI limitation <u>AI Set-aside</u> Any trawl CV catch that is delivered to AI shoreplants comes off the AI set-aside	<u>BSAI Limitation</u> Any trawl CV catch that is harvested in the AI comes off the BSAI limitation <u>AI Set-aside</u> Any trawl CV catch that is delivered to AI shoreplants comes off the AI set-aside	<u>BSAI Limitation</u> <ul style="list-style-type: none"> • For trawl CV not delivering to AI shoreside plant catch comes off the trawl CV BSAI allocation minus the limitation. • For trawl CV delivering to AI shoreplants, catch comes off the BSAI limitation. <u>AI Set-aside</u> Trawl CV catch delivered to AI shoreplants comes off the AI set-aside.
<ul style="list-style-type: none"> •BS A season is closed •AI set-aside is available •AI unrestricted is open 	Timing <ul style="list-style-type: none"> • AI set-aside • BS Trawl CV A-season limitation 	Jan 20 – Mar 15 Jan 20 – Mar 21	Jan 20 – Mar 15 Jan 20 – Mar 21	Jan 20 – Mar 15 Jan 20 – Mar 21	Jan 20 – Mar 15 Jan 20 – Mar 21
	Authorized trawl CV fishing in the AI Pacific cod fishery	All trawl CVs can fish and deliver anywhere	Trawl CVs can only deliver shoreside within AI until March 15	Trawl CVs can only deliver shoreside within AI until March 15	Trawl CVs can only deliver shoreside within AI until March 21
	Recording of AI Pacific cod catch	<u>BSAI Limitation</u> Any trawl CV catch that is harvested in the AI comes off the BSAI limitation <u>AI Set-aside</u> Any trawl CV catch that is delivered to AI shoreplants comes off the AI set-aside	<u>BSAI Limitation</u> Any trawl CV cod catch that is harvested in the AI comes off the BSAI limitation <u>AI Set-aside</u> Any trawl CV catch that is delivered to AI shoreplants comes off the AI set-aside	<u>BSAI Limitation</u> Any trawl CV catch that is harvested in AI comes off the BSAI limitation <u>AI Set-aside</u> Any trawl CV catch that is delivered to AI shoreplants comes off the AI set-aside	<u>BSAI Limitation</u> Trawl CV delivering AI shoreplants comes off the BSAI limitation. <u>AI Set-aside</u> Trawl CV catch that is delivered to AI shoreplants comes off the AI set-aside.

*Provisions/restrictions do not apply to other sectors.

Regulatory Impact Review

Alternative 1 would not address the issue the Council is intending to fix with the proposed action. The alternative would continue to allow trawl CV AI Pacific cod catch that is delivered to offshore or non-AI shoreplants be deducted from the AI unrestricted fishery and the BS trawl CV A-season Pacific cod sector limitation, which could prevent AI shoreplants from processing the entire AI set-aside.

Alternative 2 would not address the issue the Council is intending to fix with the proposed action. Under Alternative 2, the BS trawl CV A-season sector limitation would still be in effect, which could prohibit AI shoreside processing plants from receiving the full AI CV harvest set-aside. The BS trawl CV A-season sector limitation is the amount of CV BSAI Pacific cod unavailable to be harvested in the BS (the lesser of the AI DFA or 5,000 mt). In other words, this amount can only be harvested from the AI. The remaining amount (the BSAI A season trawl CV allocation minus the BS trawl CV A-season sector limitation) is the maximum amount that can be taken from the BS. Under current regulation (which would still be in effect under this alternative) this limitation is in effect at the start of the BSAI trawl CV Pacific cod A-season fishery (January 20). If trawl CV vessels are allowed to fish in the AI for the unrestricted fishery while the BS trawl CV fishery is open, they will be depleting the BS trawl CV A-season sector limitation. As a result, when the BS and unrestricted AI fishery close, there could be less than 5,000 mt of the BS trawl CV A-season sector limitation amount remaining, thus making it challenging for AI shoreside processing plants to obtain the full 5,000 mt AI CV harvest set-aside.

Alternative does limit the opportunity for some processing sectors to participate in the unrestricted AI Pacific cod fishery once the BS A-season Pacific cod fishery closes to directed fishing for the trawl CV sector. Specifically, trawl CV deliveries of AI Pacific cod to motherships, floaters, any CPs acting as a mothership, or non-AI shoreplants would be prohibited once the BS A-season Pacific cod fishery for the trawl CV sector closes. The resulting effect of this change to Amendment 113 is the loss of economic activity for some offshore processors and non-AI shoreplants. There is also an increased risk of insufficient trawl CV participation to harvest all of the AI Pacific cod TAC once the BS A-season Pacific cod trawl CV closes.

Alternative 3 restricts trawl CVs operating in the AI Pacific cod fishery to only delivering their AI Pacific cod catch to AI shoreplants when the BS A-season trawl CV fishery is open for directed fishing. The Council's original intent of Amendment 113 was that the remaining trawl CV A-season Pacific cod allocation after the BS A-season closes to the sector had sufficient Pacific cod remaining to harvest and deliver the majority of the AI Pacific cod set-aside to AI shoreplants. However, the trawl CV requirement to only deliver AI Pacific cod to AI shoreplants prior to March 15 that is included in Alternative 3 provides a greater opportunity for AI shoreplants to receive a greater proportion of the AI Pacific cod than was intended under Amendment 113.

Although other gear sectors could continue to participate in the AI Pacific cod unrestricted fishery and any remaining AI Pacific cod TAC after March 15 would be available for any gear sector (including CV trawl) with sufficient BSAI Pacific cod allocation, there is a potential that some portion of the AI Pacific cod TAC would remain unharvested under this approach since other processing sectors could be displaced from the unrestricted fishery prematurely. Both shoreside processors and offshore processors via trawl CVs are the primary processors of AI Pacific cod. This action would prohibit deliveries of AI Pacific cod by trawl CVs to all offshore processors until March 15, while historically the average processing amount by AI shoreplants when operational, from 2003 through 2015 was 6,130 mt. Potentially, during periods of high AI TAC, a prohibition on offshore deliveries of AI Pacific cod by trawl CVs before the BS A-season Pacific cod fishery closes for the trawl CV sector may result in unharvested AI Pacific cod by the end of the fishing year.

Alternative 4 relative to Alternatives 1, 2 and 3 best aligns with the problem statement and the original intent of Amendment 113. The intent of Amendment 113 was to provide an opportunity for AI shoreplants and the communities in which they are located to maintain shore-based processing by prioritizing AI Pacific cod as an inshore fishery for all gear types under relatively small TAC scenarios. If AI Pacific cod TACs are larger than set-aside, that additional TAC is available to all sectors at the start of the regular fishing season. Allowing any sector to participate in the unrestricted fishery was intended to better mitigate unharvested TAC in the event TACs ever increased, by allowing other sectors to plan for an AI Pacific cod fishery at the beginning of the year. The unrestricted fishery also provides some opportunity for vessels that normally participate in the AI Pacific cod fishery to continue to participate in the fishery when there is sufficient AI Pacific cod TAC. Under Alternative 4, participation by trawl CVs delivering to offshore processors or non-AI shoreplants in the unrestricted fishery would be modified to better align with original intent of providing an opportunity for AI shoreplants and the communities in which they are located to maintain shore-based processing. It accomplishes this by simply restricting trawl CVs operating in the AI Pacific cod fishery to only those vessels delivering to AI shoreplants once the BS A-season Pacific cod fishery for the trawl CV sector is closed to directed fishing.

ES 1 Summary of effects of alternatives

	Alternative 1 (no action)	Alternative 2	Alternative 3	Alternative 4
Addresses Council's Purpose and Need	No	No	Yes	Yes
Summary of effects	Does not solve Council's purpose and need because CV vessels can participate in the BS trawl CV A-Season Sector Limitation and deliver anywhere which could prevent AI shoreside processing plants from achieving the full AI CV harvest set-aside.	Does not solve Council's purpose and need because if CV vessels participate in the AI unrestricted fishery before the BS closes, it would erode the amount of BS trawl CV A-Season Sector Limitation available after the BS closure.	1) Although solves Council's purpose and need, has the greatest impact on trawl CVs delivering to offshore processors or non-AI shoreplants since prohibits directed fishing in the AI until AI set-aside is harvested or March 15. 2) BS could close sooner because vessels that might have fished in unrestricted fishery in AI would now most likely fish in BS instead.	1) Has the least impact on trawl CVs delivering to offshore processors and non-AI shoreplants while still addressing Council's purpose and need. 2) The BS A-season Pacific cod trawl CV fishery could close sooner since closure will be based on BS harvest plus AI unrestricted harvest.
AI CV set-aside	5,000 mt or AI DFA whichever is less; once set-aside is achieved or on March 15 (whichever comes first) all other regulations associated with Amendment 113 go away.	5,000 mt or AI DFA whichever is less; once set-aside is achieved or on March 15 (whichever comes first) all other regulations associated with Amendment 113 go away.	5,000 mt or AI DFA whichever is less; once set-aside is achieved or on March 15 (whichever comes first) all other regulations associated with Amendment 113 go away.	5,000 mt or AI DFA whichever is less; once set-aside is achieved or on March 15 (whichever comes first) all other regulations associated with Amendment 113 go away.
AI unrestricted fishery	AI DFA minus AI CV set-aside	AI DFA minus AI CV set-aside	AI DFA minus AI CV set-aside	AI DFA minus AI CV set-aside
Participation in AI unrestricted fishery for non-trawl CVs and CPs	Can participate as long as there is sufficient TAC available in the AI unrestricted fishery.	Can participate as long as there is sufficient TAC available in the AI unrestricted fishery.	Can participate as long as there is sufficient TAC available in the AI unrestricted fishery.	Can participate as long as there is sufficient TAC available in the AI unrestricted fishery.
Participation in AI CV set-aside for all CVs (trawl and non-trawl)	Can participate as long as there is sufficient overall TAC available in the AI.	Can participate as long as there is sufficient overall TAC available in the AI.	Can participate as long as there is sufficient overall TAC available in the AI.	Can participate as long as there is sufficient overall TAC available in the AI.
BS trawl CV A-Season Sector Limitation	5,000 mt or AI DFA whichever is less; all CV trawl catch in the AI accrues towards the limitation regardless of where it is delivered. Remains in effect until March 21 or until AI CV set-aside is reached, whichever comes first.	5,000 mt or AI DFA whichever is less; all CV trawl catch in the AI accrues towards the limitation regardless of where it is delivered. Remains in effect until March 15 or until AI CV set-aside is reached, whichever comes first.	5,000 mt or AI DFA whichever is less; all CV trawl catch in the AI accrues towards the limitation regardless of where it is delivered. Remains in effect until March 15 or until AI CV set-aside is reached, whichever comes first.	5,000 mt or AI DFA whichever is less; only CV trawl catch being delivered to an AI shoreside processor accrues towards the limitation. Remains in effect until March 21 or until AI CV set-aside is reached, whichever comes first.
Participation in the AI unrestricted fishery for CV trawl vessels before the BS closes	Can participate as long as there is sufficient TAC available in the AI unrestricted fishery.	Can participate as long as there is sufficient TAC available in the AI unrestricted fishery.	Cannot participate in the AI unrestricted fishery even if there is available TAC in the AI unrestricted fishery.	Can participate as long as there is sufficient TAC available in the AI unrestricted fishery.
Participation in the AI unrestricted fishery for CV trawl vessels after the BS closes	Can participate as long as there is sufficient TAC available in the AI unrestricted fishery.	Cannot participate in the AI unrestricted fishery even if there is available TAC in the AI unrestricted fishery.	Cannot participate in the AI unrestricted fishery even if there is available TAC in the AI unrestricted fishery.	Cannot participate in the AI unrestricted fishery even if there is available TAC in the AI unrestricted fishery.

1 Introduction

This document analyzes 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 adjust Amendment 113 to the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area. The intent of this action is to adjust Amendment 113 such that the prosecution of the AI Pacific cod fishery aligns with the Council’s original objective of providing stability to BSAI shoreplant operations, AI harvesters, and AI fishing communities dependent on AI Pacific cod harvesting and shoreside processing activity.

This document is a Regulatory Impact Review (RIR). An RIR provides assessments of the economic benefits and costs of the action alternatives, as well as their distribution. This RIR addresses the statutory requirements of the Magnuson Stevens Fishery Conservation and Management Act and Presidential Executive Order 12866. An RIR 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 informed decision-making.

The proposed action has no potential to effect individually or cumulatively on the human environment. The only effects of the action are economic, as analyzed in this RIR. As such, it is categorically excluded from the need to prepare an Environmental Assessment.

2 Regulatory Impact Review

The preparation of an RIR³ 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 Statemen 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

³ The proposed action has no potential to effect individually or cumulatively on the human environment. The only effects of the action are economic, as analyzed in this RIR. As such, it is categorically excluded from the need to prepare an Environmental Assessment.

- 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 History of this Action

Since 2008, the Council has been evaluating the need for community protections in the AI due to the implementation of rationalization programs from various fisheries. The specific rationalization programs of interest are the American Fisheries Act (AFA), the BSAI crab rationalization program, and BSAI Amendment 80 program. Among other outcomes, rationalization has provided benefits to processing vessels, affording opportunities for consolidation; thus, freeing some processing capacity to target and process non-rationalized BSAI groundfish. These programs have resulted in excess surplus processing capacity that has been used in the AI Pacific cod fishery.

In October 2015, the Council took final action to provide stability to AI shoreplant operations and the communities dependent on shoreside processing activity by prioritizing a portion of the AI Pacific cod total allowable catch (TAC) for access by CVs delivering their AI Pacific cod catch to shoreplants in the AI. The Secretary of Commerce (SOC) approved the Council’s recommendation (Amendment 113) which had an effective date of November 23, 2016. The amendment modified the management of the BSAI Pacific cod fishery to set aside a portion of the AI Pacific cod TAC for harvest by catcher vessels directed fishing for AI Pacific cod and delivering their catch for processing to a shoreside processor located on land west of 170° W. longitude in the AI. The harvest set-aside applies only if specific notification and performance requirements are met, and only during the first few months of the fishing year. This harvest set-aside provides the opportunity for vessels, AI shoreplants, and the communities where AI shoreplants are located to receive benefits from a portion of the AI Pacific cod fishery. The notification and performance requirements preserve an opportunity for the complete harvest of the BSAI Pacific cod resource if the set-aside is not fully harvested.

The Council in February of 2018 identified a regulatory issue that is counter to the intent of providing community protections in the AI. Amendment 113 created an AI unrestricted fishery which allows for any amount of the AI directed fishing allowance (DFA)⁴ Pacific cod above the AI CV harvest set-aside to be available to any sector for directed fishing and processing by any eligible processor. Amendment 113 also established a BS trawl CV A-Season Pacific cod sector limitation to ensure that some of the BSAI trawl CV sector’s A-season Pacific cod allocation remains available for harvest in the AI by trawl CVs that deliver to AI shoreplants for processing.

⁴ Directed fishing allowance is equal to non-CDQ TAC minus the incidental catch allowance.

However, since the AI unrestricted fishery and the AI CV harvest set-aside are administered simultaneously, when the BS Pacific cod trawl CV fishery is closed to fishing, AI Pacific cod catch that is delivered to offshore or non-AI shoreplants by trawl CVs is deducted from both the AI unrestricted fishery and the portion of BSAI trawl CV A-season allocation remaining after the BS trawl CV A-season trawl CV sector is closed to directed fishing. The deduction of AI Pacific cod delivered to offshore processors or non-AI shoreplants from the remaining portion of the BSAI trawl CV A-season allocation after the BS closes, runs counter to the intent of the Council to provide stability to AI shoreplant operations and the communities dependent on shore processing activity. The remaining portion of BSAI trawl CV A-season Pacific cod allocation after the BS closes to the sector was intended for use by trawl CVs for harvest and delivery of AI Pacific cod to AI shoreplants.

For 2018, the AI DFA was set at 11,516 mt. That DFA was specified as 6,516 mt for the AI unrestricted fishery and 5,000 mt for the AI CV harvest set-aside for delivery to AI shoreplants. The unrestricted fishery is the amount of AI Pacific cod that is available, prior to March 15, to any eligible vessel for directed fishing and processing by any eligible processor. In February 2018, participants began to realize that, under the current regulations, the AI shoreplant would not be able to take deliveries of the entire 5,000 mt AI set-aside after the BSAI trawl CV sector was closed to directed fishing for the A season⁵. With the BS trawl CV A-season Pacific cod fishery closed to directed fishing on February 11, the trawl CVs that harvested AI Pacific cod in the unrestricted fishery were reducing the amount of the remaining 5,000 mt of the BSAI non-CDQ trawl CV A season allocation that was intended for AI shoreplants.

In April 2018, the Council developed a purpose and need statement and requested that staff develop an analysis of three action alternatives to adjust Amendment 113 regulations implementing the AI Pacific cod set-aside for CVs delivering to shoreplants in the AI to prioritize the AI Pacific cod CV harvest set-aside fishery before the AI unrestricted fishery.

At the April 2018 meeting, the Council also tasked staff to provide a discussion of the tradeoffs and benefits of combining the Amendment 113 adjustment action with the broader BS Pacific cod offshore limitation that was initiated at the December 2017 Council meeting. After reviewing that discussion during their June 2018 meeting, the Council clarified that the AI Pacific cod set-aside amendment and the BS Pacific cod offshore limitation should not be combined into one large amendment package. Combining the two amendments would likely delay implementation of the adjustment to Amendment 113, and the Council indicated the need for a faster time line for completing the adjustment to the Amendment 113.

2.3 Purpose and Need for Action

The Council adopted the following purpose and need statement in April 2018.

Amendment 113 to the Bering Sea and Aleutian Islands Fishery Management Plan (BSAI) was intended to address the Council's concern of the continued risk of increased processing participation by rationalized sectors in the non-rationalized Aleutian Island cod fishery. In the first year Amendment 113 was in effect, changes in fishery participation patterns and total allowable catches in the BSAI resulted in the fishery progressing in a manner that may have been counter to the intent of providing community protections in the Aleutian Islands. The Council intends to modify Amendment 113 such that the prosecution of the BSAI Pacific cod fishery aligns with the Council's original objective of addressing the risk that participants in the BSAI rationalized fisheries may

⁵ The pot, HAL, and jig gear fisheries could provide some deliveries but may not be enough to reach the 5,000 mt AI set-aside.

diminish the historical share of the BSAI Pacific cod of other industry participants and communities that depend on shoreplant processing in the region.

2.4 Description of Alternatives

Alternative 1 is the no action alternative. Alternative 1 would continue to set aside a portion of the AI Pacific cod total allowable catch for harvest by vessels directed fishing for AI Pacific cod and delivering their catch for processing to shoreside processors located on land west of 170° W. longitude in the AI. The alternative would also continue to allow trawl CV AI Pacific cod catch that is delivered to offshore or non-AI shoreplants be deducted from the BSAI non-CDQ trawl CV A-season allocation limitation after the BS trawl CV fishery closes to the sector.

The alternative would continue to set aside a portion of the AI Pacific cod total allowable catch for harvest by vessels directed fishing for AI Pacific cod and delivering their catch for processing to a shoreside processor located on land west of 170° W. longitude in the AI. Specifically, prior to March 21, the A-season trawl CV sector Pacific cod harvest in the BS would be limited to an amount equal to the BSAI aggregate CV trawl sector A-season allocation minus the lesser of the AI directed Pacific cod non-CDQ TAC or 5,000 mt. Directed fishing for non-CDQ AI Pacific cod would continue to be prohibited for all vessels except CVs delivering their catch of AI Pacific cod to shoreplants west of 170° longitude in the AI for processing prior to March 15, unless the harvest set-aside is removed earlier to prevent AI Pacific cod TAC from going unharvested or there is sufficient AI directed Pacific cod non-CDQ TAC above the AI CV harvest set-aside. The harvest set-aside would continue to apply only if specific notification and performance requirements are met and only during the first few months of the fishing year. The no action alternative would also continue to authorize vessels to participate in the unrestricted fishery if sufficient AI Pacific cod TAC remained in the AI unrestricted fishery. This unrestricted fishery could be delivered to offshore or non-AI shoreplants.

Also affecting the no action alternative is the potential for impacts from future Council action on the ongoing proposed FMP amendment to limit participation in the BSAI non-CDQ Pacific cod trawl CV fishery. Specifically, the amendment includes three actions: 1) limit trawl CPs acting as a mothership and the amount of BS Pacific cod delivered to these vessels; 2) limit latent LLP licenses in the BSAI trawl Pacific cod fishery, and 3) establish AFA and non-AFA sector allocations for the BSAI non-CDQ Pacific cod trawl CV A season fishery. Alternatives and options approved by the Council for the BSAI Pacific cod trawl CV limitation action is presented in section 2.7.1.4.

Alternative 2 would amend Amendment 113 to allow, prior to March 15, trawl CVs to fish in the AI Pacific cod fishery until the BS A-season trawl CV fishery closes. After the BS A-season trawl CV fishery closes, trawl CVs delivering to AI shoreplants could continue to participate in the AI Pacific cod fishery, but no trawl CV participation would be allowed in the unrestricted fishery. In other words, the alternative would restrict the AI trawl CV Pacific cod fishery to only those delivering to AI shoreplants once the BS A-season trawl CV fishery closes.

Alternative 3 would amend Amendment 113 to prohibit trawl CVs from harvesting AI Pacific cod from the unrestricted fishery until the earlier of March 15 or until the entire AI Pacific cod set-aside has been landed. In other words, even with an unrestricted AI Pacific cod fishery, trawl CVs are prohibited from delivering AI Pacific cod to offshore processors or non-AI shoreplants until March 15 or until the entire set-aside is landed. The trawl CV restriction would be in place even if the BS Pacific cod fishery is still open for directed fishing by the trawl CV sector. This alternative would not change the current regulations that prior to March 21, the A-season trawl CV Pacific cod harvest in the BS shall be limited to an amount equal to the BSAI aggregate CV trawl sector A-season allocation minus the lesser of the AI Pacific cod DFA or 5,000 mt. The alternative would also continue to allow other CV sectors to target AI Pacific cod from the set-aside for delivery to AI shoreplants and would continue to allow CPs and non-trawl CVs to

participate in the AI unrestricted Pacific cod fishery when there is sufficient Pacific cod TAC available for a fishery. All other elements of Amendment 113, including the annual notification process and minimum landing requirements, would remain unchanged under this alternative.

Alternative 4 would amend Amendment 113 so that prior to March 21, A-season trawl CV harvest of BS and AI Pacific cod, except Pacific cod delivered to AI shoreplants, will be limited to the amount equal to the BSAI trawl CV A-season sector allocation minus the AI Pacific cod DFA or 5,000 mt whichever is less. The remaining amount after removing the AI Pacific cod DFA or 5,000 mt (whichever is less) is referred to as the BS trawl CV limitation. Under this alternative, harvest by the trawl CVs from the unrestricted fishery will be included in the BS trawl CV limitation when determining the closure of the BS subsection. Under Alternatives 1 and 2, the BS trawl CV limitation only takes into account Pacific cod harvested from the BS when determining the closure of the BS subsection. In other words, under Alternative 4, the BS would close once the harvest from the BS and unrestricted AI Pacific cod fishery was equal to the BSAI CV trawl Pacific cod A-season allocation minus the BS trawl CV limitation.

Upon closure of the BS Pacific cod A-season for the trawl CV sector (thereby leaving only the BS trawl CV limitation in place), directed fishing for AI Pacific cod would be prohibited for all trawl CVs except those trawl CVs delivering AI Pacific cod to AI shoreplants. Any trawl CV AI Pacific cod TAC remaining after the BS A-season trawl CV sector closure is available for harvest by the sector for delivery only to AI shoreplants. The alternative would also continue to allow non-trawl CV sectors to target AI Pacific cod for delivery to AI shoreplants, and would continue to allow CPs and non-trawl CVs to participate in the AI unrestricted Pacific cod fishery when there is sufficient Pacific cod unrestricted TAC available for a fishery. All other elements of Amendment 113, including annual notification process and minimum landing requirements, would remain unchanged under this alternative.

Table 2-1 provides a summary of the key differences by alternative.

