

## DRAFT FOR INITIAL REVIEW

### Regulatory Impact Review For a Proposed Amendment to the Fishery Management Plan for Groundfish of the Bering Sea / Aleutian Islands Management Area

#### Bering Sea Aleutian Island Pacific Cod Small Vessel Access

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**Abstract:** This Regulatory Impact Review analyzes a proposed amendment to allow smaller hook-and-line or pot catcher vessels operating in the Federal Bering Sea and Aleutian Island Pacific cod (*Gadus macrophalus*) less than 60' hook-and-line or pot catcher vessel sector to harvest Pacific cod from the jig sector's Federal Bering Sea Aleutian Island Pacific cod allocation. The proposed amendment considers redefining the current Federal BSAI Pacific cod jig sector to include jig catcher vessels and catcher processors as well as hook-and-line or pot vessels that are less than or equal to either 55' or 56' length overall. The proposed amendment could provide additional opportunities for current fishery participants and potential new entrants with smaller hook-and-line or pot catcher vessels without negatively impacting vessels currently operating in the Federal Bering Sea and Aleutian Island Pacific cod jig sector.

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## List of Acronyms and Abbreviations

Acronym or Abbreviation	Meaning	Acronym or Abbreviation	Meaning
ABC	Acceptable Biological Catch	nm	Nautical miles
ADF&G	Alaska Department of Fish and Game	NMFS	National Marine Fishery Service
AFSC	Alaska Fisheries Science Center	NOAA	National Oceanic and Atmospheric Administration
AI	Aleutian Island	NOA	NOAA Administrative Order
AIS	Aleutian Island Subdistrict	Observer Program	North Pacific Groundfish and Halibut Observer Program
AKFIN	Alaska Fisheries Information Network	OMB	Office of Management and Budget
BS	Bering Sea	PSC	Prohibited species catch
BSAI	Bering Sea and Aleutian Islands	RFA	Regulatory Flexibility Act
CAS	Catch Accounting System	RIR	Regulatory Impact Review
CDQ	Community Development Quota Program	SAFE	Stock Assessment and Fishery Evaluation
CE	Categorical Exclusion	SBA	Small Business Act
CFEC	Commercial Fisheries Entry Commission	Secretary	Secretary of Commerce
COAR	Commercial Operator's Annual Report	TAC	Total allowable catch
Council	North Pacific Fishery Management Council	U.S.	United States
CP	Catcher/processor	USCG	United States Coast Guard
CV	Catcher vessel	USFWS	United States Fish and Wildlife Service
DHS	Dutch Harbor Subarea	VMS	Vessel monitoring system
E.O.	Executive Order		
EA	Environmental Assessment		
EEZ	Exclusive Economic Zone		
EFH	Essential Fish Habitat		
ES	Executive Summary		
FFP	Federal Fisheries Permit		
FMA	Fisheries Monitoring and Analysis		
FMP	Fishery Management Plan		
FR	<i>Federal Register</i>		
ft	Foot or feet		
GHL	Guideline harvest		
GOA	Gulf of Alaska		
H&L	Hook-and-line		
ICA	Incidental catch allowance		
ITAC	Initial total allowable catch		
IRFA	Initial Regulatory Flexibility Analysis		
lb(s)	Pound(s)		
LAPP	Limited Access Privilege Program		
LLP	License Limitation Program		
LOA	Length overall		
m	Meter or meters		
Mt	Metric ton(s)		
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act		
MMPA	Marine Mammal Protection Act		
NEPA	National Environmental Policy Act		

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## Executive Summary

This Regulatory Impact Review (RIR) analyzes a proposed amendment to allow smaller hook-and-line (H&L) or pot catcher vessels (CVs) operating in the Federal Bering Sea (BS) Aleutian Island (AI) Pacific cod (*Gadus macrocephalus*) less than 60' H&L or pot CV sector to harvest Pacific cod from the jig sector's Federal BSAI Pacific cod allocation. The proposed amendment considers redefining the current Federal BSAI Pacific cod jig sector to include jig CVs and catcher processors (CPs) as well as H&L or pot CVs that are less than or equal to either 55' or 56' length overall (LOA). The proposed amendment could provide additional opportunities for current fishery participants and potential new entrants with smaller H&L or pot CVs without negatively impacting vessels currently operating in the Federal BSAI Pacific cod jig sector.

The RIR is structured to streamline the information required for an RIR and to organize it to be most easily understood by the reader. **Chapters 1 and 2** contain a description of the purpose and need for the action, followed by a description of the history of the action and the alternatives. **Chapter 3** contains the description of the fisheries including information on BSAI Pacific cod management at both the Federal and State levels as well as a description of the impacted sectors. **Chapter 4** contains the impact analysis on the BSAI Pacific cod less than 60' H&L or pot CV and jig sectors and a summary of potential community and processor impacts. **Chapter 5** includes an assessment of impacts related to monitoring and enforcement.

### Purpose and Need

The North Pacific Fishery Management Council (Council) is considering this action because the less than 60' H&L or pot CV sector has seen an increase in participation in recent years, and the capacity and efficiencies (e.g., a vessel's power and width) of larger H&L or pot CVs within the sector could potentially constrain smaller vessels' harvest of BSAI Pacific cod, despite having historically contributed to the catch history that established the Amendment 85 BSAI Pacific cod sector's allocations<sup>1</sup>. The purpose of this action is to provide additional opportunities for smaller H&L and pot CVs by redefining the current BSAI Pacific cod jig sector to include these vessels.

The Council adopted the following Purpose and Need statement on June 15, 2021.

*Increased participation in the <60 ft hook-and-line and pot catcher vessel Pacific cod sector by higher-capacity vessels over 57 ft LOA has negatively impacted smaller vessels in the sector through shortened seasons. These shortened seasons limit smaller vessels' ability to compete within the sector as they are limited to fish in less productive waters near port due to their size. The jig sector allocation has not historically been fully utilized, particularly in the A and C seasons. Allowing these smaller catcher vessels using hook-and-line and pot gear to harvest Pacific cod from the jig sector allocation may provide additional opportunities for current fishery participants and potential new entrants with smaller catcher vessels without negatively impacting catcher vessels using jig gear.*

The scope of this action is limited to the BSAI Pacific cod less than 60' H&L or pot CV and jig sectors, and it would not redefine any other Amendment 85 sector or their allocation. This action would require an amendment to the BSAI Groundfish fishery management plan (FMP). An Amendment is necessary to change the allocations for each sector, redefine the existing sectors, and/or create a new sector because the BSAI Pacific cod allocations were assigned as an amendment to the BSAI Groundfish FMP.

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<sup>1</sup> Amendment 85 to the BSAI Groundfish Fishery Management Plan modified the BSAI non-CDQ Pacific cod TAC allocation and defined specific harvesting sectors.

## Alternatives

The Council adopted the following alternatives for analysis in June 2021.

**Alternative 1:** Status quo

**Alternative 2:** Redefine the current BSAI Pacific cod jig sector to include H&L/pot CVs less than or equal to:

Option 1: 55' LOA

Option 2: 56' LOA

Suboption: B-season fishery would remain jig gear only fishery.

## Comparison of Alternatives and Impacts

Under Alternative 1, status quo, the BSAI Pacific cod less than 60' H&L or pot CV and jig sectors, their allocation, and the hierarchy of reallocations of BSAI Pacific cod among all sectors currently set in Federal regulations at §679.20(a)(7)(iii) would remain unchanged. The less than 60' H&L or pot CV sector includes all CVs that are less than 60' LOA using H&L or pot gear. The BSAI Pacific cod jig sector includes all vessels (CVs and catcher processors (CPs)) using jig gear.