Table 2-1 Summary of differences between alternatives

Inseason Scenarios		Alt 1*	Alt 2*	Alt 3*	Alt 4*
<ul style="list-style-type: none"> •BS A season is open •AI set-aside is available •AI unrestricted is open 	Timing <ul style="list-style-type: none"> • AI set-aside • BS Trawl CV A-season limitation 	Jan 20 – Mar 15 Jan 20 – Mar 21	Jan 20 – Mar 15 Jan 20 – Mar 21	Jan 20 – Mar 15 Jan 20 – Mar 21	Jan 20 – Mar 15 Jan 20 – Mar 21
	Authorized trawl CVs fishing in the AI Pacific cod fishery	All trawl CVs can fish and deliver anywhere	All trawl CVs can fish and deliver anywhere	Trawl CVs can only deliver shoreside within AI	All trawl CVs can fish and deliver anywhere
	Recording of AI Pacific cod catch	<u>BSAI Limitation</u> Any trawl CV catch that is harvested in the AI comes off the BSAI limitation <u>AI Set-aside</u> Any trawl CV catch that is delivered to AI shoreplants comes off the AI set-aside	<u>BSAI Limitation</u> Any trawl CV cod catch that is harvested in the AI comes off the BSAI limitation <u>AI Set-aside</u> Any trawl CV catch that is delivered to AI shoreplants comes off the AI set-aside	<u>BSAI Limitation</u> Any trawl CV catch that is harvested in the AI comes off the BSAI limitation <u>AI Set-aside</u> Any trawl CV catch that is delivered to AI shoreplants comes off the AI set-aside	<u>BSAI Limitation</u> <ul style="list-style-type: none"> • For trawl CV not delivering to AI shoreside plant catch comes off the trawl CV BSAI allocation minus the limitation. • For trawl CV delivering to AI shoreplants, catch comes off the BSAI limitation. <u>AI Set-aside</u> Trawl CV catch delivered to AI shoreplants comes off the AI set-aside.
<ul style="list-style-type: none"> •BS A season is closed •AI set-aside is available •AI unrestricted is open 	Timing <ul style="list-style-type: none"> • AI set-aside • BS Trawl CV A-season limitation 	Jan 20 – Mar 15 Jan 20 – Mar 21	Jan 20 – Mar 15 Jan 20 – Mar 21	Jan 20 – Mar 15 Jan 20 – Mar 21	Jan 20 – Mar 15 Jan 20 – Mar 21
	Authorized trawl CV fishing in the AI Pacific cod fishery	All trawl CVs can fish and deliver anywhere	Trawl CVs can only deliver shoreside within AI until March 15	Trawl CVs can only deliver shoreside within AI until March 15	Trawl CVs can only deliver shoreside within AI until March 21
	Recording of AI Pacific cod catch	<u>BSAI Limitation</u> Any trawl CV catch that is harvested in the AI comes off the BSAI limitation <u>AI Set-aside</u> Any trawl CV catch that is delivered to AI shoreplants comes off the AI set-aside	<u>BSAI Limitation</u> Any trawl CV cod catch that is harvested in the AI comes off the BSAI limitation <u>AI Set-aside</u> Any trawl CV catch that is delivered to AI shoreplants comes off the AI set-aside	<u>BSAI Limitation</u> Any trawl CV catch that is harvested in AI comes off the BSAI limitation <u>AI Set-aside</u> Any trawl CV catch that is delivered to AI shoreplants comes off the AI set-aside	<u>BSAI Limitation</u> Trawl CV delivering AI shoreplants comes off the BSAI limitation. <u>AI Set-aside</u> Trawl CV catch that is delivered to AI shoreplants comes off the AI set-aside.

*Provisions/restrictions do not apply to other sectors.

The following alternatives were adopted by the Council in April 2018.

Alternative 1. No Action

Alternative 2. Amend CFR 679.20 (a)(7)(viii)(E) as follows (changes in bold and underlined):

- (1) Language is unchanged
- (2) Language is unchanged
- (3) Aleutian Islands Unrestricted Fishery. Prior to March 15, vessels otherwise authorized to directed fish for Pacific cod in the Aleutian Islands may directed fish for that portion of the Aleutian Islands Pacific cod non-CDQ directed fishing allowance that is specified as the Aleutian Islands Unrestricted Fishery as determined in paragraph (a)(7)(viii)(B) of this section and may deliver their catch to any eligible processor, provided directed fishing for Pacific cod by the catcher vessel trawl sector is allowed in the BS Subarea.
- (4) Management of Trawl Catcher Vessels in the Aleutian Islands Unrestricted Fishery. If the trawl catcher vessel sector is closed in the BS Subarea prior to March 15, only trawl catcher vessels that deliver their catch of Aleutian Islands Pacific cod to an Aleutian Islands shoreplant for processing may directed fish for that portion of the Aleutian Islands Pacific cod non-CDQ directed fishing allowance that is specified as the Aleutian Islands Unrestricted Fishery as determined in paragraph (a)(7)(viii)(B) of this section.
- ~~(4)~~(5) Minimum Aleutian Islands shoreplant landing requirement. If less than 1,000 mt of the Aleutian Islands Catcher Vessel Harvest Set-Aside is landed at Aleutian Islands shoreplants on or before February 28, then paragraphs (a)(7)(viii)(E)(1) thru (4) of this section will not apply for the remainder of the fishing year.
- ~~(5)~~(6) Language is unchanged

Alternative 3. If the Aleutian Islands Catcher Vessel Harvest Set-Aside is in effect, the trawl CV sector may not engage in directed fishing for cod from the Aleutian Islands Unrestricted Fishery until the earlier of March 15 or until the entire Set-Aside is landed.

This prohibition will be removed if less than 1,000 mt of the Aleutian Islands Catcher Vessel Harvest Set Aside has not been landed by February 28.

Alternative 4.

- 1) Prior to March 21, the A season trawl CV Pacific cod harvests in the Bering Sea and trawl CV Pacific cod harvests in the Aleutian Islands except harvests delivered shoreside west of 170° longitude in the AI shall be limited to an amount equal to the BSAI aggregate CV trawl sector A season allocation minus the lessor of the AI directed Pacific cod non CDQ DFA or 5,000 mt.

Upon the closure under the above provision, directed trawl CV fishing for non CDQ BSAI Pacific cod is prohibited for all trawl CVs vessels except trawl CVs delivering shoreside west of 170° longitude in the AI prior to March 21, unless restrictions are removed earlier under 3 or 4 below.

- 2) Prior to March 15 AI directed Pacific cod non CDQ harvests of any sector other than the CV sector delivering shoreside west of 170° longitude in the AI as defined in 1) are limited to the amount of the AI directed Pacific cod non CDQ DFA above minus the amount set aside from the trawl CV BSAI allocation under 1). Catches of those other sectors under this provision are not subject to the regional delivery requirement.

- 3) If less than 1,000 mt of the AI Pacific cod non CDQ TAC has been landed shoreside west of 170 longitude in the AI by February 28 the restrictions under 1) and 2) shall be suspended for the remainder of the year.
- 4) If prior to November 1, neither the City of Adak nor the City of Atka have notified NMFS of the intent to process non CDQ directed AI Pacific cod in the upcoming year, the Aleutian Islands shoreside delivery requirement and restriction on the trawl CV sector allocation is suspended for the upcoming year. Cities can voluntarily provide notice prior to the selected date.

Shoreside deliveries are defined as deliveries made to a facility physically located on land.

2.5 Methodology for Analysis of Impacts

The impact analysis in this document is designed to meet the requirements of Executive Order 12866, which dictates that an RIR evaluate the costs and benefits of the alternatives, including 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, comparing the No Action Alternative 1 with the action alternatives. A qualitative assessment of the net benefit to the Nation of each alternative, compared to no action then follows.

This analysis was prepared using data from the NMFS catch accounting system, which are 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 offshore 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

The Council motion clarifies that the action would affect Pacific cod harvested in the AI by federally permitted vessels. The following section describes the management of the Pacific cod fishery in the BS and AI to include management of the Federal fishery, seasonal allowances, State-managed AI Pacific cod guideline harvest level (GHL) fishery, and profiles of the affected sectors and the affected communities of Adak and Atka. The Final RIR/EA for Amendment 113 had information on the AI pollock fishery and Steller sea lion protection measures, which is not included in this RIR since this action is modification of the original Amendment 113. For information on AI pollock fishery and Steller sea lion protection measures, see the Final RIR/EA for Amendment 113 dated September 2016.

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 AI. Prior to 2014, the BSAI Pacific cod ABC and TAC was managed as a single stock throughout the BSAI management area.⁶ At the December 2012 Council meeting, the SSC stated that it would recommend separate OFLs and ABCs for BS and AI Pacific cod for the 2014 and 2015 harvest specifications cycle based on the best available data at the time. The stock assessment for AI 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 into an AI stock and a BS stock. This split was implemented in 2014. Table 2-2 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 2018. Note that the ICA for incidental catch of AI Pacific cod in other groundfish fisheries comes off the ITAC such that the ITAC is not entirely available for the directed AI Pacific cod fishery.

Table 2-2 BSAI Pacific cod ABC, TAC, and ITAC 2003 to 2013 and BS and AI Pacific cod ABC, TAC, and ITAC 2014 and 2018 (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						
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				255,000	240,000	214,320	17,600	9,422	8,414
2016				255,000	238,680	213,141	17,600	12,839	11,465
2017				239,000	223,704	199,768	21,500	15,695	14,016
2018				201,000	188,136	168,005	21,500	15,695	14,016

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:

⁶ 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).

- 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 LOA – 8.4 percent
- AFA trawl CPs – 2.3 percent
- Hook-and-line and pot CVs less than 60 feet LOA – 2 percent
- Pot CPs – 1.5 percent
- Jig vessels – 1.4 percent
- Hook-and-line CVs greater than or equal 60 feet LOA - 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 BS and AI Pacific cod TAC split and, therefore, sector allocations currently in effect will continue to apply at the BSAI level. Each of the non-CDQ sectors that receives an allocation, may fish their allocation within the AI or the BS, 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. At the time of the TAC split, 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 reduced a large portion of the fishable area in the AI; and (3) it was unknown how sectors would 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 AI subarea since 2006. State regulations currently provide for a GHL of 27 percent of the AI Pacific cod ABC. This amount is deducted from the AI ABC when calculating the AI TAC. See Section 2.6.5 for a more detailed explanation of the AI GHL fisheries for Pacific cod. Starting in 2014, the State of Alaska has provided opportunity for a new Pacific cod GHL fishery in the BS subarea. State regulations currently provide for a GHL of 6.4 percent of the BS 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 are no gear specific seasonal allowances by area. While the overall guideline for the BSAI Pacific cod fishery continues to be a 70:30 percent seasonal split, the seasonal allowances vary by gear type taking into account changes to the season dates from the 2014 Steller sea lion protection measures (Table 2-3).

Table 2-3 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%)		

Table 2-4 provides the BSAI Pacific cod sector apportionment and BSAI Pacific cod seasonal allowance for the 2018 fishing year. The bottom row of the table shows the seasonal allocation for the trawl CV sector. Any portions of the seasonal allowance that are not harvested in a season may be rolled over to the following fishing season.

Table 2-4 BSAI non-CDQ Pacific cod sector apportionment and BSAI non-CDQ Pacific cod seasonal allowance for 2018

Sector	BSAI Sector Apportionment (mt)	BSAI Season allowance (mt)		
		A	B	C
H&L/pot < 60'	3,627	No seasonal allowance		
H&L CV ≥ 60'	363	185	178	n/a
H&L CP	88,324	45,045	43,279	n/a
Pot CV ≥ 60'	15,235	7,770	7,465	n/a
Pot CP	2,720	1,387	1,333	n/a
Jig vessels	2,548	1,529	510	599
AFA trawl CP	4,186	3,140	1,047	0
Amendment 80	24,391	18,293	6,098	0
Trawl CV	40,227	29,768	4,425	6,034

Source: NMFS Final Specifications

Table 2-5 reports the most recent 11 years of the BSAI trawl CV Pacific cod allocation. Since 2008, the trawl CV sector has been allocated between 33,309 (mt) and 51,509 (mt) of BSAI Pacific cod. The smallest allocations were during the early years. The allocations then increased with increasing TACs but have declined in recent years. The percentage of the TAC allocated to the A-season has been 74 percent of the available TAC. The remaining TAC was divided such that 11 percent was initially allocated to the B-season and 15 percent to the C-season.

Table 2-5 BSAI Pacific cod trawl CV allocations (mt) by season 2008 through 2018

Year	CV trawl allocation	Metric tons			Percentage		
		A	B	C	A	B	C
2008	33,692	24,932	3,706	5,054	74.0%	11.0%	15.0%
2009	34,841	25,782	3,832	5,226	74.0%	11.0%	15.0%
2010	33,309	24,649	3,664	4,996	74.0%	11.0%	15.0%
2011	44,987	33,290	4,949	6,748	74.0%	11.0%	15.0%
2012	51,509	38,117	5,666	7,726	74.0%	11.0%	15.0%
2013	51,312	37,971	5,644	7,697	74.0%	11.0%	15.0%
2014	50,107	37,079	5,512	7,516	74.0%	11.0%	15.0%
2015	49,224	36,426	5,415	7,384	74.0%	11.0%	15.0%
2016	49,638	36,732	5,460	7,446	74.0%	11.0%	15.0%
2017	47,246	34,962	5,197	7,087	74.0%	11.0%	15.0%
2018	40,227	29,768	4,425	6,034	74.0%	11.0%	15.0%

Note: Seasonal allocations are reported in metric tons and as a percentage of the trawl CV all

Source: NMFS harvest specification tables

2.6.3 BSAI Pacific Cod Trawl CV Closures

Table 2-6 provides a summary of the closure and opening dates for the BSAI Pacific cod trawl CV fishery. The BSAI trawl fishery is opened to fishing on January 20 and closes by regulation on November 1. With the exception of 2014 and 2015, the trawl CV sector has been restricted to bycatch-only retention status (directed fishing closures) at some point during their A-season BSAI Pacific cod fishery every year from 2004 through 2018. In 2014 and 2015, the fishery closed only in the AI due to the total AI TAC being harvested prior to the end of the A-season. The last two years (2017 and 2018) the fishery has closed on February 23 and February 11 (in the BS only). The 2018 fishing season was the first year that an AI shoreside processor participated since Amendment 113 was implemented. In 2018, the trawl CV sector closed in the BS on February 11, which was the earliest closure for the trawl CV sector in the BS. The latest initial closure, prior to the regulatory closure of the A-season, was March 26 in 2011. The B-season is typically only open for about one week. The B-season sometimes reopened during the B-season if sufficient TAC was available. The C-season has not closed since 2007, and closures were generally due to halibut PSC limits being reached.

Table 2-6 Closure and opening dates for the BSAI Pacific cod trawl CV sector, 2003 through 2018

Year	A-Season: 20 Jan - Apr 1	B-Season: 1 Apr - 10 Jun	C-Season: 10 Jun - Nov 1
2003			CI 25-Sep, HAL
2004	CI 23-May	CI 4-Apr Op 10-Apr CI 13-Apr	
2005	CI 13-Mar Op 29-Mar		CI 18-Aug, HAL
2006	CI 8-Mar	CI 6-Apr CI 8-Jun, HAL	Op 19-Jul, HAL CI 31-Aug
2007	CI 12-Mar	CI 9-Apr	CI 29-Sep, HAL
2008	CI 6-Mar	CI 4-Apr	
2009	CI 21-Mar	CI 5-Apr	
2010	CI 12-Mar	CI 1-Apr	
2011	CI 26-Mar	CI 4-Apr Op 9-Apr CI 12-Apr Op 15-Apr	
2012	CI 29-Feb Op 29-Mar	CI 15-Apr	
2013	CI 11-Mar		
2014*	CI 16-Mar		
2015**	CI 27-Feb		
2016	CI 9-Mar	CI 4-Apr Op 11-Apr CI 4-May	
2017	CI 23-Feb	CI Apr 3	
2018	CI 11-Feb (BS), CI 4-Mar (BSAI)	CI Apr 3	

Notes: CI = Closed, Op = Open, HAL=Closed because halibut PSC limits reached, REG=Closed by Regulation

All openings and closures are because of TAC unless otherwise noted

* The AI Pacific cod fishery closed to directed fishing for all sectors on 16-Mar

** The AI Pacific cod fishery closed to directed fishing for all sectors on 27-Feb

2.6.4 Amendment 113 (AI Pacific Cod Harvest Set-aside)

Effective November 23, 2016, regulations associated with Amendment 113 set aside a portion of the AI Pacific cod TAC for harvest by vessels directed fishing for AI Pacific cod and delivering their catch to a shoreside processor located on land west of 170° W. longitude in the AI. The harvest set-aside applies only if specific notification and performance requirements are met, and only during the first few months of the fishing year. This harvest set-aside provides the opportunity for vessels, AI shoreplants, and the communities where AI shoreplants are located to receive benefits from a portion of the AI Pacific cod fishery. The notification and performance requirements preserve an opportunity for the complete harvest of the BSAI Pacific cod resource if the set-aside is not fully harvested.

The new regulations require that some or all of the AI Pacific cod Directed Fishing Allowance (DFA)⁷ is set aside for harvest by vessels directed fishing for AI Pacific cod for delivery to an AI shoreplant. This AI CV harvest set-aside will be available for harvest by vessels using any authorized gear type.

The amount of the AI CV harvest set-aside will be an amount equal to the lesser of either the AI DFA or 5,000 mt. When the AI CV harvest set-aside is equal to the AI DFA and the set-aside is in effect, directed fishing for Pacific cod in the AI may only be conducted by vessels that deliver their catch of AI Pacific cod to AI shoreplants for processing. Vessels that may not target Pacific cod in the AI while the AI harvest set-aside is in effect will be permitted to conduct directed fishing for other groundfish (other than Pacific cod) in the AI and their incidental Pacific cod harvests will accrue toward the AI incidental catch allowance (ICA).

When the AI DFA is greater than 5,000 mt, and therefore the AI CV harvest set-aside is set equal to 5,000 mt, the difference between the DFA and the AI CV harvest set-aside, called the AI unrestricted fishery, will be available for directed fishing by all non-CDQ fishery sectors with sufficient A-season allocations and may be processed by any eligible processor. In years when there is both an AI CV harvest set-aside and an AI unrestricted fishery, vessels may conduct directed fishing for AI Pacific cod and deliver their catch to AI shoreplants or to any eligible processor as long as the AI unrestricted fishery is open to

⁷ DFA = TAC - ICA and CDQ allowance

directed fishing. CPs can also conduct directed fishing for AI Pacific cod and process that catch as long as the AI unrestricted fishery is open for directed fishing.

In addition, the regulations establish the BS trawl CV A-season sector limitation to restrict the amount of the trawl CV sector’s A-season allocation that can be harvested in the BS prior to March 21. The BS trawl CV A-season sector limitation ensures that some of the trawl CV sector’s A-season allocation remains available for harvest in the AI by trawl CVs that could deliver their catch of AI Pacific cod to AI shoreplants for processing. On March 21, the restriction on BS harvest by the trawl CV sector will be lifted and the remainder, if any, of the BSAI trawl CV sector’s A-season allocation can be harvested in either the BS or the AI (if still open to directed fishing for Pacific cod) for delivery to any eligible processor for processing. The BS trawl CV A-season sector limitation will equal the lesser of either the AI DFA or 5,000 mt. The amount of the trawl CV sector’s A-season allocation that may be harvested in the BS prior to March 21 will be the amount of Pacific cod that remains after deducting the BS trawl CV A-season sector limitation from the BSAI trawl CV sector A-season allocation listed in the annual harvest specifications.

As an example, applying these AI Pacific cod limits for 2018 (Table 2-7), based on the AI Pacific cod ITAC of 14,016 mt and an AI ICA of 2,500 mt, the 2018 AI CV harvest set-aside was 5,000 mt, the AI unrestricted fishery was 6,516 mt, and the BS trawl CV A-season sector limitation was 5,000 mt, which restricted the sector in the BS to 24,768 mt (29,768 mt – 5,000 mt) until March 21 or sooner if the AI CV harvest set-aside had been lifted for the year.

Table 2-7 Example of 2018 BSAI A-Season Pacific cod limits if AI shoreplants intend to process AI Pacific cod

Allocations/Limitations	2018
AI TAC	15,695
CDQ	1,679
AI ITAC	14,016
ICA	2,500
AI DFA	11,516
AI CV harvest set-aside	5,000
AI unrestricted fishery	6,516
BSAI trawl CV A-season allocation	29,768
BS trawl CV A-season sector limitation	5,000
BS trawl CV A-season allocation less sector limitation	24,768

Source: NMFS Final Specifications

NMFS will account for harvest and processing of AI Pacific cod under the AI CV harvest set-aside separately from, and in addition to its accounting of AI Pacific cod catch by the nine non-CDQ fishery sectors. Because of this separate accounting, the AI CV harvest set-aside will not increase or decrease the amount of BSAI Pacific cod allocated to any of the non-CDQ fishery sectors.

The AI CV harvest set-aside will apply from January 1 until March 15 of each year if certain notification and performance measures are satisfied. If the entire set-aside is harvested and delivered prior to March 15, NMFS will suspend the BS trawl CV A-season sector limitation and AI CV harvest set-aside as soon as possible. The AI CV harvest set-aside will end at noon on March 15 even if the entire set-aside has not been harvested and delivered to AI shoreplants. Any amount of remaining AI DFA may be harvested by any non-CDQ fishery sector with remaining A-season allocation, and the harvest may be delivered to any eligible processors.

Amendment 113 includes performance measures intended to prevent the stranding of AI non-CDQ Pacific cod TAC. The first measure is if the set-aside is not requested. If, prior to November 1, neither the City of Adak nor the City of Atka have notified NMFS of its intent to process non-CDQ directed AI Pacific cod in the upcoming year, the harvest set-aside and restriction on the trawl CV sector BS A-season allocation are suspended for the upcoming year. Adak or Atka can voluntarily provide notice prior to the selected date if they do not intend to process AI Pacific cod.

The second measure to prevent stranding of available AI non-CDQ Pacific cod harvest is the lifting of the AI CV harvest set-aside if limited processing of AI Pacific cod occurs at AI shoreplants. If less than 1,000 mt of the AI Pacific cod non-CDQ TAC has been landed at AI shoreplants by February 28, the harvest set-aside and the restriction on the trawl CV sector BS A season allocation are suspended for the remainder of the year.

2.6.5 State AI GHL Fishery

The State-managed AI fishery was established by the Alaska Board of Fisheries in 2006. From 2006 through the 2015 fishing season, the AI GHL was 3 percent of the Federal BSAI Pacific cod ABC. In December 2015, the Alaska Board of Fisheries changed the AI GHL calculations to better align with the split of the Federal BSAI Pacific cod stock into separate BS and AI stocks. Starting in 2016, the AI GHL will be 27 percent of the AI ABC, with annual step up provisions if the AI GHL is fully harvested to a maximum of 39 percent of the AI ABC. In addition, the Alaska Board of Fisheries capped that AI GHL at a maximum of 15 million pounds. If 27 percent of the AI ABC is greater than 15 million pounds in some future year, the AI GHL for that year is 15 million pounds.

This fishery is managed by the State and has different sector requirements. While trawl, longline, pot, and jig gear are allowed at various times during the GHL fishery, overall, the majority of the GHL fishery has been harvested by vessels using trawl and pot gear. Prior to 2016, the GHL fishery was split 70:30 between the A and B seasons. Starting in 2016, the regulations changed to only one season. Table 2-8 provides vessel counts, harvest, and value by AI state-waters Pacific cod GHL fishery from 2006 through 2018.

The proportion of harvest and deliveries each processor type receives varies each year (Table 2-9). During the 2006 through 2008 seasons, the Adak shoreplant harvested between 18 percent and 59 percent of the A-season GHL, while the offshore sector and other shoreplants harvested between 31 percent and 66 percent of the GHL. From 2009 through 2011, operation at the shoreplant processor in Adak was intermittent, resulting in few shoreplant deliveries and therefore a greater proportion of floating processor deliveries. From 2012 through 2014, the Adak shoreplant received between 60 percent and over 74 percent of the A-season GHL fishery. From 2015 through 2017, the absence of an operating AI shoreplant resulted in no AI shoreside GHL deliveries during this period. There were some deliveries of GHL to offshore processors during this period. In 2018, one AI shoreplant began processing AI Pacific cod which is reflected in delivery patterns for the GHL fishery since a large share of the GHL was delivered to that AI shoreplant. Since only one AI shoreplant and one offshore processor received deliveries of AI GHL Pacific cod in 2018, the harvest amounts for that year are confidential.

Table 2-8 Aleutian Islands state-waters Pacific cod fishery guideline harvest level and harvest from 2006-2018

Year	Season	Initial GHL ^a	Harvest ^a	Vessels	Landings	Average price per pound ^b	Fishery value ^c
2006	A season	4,074	3,857	26	68	\$0.23	\$1.30
	B season	1,746	160	5	19	\$0.38	\$1.40
	TOTAL	5,820	4,017	30	87	\$0.31	\$2.70
2007	A season	3,696	3,733	27	97	\$0.45	\$3.60
	B season	1,584	1,546	12	106	\$0.52	\$1.70
	TOTAL	5,280	5,279	39	203	\$0.49	\$5.30
2008	A season	3,696	3,392	30	116	\$0.63	\$4.50
	B season	1,584	1,924	18	77	\$0.57	\$1.80
	TOTAL	5,280	5,316	45	193	\$0.61	\$6.30
2009	A season	3,822	2,512	22	50	NA	NA
	B season	1,638	CF	5	47	CF	CF
	TOTAL	5,460	CF	27	97	CF	CF
2010	A season	3,654	3,610	16	84	\$0.25	\$1.60
	B season	1,566	375	3	4	\$0.32	\$1.10
	TOTAL	5,220	3,985	16	88	\$0.29	\$2.70
2011	A season	4,935	CF	3	4	CF	CF
	B season	2,115	CF	4	16	CF	CF
	TOTAL	7,050	270	6	20	CF	CF
2012	A season	6,594	5,199	21	201	\$0.31	\$3.60
	B season	2,826	432	7	25	CF	CF
	TOTAL	9,420	5,598	26	226	CF	CF
2013	A season	6,447	CF	12	CF	CF	CF
	B season	2,763	CF	1	CF	CF	CF
	TOTAL	9,210	4,792	13	151	CF	CF
2014	A season	5,672	CF	8	133	CF	CF
	B season	2,431	0	0	0	\$0.00	\$0.00
	TOTAL	8,103	CF	8	133	CF	CF
2015	A season	5,725	CF	2	CF	CF	CF
	B season	2,453	0	0	0	\$0.00	\$0.00
	TOTAL	8,178	CF	2	CF	CF	CF
2016		4,752	CF	6	39	CF	CF
2017		5,805	CF	3	84	CF	CF
2018		5,805	CF	13	132	CF	CF

Source: ADF&G

Note: CF = Confidential

^a In metric tons

^b Price per pound of landed weight.

^c Fishery value based on landed weight, in millions of dollars.

^d ADF&G made 3.5 million pounds of the GHL available to National Marine Fisheries Service effective on September 1.

^e Some vessels participated in both seasons.

^f Overage from the A season was deducted from the B season GHL. Initial GHL shown.

^g A season GHL was not fully harvested, remaining A season GHL rolled over into B season GHL; initial GHL shown.

^h Regulation changed to only one season for Aleutian Island Subdistrict state-waters Pacific cod.

Table 2-9 Retained target and incidental catch of AI Pacific cod GHL and percent of GHL by processing sector and season from 2006 through 2018

Year	Processing Sector	Pacific cod GHL Seasons						Total (mt)			
		A			B						
		Count	Harvest (mt)	% of GHL	Count	Harvest (mt)	% of GHL				
2006	AI Shoreplants	1	742	18	1	183	11	926			
	Offshore	9	2,702	66	5	63	4	2,765			
	Total	10	3,444	85	6	247	14	3,691			
2007	AI Shoreplants	1	2,180	59	1	406	26	2,586			
	Offshore & other shoreplants	4	1,149	31	7	378	24	1,527			
	Total	5	3,329	90	8	784	49	4,113			
2008	AI Shoreplants	1	977	26	1	341	22	1,318			
	Offshore & other shoreplants	5	1,992	54	6	1,003	63	2,996			
	Total	6	2,970	80	7	1,344	85	4,314			
2009	AI Shoreplants	1	351	9	0	0	0	351			
	Offshore	4	1,537	40	4	171	10	1,708			
	Total	5	1,888	49	4	171	10	2,059			
2010	AI Shoreplants	1	30	1	0	0	0	30			
	Offshore & other shoreplants	7	3,449	94	4	486	31	3,936			
	Total	8	3,480	95	4	486	31	3,966			
2011	AI Shoreplants	0	0	0	1	14	*	14			
	Offshore	3	59	1	1	*	*	*			
	Total	3	59	1	2	*	*	*			
2012	AI Shoreplants	1	3,951	60	1	366	*	4,317			
	Offshore	2	*	*	0	0	0	*			
	Total	3	*	*	1	366	*	*			
2013	AI Shoreplants	1	4,777	74	0	0	0	4,777			
	Offshore	0	0	0	0	0	0	0			
	Total	1	4,777	74	0	0	0	4,778			
2014	AI Shoreplants	1	4,099	72	0	0	0	4,099			
	Offshore	1	*	*	0	0	0	*			
	Total	2	*	*	0	0	0	*			
2015	AI Shoreplants	0	0	0	0	0	0	0			
	Offshore	1	*	*	0	0	0	*			
	Total	1	*	*	0	0	0	*			
2016	AI Shoreplants	0	0	0	N/A			0			
	Offshore	2	*	*				*			
	Total	2	*	*				*			
2017	AI Shoreplants	0	0	0							*
	Offshore	2	*	*							*
	Total	2	*	*							*
2018	AI Shoreplants	1	*	*							*
	Offshore	1	*	*							*
	Total	2	*	*	*						

Source: AKFIN, June 26, 2018

Table originates from AI_GHL(6-26-18) file

As noted in Table 2-10, the majority of the vessels participating in the AI Pacific cod GHL fishery are fixed gear vessels with homeports in Alaska. In total, 80 distinct vessels have participated in the the AI

Pacific cod GHL fishery since 2006. Of those, 22 participated only in the AI Pacific cod GHL fishery, while 58 participated in both the GHL fishery and the Federal AI Pacific cod fishery. Of these 80 vessels, 32 were trawls vessels, while 52 were fixed gear vessels. Of the 32 trawl vessels, 13 had Alaska homeports, while 19 had homeports elsewhere. Of the 52 fixed gear vessels, 35 had homeports in Alaska, while 15 had homeports elsewhere. Kodiak was the Alaska homeport with the largest number of vessels participating in the AI Pacific cod GHL fishery (4 trawl vessels and 11 fixed-gear vessels). Outside Alaska, Seattle was homeport to the largest number of AI Pacific cod GHL vessels (11 trawl vessels and 11 trawl vessels).

Table 2-10 Number of vessels that participated in the AI Pacific cod GHL from 2006 through 2018 by gear and homeport

Homeport	Vessel count in the GHL AI Pacific cod fishery 2006 through 2018	
	Trawl gear	Fixed gear
Adak	0	7
Bellingham	2	0
Cordova	0	1
Dutch Harbor	2	3
False Pass	0	1
Homer	0	4
Juneau	2	2
King Salmon	0	1
Kodiak	4	11
Mount Vernon	0	1
Newport	3	0
Pelican	0	1
Petersburg	2	0
Port Lions	0	1
Port Townsend	1	0
Portland	2	0
San Francisco	0	2
Sand Point	2	1
Seattle	11	11
Seward	0	1
Sitka	0	1
Unalaska	1	0
Ikatan	0	1
Unknown	0	2
Total	32	52

Source: AKFIN, June 2018

Table originates from BSAI_PCOD_GHL_HOMEPORT(6-26-18)

Table 2-11 shows catch of AI Pacific cod from the GHL fishery from 2006 through 2018 for those homeports with three or more observations due to confidential data restrictions. As noted in the table, Seattle vessels harvested the largest portion of GHL catch at nearly 5,000 mt for both trawl gear and fixed gear vessels. Kodiak was the Alaska homeport with the largest portion of the AI Pacific cod GHL fishery (more than 4,000 mt for fixed gear vessels and slightly under 1,000 mt for trawl vessels).

Table 2-11 Catch of GHL AI Pacific cod from 2006 through 2018 by gear and homeport

Homeport *	Catch of GHL AI Pacific cod (mt)	
	Fixed-gear	Trawl gear
Adak	226	0
Dutch Harbor	3,826	0
Homer	2,156	0
Kodiak	4,339	865
Newport	0	1,266
Seattle	4,684	4,992

Source: AKFIN, June 2018

Table originates from BSAI_PCOD_GHL_HOMEPORT(6-26-18)

* Homeports with more than 3 observations due to confidential restrictions

To help provide insight into the level of participation in the Federal AI Pacific cod fishery by vessels that participate in the AI Pacific cod GHL fishery, Table 2-12 includes Federal AI Pacific cod catch and percent of the total AI Pacific cod catch from both GHL and Federal AI Pacific cod fisheries by homeport. As seen in the table, Seattle, with its 22 vessels, caught over 8,000 mt of GHL AI Pacific cod during the 2006 through 2018 period, which was approximately 9 percent of their total AI Pacific cod from the GHL fishery. The 15 vessels that call Kodiak homeport caught slightly over 1,500 mt of the GHL AI Pacific cod, which is 34 percent of their total catch of AI Pacific cod from the GHL fishery.

Table 2-12 Vessel count, catch from GHL AI Pacific cod and federal AI Pacific cod fisheries and percent of each fishery by homeport from 2006 through 2018

Homeport*	Vessel count in the GHL AI Pacific cod fishery	Catch from GHL AI Pacific cod fishery (mt)	Catch from both GHL and federal AI Pacific cod fisheries (mt)	Percent of all AI Pacific cod catch from GHL fishery	Percent of all AI Pacific cod catch from federal fishery
Seattle	22	8,696	95,471	9%	91%
Dutch Harbor	5	3,745	12,649	30%	70%
Kodiak	15	1,586	4,617	34%	66%
Juneau	4	666	3,555	19%	81%
Adak	7	226	400	56%	44%
Other Alaska	15	7,640	13,673	56%	44%
Other non-Alaska	12	2,823	10,864	26%	74%
Total	80	25,026	140,796	18%	82%

Source: AKFIN, June 2018

Table originates from AI_PCOD_HOMEPORT(6-27-18)

* Homeports with less than 3 observations were aggregated into other Alaska and non-Alaska categories

2.6.6 Affected Sectors

The following sections identify and describe the processing and harvesting sectors that would potentially be directly affected by the proposed action. A brief description of each of the processing sectors and harvesting sectors are provided below. The data used in this section of the background is retained harvests from 2003 through 2018 and the source of the data is 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).

2.6.6.1 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, shoreplant 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 processing plants at Adak and Atka. Although the 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 located outside the AI region. 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* had 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 Seafood affiliated 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 the License Limitation Program (LLP). 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 7 have endorsements to use non-trawl gear in the Central GOA (AKRO RAM LLP license list for 2011).

Table 2-13 provides the annual number of trawl vessels with retained catch of Pacific cod in the AI. The number of trawl vessels ranged between 7 and 34. The number of trawl CVs active in the AI Pacific cod fishery has been declining since 2007, but 2018 did have 16 active trawl CVs in the fishery. 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 2,735 mt for 2015, but there was increase in harvest at over 5,000 mt in 2016 and 2018. As a percent of the total retained AI Pacific cod harvested for all sectors combined, the trawl CV sector harvests the majority. During 2003 through June 27, 2018, the trawl CV sector harvested between 27 percent and 78 percent of the total retained AI Pacific cod, which both occurred in 2017 and 2018.

Table 2-14 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 \$1 million in 2017, to \$17 million in 2008. As a percent of total exvessel gross revenue, AI Pacific cod has ranged from slightly over 1 percent in 2015 and 2017, to 15.7 percent in 2003. 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 significantly lower than the peak in 2008.

Table 2-13 Number of trawl CVs, retained catch (mt) of AI Pacific cod, and the percent of AI total retained catch from all sectors from 2003 through June 2018

Year	Number of vessels	Retained catch (mt)	% of total retained catch of AI Pacific cod
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	4,270	77
2015	7	2,735	34
2016	11	5,191	46
2017	7	2,888	27
2018*	16	5,342	78

Source: AKFIN, June 27, 2018.

Table originates from pivot file BSAI_PCOD_SECTOR(06-27-18)

* 2018 data as of June 27, 2018

Table 2-14 AI and BS Pacific cod exvessel gross revenue and total exvessel gross revenue for trawl CVs that retained AI Pacific cod, 2003 through 2017

Year	Aleutian Islands		Bering Sea		Total exvessel gross revenue (\$)
	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	
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	4.4	7,042,248	7.4	95,273,498
2006	5,375,186	4.9	10,891,596	10.0	109,190,460
2007	12,599,689	11.5	8,489,458	7.8	109,462,844
2008	17,235,691	13.9	9,154,591	7.4	123,763,936
2009	7,777,232	8.9	3,679,399	4.2	87,615,881
2010	6,380,056	7.3	3,670,771	4.2	87,640,963
2011	4,705,224	3.8	11,075,241	8.9	123,780,325
2012	4,263,856	3.2	15,207,989	11.5	132,140,470
2013	2,648,955	2.2	11,723,826	9.9	118,100,764
2014	2,544,737	2.0	13,238,254	10.5	126,056,534
2015	1,392,785	1.2	10,234,977	9.1	112,362,875
2016	2,718,274	2.4	11,756,805	10.4	112,819,604
2017	1,231,061	1.2	10,983,799	10.7	102,589,541

Source: AKFIN, July 2018.

Table originates from pivot file AI_PCOD_DIV(07-16-18)

Table 2-15 shows the number of years that each of the first 40 trawl or fixed gear CVs, after sorting by frequency of annual harvest count, harvested ASI Pacific cod from 2003 through 2017. Prior to 2003, all mothership deliveries do not have CV names, so it underrepresented the number of years CVs were active

in the AI Pacific cod fishery. Overall, there were 150 trawl or fixed gear CVs that harvested AI Pacific cod at least one year during 2003 through 2017. Eighty vessels harvested AI Pacific cod at least 10 years during that period. Two of these vessels harvested AI Pacific cod 14 of the past 15 years, while four of these vessels harvested AI Pacific cod at least 13 of the past 15 years.

Table 2-15 Number of years the first 40 trawl/fixed gear vessels harvested AI Pacific cod from 2003 through 2017

Vessel	Targeted or incidental	Targeted
VES1	14	14
VES2	14	0
VES3	13	13
VES4	13	13
VES5	12	12
VES6	12	12
VES7	12	1
VES8	12	1
VES9	11	11
VES10	11	11
VES11	11	8
VES12	11	5
VES13	11	0
VES14	11	0
VES15	10	10
VES16	10	0
VES17	10	0
VES18	10	0
VES19	9	0
VES20	8	8
VES21	8	8
VES22	8	8
VES23	8	3
VES24	8	0
VES25	7	7
VES26	7	7
VES27	7	7
VES28	7	4
VES29	7	3
VES30	7	1
VES31	7	1
VES32	7	1
VES33	6	6
VES34	6	6
VES35	6	6
VES36	6	6
VES37	6	5
VES38	6	4
VES39	6	0
VES40	5	5

Source: AKFIN, July 2018

Table originates from pivot file AL_PROC(7-16-18)

2.6.6.2 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, one Amendment 80 CP (F/V *Ocean Peace*) met the requirements in the AFA that allow it to harvest and process up to 0.5 percent of the direct BSAI pollock

allocation to CPs. Of the 21 AFA-qualified CPs when the Council last conducted a profile of the fleet, 17 vessels actively fished BS pollock in 2011 (NPFMC 2012).

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 participation in the voluntary rolling hotspot system inter-cooperative 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 also have PSC sideboard limits, which are 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 *C. opilio* crab PSC, 14 percent of the *C. bairdi* crab in Zone 1, and 5 percent of the Zone 2 *C. bairdi* crab PSC each year. Prohibited species catch of Chinook salmon and chum salmon have been a major issue for the fleet, and numerous regulations and voluntary measures have been implemented over the years seeking 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 a competitive fishery among Amendment 80 vessels not entering a cooperative. As of April 2018, the fleet currently includes 20 active CP 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 PSC and halibut PSC, amounts which the cooperative may not exceed while harvesting groundfish 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 groundfish quota shares 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 groundfish 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 PSC 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, except the F/V *Golden Fleece*. All targeted or incidental catch of sideboard species made by Amendment 80 vessels are deducted from the sideboard limits.

Table 2-16 provides the annual number of trawl catcher/processors with retained catch of AI Pacific cod from both directed and incidental catch. The number of trawl CPs ranged between 10 and 16 during the 2003 through 2018 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 1,107 mt for 2013. 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 2011 at 14 percent, from its high of 52 percent in 2005. During the three-year period starting in 2015, the percent of total retained catch of AI Pacific cod was between 37 percent and 46 percent, which was an increase from the previous seven years. In 2018, the percent of AI Pacific cod harvested by the trawl CP sector declined to 17 percent.

Table 2-16 Number of trawl CPs, and retained catch (mt) of AI Pacific cod, and the percent of federal AI total retained catch from 2003 through June 2018

Year	Number of vessels	Retained catch (mt)	% of total retained catch of AI Pacific cod
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	1,285	23
2015	10	3,006	37
2016	9	4,348	39
2017	13	4,876	46
2018*	11	1,149	17

Source: AKFIN, June 2018.

Table originates from pivot file BSAI_PCOD_SECTOR(06-27-18)-3

* 2018 data as of June 27, 2018

Table 2-17 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 less than \$1 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 from 2012 through 2017, and a maximum of nearly 13 percent in

2007. From 2007 through 2013, the number of vessels, catch, and first wholesale gross revenue declined, but from 2014 through 2017, the percent of first wholesale gross revenue from AI Pacific cod increased slightly to a high of 2 percent in 2016.

Table 2-17 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 2017

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	14,210,749	8.7	15,064,479	9.2	163,693,752
2006	16,063,607	9.2	19,219,429	11.1	173,710,758
2007	22,955,146	12.7	18,143,556	10.1	180,200,098
2008	8,812,985	4.5	13,157,007	6.7	195,200,524
2009	5,594,669	3.2	11,856,602	6.7	176,750,303
2010	4,970,065	2.3	15,616,510	7.3	214,953,433
2011	1,544,640	0.5	22,224,755	7.2	308,055,780
2012	2,651,096	0.9	21,219,900	7.3	291,177,145
2013	742,359	0.3	22,729,742	10.3	219,799,215
2014	1,190,195	0.5	21,919,625	9.2	239,232,832
2015	2,937,464	1.4	22,585,488	10.4	216,364,269
2016	4,952,644	2.0	21,787,607	8.8	248,693,753
2017	5,094,928	1.6	23,145,951	7.4	314,854,171

Source: AKFIN, July 16, 2018.

Table originates from pivot file AI_PCOD_DIV(07-16-18)

Table 2-18 shows the number of years that each trawl CP vessel was active in the AI Pacific cod fishery as a CP or as a mothership from 2000 through 2018. Of the total 26 trawl CP vessels that processed AI Pacific cod during the 2000 through 2018 period, only 10 vessels processed Pacific cod in at least 13 years. Six of those 10 vessels processed AI Pacific cod all 18 years. Of these 10 vessels, only 4 processed targeted AI Pacific cod at least 12 years or more. Factoring in mothership activity, only one vessel processed targeted AI Pacific cod 17 of the past 18 years.

Table 2-18 Number of years each trawl CP vessel processed AI Pacific cod from 2000 through July 2018

Vessel	Acting as CP		Acting as mothership	
	Targeted or incidental	Targeted	Targeted or incidental	Targeted
VES1	18	16	12	10
VES2	18	10	4	3
VES3	18	8	7	3
VES4	18	1	1	0
VES5	18	0	0	0
VES6	18	0	0	0
VES7	17	0	0	0
VES8	15	15	17	17
VES9	14	12	0	0
VES10	13	12	0	0
VES11	9	3	0	0
VES12	8	7	0	0
VES13	8	0	0	0
VES14	7	0	0	0
VES15	6	6	0	0
VES16	4	3	0	0
VES17	3	2	0	0
VES18	3	0	2	0
VES19	2	2	0	0
VES20	2	0	0	0
VES21	1	1	2	2
VES22	1	1	0	0
VES23	1	0	2	0
VES24	1	0	0	0
VES25	1	0	0	0
VES26	0	0	3	3

Source: AKFIN, July, 2018

Table originates from pivot file AI_PROC(7-11-18)

2.6.6.3 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. While the number of endorsements does not change much over time, the number of participants may fluctuate. 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. (AKRO 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 beneficial. However, unlike other cooperatives, which were developed through the Council process, the FLCC is not limited by sideboards. 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 2-19 shows the number of hook-and-line CPs with retained catch of Pacific cod from the AI during 2003 through June 27, 2018. The number of hook-and-line CPs ranged from 0 to 11. Retained catch of AI Pacific cod by the freezer longline sector increased annually from 851 mt in 2003, to a high of 4,748 mt in 2010, followed by an annual general decline through 2018. 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 zero percent 2018, 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, possibly 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 TAC split and the Steller sea lion protection measures implemented in 2011 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 previous Steller sea lion restrictions that prohibited hook-and-line CPs from fishing in the AI until March 1st, and with that 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 are confidential.

Starting in 2015, new Steller sea lion protection measures were implemented. One of these new measures was a change of the A-season start date for the non-trawl gear during the BSAI Pacific cod seasonal apportionments to January 1. Utilizing this new start date, three hook-and-line CPs started directed fishing for AI Pacific cod during the first week in January, which was a first for this sector during the 2003 through 2015 period. Since only three or fewer hook-and-line CPs participated in the 2015 and 2016 directed Pacific cod fishery, the catch data for these vessels is confidential and could not be published. In 2017, four hook-and-line CPs participated in the directed AI Pacific cod fishery harvesting nearly 3,000 mt, which was 27 percent of the total retained catch of AI Pacific cod for that year.

Table 2-19 Number of hook-and-line CPs, retained catch (mt) of AI Pacific cod, and the percent of AI total retained catch from 2003 through June 2018

Year	Number of vessels	Retained catch (mt)	% of total retained catch of AI Pacific cod
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	**	**
2015	3	2,371	29
2016	1	**	**
2017	4	2,804	27
2018*	0	0	0

Source: AKFIN, June 27, 2018.

Table originates from pivot file BSAI_PCOD_SECTOR(06-27-18)

* 2018 data as of June 27, 2018

**Denotes confidentiality

Table 2-20 provides estimates of first wholesale gross revenue and total first wholesale gross revenue from all fishing by 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 less than \$1 million in 2003 to nearly \$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 the AI Pacific cod fishery declined from the high of 2008. This decline 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, the separation of the AI OFLs, ABCs, and TACs from the BS starting in 2014, and the lower AI Pacific cod biomass.

Table 2-20 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 2017

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	2,950,490	2.3	78,786,583	62.1	126,842,468
2006	4,141,279	3.0	88,010,041	63.3	138,940,421
2007	4,890,457	3.6	83,721,696	62.1	134,802,425
2008	11,962,950	7.5	86,562,120	54.2	159,746,403
2009	6,840,528	6.3	59,222,042	54.2	109,337,999
2010	7,805,888	6.1	62,457,178	48.9	127,769,331
2011	1,927,871	1.2	96,046,002	58.3	164,834,392
2012	4,706,039	3.0	106,094,741	67.0	158,254,929
2013	1,070,312	0.9	81,210,480	66.4	122,340,756
2014	*	*	95,609,403	64.9	147,314,609
2015	3,734,664	2.4	104,289,735	68.2	152,990,115
2016	*	*	101,016,091	72.6	139,183,509
2017	4,917,953	2.6	107,215,800	57.1	187,666,443

Source: AKFIN, July, 2018.

Table originates from pivot file AI_PCOD_DIV(07-16-18)

*Denotes confidentiality

Table 2-21 shows the number of years each fixed gear (longline and pot) CP vessel was active in the AI Pacific cod fishery as a CP or as a mothership from 2000 through 2018. Of the total 50 fixed gear CP vessels that have processed AI Pacific cod during the 2000 through 2018 period, three vessels targeted cod at least 11 years during the 18-year period. Five fixed gear CPs also acted as a mothership processing AI Pacific cod during the 18-year period only once, but 1 vessel acted as mothership processing AI Pacific cod 3 years.