Alternative 2 would affect vessels fishing in Federal waters with a Federal Fisheries Permit (FFP) and a Limited License Permit (LLP) in the current BSAI Pacific cod less than 60' H&L or pot sector as well as the jig sector. Under Alternative 2, the BSAI Pacific cod jig sector would be redefined as the new BSAI Pacific cod small vessel sector which would include jig CVs and CPs as well as H&L or pot CVs less than or equal to either 55' or 56' LOA (option 1 and 2, respectively). The BSAI Pacific cod less than 60' H&L or pot CV sector would be redefined to exclude H&L or pot CVs less than or equal to either 55' or 56' LOA.

Alternative 2 would allow all vessels using H&L, pot, and jig gear in the new BSAI Pacific cod small vessel sector to harvest BSAI Pacific cod from the jig sector's 1.4 percent allocation. H&L or pot CVs in the redefined less than 60' sector would harvest BSAI Pacific cod from the less than 60' H&L or pot CV sector's 2 percent allocation. Eligibility for either sector – the new BSAI Pacific cod small vessel sector and the redefined less than 60' H&L or pot CV sector – would be based on a vessel's length and gear type. This means a H&L or pot vessel could not opt into one sector or the other.

The BSAI Pacific cod jig sector's 1.4 percent allocation of Federal BSAI Pacific cod is apportioned on a trimester basis (Jan 1—Apr 30; Apr 30 –Aug 31; Aug 31—Dec 31). The suboption proposes an option for analysis where jig CVs and CPs are the only gear-type allowed to fish during the B season (Apr 30 – Aug 31). The Council's rationale for including this suboption is that jig vessels have historically made the majority of their BSAI Pacific cod deliveries between April and September when the weather is safest for smaller vessels to operate.

### *Allocation and reallocation impacts*

The less than 60' H&L or pot CV sector receives their entire allocation of BSAI Pacific cod TAC on January 1, and the sector typically receives a reallocation from the jig sector during the jig sector's A season (between January and March) which extends their season to harvest BSAI Pacific cod. Under Alternative 2, option 1 and 2, it is anticipated that H&L or pot CVs in the new BSAI Pacific cod small vessel sector would have an opportunity to harvest more Pacific cod in the A season, and these small vessels could fully utilize the BSAI Pacific cod jig sector's A season allowance. It is also possible that the new BSAI Pacific cod small vessel sector would not fully utilize the jig sector's A season allowance, but



these smaller H&L or pot CVs could fish at a slower pace and extend their fishing early in the year absent competition from larger H&L or pot CVs in the redefined less than 60' H&L or pot CV sector. It would be uncertain if or when NMFS would be able to project whether any TAC would be available from the new BSAI Pacific cod small vessel sector to reallocate to the redefined less than 60' H&L or pot CV sector. Therefore, **Alternative 2 (option 1 and option 2) could impact the historically common, if annually variable, reallocations of BSAI Pacific cod from the jig sector to the less than 60' H&L or pot CV sector which would be redefined to exclude H&L or pot CVs less than either 55' or 56' LOA.**

#### *Fishing effort impacts*

It is anticipated that Alternative 2 (option 1 or option 2) could impact the availability of historically common reallocations of BSAI Pacific cod from the jig sector (redefined as the new BSAI Pacific cod small vessel sector) to the less than 60' H&L or pot CV sector (redefined to exclude H&L or pot CVs less than either 55' or 56' LOA). While there would be fewer vessels participating in the redefined less than 60' H&L or pot CV sector because smaller H&L or pot CVs either 55' or 56' LOA would be excluded, historically, the relative contribution of the jig sector's reallocation (mt) to the less than 60' H&L or pot CV sector's final allocation has been greater than the landings (mt) of the smaller H&L or pot CVs that would be eligible for the new BSAI Pacific cod small vessel sector. Changes in the projected amount of BSAI Pacific cod TAC that would be available for the redefined less than 60' H&L or pot CV sector could impact fishing effort. Specifically, **H&L or pot CVs in the redefined less than 60' H&L or pot CV sector could fish at a faster pace as there would be less BSAI Pacific cod TAC available early in the year when these vessels target BSAI Pacific cod in the Federal fishery.** This could have cumulative effects on these vessel's safety, and it is more challenging for NMFS to conservatively manage a fishery with smaller quotas and fished at a faster pace.