Table 2-21 Number of years each fixed gear CP vessel processed AI Pacific cod from 2000 through July 2018

Vessel	Acting as CP		Acting as mothership	
	Targeted or incidental	Targeted	Targeted or incidental	Targeted
VES1	11	11	0	0
VES2	11	11	0	0
VES3	11	11	0	0
VES4	10	4	0	0
VES5	9	0	0	0
VES6	8	8	0	0
VES7	8	7	0	0
VES8	7	6	0	0
VES9	7	3	0	0
VES10	6	5	0	0
VES11	6	5	0	0
VES12	5	5	0	0
VES13	5	4	0	0
VES14	5	3	0	0
VES15	4	4	0	0
VES16	4	4	0	0
VES17	4	4	0	0
VES18	4	4	0	0
VES19	4	3	0	0
VES20	3	3	1	1
VES21	3	3	0	0
VES22	3	3	0	0
VES23	3	3	0	0
VES24	3	0	0	0
VES25	2	2	3	2
VES26	2	2	0	0
VES27	2	2	0	0
VES28	2	2	0	0
VES29	2	2	0	0
VES30	2	2	0	0
VES31	2	1	0	0
VES32	2	1	0	0
VES33	2	0	0	0
VES34	1	1	1	1
VES35	1	1	0	0
VES36	1	1	0	0
VES37	1	1	0	0
VES38	1	1	0	0
VES39	1	1	0	0
VES40	1	1	0	0
VES41	1	1	0	0
VES42	1	1	0	0
VES43	1	1	0	0
VES44	1	1	0	0
VES45	1	1	0	0
VES46	1	0	0	0
VES47	1	0	0	0
VES48	1	0	0	0
VES49	0	0	1	1
VES50	0	0	1	1

Source: AKFIN, July, 2018

Table originates from pivot file AI_PROC(7-11-18)

2.6.6.4 Pot CPs

As with other fleets, the pot CP sector Pacific cod allocation is a BSAI wide allocation and may be fished 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, LOA. Vessels active in the fishery also fish for sablefish and crab, longline for halibut, and fish for Pacific cod for use as crab bait.

In 2011, 5 vessels carried five distinct licenses to fish for Pacific cod in the AI as CPs with pot gear. These licenses also carried 5 endorsements to fish as CPs with pot gear in the BS, 4 endorsements to fish with hook-and-line gear in the AI (3 as CP and 1 as a CV), three endorsements to fish with hook-and-line gear in the Central and/or Western GOA, and 1 to fish with pot gear in the Western GOA (AKRO RAM LLP license list for 2011).

Table 2-22 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. Pot CPs were active in the AI Pacific cod fishery during only 7 years from 2003 through 2015 and 2018. During that period, only two years of catch data can be reported, due to the small number of pot CPs that participated in the fishery. A maximum of 4 pot CPs were active in the AI Pacific cod fishery in 2008, retaining 1,895 mt (8 percent) of the total retained catch of Pacific cod in the AI.

Table 2-22 Number of pot CPs, retained catch (mt) of AI Pacific cod, and the percent of AI total retained catch from 2003 through June 2018

Year	Number of vessels	Retained catch (mt)	% of total retained catch of AI Pacific cod
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
2015	0	0	0
2016	0	0	0
2017	0	0	0
2018*	1	**	**

Source: AKFIN, June 27, 2018.

Table originates from pivot file BSAI_PCOD_SECTOR(06-27-18)

* 2018 data as of June 27, 2018

**Denotes confidentiality

Table 2-20 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 2.6.6.3 for more details concerning first wholesale gross revenue for pot CP sector that participated in the AI Pacific cod fishery.

2.6.6.5 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 LOA 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 (with hook-and-line), 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 LOA 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 that are 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 LOA, and no LLP license 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).

Hook-and-line (HAL) vessels 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. HAL vessels under 60 feet LOA share two percent of the Pacific cod TAC with pot vessels of the same length. HAL 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 HAL gear in the AI, a vessel must have an AI sub-area endorsement on its LLP license, as well as a non-trawl endorsement, and a Pacific cod HAL gear endorsement if the vessel is 60 feet LOA, or greater. Seven LLP licenses carry the HAL 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 HAL gear) (AKRO RAM LLP license list for 2011).

Table 2-23 provides the annual number of non-trawl catcher vessels with retained catch of Pacific cod in the AI. The number of non-trawl vessels ranged between a low of 7 through June 27, 2018, 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 4 mt in 2014. During the 2003 through June 27, 2018, the percent of AI total retained catch for non-trawl CVs has not exceeded 4 percent in any year, and in most cases is 1 percent or less.

Table 2-24 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 non-trawl CVs. As a percent of total exvessel gross revenue, the AI Pacific cod fishery in general was less than 1 percent for most years.

Table 2-23 Number of non-trawl CVs, retained catch (mt) of AI Pacific cod, and the percent of AI total retained catch from 2003 through June 2018

Year	Number of vessels	Retained catch (mt)	% of total retained catch of AI Pacific cod
2003	27	40	0
2004	23	72	0
2005	24	35	0
2006	30	333	2
2007	20	198	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	10	4	0
2015	14	5	0
2016	14	8	0
2017	8	11	0
2018*	7	295	4

Source: AKFIN, June 27, 2018.

Table originates from pivot file BSAI_PCOD_SECTOR(06-27-18)

* 2018 data as of June 27, 2018

Table 2-24 AI and BS Pacific cod exvessel gross revenue and total exvessel gross revenue for non-trawl CVs, 2003 through June 2018

Year	Aleutian Islands		Bering Sea		Total exvessel gross revenue (\$)
	Pacific cod exvessel gross revenue (\$)	Pacific cod AI exvessel revenue as a % of total exvessel gross revenue	Pacific cod exvessel gross revenue (\$)	Pacific cod AI exvessel revenue as a % of total exvessel gross revenue	
2003	14,243	0.1	781,864	3.4	23,202,534
2004	31,850	0.1	329,060	1.3	25,177,647
2005	15,869	0.0	620,295	1.4	43,432,749
2006	284,378	1.0	967,698	3.4	28,724,653
2007	179,575	0.5	1,382,113	3.9	35,275,376
2008	486,619	1.2	3,615,059	8.6	41,885,119
2009	3,567	0.0	953,960	4.3	22,434,311
2010	3,408	0.0	647,871	2.0	32,143,994
2011	26,363	0.1	1,778,462	3.5	50,330,196
2012	3,689	0.0	2,339,062	5.8	40,344,437
2013	869	0.0	2,266,293	5.9	38,140,406
2014	*	*	3,486,145	10.6	32,798,711
2015	178	0.0	2,701,147	8.6	31,575,713
2016	1,742	0.0	3,851,842	10.6	36,354,366
2017	*	*	3,539,912	10.3	34,356,218

Source: AKFIN, July 2018.

Table originates from pivot file BSAI_PCOD_DIV(07-16-18)

* Denotes confidential data

2.6.7 Vessel Homeport

Table 2-25 provides the number of vessels that participated in the AI Pacific cod fishery from 2006 through 2018 by gear and homeport. All total, there were 174 distinct vessels that participated in the AI Pacific cod fishery during the 2006 through 2018 period. Of those 174 vessels, 94 participated only in the Federal AI Pacific cod fishery, while 58 vessels participated in both Federal and GHL AI Pacific cod fisheries. Of the 174 participating vessels, 59 utilized trawl gear and 104 utilized fixed gear. Seattle was homeport to the largest number of vessels from the AI Pacific cod fishery at 67 followed by Kodiak at 34.

Table 2-25 Number of vessels that participated in the AI Pacific cod from 2006 through June 2018 by gear and homeport

Homeport	Vessel count in the AI Pacific cod fishery 2006 through 2018	
	Trawl gear	Fixed gear
Seattle	37	30
Kodiak	7	27
Juneau	2	8
Dutch Harbor	3	5
Homer	0	8
Adak	0	8
Petersburg	2	2
Sand Point	2	1
Rockland	3	0
Anchorage	3	0
Portland	2	1
Newport	3	0
Seward	0	2
Bellingham	2	0
Ketchikan	0	2
San Francisco	0	2
Cordova	0	2
Sitka	0	2
Astoria	0	2
King Salmon	0	1
Hat Island	0	1
Pelican	0	1
Mount Vernon	0	1
Atka	0	1
Ikatan	0	1
Unalaska	1	0
Douglas	0	1
Winchester Bay	0	1
Pont Lions	0	1
Port Townsend	1	0
Brookings	0	1
False Pass	0	1
Unknown	0	4
Total	68	117

Source: AKFIN, June 2018

Table originates from AI_PCOD_HOMEPORT(6-27-18)

To provide information on the level of participation in the GHL AI Pacific cod fishery of vessels that participate in the Federal AI Pacific cod fishery, Table 2-26 provides catch from the Federal AI Pacific cod fishery and total AI Pacific cod catch from both Federal and GHL fisheries along with the percent of all AI Pacific cod catch from both Federal and GHL fisheries. Eighty-nine percent of the total AI Pacific cod catch was from the Federal fishery and 11 percent was from the GHL fishery. Many other communities had a similar ratio, but vessels that homeport in Adak, Homer, and Petersburg had ratios that favored AI Pacific cod catch from the GHL fishery.

Table 2-26 Vessel count, catch from Federal AI Pacific cod fishery and GHL AI Pacific cod fishery and percent of each fishery by homeport from 2006 through June 2018

Homeport*	Vessel count in the federal AI Pacific cod fishery	Catch from federal AI Pacific cod fishery (mt)	Catch from both GHL and federal AI Pacific cod fisheries (mt)	Percent of all AI Pacific cod catch from federal fishery	Percent of all AI Pacific cod catch from GHL fishery
Seattle	65	121,128	130,713	93%	7%
Kodiak	26	8,251	9,261	89%	11%
Juneau	9	3,115	3,341	93%	7%
Adak	7	381	587	65%	35%
Dutch Harbor	6	17,582	18,557	95%	5%
Homer	6	1,945	3,810	51%	49%
Anchorage	3	4,922	4,922	100%	0%
Petersburg	4	1,689	2,734	62%	38%
Other Alaska	16	2,773	4,843	57%	43%
Other non-Alaska	16	12,887	14,531	89%	11%
Total	158	115,768	130,292	89%	11%

Source: AKFIN, June 2018

Table originates from AI_PCOD_HOMEPORT(6-27-18)

* Homeports with less than 3 observations were aggregated into other Alaska and non-Alaska categories

2.6.8 Affected Communities of Adak and Atka

Although this action would benefit any city west of 170 degrees W. longitude in the State of Alaska with a shoreplant, at this time only two cities meet that requirement – Adak and Atka. Therefore, this section focuses on those affected cities. The action prioritizes a portion of AI Pacific cod for harvest by catcher vessels that deliver their catch to shoreplants in the AI for processing, but with some constraints on the amount and dates by which the priority measures would be removed. Limited profiles of Atka and Adak are provided here, taken in part from the Final Environmental Impact Statement, Steller Sea Lion Protection Measures for Groundfish Fisheries in the BSAI Management Area, May 2014 with updates where possible. Data provided in the section on vessel deliveries and amounts to Adak and Atka shoreplant processors originated from ADF&G fish tickets.

2.6.8.1 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 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 shoreplant 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 active 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 percent of the plant revenue. Although the plant has the capability to process one million round pounds (454 mt) of Pacific cod daily, balancing for product quality and logistics of offloading and staging for processing likely results in a capability closer to 700,000 round pounds (318 mt) per day.⁸

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 2002 through 2008, and additional waivers of confidentiality for delivered fish from 2009 through 2014, Table 2-27 provides information on vessel deliveries and metric tons of Pacific cod and other species landed at the Adak shoreplant from 2002 through 2017. The volume of Pacific cod landings from the AI subarea processed at the Adak shoreplant was substantial, accounting for an average of 44 percent of the total CV landings of Pacific cod from the AI subarea (see Table 2-35). In some years, the proportion of Pacific cod from the AI subarea landings processed at the shoreplant was over 80 percent (see Table 2-35). The high level of processing at the Adak facility suggests the importance of the plant in the AI Pacific cod fishery. The vast majority of the AI Pacific cod delivered to this processor comes from Area 541.

In addition, Table 2-28 also suggests the importance of the AI Pacific cod fishery for the Adak facility. As seen in the table, the amount of first wholesale revenue from processing AI Pacific cod harvested during the Federal fishery relative to the total first wholesale gross revenue of all processing has ranged from a low of one percent, when the Adak shoreplant operation was very limited in 2011, to a high of 81 percent in 2005. The AI GHL Pacific cod fishery also contributed a significant amount of first wholesale gross revenue to the Adak facility. Although the first year of the fishery, in 2006, contributed only \$349 thousand, revenue jumped significantly the following year to over \$6 million. In the subsequent years, when the Adak facility was operational, the GHL fishery continued to provide a significant amount of first wholesale gross revenue for the facility. In fact, during the 2012 through 2014 period, the proportion of first wholesale gross revenue from the GHL fishery increased relative to the revenue from the Federal fishery, climbing as high as 61 percent in 2014. From 2015 through 2016, the Adak facility did not process targeted Pacific cod from the GHL fishery or the federal fishery. In 2017, the facility processed a small amount of targeted Pacific cod, but the amount is masked since it is confidential.

The 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 an 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 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 associated with 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 Seafoods. 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

⁸ Source: Dave Fraser, Adak Community Development Corporation, July 2013 and Jason Ogilvie, Golden Harvest Alaska Seafood, July 2018.

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.

Adak Cod Cooperative continued the head-and-gut operation at the Adak seafood processing facility, but also added a new fillet line to the facility to produce fillet Pacific cod. The renovated shoreplant began processing AI Pacific cod in early February 2014, utilizing six trawl CVs, four greater than 60' LOA and two that were 58' LOA. In addition, US Seafoods agreed to process only incidentally caught AI Pacific cod while targeting other AI fisheries. The Adak Cod Cooperative closed its operation at the Adak shoreplant processing facility in May 2014.

In early 2015, Premier Harvest, LLC, purchased fish processing equipment from the City of Adak, replaced the roof of the facility, and signed a 20-year lease with the Aleut Corporation for the Adak fish processing facility. Premier Harvest has processed live crab in Adak since 2010. Premier Harvest specialized in premium live and fresh crab with shipments domestically, as well as to Europe, Asia, and the Middle East. Premier Harvest expressed an intent to restart the Pacific cod processing at the facility for 2016 by partnering with another company, but those plans were never fully completed in time for the 2016 or 2017 Pacific cod fishery.

In early 2017, operations at the Adak processing facility shifted from Premier Harvest, LLC to Golden Harvest Alaska Seafood, LLC. During the transition period four more freezer compressors were added for a total of eight freezer compressors, generators were upgraded, housing was repaired, and the Pacific cod processing lines were upgraded. The refurbishment of the facility was necessary from Golden Harvest's perspective in order to operate the facility year-round processing crab, IFQ halibut, IFQ sablefish, and Pacific cod. In 2018, at the peak of AI Pacific cod fishery, Golden Harvest employed 270 processor workers, most of which were from outside of the community. Once the Pacific cod fishery closed for 2018, Golden Harvest reduced the number of employees to approximately 60 processing IFQ halibut, IFQ sablefish, and crab throughout the remainder of the year.⁹

With no other shore-based processor in the community taking Pacific cod¹⁰, the Pacific cod processing activity at the Adak shoreplant accounts for a large proportion of 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 dock, fuel, 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 involving a range of goods and services present in the small community.

Although Adak has a relatively low impact 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 purchasing other local goods and services.

⁹ Jason Ogilvie, Golden Harvest Alaska Seafood, LLC

¹⁰ There is another small processor in the community (Hart Sales), that only takes IFQ halibut/sablefish deliveries, which operated from 2013 -2017 but did not open in 2018.

Table 2-27 Number of vessels delivering and amount (mt) to Adak and Atka shoreplant processors from 2002 through 2017

Year	Fishery	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	26	874	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	19	959	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	6	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	0	0	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	4	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	3	380	0	0
	Other Groundfish	22	801	2	*

Source: AKFIN, June 30, 2015.

Table originates from pivot file AI_PCOD_PROC_DIV(08-13)

*Denotes confidential data

Table 2-27 continued

Year	Fishery	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	0	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	2	*	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	1	*	1	*
	Other Groundfish	5	4	8	136
2014	AI Pacific cod	3	2,479	3	5
	BS and GOA Pacific cod	0	0	0	0
	State GHL Pacific cod	6	4,115	0	0
	Halibut	0	0	12	167
	Sablefish	0	0	6	113
	Shellfish	2	*	0	0
	Other Groundfish	0	0	6	112
2015	AI Pacific cod	1	*	2	*
	BS and GOA Pacific cod	0	0	0	0
	State GHL Pacific cod	0	0	0	0
	Halibut	8	*	12	*
	Sablefish	7	*	8	*
	Shellfish	1	*	0	*
	Other Groundfish	7	*	7	*
2016	AI Pacific cod	2	*	1	*
	BS and GOA Pacific cod	0	0	0	0
	State GHL Pacific cod	0	0	0	0
	Halibut	11	*	9	*
	Sablefish	8	*	4	*
	Shellfish	0	*	0	*
	Other Groundfish	8	*	4	*
2017	AI Pacific cod	3	*	0	*
	BS and GOA Pacific cod	0	0	0	0
	State GHL Pacific cod	1	*	0	*
	Halibut	11	*	8	*
	Sablefish	6	*	4	*
	Shellfish	4	*	0	*
	Other Groundfish	5	*	4	*

Source: AKFIN, July, 2018.

Table originates from pivot file AI_PCOD_PROC_DIV (07-23-18)

*Denotes confidential data

Table 2-28 Adak AI Pacific cod first wholesale gross revenue from federal and GHL fisheries and percent of total first wholesale revenue 2002 through 2017

Year	Pacific cod first wholesale gross revenue from federal waters (\$)	Percent of total first wholesale gross revenue from federal Pacific cod fishery	Pacific cod first wholesale gross revenue from GHL Pacific cod fishery (\$)	Percent of total first wholesale gross revenue from GHL Pacific cod fishery	Total first wholesale gross revenue from Pacific cod (\$) ¹	Total first wholesale gross revenue (\$) ²
2002	9,925,122	0.35	0	0.00	9,925,122	28,010,885
2003	10,987,637	0.40	0	0.00	10,987,637	27,130,015
2004	13,335,795	0.56	0	0.00	13,335,795	23,784,597
2005	21,698,399	0.81	0	0.00	21,698,399	26,767,300
2006	11,049,718	0.77	349,619	0.02	11,399,337	14,331,093
2007	20,273,992	0.63	6,190,677	0.19	26,464,669	32,219,545
2008	10,749,110	0.53	3,199,643	0.16	13,948,753	20,094,992
2009	9,507,378	**	441,817	**	9,949,195	**
2010	0	0.00	0	0.00	0	0
2011	44,491	0.01	58,032	0.01	102,523	6,063,385
2012	5,277,290	0.29	7,289,745	0.41	12,567,035	17,985,735
2013	3,665,432	0.42	4,960,866	0.57	8,626,298	8,666,785
2014	3,032,707	0.38	5,034,122	0.62	8,066,829	8,066,829
2015	0	0.00	0	0.00	0	*
2016	0	0.00	0	0.00	0	*
2017	*	*	0	*	*	*

Source: AKFIN, July 2018.

Table originates from pivot file AI_PCOD_DIV(07-01) for 2002-2014 and AI_PCOD_PROC_DIV2(07-19-18) for revenue data

* Confidential data

** Adak processor did not file a COAR report for 2009 Pacific cod revenue

¹Total Pacific cod revenue for 2009 was estimated using shoreside BS Pacific cod first wholesale price for whole fish

²Total revenue for 2012 through 2014 does not include revenue from crab due to confidential data

2.6.8.2 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 evacuated 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 Indian Reorganization Act).

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 Aleutian Pribilof Island Community Development Association (APICDA) CDQ group. As a member of APICDA, the community benefits from the 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 2-27, 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 shoreplant recently completed a \$4 million expansion and improvements to make the plant a year-round operation. Once completed, the processing capacity of the shoreplant will be approximately 400,000 round pounds of Pacific cod per day (181 mt.).¹¹

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.¹² 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 to three vessel fishery with deliveries made approximately once every two weeks during the fishing season. For efficiency reasons, other relatively high-volume processing is needed at the plant to justify both the investment in an increased processing capacity and the retention of a sufficient number of processing workers. Therefore, AI Pacific cod processing is seen as a potential fishery for both of these needs from APICDA's perspective. However, as noted in section 2.7.1, the current state of the AI Pacific cod fishery is an eight-week fishery from early February to late March, and the proposed action alternative would likely not change the temporal nature of the fishery. This short-term fishery, which can be a high-volume fishery relative to other AI fisheries, does not by itself provide an economic environment conducive for retention of processor workers beyond this eight-week period.

In terms of overall community development, it is an explicit goal of APICDA to have processing occur year-round in Atka. According to APICDA staff, communities in the region with a stable or growing population base and local economy are those 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. APICDA staff have indicated they have entered into a contractual agreement with a major seafood industry participant to

¹¹ Source: Larry Cotter and John Sevier, APICDA, August 2013.

¹² 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 shares has variously occurred in Adak or Unalaska (with the latter occurring under custom processing agreements when processing capacity was otherwise not available in the western share landing/processing region).

investigate the feasibility and scope of a plant expansion in Atka to include Pacific cod and crab processing. The investigation is scheduled to take place in September 2018.¹³

2.6.9 State and Municipal Fishery Taxes

The State of Alaska taxes fish processed outside of and first landed in Alaska, fish processed in Alaska, and raw fish exported from Alaska. A portion of these revenues are shared with qualified boroughs and/or municipalities in Alaska. The State of Alaska also retains portions of the revenues raised from these taxes for its own use. 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, lie within the Aleutian West Census Area, and are not in an organized borough.

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 shore-based plants and 5 percent for those processed at floating processors (Alaska Statute 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 landings outside of municipal boundaries are shared with communities by the Division of Community and Regional Affairs (DCRA) of the Alaska Department of Commerce, Community and Economic Development. The DCRA first allocates the revenues raised statewide in proportion to the 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 2-29 and Table 2-30.

In addition to the share of 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 collected by Adak for the community of Adak, 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

¹³ Source: Angel Drobnica, APICDA, July 2018.

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 tax 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 2-29 State fisheries business tax revenues for Adak

Department of Revenue FY reporting year	CY of fishing activity	Department of Revenue		Division of Community and Regional Affairs	
		Fishery Business		Fishery Business Tax -	
		Tax - shared (\$)	Landing Tax-shared (\$)	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
2011	2010	143,848	40,219	122,742	165,964
2012	2011	75,469	61,035	145,816	115,360
2013	2012	168,370	86,452	139,135	111,999
2014	2013	122,489	54,660	108,405	40,443
2015	2014	67,968	1,683	110,149	14,351
2016	2015	44,636	103,209	82,413	158,858
2017	2016	34,908	74,247	121,121	79,832

Source: Alaska Division of Community and Regional Affairs and Alaska Department of Revenue - Tax Division

Table 2-30 State fisheries business tax revenues for Atka

Department of Revenue FY reporting year	CY of fishing activity	Department of Revenue		Division of Community and Regional Affairs	
		Fishery Business		Fishery Business Tax -	
		Tax - shared (\$)	Landing Tax-shared (\$)	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
2011	2010	57,861	10,377	106,976	144,645
2012	2011	51,168	18,946	126,575	100,138
2013	2012	54,710	90,162	122,872	98,908
2014	2013	29,615	21,349	97,541	36,390
2015	2014	34,706	13,411	100,705	13,121
2016	2015	31,852	53,611	74,048	142,733
2017	2016	15,479	23,950	106,744	70,356

Source: Alaska Division of Community and Regional Affairs and Alaska Department of Revenue - Tax Division

2.6.10 Product Composition and Flow of Pacific Cod

The following information on production composition and flow of Pacific cod originates from the 2013 Economic Status of the Groundfish Fisheries of Alaska (NMFS 2014c).

Product flows for Pacific cod have changed following the decline of Atlantic cod (*G. morhua*) harvests. Buyers from Norway and Portugal began purchasing Pacific cod from Alaska for the first time in the late 2000's. Historically, Pacific cod was considered an inferior product compared to Atlantic cod, but the decline of Atlantic cod has made Pacific cod more acceptable.

Pacific cod are processed as either headed and gutted (H&G), fillet blocks, or individually frozen fillets, which are either individually quick-frozen or processed into shatterpack (layered frozen fillets that separate individually when struck upon a hard surface) or layer pack. The final markets include fine or

“white tablecloth” restaurants, institutional food service, quick-service restaurants, retail fish markets, grocery stores, and overseas markets.