#### *Dutch Harbor Subarea State waters fishery impacts*

The State of Alaska manages three guideline harvest limit (GHL) fisheries for Pacific cod within State waters (0 to 3 nautical miles (nm)) in the BSAI: the AI Subdistrict fishery and two that occur in a subarea of the BS – the Dutch Harbor Subdistrict (DHS) pot fishery and the DHS jig fishery. The DHS pot fishery opens seven days after the Federal BSAI Pacific cod less than 60' H&L or pot CV sector closes, and it is open to vessels less than or equal to 58' LOA using pot gear with a limit of 60 pots per vessel. Under Alternative 2 (option 1 and option 2), the Alaska Board of Fisheries (BOF), with industry input, would need to address the trigger for opening the DHS pot fishery because the less than 60' H&L or pot CV sector would be redefined and no longer exist as it currently does in regulations. The BOF would also need to determine what the new trigger should be – the new BSAI Pacific cod small vessel sector closing date, the redefined less than 60' H&L or pot CV sector closing date, or some other trigger such as a hard start date.

It is uncertain what action the BOF would take to open the DHS pot fishery. However, if the BOF chose to select one of the newly defined sectors' closure date as the trigger, vessels that operate in that trigger sector would be able to choose to fish in the Federal BSAI Pacific cod fishery until it closed and then register to fish in the DHS pot fishery once it opened. However, **vessels that do not operate in the sector that would trigger the DHS opening would likely need to decide whether they want to participate in Federal or State waters if both were open at the same time.** Alternative 2 would not impact the timing of the DHS jig fishery because the fishery opens with a hard date of May 1.

#### *Economic impacts*

As stated above, it is anticipated that Alternative 2 would impact the historically common reallocations of BSAI Pacific cod from the jig sector (redefined as the new BSAI Pacific cod small vessel sector) to the

less than 60' H&L or pot CV sector (redefined to exclude H&L or pot CVs less than either 55' or 56' LOA). Annual reallocation amounts of BSAI Pacific cod from the jig sector to the less than 60' H&L or pot CV sector have ranged from 1,500 mt to 3,200 mt, accounting for an average of 30 percent of the less than 60' H&L or pot CV sector's final allocation since 2008. Under Alternative 2, **the estimated annual average gross ex-vessel revenue impact for H&L or pot CVs greater than 56' LOA is a \$1.26 million decrease in potential revenue (2008-2020). The estimated annual average gross ex-vessel revenue opportunity for H&L or pot CVs less than or equal to 56' is \$1.08 million (2008-2020)** (see Section 4.3.4).<sup>2</sup>

Under current State regulations, each year the DHS pot fishery is set at 8 percent of the BS acceptable biological catch (ABC) with an annual 1 percent increase if 90 percent of the GHL is harvested until the GHL reaches 15 percent of the BS ABC. The 15 percent GHL will continue unless changed by the BOF. The 2022 DHS pot fishery was set at 11 percent of the BS ABC and has the potential to increase another 4 percent. The DHS pot fishery is a significant opportunity for pot vessels less than or equal to 58' LOA. Under Alternative 2 (option 1 and option 2), some portion of pot vessels could need to choose to participate in either the Federal or GHL fishery depending on whether their sector closed prior to the DHS pot fishery opening. While the revenue impacts of potentially changing the DHS pot fishery opening are uncertain, the annual average gross ex-vessel revenue pot CVs greater than 56' earn from the DHS pot fishery is \$6.67 million, accounting for 24 percent of these vessel's total gross ex-vessel revenue across all fisheries (2014-2020). The annual average gross ex-vessel revenue pot CVs less than or equal to 56' earn from the GHL fishery is \$1.21 million, accounting for 20 percent of their total gross ex-vessel revenue across all fisheries (2014-2020).