Wholesale prices are highest for fillet products, but H&G accounts for the largest share of Alaska Pacific cod production. The H&G production was significant in the mid-90’s at roughly 50 percent. Since then H&G’s share of production increased, reaching 66 percent in 2003 and climbed further to upwards of 70 percent in recent years. Fillet production since 2009 has ranged between 12 percent and 13 percent.

Production shares of other minimally processed goods have decreased substantially since the mid-90’s with salted-and-split (29 percent to less than 1percent) and whole fish (47 percent to 3 percent). Increased exports of H&G product to China where it is filleted and re-exported have surely contributed to the shift.

H&G Pacific cod is frozen after the first processing, and then proceeds to another processor within the U.S., or is exported for secondary processing. Some domestic H&G Pacific cod is sent to the East Coast refresh market, where it is thawed and filleted before being processed further or sold as refreshed. Other U.S. processors may purchase H&G Pacific cod and further process it by cutting it into sticks and portions or breading it for sale in grocery stores or food services. Foreign consumers, especially China, Japan, and Europe, also purchase H&G Pacific cod for further processing, including the production of salt cod. According to industry representatives, large H&G Pacific cod command the highest price, and it is these fish that are processed into salt cod.

The wholesale prices for H&G Pacific cod caught and processed by fixed gear (freezer longline) vessels have been consistently higher than the prices received by trawl vessels. According to an industry representative, this price difference occurs because fish caught by longline gear can be bled while still alive, which results in a better color fish, and there is less skin damage and scale loss than if they are caught in nets. In contrast, shoreplant processors obtain fish from both fixed gear and trawl vessels, and the fish have been dead for many hours before they are processed (although they are generally kept in refrigerated saltwater holds).

Representatives of American Seafoods noted that discussions with potential buyers concerning BS and AI Pacific cod start several months before the season actually begins. It was noted that one of the most important factors of Pacific cod suppliers is being viewed as a reliable and consistent source of cod products from one year to the next. Another important factor in the Pacific cod fishery is market timing. Asian buyers, particularly the Japanese, are accustomed to making their buying commitments early in the year. In addition, as the volume of Pacific cod product streams into the market during the first few months of the season, demand and price for Pacific cod tend to decline. These market signals provide an incentive for suppliers of Pacific cod products to start fishing and processing AI Pacific cod as early as mid-February. Also, the quality of Pacific cod caught late in March and into April begins to deteriorate. Once Pacific cod have spawned, the roe (which is the most valuable product made from Pacific cod) becomes watery and losses value. Flesh quality decreases markedly in post-spawned fish, further decreasing the value.

In 2018, approximately 75 percent of the AI Pacific cod processed by the Adak processing facility was H&G while the remaining portion was fillet. Approximately 40 percent of the H&G was shipped to Europe and 60 percent was shipped to China for reprocessing and consumption. Of the 60 percent H&G shipped to China, approximately 80 percent was reprocessed, and 20 percent was for consumption. Reprocessing cod was shipped to Europe, Canada, and the U.S. Fillets produced at the Adak processing facility were shipped mostly to the U.S. market as fresh (50 percent) and frozen (50 percent). Golden Harvest is planning on increasing the fillet percentage to 40 percent in the coming fishing season.¹⁴

¹⁴ Jason Ogilvie, Golden Harvest Alaska Seafood, LLC

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 adjusting Amendment 113 to the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area. The adjustment to Amendment 113 would prioritize a portion of the AI Pacific cod TAC for harvest by CVs that only deliver their catch to shoreplants in the AI for processing. The intent of this action is to adjust Amendment 113 such that the prosecution of the BSAI Pacific cod fishery aligns with the Council's original objective of providing stability to AI shoreplant operations, AI harvests, and AI fishing communities dependent on AI Pacific cod harvesting and shoreside processing activity.

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 of 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

This section provides background information intended to characterize the no action alternative. The alternative would continue to set aside a portion of the AI Pacific cod total allowable catch for harvest by vessels directed fishing for AI Pacific cod and delivering their catch for processing to a shoreside processor located on land west of 170° W. longitude in the AI. Specifically, prior to March 21, the A-season trawl CV sector Pacific cod harvest in the BS would be limited to an amount equal to the BSAI aggregate CV trawl sector A-season allocation minus the lesser of the AI directed Pacific cod non-CDQ TAC or 5,000 mt. Directed fishing for non-CDQ AI Pacific cod would continue to be prohibited for all vessels except CVs delivering their catch of AI Pacific cod to shoreplants west of 170° longitude in the AI for processing prior to March 15, unless the harvest set-aside is removed earlier to prevent AI Pacific cod TAC from going unharvested or there is sufficient AI directed Pacific cod non-CDQ TAC above the AI CV harvest set-aside. The harvest set-aside would continue to apply only if specific notification and performance requirements are met and only during the first few months of the fishing year. The no action alternative would also continue to authorize vessels to participate in the unrestricted fishery if sufficient AI Pacific cod TAC remained in the AI unrestricted fishery. This unrestricted fishery could be delivered to offshore or non-AI shoreplants.

Also affecting the no action alternative is the potential for impacts from future Council action on the ongoing proposed FMP amendment to limit participation in the BSAI non-CDQ Pacific cod trawl CV fishery. Specifically, the amendment includes three actions: 1) limit deliveries and amounts of BS Pacific cod from trawl CVs to CPs acting as motherships; 2) limit latent LLP licenses in the BSAI trawl Pacific cod fishery, and 3) establish AFA and non-AFA sector allocations for the BSAI non-CDQ Pacific cod trawl CV A season fishery and authorize cooperative fishing for non-AFA vessels. Alternatives and options approved by the Council for the BSAI Pacific cod trawl CV limitation action are described in section 2.7.1.4.

NMFS guidance¹⁵ for the preparation of an EA/RIR indicates that “*the suite of alternatives under consideration, including the requisite No Action alternative, must also be clearly identified and articulated*”. The guidance also states that “*the relative implications of adopting each alternative, [must be] compared with taking no action*”. The inclusion of the No Action alternative is required as well as “*a*

¹⁵ <https://alaskafisheries.noaa.gov/sites/default/files/rir-rfaa-guidance.pdf>

thorough description of the prevailing status quo condition within which the proposed action is being contemplated. Typically, these serve as the baseline against which each action alternative will be contrasted. However, under some circumstances...adoption of the No Action alternative will result in an outcome different from the pre-decisional status quo. In such circumstances, it is the No Action alternative that correctly reflects the analytical baseline.”

When considering the adjustment to Amendment 113 no action alternative, changes proposed in the BSAI Pacific cod trawl CV limitation action could impact that alternative. Since separate analyses are being developed for each proposed amendment, the no action alternative for the Amendment 113 adjustment will need to consider the impacts of changes proposed in the BSAI Pacific cod trawl CV limitation action that may reasonably be expected to be selected. This complicates the analyses since the no action alternative must account for each of the action alternatives in the other proposed amendment and not just the status quo management of the fishery and its reported impacts on the stakeholders.

2.7.1.1 2018 AI Pacific Cod fishery

In 2018, the AI Pacific cod GHL and federal non-trawl fisheries opened on January 1. Several less than 60’ pot CVs participated in the State AI GHL fishery and delivered their harvest to an AI shoreplant. Some greater than or equal 60’ pot CVs arrived about a week later (January 4th and January 8th) and participated in the federal Pacific cod fishery. A portion of the Pacific cod harvested was from the AI set-aside and was delivered to an AI shoreside processor, while some of the Pacific cod harvested came from the unrestricted fishery. On January 19, BSAI Pacific cod directed fishing closed for pot CVs greater than or equal to 60’. On January 23, federal BSAI Pacific cod directed fishing closed for CVs less than 60’ using hook-and-line/pot gear. The AI shoreplant did not take deliveries of any fish deducted from the federal TAC by the CVs less than 60’ hook-and-line/pot sector.

On January 20, the federal BSAI non-CDQ Pacific cod trawl CV fishery was opened to directed fishing. Many of the trawl CVs arrived in the AI after participating in the BS Pacific cod fishery as well as some of the smaller CVs from the Western GOA. NMFS closed directed fishing in the Central GOA Pacific cod for the trawl CVs on January 20 and closed the Western GOA Pacific cod to directed fishing for trawl CVs on February 23.

The trawl CVs began fishing for an AI shoreplant in early February. Directed fishing closed for the BS non-CDQ Pacific cod trawl CV sector on February 11, leaving 5,000 mt of the sector’s allocation to be harvested in the AI. The limited deliveries by pot vessels from the federal Pacific cod fisheries and the later arrival of the trawl fleet created some concern that the 1,000 mt AI minimum requirement would not be reached by February 28th. However, the AI shoreplant was able to reach that required amount, leaving the AI CV harvest set-aside for delivery to AI shoreplants in effect.

Amendment 113 authorized not only an AI CV harvest set-aside amount but an AI unrestricted fishery, when sufficient AI Pacific cod TAC is available, which can be fished in parallel with the AI CV harvest set-aside fishery. The catch that accrues to the unrestricted fishery is from directed fishing for federal Pacific cod by CPs and CVs using any gear type delivering to a non-AI shoreplant or motherships. In 2018, the unrestricted fishery closes when the 6,516 mt limit is projected to be reached.

After the closure of the directed BS non-CDQ Pacific cod trawl CV on February 11, trawl CVs could only target AI Pacific cod for the remainder of the sector’s 5,000 mt A-season Pacific cod allocation. However, with an AI CV harvest set-aside of 5,000 mt reserved for delivery to AI shoreplants and an unrestricted fishery of 6,516 mt that could be fished in parallel, trawl CVs that harvested AI Pacific cod in the unrestricted fishery were reducing the amount of the remaining 5,000 mt BSAI non-CDQ Pacific cod trawl CV A-season allocation that was intended to be used for the AI CV Pacific cod set-aside.

Participants began to realize that under the current regulations the AI shoreplant would not be able to take deliveries of the entire 5,000 mt AI set-aside after the BS A-season Pacific cod fishery closed for the trawl CV sector¹⁶. Prior to that time some participants were under the impression that the AI set-aside essentially guaranteed the shoreplants would be allowed to take delivery of the 5,000 mt AI set-aside if they achieved the 1,000 mt before February 28. However, after February 11 all of the federal Pacific cod CV sectors except jig gear were closed for directed fishing in the A season in the BSAI. Given that 6,516 mt of Pacific cod was available in the AI to trawl CVs to deliver to any processor, at least two companies made plans to harvest a portion of that allowance and deliver the catch to processors other than the AI shoreplant. One company was using its CV to deliver to one of its C/Ps. However, this occurred during the February Council meeting, and when the Council was made aware of the issue it asked this company to not participate in the unrestricted fishery, due to the impacts to the AI shoreplant. This particular company had already taken a small amount of Pacific cod, but it agreed to stand-down from the fishery at the request of the Council. After the 2018 A-season was underway, a second company requested that its CVs be allowed to deliver to the AI shoreplant. In part due to capacity constraints and the timing of the request, the AI shoreplant did not offer a market to those CVs. The company decided later in February to have some of its trawl CVs deliver AI Pacific cod to Dutch Harbor.

CVs that were delivering to the AI shoreplant are reported to have self-imposed trip limits and a one-day stand-down after a delivery to help reduce wait times at the plant. Trawl CVs set the trip limit at 400,000 lbs. for the larger CVs and 100,000 lbs. for smaller CVs. These trip limits were abandoned when NMFS announced the BSAI A season trawl CV closure for March 4, 2018, which resulted in a larger volume of Pacific cod being delivered during a short period of time.

Although the existing AI shoreside processor was the capability to process one million round pounds (454 mt) of Pacific cod daily, it must balance product quality and logistics of offloading and staging fish for processing. This likely results in a processing capability closer to 700,000 round pounds (318 mt) per day.¹⁷ The shoreplant took both GHL and federal Pacific cod at the same time.

Once trawl CVs harvested an amount that was projected to be equal to the BSAI trawl CV sector A-season allowance¹⁸, they were closed to directed fishing on March 4¹⁹. NMFS In-season Management's ability to close a fishery exactly on the amount a sector's TAC is limited by variations in daily landings and the fact that closures are announced ahead of time for 12 noon on a specific day²⁰. Catch in the AI CV harvest set-aside and AI unrestricted fishery resulted in the trawl CV sector AI season being closed in the BSAI prior to the entire 5,000 mt AI set-aside being delivered. That meant the only CV sector that remained open²¹ to directed fishing was the BSAI jig gear sector. The BSAI allocation to the jig sector was insufficient to allow the AI shoreplant to take deliveries of the remaining 5,000 mt AI set-aside.

NMFS announced that the 5,000 mt AI set-aside had not been landed at the AI shoreplant by March 15th. Because the 5,000 mt AI set-aside was not reached by that date the BS non-CDQ trawl CV A-season sector limitation remained in effect until March 21 and the AI CV set-aside did not apply for the

¹⁶ The pot, HAL, and jig gear fisheries could provide some deliveries but may not be enough to reach the 5,000 mt AI set-aside.

¹⁷ Source: Dave Fraser, Adak Community Development Corporation, July 2013 and Jason Ogilvie, Golden Harvest Alaska Seafood, July 2018.

¹⁸ Essentially, if the BS is closed to directed fishing the point at which they harvest 5,000 mt in aggregate from the AI set-aside and the AI unrestricted fishery.

¹⁹ See Table 2-33

²⁰ The finest resolution for a closure is 24 hours.

²¹ The <60' HAL/pot Pacific cod fishery was closed to directed fishing in the BSAI on January 23. On February 6, NMFS reallocated 1,400 mt of the jig A-season allotment to the < 60' HAL/pot sector. That reduced to total A-season jig allowance to 129 mt. The 510 mt B-season jig allowance became available on April 30th.

remainder of the year. The amount of the 5,000 mt AI CV set-aside that was delivered to the AI shoreplant cannot be reported due to confidentiality restrictions²².

The BSAI Pacific cod non-CDQ trawl CV B-season opened to directed fishing on April 1. The 2018 B-season allowance was set at 4,425 mt at the start of the fishing year. Directed fishing was closed on April 3 due to the B-season allowance being reached. The AI shoreplant took Pacific cod deliveries during the B-season. However, as was the case for the A-season, confidentiality restrictions prohibit reporting the amount of catch delivered to the AI shoreplant relative to other processors.

2.7.1.2 Harvest Distribution of AI Pacific Cod

Table 2-31 shows the amount and proportion of retained Pacific cod catch in the BS and AI management areas, excluding CDQ data and State GHF fishery catch data. Retained catch from the AI was between 15 percent and 16 percent of the combined BSAI retained catch from 2003 through 2004. In 2005 and 2006, retained catch from the AI declined to about 11 percent each year. From 2007 through 2010 period, retained catch in the AI relative to the combined BSAI catch increased, ranging from 15 percent to almost 18 percent. 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 percent of the total BSAI retained catch, while in 2012 and through June 28, 2018, the AI accounted for between 3 percent and 6 percent of the total BSAI retained catch.

Table 2-31 Pacific cod catch in the Aleutian Islands and Bering Sea from 2003 through June 27, 2018 (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	27,677	18	127,620	82	155,297
2008	25,012	17	121,623	83	146,635
2009	25,449	17	127,886	83	153,335
2010	21,702	15	125,657	85	147,359
2011	10,378	5	184,540	95	194,918
2012	11,497	5	207,291	95	218,788
2013	7,119	3	207,910	97	215,029
2014	5,561	3	202,709	97	208,270
2015	8,116	4	198,526	96	206,642
2016	11,182	5	203,533	95	214,715
2017	10,578	5	196,291	95	206,869
2018*	6,821	6	105,864	94	112,685

Source: AKFIN, June 27, 2018.

Table originates from pivot file BSAI_PCOD_SECTOR(06-27-18)

* 2018 data as of June 27, 2018

Table 2-32 shows retained Pacific cod catch, by sector, for AI and BS from 2003 through June 27, 2018, excluding CDQ catch and State GHF catch. 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.

²² Golden Harvest Alaska Seafood, LLC in a public comment letter to the NPFMC in April 2018 noted that “landings from the Federal fishery were 4,010 mt; or about 80% of the AI CV Harvest Set Aside.”

<http://comments.npfmc.org/CommentReview/DownloadFile?p=48236946-a5e9-42fa-977a-b723217e1a66.pdf&fileName=GHAS%20to%20NPFMC%20033018.pdf>

Table 2-32 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 June 27, 2018

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, June 27, 2018.

Table originates from pivot file BSAI_PCOD_SECTOR(06-27-2018)

* Denotes confidentiality

** 2018 data as of June 27, 2018

HAL = hook-and-and line; TRW= trawl

Table 2-32 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 June 27, 2018

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
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
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
2014	HAL CP	1	*	*	29	*	*	30	57,780
	HAL CV	10	*	*	21	*	*	14	1,889
	JIG	0	0	0	0	0	0	0	0
	POT CP	0	0	0	4	5,477	320	4	1,711
	POT CV	0	0	0	46	21,406	137	43	15,623
	TRW CP	10	1,285	6	34	30,459	146	44	20,828
	TRW CV	9	4,270	11	98	37,607	94	104	39,988
	Total		30	5,561	4	234	202,709	147	239
2015	HAL CP	3	2,371	2	31	109,718	98	34	112,089
	HAL CV	14	5	1	24	749	99	38	754
	JIG	0	0	0	4	28	100	4	28
	POT CP	0	0	0	4	6,166	100	4	6,166
	POT CV	0	0	0	44	19,662	100	44	19,662
	TRW CP	10	3,006	10	34	27,463	90	44	30,469
	TRW CV	7	2,735	7	99	34,739	93	106	37,474
	Total		34	8,116	4	240	198,526	96	274
2016	HAL CP	1	*	*	31	*	*	32	110,621
	HAL CV	14	*	*	22	*	*	36	20
	JIG	0	0	0	2	*	*	2	*
	POT CP	0	0	0	4	5,698	100	4	5,698
	POT CV	0	0	0	46	21,313	100	46	21,313
	TRW CP	9	4,348	14	35	27,857	86	44	32,205
	TRW CV	11	5,191	12	101	39,621	88	112	44,812
	Total		35	11,182	5	241	203,533	95	276
2017	HAL CP	4	2,804	3	29	104,292	97	33	107,097
	HAL CV	8	*	*	15	*	*	23	86
	JIG	0	0	0	1	*	*	1	*
	POT CP	1	*	*	4	*	*	5	4,921
	POT CV	0	0	0	56	23,596	100	56	23,596
	TRW CP	13	4,876	18	35	22,887	82	48	27,762
	TRW CV	7	2,888	7	102	40,507	93	109	43,394
	Total		33	10,578	5	242	196,291	95	275
2018**	HAL CP	0	0	0	24	42,818	100	24	42,818
	HAL CV	5	60	8	7	690	92	12	750
	JIG	0	0	0	0	0	0	0	0
	POT CP	1	*	*	4	*	*	5	1,407
	POT CV	2	*	*	52	*	*	54	12,468
	TRW CP	11	1,149	6	35	17,736	94	46	18,885
	TRW CV	16	5,342	15	98	31,014	85	114	36,356
	Total**		35	6,821	6	220	105,864	94	255

Source: AKFIN, June 27, 2018.

Table originates from pivot file BSAI_PCOD_SECTOR(06-27-2018)

* Denotes confidentiality

** 2018 data as of June 27, 2018

HAL = hook-and-and line; TRW= trawl

From 2003 through June 27, 2018, the majority of all the sectors' harvest of Pacific cod has been 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 of all the sectors in the AI. The trawl CV sector retained the most AI Pacific cod in terms of metric tons and percentage during the 16-year period; 7 percent to 51 percent of their BSAI Pacific cod allocation was harvested in the AI with an overall average of 25 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 18 percent over the 16-year period. As can be seen in Figure 2-1, 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 harvested (Figure 2-2), the trawl CV sector has harvested greater than 50 percent of the AI Pacific cod 8 of the last 11 years and greater than 70 percent of the AI Pacific cod in 2011, 2013, 2014, and most recently 2018. The trawl CP sector has harvested greater than 50 percent of the AI Pacific cod only 2 years out of the past 16 years. Relative to the trawl CV sector, the trawl CP sector has harvested a greater share of the AI Pacific cod only 5 out of the last 16 years.

One explanation for the shift in harvest of AI Pacific cod from trawl CP to trawl CV sectors was the implementation of Amendment 85 and Amendment 80 in 2008. Prior to implementation of Amendment 85, trawl sectors were allocated 47 percent of the BSAI Pacific cod, which was split 50 percent each for trawl CPs and CVs for a 23.5 percent allocation between these two sectors. Upon implementation of Amendment 85 in 2008, the BSAI Pacific cod allocation was reduced to 13.4 percent for Amendment 80 vessels, 2.3 percent for AFA CPs, and 22.1 percent for the trawl CV sector.

With the reduction in BSAI Pacific cod allocation for the trawl CP sectors and the implementation of Amendment 80, both Amendment 80 and AFA CP sectors changed how they utilized their allocation of BSAI Pacific cod. Instead of balancing their allocation between directed fishing and incidental catch, they now utilize their allocation of BSAI Pacific cod primarily for incidental catch in their other fisheries. At that same time, some trawl CPs with access to trawl CVs expanded their mothership activity in the AI Pacific cod fishery to help offset the loss of revenue from the reduced BSAI Pacific cod allocation. Amendment 80 provided an allocation of the TACs for six groundfish species, including Pacific cod, to facilitate the development of cooperative arrangements among the eligible vessels, thus, allowing opportunities for consolidation within the Amendment 80 sector and allowing for increased participation by the Amendment 80 vessels acting a mothership in non-rationalized fisheries like AI Pacific cod. This shift in processing behavior for some trawl CPs active in the AI Pacific cod fishery is apparent in Table 2-34 and Table 2-35.

The hook-and-line sectors are the only other sectors that have consistently participated in the AI Pacific cod fishery on an annual basis since 2003. The hook-and-line CP sector had a much lower total annual harvest and allocation than the trawl CV or trawl CP sectors, but 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 from 2003 through June 27, 2018, for an average of 3 percent. In 2018, no hook-and-line CP vessel has harvested AI Pacific cod, while in 2017, three hook-and-line CPs participated in the AI Pacific cod fishery.

The last sector that has routinely harvested AI Pacific cod on an annual basis is the less than 60' hook-and-line/pot CV sector. During 2003 through June 27, 2018, the less than 60' hook-and-line/pot CV sector harvest of AI Pacific cod ranged from 1 percent to 39 percent, averaging 8 percent. In 2018, five less than 60' hook-and-line/pot CVs participated in the AI Pacific cod fishery harvesting 60 mt prior to its closing on January 23²³, which was 8 percent of the sector's BSAI Pacific cod catch so far this year.

²³ NMFS did reapportion 1,400 mt of BSAI Pacific cod from the jig sector to the less than 60' hook-and-line/pot CV sector on February 6th, but the fishery for the sector may not reopen until September 1.

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 sector participated from 2003 through 2010 and 2017 through 2018, the pot CV sector participated from 2006 through 2008 and 2018, and the jig sector participated in 2003 and 2005 through 2008.

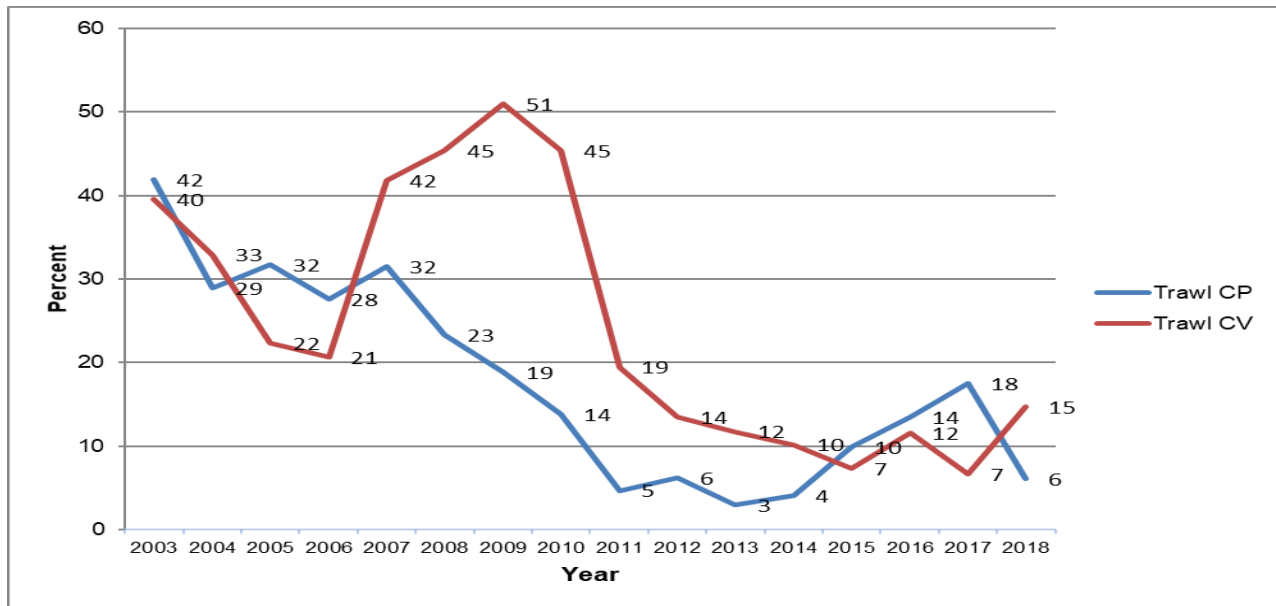


Figure 2-1 Annual percent of AI Pacific cod harvest relative to the sector's combined BSAI Pacific cod harvest for trawl CP and trawl CV, 2003 through June 27, 2018

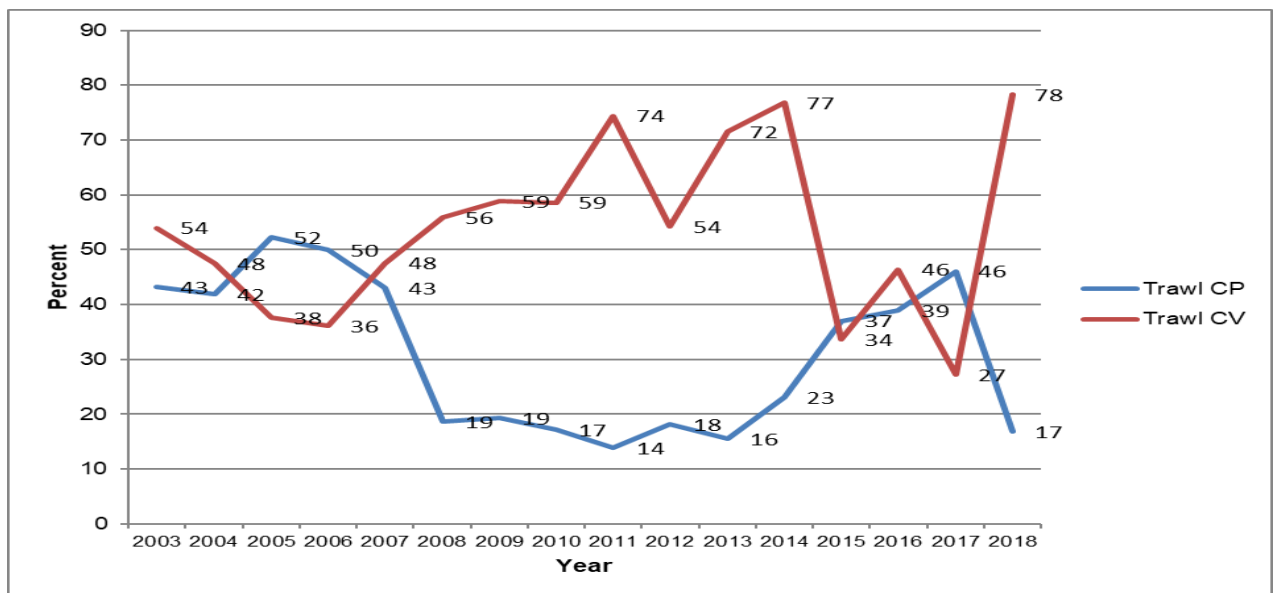


Figure 2-2 Annual percent of AI Pacific cod harvest by trawl CP and trawl CV sectors relative to total harvest of AI Pacific cod, 2003 through June 27, 2018

Timing of the AI and BS Pacific cod fisheries have differed slightly over the last several years. In the BS, the Pacific cod fishery has two distinct fishing periods. During 2011 through July 25, 2018, the Pacific cod fishery in the BS started in earnest following the January 20 opener with a usual peak in fishing between mid-February to the end of February or early March, followed by a slow decline in fishing effort

in mid-March with a slight uptick in harvest early April when the B-season fishery start (Figure 2-3). The BS fishery slows considerably near the end of April and throughout May and early June, but then gradually increases starting at the end June and peaks again near 5,000 mt per week in October followed by a gradual decline until the end of the fishing season in December.

In the AI Pacific cod fishery, there is generally only one fishing period which starts in earnest after the BS Pacific cod fishery peaks. Fishing effort in the AI tended to ramp up during the last couple of weeks in February, with a peak in fishing effort around mid-March, followed by a dramatic decline in fishing effort as the A-season winds down for the different sectors (Figure 2-4). Some fishing in the AI Pacific cod does continue throughout the remainder of the year on occasion as seen in the figure.

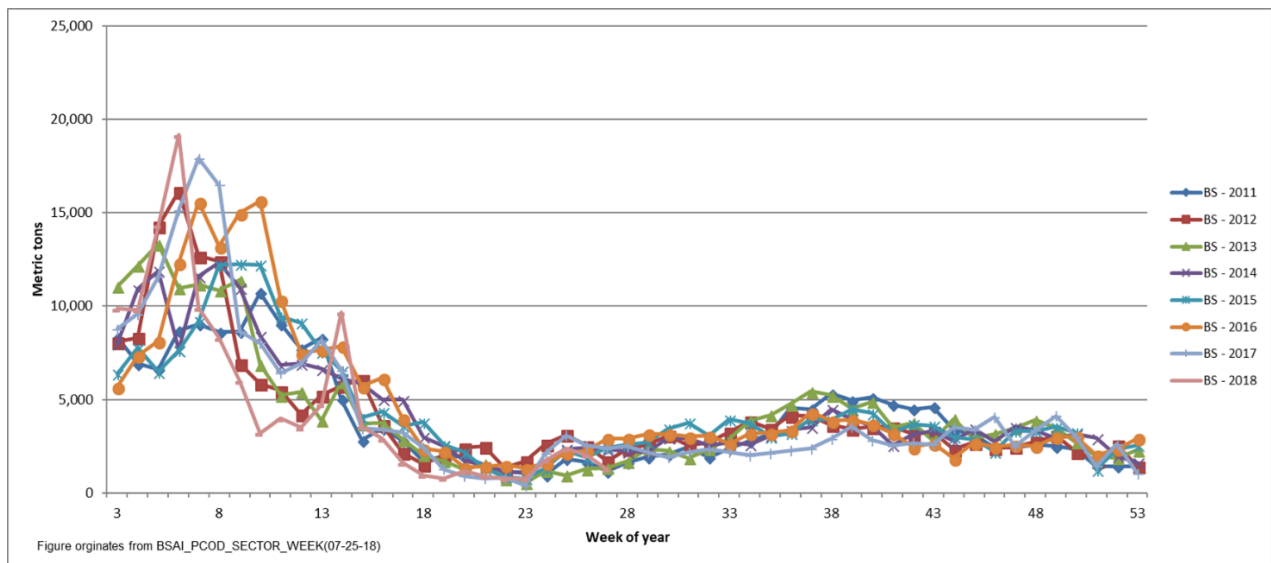


Figure 2-3 Total retained harvest of Bering Sea Pacific cod by week, 2010 through June 2015

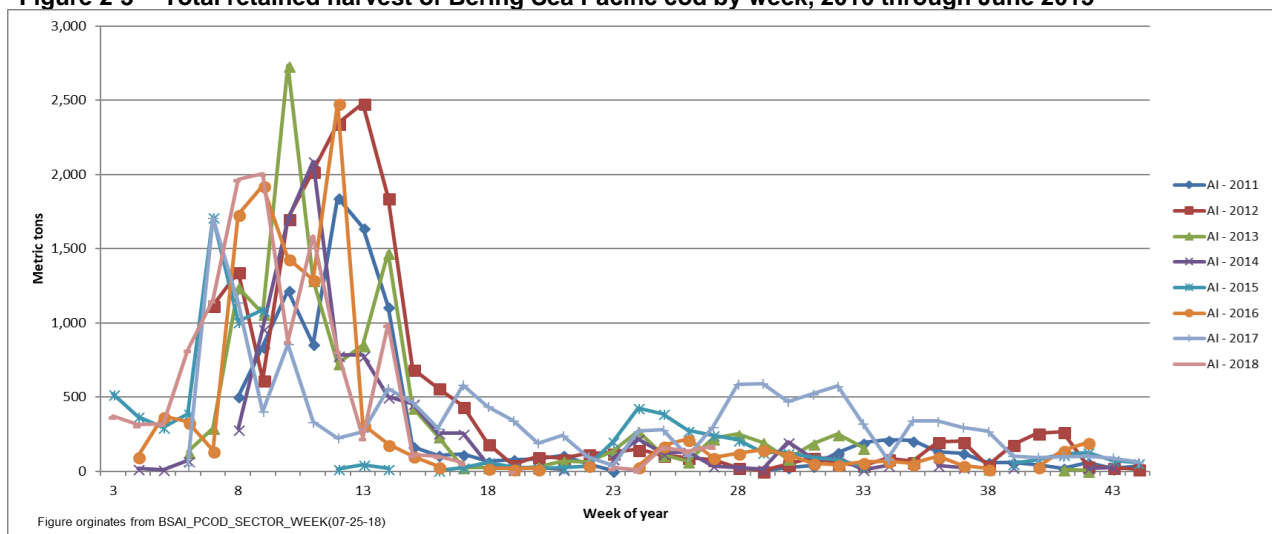


Figure 2-4 Total retained harvest of Aleutian Islands Pacific cod by week, 2010 through June 2015

Figure 2-5 and Figure 2-6 provide average weekly harvest of BS and AI Pacific cod for the trawl CV sector for two periods, 2008 through 2010, and 2011 through July 2018. The catch of BS A-season

Pacific cod for the trawl CV sector tended to start later during 2008 through 2010, while during the 2011 through 2018 period, the start of the fishery has shifted several weeks earlier. The late start of the AI Pacific cod fishery relative to the BS Pacific cod fishery is in part 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.

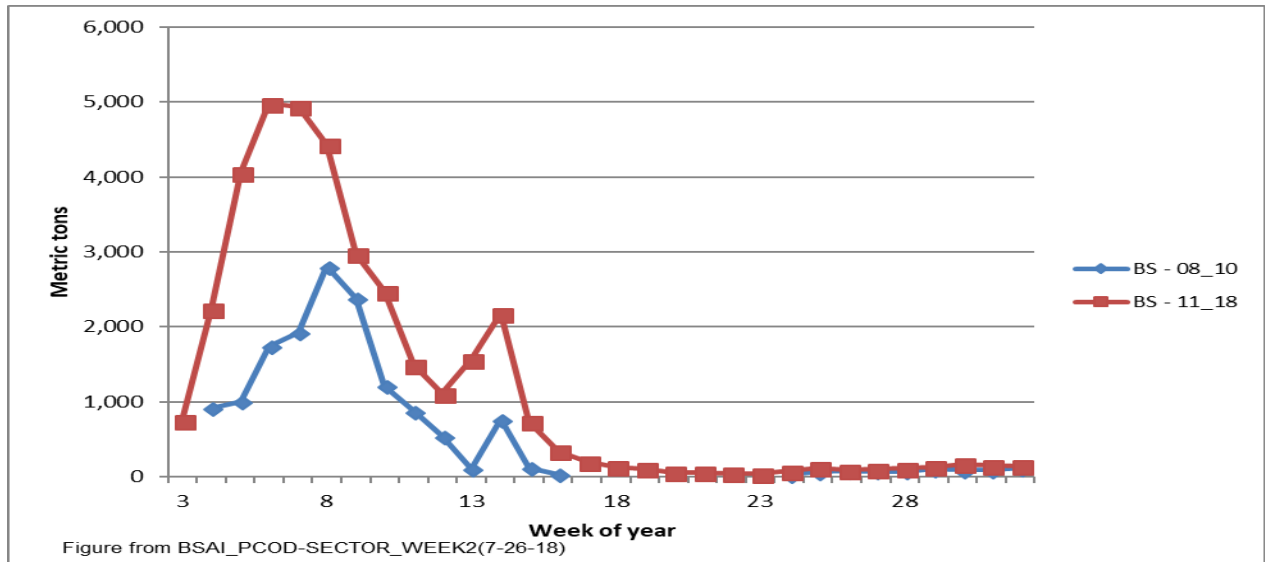


Figure 2-5 Average retained harvest of Bering Sea Pacific cod by week for the trawl CV sector, 2008 through 2010, and 2011 through July 2018

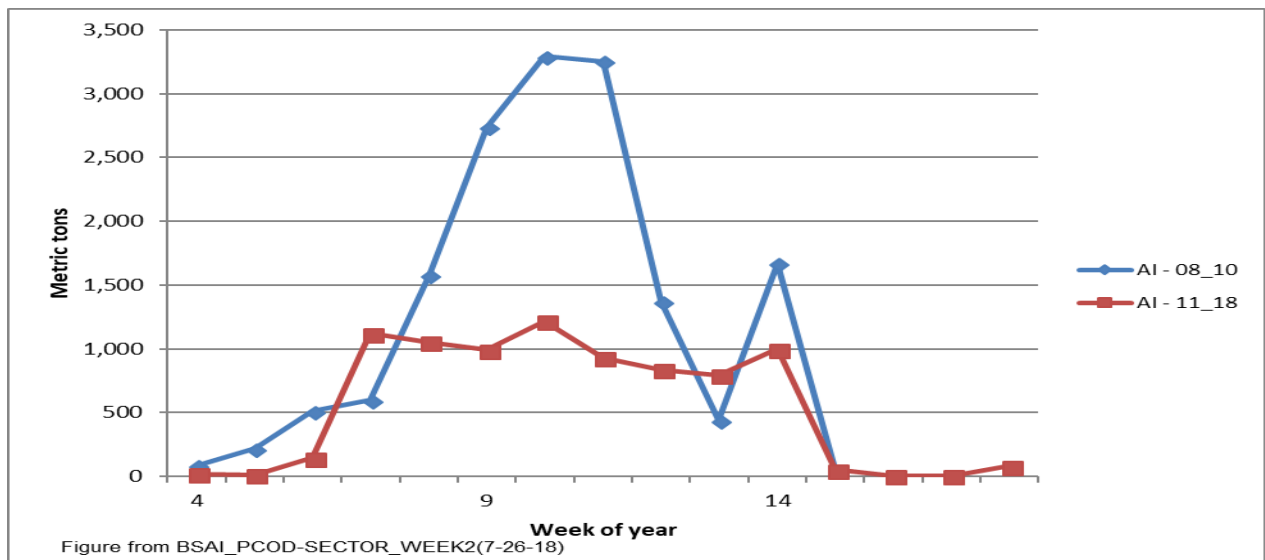


Figure 2-6 Average retained harvest of Aleutian Islands Pacific cod by week for the trawl CV sector, 2008 through 2010, and 2011 through July 2018

Table 2-33 provides the annual date of the A-season closure of BSAI Pacific cod fishery for the trawl CV sector and the date of the AI Pacific cod fishery. As seen from the table, during the years 2004 through 2013, the trawl CV sector has been restricted to bycatch-only retention status in their A-season BSAI Pacific cod fishery every year. During seven of those years, the trawl CV sector was on bycatch-only

status before March 15. The earliest closure for the trawl CV sector was February 27 in 2012, while the latest closure, prior the normal end of the A season, was March 26 in 2011. In 2014 and 2015, the first two years Pacific cod was managed at the AI level, the AI Pacific cod fishery closed to directed fishing before the A-season trawl CV sector allocation for BSAI Pacific cod was exhausted. In 2016, the trawl CV sector was closed to directed fishing after the Western AI but before the remaining AI Pacific cod fishery closed. In 2017, the sector closed to directed on February 23, which was the earliest the sector has closed since 2003. In 2018, the first year an AI Pacific cod set-aside was utilized, the sector closed to directed fishing in the BS on February 11, leaving the remaining 5,000 mt of the sector's allocation to be harvested in the AI. The trawl sector was closed to A-season Pacific cod directed fishing in the BSAI on March 4. Despite the closure of the trawl CV sector A-season and B-season Pacific cod in the BSAI, the AI Pacific cod fishery has remained open so far this year.

Table 2-33 Closure date for the A-season BSAI Pacific cod trawl CV sector allocation and area closure for the AI Pacific cod fishery

Year	Sector closure date for Pacific cod A season trawl CV in BS when AI Pacific cod set-aside is in effect	Sector closure date for Pacific cod A season trawl CV in BSAI	Area closure date for AI Pacific cod
2003	N/A	Never closed	N/A
2004	N/A	23-Mar	N/A
2005	N/A	13-Mar	N/A
2006	N/A	8-Mar	N/A
2007	N/A	12-Mar	N/A
2008	N/A	6-Mar	N/A
2009	N/A	21-Mar	N/A
2010	N/A	12-Mar	N/A
2011	N/A	26-Mar	N/A
2012	N/A	27-Feb	N/A
2013	N/A	11-Mar	N/A
2014	N/A	Never closed	16-Mar
2015	N/A	Never closed	Western AI - Feb 18; remaining AI - Feb 27
2016	N/A	9-Mar	Western AI - Feb 23; remaining AI - Mar 22
2017	N/A	23-Feb	Western AI - Jul 29; remaining AI never closed
2018	11-Feb	4-Mar	Has not closed yet

Table originates from Oct 2018 Initial Review AI Pcod AM113 Adjustment Tables

2.7.1.3 Distribution of AI Pacific Cod Processing

This section summarizes Pacific cod processing history in the AI from 2003 through July 2018. 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 2-34 are annual metric tons of AI Pacific cod processed offshore and at Adak and Atka processing plants for both the Federal fishery and the GHF fishery from 2003 through July 2018. Annual GHF totals were not included in the offshore sector of Table 2-34 since the limited number of offshore prevented analysts from divulging confidential data.

Looking at the offshore sector first, the proportion of processing of AI Pacific cod has ranged from a low of 44 percent in 2013 and 2014, to a high of 100 percent in 2011 and 2015-2017. Also included in the table for the offshore sector is the percent of AI Pacific cod processing that can be attributed to AI Pacific cod harvested by CPs themselves and deliveries of AI Pacific cod by CVs to the CPs. This information indicates that prior to 2008, the majority of the AI Pacific cod processed by the offshore sector originated from CP harvest, but after 2008, CV deliveries of AI Pacific cod to CPs played a more prominent role in the offshore processing of AI Pacific cod. A large share of the total offshore processing of AI Pacific cod

was from incidental catch, which ranged from a low of 888 mt in 2013, to a high of 4,091 mt in 2017, since trawl CPs tend to fish in multiple fisheries. Incidental catch by vessels delivering to shoreplants for processing, however, was minor when compared to their directed harvest of AI Pacific cod since trawl CVs tend not to fish in other groundfish fisheries in the AI. Other shoreplant processing of AI Pacific cod was generally less than one percent of the total AI Pacific cod processed during 2003 through 2018.

Among the trawl CVs active in the AI Pacific cod fishery, some CVs also deliver AI Pacific cod to CPs and motherships. As noted in Table 2-35, the number of CVs delivering AI Pacific cod to CPs and floaters has ranged from a low of seven in 2017 to a high of 23 in 2010. The amount of AI Pacific cod delivered to CPs and floaters ranged from a low of 863 mt in 2018, 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 the 2010 fishing year, while the record low in 2018 can be attributed to the voluntary stand down by the offshore sector. On average, during the last 16 years, 56 percent of the total CV deliveries of AI Pacific cod were to the offshore sector and 27 percent were to the shoreplants.

Looking at the portion of AI Pacific cod processed by shoreplants, there are currently two shoreplants in the AI management area, Adak and Atka. Of these two plants, Adak is the predominate plant for processing AI Pacific cod (see Table 2-27). Other shoreplants outside the AI management area have generally processed less than one percent of the total AI Pacific cod during 2003 through 2018. Looking at Table 2-34, the AI shoreplants processing activity for target AI Pacific cod has ranged from a low of 0 percent in 2011 and 2015-2017, when AI shoreplants did not process AI Pacific cod, to a high of 49 percent in 2013. In addition to the AI Pacific cod processing activity from the Federal fishery, the AI shoreplants also processed AI Pacific cod from the GHL fishery. During the 2006 through 2014 period, 33 percent of the total AI Pacific cod processed by the AI shoreplants was from the GHL fishery. As a percent of the total BSAI Pacific cod processed, the AI shoreplants processed between three percent and six percent during 2003 through 2009, but since 2010, AI shoreplants have processed significantly less ranging from zero percent to two percent. Some of the recent decline in processed AI Pacific cod by AI shoreplants is likely due to the reduction in AI Pacific cod biomass and the Pacific cod TAC split, but changes in fishing behavior by the offshore sector, starting in 2008, could also have contributed to the decline in processed AI Pacific cod.

In 2008, both Amendment 80 and Amendment 85 were implemented. Amendment 80 provided an allocation of the TACs for six groundfish species, including Pacific cod, to facilitate the development of cooperative arrangements among the eligible non-pelagic trawl CPs, thus, allowing opportunities for consolidation within the Amendment 80 sector and allowing for increased processing participation by the sector in non-rationalized fisheries like AI Pacific cod. Amendment 85 reduced the allocation of BSAI Pacific cod to trawl sectors from 47 percent to 37.8 percent. Amendment 85 further apportioned the BSAI Pacific cod allocation amongst the different trawl sectors. Of the 37.8 percent BSAI Pacific cod allocated to the trawl sectors, Amendment 80 CPs are apportioned 13.4 percent, AFA CPs are apportioned 2.3 percent, and trawl CVs are apportioned 22.1 percent.

As a result of the implementation of Amendment 80 and Amendment 85 in 2008, the fishing behavior for the trawl sectors appears to have changed. Information in Table 2-35 indicates that prior to 2008, a majority of the AI Pacific cod processed by the offshore sector came from CP harvest, but after 2008, CV deliveries of AI Pacific cod to CPs played a more significant role in the offshore processing of these vessels. Prior to 2008, on average 69 percent of the total CV deliveries of AI Pacific cod went to shoreplants (although not exclusively AI shoreplants), while 31 percent was delivered to offshore vessels. Since 2008, 32 percent of total CV deliveries of AI Pacific cod were delivered to shoreplants, and 68 percent was delivered to offshore vessels. The flexibility of the Amendment 80 program, combined with the flexibility of other rationalization programs implemented prior to Amendment 80, likely afforded the offshore sector the ability to change their fishing behavior in the AI Pacific cod fishery to lessen the impacts of Amendment 85, a lower AI Pacific cod biomass, and the BSAI Pacific cod TAC split. When

compared to the offshore sector, the AI shoreplants have little ability to change their behavior to reduce the impacts resulting from a lower AI Pacific cod biomass and the BSAI Pacific cod TAC split, since the AI shoreplants rely 100 percent on CV deliveries of AI Pacific cod to their plant. This disparity in flexibility between the offshore sector and AI shoreplants leaves the AI shoreplants at a significant disadvantage in adapting to changes in the AI Pacific cod fishery.

Table 2-34 Amount of AI Pacific cod processed offshore and onshore at the Adak and Atka plants from 2003 through July 2018

Year	At-sea processing								Adak and Atka shoreside processing					Federal total AI Pacific cod processed			Total BSAI Pacific cod processed (mt)
	Target (mt)	% of AI	% from CP harvest	% from CV delivered	Incidental (mt)	Total (mt)	% of total AI	% of BSAI	Federal		GHL	Total	Target (mt)	Incidental (mt)	Total (mt)		
									Target (mt)	% of AI	% of BSAI	(mt)				(mt)	
2003	20,969	70	61	39	1,850	22,819	72	12	8,716	27	5	0	8,716	29,966	1,892	31,859	190,365
2004	16,981	65	76	24	1,949	18,930	67	10	9,282	33	5	0	9,282	26,295	1,992	28,287	194,172
2005	12,938	67	88	12	1,790	14,728	69	8	6,440	30	3	0	6,440	19,410	1,804	21,214	187,542
2006	13,038	73	82	18	1,217	14,255	74	8	4,763	25	3	926	5,689	17,904	1,234	19,138	172,658
2007	15,930	61	80	20	1,584	17,514	63	11	10,000	36	6	2,586	12,586	26,071	1,606	27,678	155,298
2008	19,314	80	50	50	928	20,242	81	14	4,679	19	3	1,318	5,997	24,020	992	25,012	146,881
2009	15,380	65	56	44	1,792	17,172	67	11	8,268	32	5	351	8,619	23,630	1,820	25,449	153,335
2010	19,956	99	38	62	1,448	21,404	99	15	177	1	0	30	207	20,240	1,462	21,702	147,359
2011	8,764	100	12	88	1,564	10,327	100	5	39	0	0	14	53	8,783	1,595	10,378	194,876
2012	7,130	69	57	43	1,159	8,288	72	4	3,166	28	1	4,317	7,483	10,313	1,184	11,497	218,785
2013	2,715	44	42	58	888	3,602	51	2	3,511	49	2	4,777	8,288	6,225	894	7,119	215,029
2014	1,944	44	8	92	1,136	3,080	55	2	2,477	45	1	4,099	6,576	4,421	1,139	5,561	208,270
2015	5,479	100	50	50	2,634	8,113	100	4	0	0	0	0	0	5,479	2,637	8,116	206,642
2016	8,400	100	38	62	2,776	11,175	100	5	0	0	0	0	0	8,400	2,782	11,182	214,715
2017	6,478	100	55	45	4,091	10,569	100	5	0	0	0	0	0	6,478	4,101	10,578	206,869
2018**	*	*	*	*	*	*	*	*	*	*	*	*	*	5,648	1,865	7,513	112,685

Source: AKFIN

Table originates from pivot table BSAI_FOOD_PROC_CNT(07-27-18), BSAI_FOOD_PROC_INV/TGT(7-27-18), & CV_BSAI_PROC_SECTOR(06-27-18)

*Denotes confidential data

**Current as of July, 2018

Table 2-35 Number of CVs, metric tons, and percent of AI Pacific cod (target and incidental) delivered to CPs acting as mothership and floaters and the number of CVs, metric tons, and percent of AI Pacific cod delivered to shoreplants, 2003 through June 26, 2015

Year	CVs delivering AI Pacific cod to CPs and floaters				CVs delivering to shoreplants				Total CV deliveries (mt)
	# CVs	# of CPs and floaters	Metric tons	% of total CV deliveries	# of CVs	# of shoreplants	Metric tons	% of total CV deliveries	
2003	18	3	8,209	48	50	9	9,040	52	17,249
2004	12	4	4,153	31	36	6	9,357	69	13,511
2005	9	3	1,521	19	30	5	6,486	81	8,007
2006	11	4	2,355	33	38	6	4,883	67	7,239
2007	13	5	3,206	24	44	5	10,164	76	13,370
2008	21	6	9,621	67	58	8	4,769	33	14,390
2009	13	5	6,732	45	34	5	8,278	55	15,010
2010	23	5	12,443	98	23	7	298	2	12,741
2011	14	4	7,726	99	16	6	51	1	7,777
2012	13	4	3,056	49	28	6	3,209	51	6,265
2013	9	3	1,587	31	17	5	3,516	69	5,103
2014	8	4	1,793	42	12	4	2,480	58	4,273
2015	10	7	2,736	100	11	3	4	0	2,740
2016	14	8	5,192	100	11	4	7	0	5,199
2017	10	7	2,889	100	5	3	10	0	2,898
2018	7	7	863	15	23	4	4,989	85	5,852

Source: AKFIN, July, 2018

Table originates from pivot file CV_BSAI_PCOD_SECTOR(07-27-18)

2.7.1.4 Summary of the BSAI Pacific Cod Trawl CV Limitation Action and its Potential Impacts

Alternative 1 is the No Action alternative. This alternative would continue sector level allocations of BSAI Pacific cod that were established in Amendment 85. After deductions are made for the CDQ fishery and the State of Alaska Pacific cod fisheries, the trawl CV sector is allocated 22.1% of the combined BSAI non-CDQ TAC. The trawl CV sector allocation (like each of the nine non-CDQ Pacific cod sectors) is managed by NMFS to ensure harvest of Pacific cod does not exceed the overall annual allocation made to each of the non-CDQ fishery sectors. NMFS monitors harvests that occur while vessels are directed fishing for Pacific cod (specifically targeting and retaining Pacific cod above specific threshold levels) and harvests that occur while vessels are directed fishing in other fisheries and incidentally catching Pacific cod (e.g., the incidental catch of Pacific cod in the directed pollock fishery). For the non-AFA trawl C/P sector (the Amendment 80 sector) NMFS allocates exclusive harvest privileges to non-CDQ fishery participants that cannot be exceeded.

Allocations of Pacific cod to the CDQ Program and to the non-CDQ fishery sectors are further apportioned by seasons. Regulations apportion trawl non-CDQ fishery sector allocations among seasons²⁴ that are defined as the A-season (January 20 through April 1), B-season (April 1 through June 10), and C-season (June 10 through November 1). Seasonal allocations vary by fishery, but for the trawl CV sector Pacific cod is allocated 74% to the A-season, 11% to the B-season, and 15% to the B-season.

Vessels that may harvest Pacific cod from the CV sector are limited to those vessels that have a valid groundfish LLP license assigned to the vessel with a trawl gear endorsement for the BS and/or AI. Vessels acting as a CV could have either a valid CP or CV groundfish LLP license endorsed for the appropriate area and gear.

²⁴ Seasons open and close at noon of the dates shown.

CPs wishing to act as a mothership are also required to hold a valid federal fishing permit (FFP) with a mothership endorsement. A mothership endorsement for an FFP is obtained by selecting that activity on the form and meeting all other safety and operational requirements required by law.

Under the No Action alternative there is no limit on the amount of the BS non-CDQ trawl CV sector allocation that may be delivered to CPs acting as a mothership. CVs that deliver to shorebased plants and those deliver to the vessels acting as a mothership compete for the amount of Pacific cod they catch and processors compete for deliveries. AI Pacific cod deliveries are managed under BSAI Amendment 113.

The No Action alternative will need to account for any changes to the BSAI Pacific cod fishery implemented under modifications to BSAI FMP Amendment 113. Given the time of the actions, the Council is expected to have made recommendations for those changes by the time they take initial review of this action.

Alternative 2 addresses which vessels will be eligible to take deliveries from CVs when they are participating in BSAI non-CDQ Pacific cod directed fishery. The purpose of this alternative is to limit the ability of certain CPs to act as motherships in that fishery. The alternative has qualifying options for Amendment 80 CPs and Non-Amendment 80 vessels. Based on the Council's language introducing the two options, the non-Amendment 80 vessels are defined as CPs acting as a mothership that do not fall under the Amendment 80 options. Because the action is limited to CPs, it excludes all AFA (listed in the AFA) and non-AFA true motherships and stationary floating processors. Excluding true motherships and floating processors means that any eligible trawl CV will be allowed to make directed BSAI non-CDQ Pacific cod deliveries to these vessels when the BS non-CDQ Pacific cod CV trawl fishery is open to directed fishing, while in the AI non-CDQ Pacific cod fishery, any eligible trawl CV delivering to true motherships and floating processors will likely be limited to the AI Pacific cod unrestricted fishery created by Amendment 113.

The options under Alternative 2 would require CPs to have taken a targeted BSAI trawl Pacific cod delivery in between January 20th, 2015 and the end of the trawl fishing year in 2017. The Council's qualification period covers three calendar years and the Council's options consider a range that would require an Amendment 80 CP acting as a mothership to have taken the required Pacific cod delivery in either one, two, or all three years to qualify to take directed BSAI non-CDQ trawl Pacific cod deliveries into the future. Non-Amendment 80 CPs would only be required to take one specified delivery of Pacific cod to qualify to take future directed deliveries of non-CDQ Pacific cod.

Any CP that does not qualify to take trawl deliveries of BSAI Pacific cod from trawl CVs will still be allowed to take deliveries of other species as currently allowed in regulation. CPs that do not qualify would also be allowed to catch and processor Pacific cod from the BSAI CP Pacific cod trawl allocation they are assigned²⁵. The harvests by individual CPs are governed by the cooperative agreements that their sector has developed and implemented.

Alternative 3 would limit the total amount of the Bering Sea subarea BSAI non-CDQ Pacific cod catcher vessel trawl sector A-season (or A- and B-season) allocation that may be delivered to Amendment 80 CPs. The total amount would be equal to the percentage of trawl CV's Bering Sea subarea BSAI Pacific cod delivered to CPs acting as motherships relative to the total BSAI Bering Sea subarea catcher vessels trawl catch. Four different time periods are under consideration to determine the percentage (1) 2015-2017, (2) 2016-2017, (3) 2008-2017, or (4) 2008-2014. Only the catch of vessels when delivering to CPs that qualify under Alternative 2 would be used as the numerator to determine the percentage of the non-CDQ BSAI that may be delivered to CP's acting as a mothership. The percentage would be managed as a

²⁵ Amendment 80 CPs would fish from the Amendment 80 CP Pacific cod allocation and AFA CPs would be allowed to fish from the AFA CP allocation.

sideboard limit. It would not guarantee that percentage of the TAC available would be delivered to CPs acting as a mothership.

Alternative 3 includes a sub-option. That sub-option would exempt any CP that received deliveries from the BSAI non-CDQ Pacific cod trawl catcher vessel sector allocation in seven or more years during the years 2008 through 2017 from the sideboard limitations on receiving Pacific cod deliveries. Also, the catch history of any CPs that qualify for this sub-option will be excluded from the sideboard limit calculation. Any catch delivered in the future to these exempt CPs would not count against any sideboard limit that established under this action.

This sideboard limit would be calculated and established based on catch in the A-season or the combined A-season and B-season. The Council is considering limiting the sideboard action to these seasons based on historical delivery patterns of BS Pacific cod to motherships over the qualifying years.

Alternative 4 would establish a CV trawl endorsement for harvesting BSAI Pacific cod on BSAI groundfish LLP licenses that would apply over the entire fishing year. The endorsement would be required to use the LLP license to directed fish for Pacific cod that is assigned to the BSAI trawl CV sector. To qualify for the endorsement the Council is considering requiring a targeted BSAI non-CDQ Pacific cod landing. Fishticket data will be used to determine if a vessel made the required landing in the four time periods under consideration (1) 2010 through 2017, (2) 2012 through 2017, (3) 2010 through 2015, and (4) 2012 through 2015.

Alternative 4 also specifically states that the eight severable Aleutian Islands trawl licenses awarded under Amendment 92 are exempt from the endorsement requirements. These licenses are not required to have reported a valid non-CDQ trawl Pacific cod landing during the qualifying period to fish non-CDQ Pacific cod from the BSAI trawl CV allocation in the future. These LLP licenses were exempted because they are used in AI fisheries that have had limited opportunities for shorebased deliveries in recent years and they were issued to support small boat fishermen.

Alternative 5 is a request for additional information to add in the development of specific elements and options to establish AFA and non-AFA sector allocations for the BSAI non-CDQ Pacific cod trawl CV A-season and to provide information on issues the Council may want to consider that would facilitate development of non-AFA Pacific cod cooperatives in the CV sector. The Council discussed the issues associated with AFA and non-AFA allocations and their impact on existing AFA cooperatives and the potential for forming non-AFA Pacific cod CV cooperatives. Based on those discussions the Council was not ready to develop specific alternatives for analysis but wanted to collect additional information from industry and staff.

Alternative 6 was developed to ensure that replaced Amendment 80 vessels could not participate as motherships in the BSAI Pacific cod fishery. The alternative is designed to be selected in conjunction with Alternative 2 if the Council wishes to limit both active and replaced Amendment 80 vessels from acting as a mothership in the BSAI Pacific cod trawl fishery. Alternative 2 was specific to Amendment 80 LLP license and permit holders. This alternative covers all Amendment 80 vessels not designated on an Amendment 80 QS permit and an Amendment 80 LLP license. It also states that the prohibition on Amendment 80 LLP license and Amendment 80 QS holders would be prohibited from receiving Pacific cod harvested in the Pacific cod directed fishery in the BSAI and GOA. All other alternatives considered were specific to the BSAI. This action would also limit Amendment 80 CPs from acting as motherships for directed Pacific cod deliveries in both the BSAI and GOA.

Finally, the Council establishes a control date of December 31, 2017 that may be used as a reference date for a future management action to limit catcher processor vessels from acting as motherships in the BSAI trawl catcher vessel Pacific cod fishery. The control date is specific to CPs acting as a mothership. It does

not apply to CVs qualifying for Pacific cod endorsement on its LLP license. The control date does not bind the Council to that cutoff date, but it is intended to signal the Council's strong intent not to use processing activity after that date to determine a vessels eligibility in the future.

Potential effect on the proposed Amendment 113 adjustment

Overall, the combination of these alternatives could reduce fishing pressure in the BS A-season trawl CV fishery thereby lengthening the fishing season for the sector. Specific to the AI Pacific cod fishery, the alternative could result in fewer CPs being eligible to receive AI Pacific cod deliveries from trawl CVs that operator in the AI Pacific cod unrestricted fishery. By lengthening the BS A-season trawl CV fishery and limiting the number of eligible CPs acting as motherships in the BS and the AI Pacific cod unrestricted fishery, the potential for a race in the AI Pacific cod fishery is reduced.

2.7.2 Effects of Alternatives 2, 3, and 4

Alternative 2 would amend Amendment 113 to allow, prior to March 15, trawl CVs to fish in the AI Pacific cod fishery until the BS A-season trawl CV fishery closes. After the BS A-season trawl CV fishery closes, trawl CVs delivering to AI shoreplants could continue to participate in the AI Pacific cod fishery, but no trawl CV participation would be allowed in the unrestricted fishery. In other words, the alternative would restrict the AI trawl CV Pacific cod fishery to only those delivering to AI shoreplants once the BS A-season trawl CV fishery closes. This alternative is similar to Alternative 4, but this alternative would remove the trawl CV prohibition in the unrestricted fishery on March 15, whereas Alternative 4 would remove the prohibition for trawl CV in the unrestricted fishery on March 21. All other elements of Amendment 113, including non-trawl CV participation in the AI Pacific cod set-aside, non-trawl CV and CP participation in the unrestricted fishery, annual notification process, and minimum landing requirements would remain unchanged under this alternative.

This alternative does limit the opportunity for some processing sectors to participate in the unrestricted AI Pacific cod fishery once the BS A-season Pacific cod fishery closes to directed fishing for the trawl CV sector. Specifically, trawl CV deliveries of AI Pacific cod to motherships, floaters, any CPs acting as a mothership, or non-AI shoreplants would be prohibited once the BS A-season Pacific cod fishery for the trawl CV sector closes. The resulting effect of this change to Amendment 113 is the loss of economic activity for some offshore processors and non-AI shoreplants. There is also an increased risk of insufficient trawl CV participation to harvest all of the AI Pacific cod TAC once the BS A-season Pacific cod trawl CV closes.

Alternative 2 would not fully address the issue the Council is intending to fix with the proposed action. Under Alternative 2, the BS trawl CV A-season sector limitation would still be in effect, which could prohibit AI shoreside processing plants from receiving the full AI CV harvest set-aside. The BS trawl CV A-season sector limitation is the amount of CV BSAI Pacific cod unavailable to be harvested in the BS (the lesser of the AI DFA or 5,000 mt). In other words, this amount can only be harvested from the AI. The remaining amount (the BSAI A season trawl CV allocation minus the BS trawl CV A-season sector limitation) is the maximum amount that can be taken from the BS. Under current regulation (which would still be in effect under this alternative) this limitation is in effect at the start of the BSAI trawl CV Pacific cod A-season fishery (January 20). If trawl CVs are allowed to fish in the AI for the unrestricted fishery while the BS trawl CV fishery is open, they will be depleting the BS trawl CV A-season sector limitation. As a result, when the BS and unrestricted AI fishery close, there could be less than 5,000 mt of the BS trawl CV A-season sector limitation amount remaining, thus making it challenging for AI shoreside processing plants to obtain the full 5,000 mt AI CV harvest set-aside.

Alternative 3 would amend Amendment 113 to prohibit trawl CVs from harvesting AI Pacific cod from the unrestricted fishery until the earlier of March 15 or until the entire AI Pacific cod set-aside has been

landed. In other words, even with an unrestricted AI Pacific cod fishery, trawl CVs are prohibited from delivering AI Pacific cod to offshore processors or non-AI shoreplants until March 15 or until the entire AI CV harvest set-aside is landed. The trawl CV restriction would be in place even if the BS Pacific cod fishery is still open for directed fishing by the trawl CV sector.

Alternative 3 would not change the current regulations that prior to March 21, the A-season trawl CV Pacific cod harvest in the BS shall be limited to an amount equal to the BSAI aggregate CV trawl sector A-season allocation minus the lesser of the AI Pacific cod DFA or 5,000 mt. The alternative would also continue to allow non-trawl CV sectors to target AI Pacific cod from the set-aside for delivery to AI shoreplants and would continue to allow CPs and non-trawl CVs to participate in the AI unrestricted Pacific cod fishery when there is sufficient Pacific cod TAC available for a fishery. All other elements of Amendment 113, including the annual notification process and minimum landing requirements, would remain unchanged under this alternative.

As noted, Alternative 3 restricts trawl CVs operating in the AI Pacific cod fishery to only delivering their AI Pacific cod catch to AI shoreplants when the BS A-season trawl CV fishery is open for directed fishing. The Council's original intent of Amendment 113 was that the remaining trawl CV A-season Pacific cod allocation after the BS A-season closes to the sector had sufficient Pacific cod remaining to harvest and deliver the majority of the AI Pacific cod set-aside to AI shoreplants. However, the trawl CV requirement to only deliver AI Pacific cod to AI shoreplants prior to March 15 that is included in Alternative 3 provides a greater opportunity for AI shoreplants to receive a greater proportion of the AI Pacific cod than was intended under Amendment 113.

There is a potential that some portion of the AI Pacific cod TAC would remain unharvested under this approach since other processing sectors could be displaced from the unrestricted fishery prematurely. Both shoreside processors and offshore processors via trawl CVs are the primary processors of AI Pacific cod. Since this action would prohibit deliveries of AI Pacific cod by trawl CVs to all offshore processors until March 15 and the average processing amount by the AI shoreplant when operational from 2003 through 2015 was 6,130 mt, during periods of high AI TAC, there is potential that the prohibition on offshore deliveries of AI Pacific cod by trawl CVs before the BS A-season Pacific cod fishery closes for the trawl CV sector may result in unharvested AI Pacific cod by the end of the fishing year.

Alternative 4 would amend Amendment 113 so that prior to March 21, A-season trawl CV harvest of BS and AI Pacific cod, except cod delivered to AI shoreplants, will be limited to the amount equal to the BSAI trawl CV A-season sector allocation minus the AI Pacific cod DFA or 5,000 mt whichever is less. The remaining amount after removing the AI Pacific cod DFA or 5,000 mt (whichever is less) is referred to as the BS trawl CV limitation. However, under this alternative, harvest by the trawl CVs from the unrestricted fishery will be included in the BS trawl CV limitation when determining the closure of the BS subsection. Under Alternatives 1 and 2, the BS trawl CV limitation only takes into account Pacific cod harvested from the BS when determining the closure of the BS subsection. In other words, under Alternative 4, the BS would close once the harvest from the BS and unrestricted AI Pacific cod fishery was equal to the BSAI CV trawl Pacific cod A-season allocation minus the BS trawl CV limitation.

Upon closure of the BS Pacific cod A-season for the trawl CV sector (thereby leaving only the BS trawl CV limitation in place), directed fishing for AI Pacific cod would be prohibited for all trawl CVs except those trawl CVs delivering AI Pacific cod to AI shoreplants. Any trawl CV AI Pacific cod TAC remaining after the BS A-season trawl CV sector closure is available for harvest by the sector for delivery only to AI shoreplants. The alternative would also continue to allow non-trawl CV sectors to target AI Pacific cod for delivery to AI shoreplants, and would continue to allow CPs and non-trawl CVs to participate in the AI unrestricted Pacific cod fishery when there is sufficient Pacific cod unrestricted TAC available for a fishery. All other elements of Amendment 113, including annual notification process and minimum landing requirements, would remain unchanged under this alternative.

One possible effect of both Alternatives 3 and 4 is that they may result in the BS closing earlier to trawl CV Pacific cod fishing. Under Alternative 3, motherships that take trawl CV Pacific cod fisheries from trawl CVs that might normally participate in the AI would be unable to do so until the AI CV harvest set-aside is fully harvested or March 15. As a result, these trawl CVs would likely harvest their historical AI Pacific cod catch in the BS. The additional harvest effort in the BS A-season Pacific cod trawl CV fishery could result in a faster-paced BS trawl CV Pacific cod fishery, with a corresponding earlier closure. In Alternative 4, the BS trawl CV Pacific cod fishery would close based on harvest from both the BS and AI unrestricted fishery, instead of just BS trawl CV harvest under Alternatives 1 and 2. This could also cause the BS A-season Pacific cod trawl CV fishery to close earlier than expected under Alternatives 1 and 2.

Alternative 4 relative to Alternatives 1, 2 and 3 best aligns potential regulatory revisions with the original intent of Amendment 113. The intent of Amendment 113 was to provide an opportunity for AI shoreplants and the communities in which they are located to maintain shore-based processing by prioritizing AI Pacific cod as an inshore fishery for all gear types under relatively small TAC scenarios. If AI Pacific cod TACs are larger than the AI CV harvest set-aside, that additional TAC is available to all sectors at the start of the regular fishing season. Allowing any sector to participate in the unrestricted fishery was intended to better mitigate unharvested TAC in the event TACs ever increased, by allowing other sectors to plan for an AI Pacific cod fishery at the beginning of the year. The unrestricted fishery also provides some opportunity for vessels that normally participate in the AI Pacific cod fishery to continue to participate in the fishery when there is sufficient AI Pacific cod TAC. Under Alternative 4, participation by trawl CVs delivering to offshore processors or non-AI shoreplants in the unrestricted fishery would be modified to better align with original intent of providing an opportunity for AI shoreplants and the communities in which they are located to maintain shore-based processing. It accomplishes this by simply restricting trawl CVs operating in the AI Pacific cod fishery to only those vessels delivering to AI shoreplants once the BS A-season Pacific cod fishery for the trawl CV sector is closed to directed fishing.

The intent of the proposed action is to maintain shore-based processing in remote fishing communities in the AI. Adak and Atka are currently the only AI communities with the potential for AI shore-based processing facility at this time. These are likely the primary communities that will benefit from a regionalized delivery requirement. Implicit in the statement of benefits for AI communities is the assumption that processing AI Pacific cod at AI shoreplants is economically viable. However, processing margins at AI shoreplants may be smaller than elsewhere, given their remote location. As an example, at least one operator went bankrupt trying to operate in Adak. Another company that operated the Adak processing facility for only two years cited concerns about the health of the region's Pacific cod resource and increased regulatory uncertainty. Most recently, the Adak Cod Cooperative, which began operation in 2014, ceased operating after four months. The shoreplant did not process targeted AI Pacific cod during the 2015 through 2017 fishing season. Nevertheless, if the proposed action is successful in stabilizing AI communities, Adak and Atka are likely the two communities that would directly benefit from the proposed action.

Looking first at Adak, dependence on the shore-based processing of Pacific cod from the AI would likely result in more consistent opportunity for community-level economic activity from Alternative 3, relative to the other alternatives. The Adak community is small and remote, with few alternative options for generating a viable and sustainable local economy. The U.S. Census reported there were 326 residents in April 2010. Commercial fisheries are crucial to the community. On average, the shoreplant, when operating, processed 6,274 mt per year during 2003 through 2018, with the largest amount in 2007 at 10,000 mt. The gross exvessel value paid to the CVs delivering AI Pacific cod to Adak shoreplant reached \$9.9 million in 2007, with an annual average gross of \$2.9 million from 2003 through 2017.²⁶ Looking at the resulting gross first wholesale value of AI Pacific cod, the high was \$23 million in 2007,

²⁶ Revenue data for 2018 is not yet available.

with an annual average gross of \$6.5 million from 2003 through 2017. Relative to total wholesale gross revenue from all processing, AI Pacific cod from the Federal fishery on average, from 2003 through 2017, was 46 percent. Assuming the Adak shoreplant operates and the world market prices for Pacific cod remain at their current level or increase, the proposed action could provide opportunities for deliveries of AI Pacific cod to the Adak shoreplant, all else equal. This could provide valuable consistent revenue for the Adak community from fish taxes and generate consistent economic activity (both directed and indirect) from processing AI Pacific cod at the Adak shoreplant.

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 AI Pacific cod to CPs or tramp steamers. In the past, Atka Pride Seafoods did not take deliveries of, or process, Pacific cod, since they did not have an operational Pacific cod processing line. However, the plant plans to add a Pacific cod processing line in order to expand production of Pacific cod 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 increases in these revenues are 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.

Table 2-36 Exvessel and first wholesale gross values from the directed AI Pacific cod fishery for the offshore processing and shoreplant processing sectors, 2003 through 2017

Year	CV deliveries to AFA/Crab/AM80 motherships and floaters from directed AI Pacific cod		Shoreside landings from directed AI Pacific cod ¹		Total ex-vessel value from directed AI Pacific cod (\$)	Total wholesale value from directed AI Pacific cod (\$)
	Ex-vessel value (\$)	Wholesale value (\$)	Ex-vessel value (\$)	Wholesale value (\$)		
2003	8,272,110	9,664,926	5,403,402	10,815,455	13,675,513	20,480,381
2004	1,438,632	4,897,733	4,947,860	11,256,994	6,386,492	16,154,727
2005	834,218	2,302,261	3,423,701	11,074,740	4,257,918	13,377,001
2006	1,968,466	4,083,469	3,699,834	8,018,638	5,668,300	12,102,107
2007	2,897,627	6,741,459	9,923,253	22,857,229	12,820,879	29,598,689
2008	11,785,673	20,003,987	5,958,874	10,121,673	17,744,548	30,125,660
2009	3,351,795	8,203,285	4,435,706	9,462,755	7,787,501	17,666,041
2010	6,243,320	18,315,001	146,601	434,425	6,389,921	18,749,426
2011	4,705,224	12,996,188	35,345	85,267	4,740,569	13,081,456
2012	2,070,944	4,648,697	2,210,794	5,228,894	4,281,738	9,877,591
2013	798,839	2,053,926	1,854,059	4,913,524	2,652,897	6,967,449
2014	1,024,901	2,571,854	1,522,464	3,694,019	2,547,364	6,265,872
2015	1,392,785	4,307,697	3,170	6,733	1,395,956	4,314,430
2016	2,718,274	7,700,255	3,584	11,764	2,721,858	7,712,019
2017	1,228,414	5,053,658	7,073	17,683	1,235,487	5,071,341

Source: AKFIN, Aug 2018.

Table originates from pivot file BSAI_PCOD_VALUE_TGT(08-2-18)

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

Looking at historical AI Pacific cod catch in Table 2-35, Table 2-37, and Table 2-38, there is a long history of CV activity in the AI Pacific cod fishery. In Table 2-37, between 2003 and 2018, on average 17 trawl CVs harvested 61 percent of the AI Pacific cod retained catch. During the same period, the number of CVs ranged from a low of 4 in 2015, to a high of 33 in 2007. Looking at exvessel gross revenue, the trawl CV sector averaged \$6.2 million from AI Pacific cod during 2003 through 2017, which was 6.1 percent of their total exvessel gross revenue received from all fisheries (Table 2-38). Narrowing the focus to just trawl CVs that delivered AI Pacific cod to shoreplants, on average 27 trawl CVs delivered approximately 5,000 mt of AI Pacific cod during the 2003 through 2018 period. Given the historical trawl CV sector’s fishing patterns in the AI Pacific cod fishery, if the AI shoreplants are operational, those trawl CVs that do participate in the AI Pacific cod exclusive fishery would likely benefit from restricted

access, while at the same time those vessels would likely provide sufficient catch capacity for the AI shoreplants. If the Atka shoreplant is operational while the Adak shoreplant is not, there likely would be some trawl CV vessels participating in the AI Pacific cod fishery, but it is difficult to determine the extent of the participation, since the Atka shoreplant has not processed AI Pacific cod.

In contrast to the potential economic activity for the Adak and Atka shoreplants and the trawl CVs that deliver to the AI shoreplants as a result of the proposed alternatives, the offshore processing vessels and trawl CVs that deliver to the CPs, some of which lack refrigerated seawater holding tanks, that have historically participated in the offshore AI Pacific cod fishery will likely experience a loss of economic activity from the proposed alternatives. Under each of the proposed alternatives these offshore sectors would be displaced from the AI Pacific cod fishery to some degree. Alternative 2 would displace all CPs and all CVs delivering AI Pacific cod to CP vessels and non-AI shoreplants once the BS A-season Pacific cod fishery closes to the trawl CV sector. Alternative 3 would displace trawl CVs that deliver AI Pacific cod to offshore processors or non-AI shoreplants until the earlier of March 15 or until the entire set-aside is harvested. Alternative 4 would displace trawl CVs that deliver AI Pacific cod to offshore processors or non-AI shoreplants once the BS A-season Pacific cod trawl CV sector is closed to directed fishing until the earlier of March 21 or until the entire AI CV harvest set-aside is landed.

In all three proposed alternatives, the trawl CPs that receive deliveries of AI Pacific cod and the trawl CVs delivering AI Pacific cod to those trawl CPs would be ineligible to harvest AI Pacific cod to some degree. The impacts to these sectors from this limitation will vary depending on the alternative. As noted in Table 2-36, from 2003 through 2017, the largest reported gross values for the offshore fleets were over \$11.8 million exvessel gross revenue and over \$20 million first wholesale gross revenue in 2008. From 2003 through 2017, the average exvessel gross revenue was \$3.4 million and the average first wholesale gross revenue was \$7.6 million.

Looking specifically at the trawl CPs, on average, five CPs harvested approximately 4,000 mt of AI Pacific cod or 20 percent of the directed AI Pacific cod during the 2003 through 2018, with average first wholesale gross revenue through 2017 of \$8 million (Table 2-37 and Table 2-38). During this period, the number of trawl CPs has remained relatively stable with a low of 1 vessel for a several years, to a high of 10 vessels in 2004 and 2007. Relative to the total first wholesale gross revenue from all fisheries for these vessels, the AI Pacific cod fishery contributed on average 4.7 percent. As for trawl CVs delivering to offshore processors, on average 13 vessels delivered a little under 5,000 mt of AI Pacific cod during 2003 through 2018 (Table 2-35).

Table 2-37 Targeted Pacific cod catch (mt) in the AI and the percent of total targeted catch in the AI for trawl CVs and CPs, 2003 through 2018

Year	CV Trawl			CP Trawl			AI total targeted catch Metric tons
	Vessels	Metric tons	% of AI	Vessels	Metric tons	% of AI	
2003	32	17,201	57	9	11,924	40	29,966
2004	21	13,439	51	10	9,905	38	26,295
2005	16	7,973	41	8	9,303	48	19,410
2006	16	6,907	39	9	8,417	47	17,904
2007	33	13,122	50	10	10,389	40	26,069
2008	31	13,933	58	6	3,768	16	24,020
2009	26	14,880	63	5	3,256	14	23,630
2010	24	12,614	62	5	2,390	12	20,242
2011	14	7,493	85	1	*	*	8,784
2012	15	6,080	59	1	*	*	10,313
2013	7	5,062	81	2	*	*	6,260
2014	6	4,202	95	1	*	*	4,421
2015	4	2,579	47	2	*	*	5,479
2016	10	4,940	59	3	*	*	8,400
2017	5	2,539	39	2	*	*	6,478
2018**	15	5,248	93	1	*	*	5,648
Average	17	8,638	61	5	4,040	20	15,207

Source: AKFIN Aug 2018.

Table originates from pivot file BSAI_PCOD_SECTOR_TGT(8-3-18)

* Denotes confidentiality

** 2018 data as of Aug 3, 2018

Table 2-38 First wholesale gross revenue for trawl CPs and exvessel gross revenue for trawl CVs from targeted AI Pacific cod and total of all groundfish, 2003 through 2018

Year	Trawl CV			Trawl CP		
	AI Pacific cod		Total exvessel 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	
2003	13.6	15.7	86.7	15.3	11.7	130.6
2004	6.3	8.2	77.2	12.9	10.5	123.1
2005	4.2	4.4	95.3	14.2	8.7	163.7
2006	5.4	4.9	109.2	16.1	9.2	173.7
2007	12.6	11.5	109.5	23.0	12.7	180.2
2008	17.2	13.9	123.8	8.8	4.5	195.2
2009	7.8	8.9	87.6	5.6	3.2	176.8
2010	6.4	7.3	87.6	5.0	2.3	215.0
2011	4.7	3.8	123.8	*	*	*
2012	4.3	3.3	132.1	*	*	*
2013	2.6	2.2	118.1	*	*	*
2014	2.5	2.0	126.1	*	*	*
2015	1.4	1.2	112.4	*	*	*
2016	2.7	2.4	112.8	*	*	*
2017	1.2	1.2	102.6	*	*	*
Average	6.2	6.1	107.0	8.0	4.7	213.1

Source: AKFIN, July 13, 2015.

Table originates from pivot file AI_PCOD_DIV(07-13)

* Denotes confidential data

Displaced vessels could respond by fishing in other groundfish fisheries in an effort to offset the burden of the action and minimize costs of the new restrictions. However, displaced vessels have limited opportunities for redeployment into other BSAI or GOA groundfish fisheries given that many of the other groundfish fisheries fully allocated to other sectors, participation is restricted, and these vessels are often subject to harvest sideboards in other fisheries as a result of their eligibility in a rationalization program. Displaced vessels would likely continue to catch their remaining BSAI Pacific cod allocation in the BS if their sector is still open for directed fishing.

For trawl CVs delivering to offshore processors under Alternatives 2 and 4, they would not be able to move into the BS once they were displaced from the AI fishery because there would likely be no BS A-season allocation remaining for harvest since the timing of the displacement from the AI Pacific cod fishery was triggered by the closure of the sector's BS fishery. Some of the offshore trawl CVs could participate in the AI shoreside delivery fishery if they can secure an AI shoreside market. Of the 37 trawl CVs that delivered AI Pacific cod to the offshore sector from 2008 through 2017, 28 also delivered AI Pacific cod to an AI shoreplant while 9 trawl CVs only deliver to offshore processors.

Amendment 80 vessels would not be allowed to act as a mothership and take CV trawl Pacific cod deliveries. The sector could continue to catch and process Pacific cod as a CP if sufficient TAC was available in the AI unrestricted fishery, but that is not likely since the sector uses its 13.4 percent allocation as incidental catch in their other Amendment 80 species allocations. There is the potential for

Amendment 80 vessels to increase their harvests of other Amendment 80 species, such as, 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's or firm's unfished Amendment 80 quota share holdings, the ability to lease quota share from other Amendment 80 firms, to lease CDQ, or to acquire vessels with Amendment 80 quota attached. A limiting factor is the availability of other allocated species that may be caught incidentally, and the viability of a market for those 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.

Since, under the proposed alternatives, the number of potential markets for delivery of AI Pacific cod by trawl CVs would be limited, trawl CV participants will likely have less ability to use processor competition for AI Pacific cod landings to leverage higher prices in negotiations. The reduction in negotiating leverage likely depends on the alternative. Alternative 3 relative to Alternatives 1,2, and 4 will likely result in the greatest amount of loss in negotiating leverage for trawl CVs since this sector can only deliver their harvested AI Pacific cod to AI shoreplants. On the other hand, Alternative 1, the no action alternative, would provide the greatest amount of negotiation leverage for the trawl CV sector since they can deliver harvested AI Pacific cod to AI shoreplants, and, if there is an unrestricted fishery, to offshore processors and non-AI shoreplants.

2.8 Summary of Impacts of Alternatives

Table 2-39 provides a table summarizing the effects of the alternatives.

Table 2-39 Summary of effects of alternatives

	Alternative 1 (no action)	Alternative 2	Alternative 3	Alternative 4
Addresses Council's Purpose and Need	No	No	Yes	Yes
Summary of effects	Does not solve Council's purpose and need because CV vessels can participate in the BS trawl CV A-Season Sector Limitation and deliver anywhere which could prevent AI shoreside processing plants from achieving the full AI CV harvest set-aside.	Does not solve Council's purpose and need because if CV vessels participate in the AI unrestricted fishery before the BS closes, it would erode the amount of BS trawl CV A-Season Sector Limitation available after the BS closure.	1) Although solves Council's purpose and need, has the greatest impact on trawl CVs delivering to offshore processors or non-AI shoreplants since prohibits directed fishing in the AI until AI set-aside is harvested or March 15. 2) BS could close sooner because vessels that might have fished in unrestricted fishery in AI would now most likely fish in BS instead.	1) Has the least impact on trawl CVs delivering to offshore processors and non-AI shoreplants while still addressing Council's purpose and need. 2) The BS A-season Pacific cod trawl CV fishery could close sooner since closure will be based on BS harvest plus AI unrestricted harvest.
AI CV set-aside	5,000 mt or AI DFA whichever is less; once set-aside is achieved or on March 15 (whichever comes first) all other regulations associated with Amendment 113 go away.	5,000 mt or AI DFA whichever is less; once set-aside is achieved or on March 15 (whichever comes first) all other regulations associated with Amendment 113 go away.	5,000 mt or AI DFA whichever is less; once set-aside is achieved or on March 15 (whichever comes first) all other regulations associated with Amendment 113 go away.	5,000 mt or AI DFA whichever is less; once set-aside is achieved or on March 15 (whichever comes first) all other regulations associated with Amendment 113 go away.
AI unrestricted fishery	AI DFA minus AI CV set-aside	AI DFA minus AI CV set-aside	AI DFA minus AI CV set-aside	AI DFA minus AI CV set-aside
Participation in AI unrestricted fishery for non-trawl CVs and CPs	Can participate as long as there is sufficient TAC available in the AI unrestricted fishery.	Can participate as long as there is sufficient TAC available in the AI unrestricted fishery.	Can participate as long as there is sufficient TAC available in the AI unrestricted fishery.	Can participate as long as there is sufficient TAC available in the AI unrestricted fishery.
Participation in AI CV set-aside for all CVs (trawl and non-trawl)	Can participate as long as there is sufficient overall TAC available in the AI.	Can participate as long as there is sufficient overall TAC available in the AI.	Can participate as long as there is sufficient overall TAC available in the AI.	Can participate as long as there is sufficient overall TAC available in the AI.
BS trawl CV A-Season Sector Limitation	5,000 mt or AI DFA whichever is less; all CV trawl catch in the AI accrues towards the limitation regardless of where it is delivered. Remains in effect until March 21 or until AI CV set-aside is reached, whichever comes first.	5,000 mt or AI DFA whichever is less; all CV trawl catch in the AI accrues towards the limitation regardless of where it is delivered. Remains in effect until March 15 or until AI CV set-aside is reached, whichever comes first.	5,000 mt or AI DFA whichever is less; all CV trawl catch in the AI accrues towards the limitation regardless of where it is delivered. Remains in effect until March 15 or until AI CV set-aside is reached, whichever comes first.	5,000 mt or AI DFA whichever is less; only CV trawl catch being delivered to an AI shoreside processor accrues towards the limitation. Remains in effect until March 21 or until AI CV set-aside is reached, whichever comes first.
Participation in the AI unrestricted fishery for CV trawl vessels before the BS closes	Can participate as long as there is sufficient TAC available in the AI unrestricted fishery.	Can participate as long as there is sufficient TAC available in the AI unrestricted fishery.	Cannot participate in the AI unrestricted fishery even if there is available TAC in the AI unrestricted fishery.	Can participate as long as there is sufficient TAC available in the AI unrestricted fishery.
Participation in the AI unrestricted fishery for CV trawl vessels after the BS closes	Can participate as long as there is sufficient TAC available in the AI unrestricted fishery.	Cannot participate in the AI unrestricted fishery even if there is available TAC in the AI unrestricted fishery.	Cannot participate in the AI unrestricted fishery even if there is available TAC in the AI unrestricted fishery.	Cannot participate in the AI unrestricted fishery even if there is available TAC in the AI unrestricted fishery.

2.9 Number and Description of Directly Regulated Small Entities

This proposed rule would directly regulate three groups of entities. First, this proposed rule would directly regulate trawl CVs harvesting Pacific cod in the BSAI because the proposed rule would limit where trawl CVs could deliver their Pacific cod catch if they were operating in the AI subarea. Second, this proposed rule would directly regulate all non-trawl CVs who are harvesting Pacific cod in the AI because it would limit where those non-trawl CVs could deliver their Pacific cod catch. Third, this proposed rule would directly regulate all CPs harvesting Pacific cod in the AI because the proposed rule would limit how much Pacific cod those CPs can harvest in the AI. This proposed rule would not directly regulate the City of Adak or the City of Atka because it does not impose a requirement on those cities, and this proposed rule would not directly regulate entities participating in the harvesting and processing of Pacific cod managed under the GHL fisheries in the BS or AI.

The IFRA estimates the number of directly regulated small entities based on size criteria established for industry sectors defined by the Small Business Administration (SBA). According to the SBA criteria, the groundfish fishery is defined as a finfish harvesting sector. An entity primarily involved in finfish harvesting is a small entity 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 \$11.0 million for all its affiliated operations worldwide.

Based on the best available and most recent complete data from 2012 through 2016, 6 CPs, and an estimated 19 trawl CVs could be directly regulated by this action in the BSAI. Of these, no CP is estimated to be a small entity, while 2 trawl CVs are estimated to be small entities based on the best available data on the gross receipts from these entities and their known affiliates. Therefore, a total of 2 vessels considered to be small entities would be directly regulated by this action. The IRFA assumes that each vessel is a unique entity; therefore, the total number of directly regulated entities may be an overestimate because some vessels are likely affiliated through common ownership. These potential affiliations are not known with the best available data and cannot be predicted.

2.10 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 equity among various sectors eligible to harvest and process AI Pacific cod. As a result, this action has primarily distributional effects on the universe of existing participants, by providing a priority for the trawl CVs to prosecute the AI Pacific cod fishery for delivery to AI shoreplants. As a result, there could potentially be some economic inefficiency introduced into the AI Pacific cod fishery from the proposed action, which could result in some reduced benefit flows from this resource.

Furthermore, any reduction in operational efficiency would, it is believed, be offset by the welfare gains identified in the Council's problem statement, accruing from social and economic support for the two AI fishing communities that would benefit from a set-aside of the non-CDQ AI Pacific cod TAC. Adak and Atka are remote, fishery dependent, low-income communities, principally populated by Native peoples, and with few alternative economic opportunities. This action designed as it was to create opportunities within, and improve the socio-economic stability of, these communities would be expected to result in net benefits to the Nation, in the broad sense of that term.

3 Magnuson-Stevens Act and FMP Considerations

3.1 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 the alternatives and options are 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 and options considered in this action would lead to overfishing of Pacific cod in the AI or BS, and this action does not propose changes to the annually specified BS or AI OFLs, ABCs, or TACs, or the combined BSAI TAC. The alternatives would not change the BSAI Pacific cod sector allocations. The alternatives do change some of the provisions that were included in Amendment 113 to prevent stranding of AI Pacific cod TAC which may hinder optimum yield for AI Pacific cod. Additionally, optimum yield is specified very broadly in the BSAI groundfish fisheries.

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

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

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 alternatives and options are consistent with the management of Pacific cod as a unit. The alternatives do not modify the determination of individual stocks or interrelated stocks nor how the Pacific cod stock is assessed in the BS and AI.

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.

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

The proposed action does not change the allocations of fishing privileges currently in the BSAI, because it does not change the Amendment 85 BSAI Pacific cod sector allocations established for any sector.

Each sector would continue to have access to its entire cod allocation. The alternatives would only change which vessels are allowed to harvest a portion of the AI Pacific cod during the early part of the fishing year to provide protections to AI fishing communities.

Rationalization programs have allowed CPs to consolidate harvest and processing in the Pacific cod fishery, and offshore processing activity has taken an increasing proportion of the AI Pacific cod fishery since 2008. CPs could continue to harvest all of their Pacific cod allocation in the BS during the harvest set-aside.

At the same time, the historical amount of the BSAI cod fishery delivered to AI shoreside plants has decreased. Given that CVs in the past have been significant players in AI Pacific cod fishery, this action would facilitate continuation of that participation by those vessels in the fishery. The alternatives would preserve the opportunity for CVs delivering to AI shoreplants to also participate in the AI A-season Pacific cod fishery.

- How is the proposed action reasonably calculated to promote conservation?

The proposed action would not change the TACs for Pacific cod in the BS or AI or modify any measures currently in place to protect living marine resources. The Pacific cod fishery is managed by the Council and NMFS at levels that are determined to be conservative and sustainable.

- How is the proposed action carried out in such a manner that no particular individual, corporation, or other entity acquires an excessive share of harvesting privileges?

This proposed action would not change any of the BSAI Pacific cod sector allocations which were determined to be consistent with National Standard 4. It also would not diminish a sector's ability to harvest its BSAI Pacific cod allocation in that both the onshore and offshore sectors have continued access to harvest their allocation in the BS subarea.

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.

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

Proponents of the proposed action have noted that the fishery has become too efficient for the inshore sector to compete with at-sea processing vessels. This is due to those vessels' inclusion in rationalization programs that have afforded them the opportunity to consolidate harvests and processing activities in other fisheries, thereby resulting in excess capacity to prosecute the AI Pacific cod fishery. The problem statement for this action clearly shows that this action is trying to protect a sector that has historic participation in the face of rapid efficiency gains in other sectors. The proposed action continues to include safeguards from Amendment 113 to continue the efficient utilization of the Pacific cod fishery if AI fishing communities are unable to harvest and process the set-aside.

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

The alternatives would continue to provide socio-economic benefits and stability to fishery-dependent fishing communities in the Aleutian Islands and is responsive to changes in management regimes like rationalization programs that necessitate putting protections in place to protect other non-rationalized fisheries.

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 alternatives are 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. The alternatives would leave in place regulations that take into account contingencies in fisheries, fishery resources, and catches. For example, current regulations include an option for a maximum of 5,000 mt for the AI CV Harvest set-aside, unless the AI DFA is less than 5,000 mt. Likewise, current regulations include options for performance measures, such as a notification requirement and minimum processing requirement, which would affect whether the AI Pacific cod harvest set-aside went into and remained in effect.

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 alternatives would revise regulations to provide additional opportunities for harvesters to deliver AI Pacific cod to AI shoreplants. There is not enough AI Pacific cod TAC for all sectors to prosecute the AI Pacific cod fishery at their historical levels. Without protections for AI shoreplants and fishing communities, they are vulnerable to being preempted from the fishery by the offshore sector. This proposed action would create a priority for vessels delivering to shoreplants, especially in low TAC years.

This proposed rule is intended to provide benefits to harvesters delivering to AI shoreplants, the shoreplants, and the communities where those shoreplants are located. This objective is consistent with long-standing policies recommended by the Council and regulations established by NMFS to provide harvesting and processing opportunities for communities in the AI.

Because of their remote location and limited economic alternatives, AI communities rely on harvesting and processing of the nearby fishery resources to support and sustain their communities. This proposed rule is intended to be directly responsive to National Standard 8 of the Magnuson-Stevens Act that states conservation and management measures shall take into account the importance of fishery resources to fishing communities in order to provide for the sustained participation of such communities, and to the extent practicable, minimize adverse economic impacts on such communities (16 U.S.C. 1851(a)(8)).

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 alternatives are not expected to have an effect on bycatch in the AI Pacific cod fishery. The preferred alternative would not modify the overall amount of harvests, the types of gears authorized for use, or the areas where harvesting is authorized. The alternatives would not modify regulations that limit bycatch. Because this action will primarily modify the areas where AI Pacific cod is delivered, it would not be expected to result in any change in fishing practices that would result in a change, much less an increase, in current levels of bycatch occurring or authorized.

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

The alternatives should have no significant effect on safety at sea. The alternatives would not modify existing safety regulations, authorized gear, the size or type of vessels that may be used in the fishery, or otherwise affect the amount of species that could be harvested. The alternatives would not result in any changes in harvest limits that would be likely to encourage unsafe fishing practices. Because the primary impact of these alternatives is to provide harvest opportunities vessels delivering their catch to AI shoreplants, any potential change in fishing operations or delivery patterns resulting from this proposed amendment is not expected to differ from historic or current patterns in the BSAI. Current fishing and delivery practices in the BSAI have been determined to promote the safety of life at sea to the extent practicable.

3.2 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 RIR prepared for this plan amendment constitutes the fishery impact statement. The likely effects of the proposed action are analyzed and described throughout the RIR. The effects on participants in the fisheries and fishing communities are analyzed in the RIR sections of the analysis (Sections 2). 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.

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