#### *Suboption impacts*

The Council has included a suboption under Alternative 2 that would reserve the jig sector's B season allowance (Apr 30 – Aug 31) for harvest by jig CVs and CPs only in the new BSAI Pacific cod small vessel sector. Jig vessels participating in the Federal BSAI Pacific cod fishery make the majority of their deliveries between April and September when the weather is safest for these vessels to operate, whereas the majority of Federal BSAI Pacific cod deliveries from the less than 60' H&L or pot CVs are concentrated in January and the fall which is also when the fishery has been open. **If H&L or pot CVs eligible for the new BSAI Pacific cod small vessel sector were allowed to harvest BSAI Pacific cod during the jig sector's B season, it is possible these vessels could constrain jig vessels during the B season when they have historically prosecuted the fishery.** Because the less than 60' H&L or pot CV sector has historically closed by the time the jig sector's B season begins on April 30 and does not reopen until September 1 after the jig sector's B season is closed, **the suboption would not negatively impact H&L or pot CVs eligible for the new BSAI Pacific cod small vessel sector.**

#### *Community impacts*

The majority of vessels that have historically participated in the less than 60' H&L or pot CV and jig sectors have a registered ownership address in an Alaska community. However, within the less than 60' H&L or pot CV sector, there is variation in the reported owner address among the different vessel LOA categories. Kodiak has the largest number of reported vessel owners for H&L or pot CVs greater than 56' LOA whereas Dutch Harbor/Unalaska has the largest number of reported owners for smaller H&L or pot CVs. **Therefore, under Alternative 2, there could be a distributional impact at the community-level.**

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<sup>2</sup> Due to data confidentiality restrictions, the analysis aggregates revenue data for H&L or pot CVs less than or equal to 56' LOA.

## *Environmental impacts*

There are **no anticipated impacts on the human environment under Alternative 2**, because the action is unlikely to substantially change fishing location, timing, effort, authorized gear types, and harvest levels. These findings lead to a preliminary determination by the National Marine Fisheries Service (NMFS) to seek a Categorical Exclusion (CE) under National Oceanic and Atmospheric Administration (NOAA) Administrative Order (NOA) 216-6 (see Section 4.4 for a summary of impacts on fishing activity).

# 1. Introduction

This RIR analyzes a proposed amendment to the BSAI Groundfish FMP to allow smaller H&L or pot CVs operating in the Federal BSAI Pacific cod (*Gadus macrocephalus*) less than 60' H&L or pot CV sector to harvest Pacific cod from the jig sector's Federal BSAI Pacific cod allocation. The proposed amendment considers redefining the current Federal BSAI Pacific cod jig sector to include jig CVs and CPs as well as H&L or pot CVs that are less than or equal to either 55' or 56' LOA. The proposed amendment could provide additional opportunities for current fishery participants and potential new entrants with smaller H&L or pot CVs without negatively impacting vessels currently operating in the Federal BSAI Pacific cod jig sector.

The RIR provides an assessment of the impacts of a proposed action and its reasonable alternatives, as well as the benefits and costs of the alternatives, the distribution of impacts, and identification of the small entities that may be affected by the alternatives. This RIR addresses the statutory requirements of the Magnuson Stevens Fishery Conservation and Management Act (MSA), the National Environmental Policy Act (NEPA), Presidential Executive Order 12866, and some of the requirements of the Regulatory Flexibility Act (RFA). An RIR is a standard document produced by the Council and the NMFS Alaska Region to provide the analytical background for decision-making.

Alaska Region Office has made the preliminary determination that the proposed action does not result in substantial modifications of fishing location, timing, effort, authorized gear types, or harvest levels relative to the status quo and relative to what was analyzed in previous approved actions. Any pursuant regulatory changes would have no effect, individually or cumulatively on the human environment as defined in NAO 216-6. As such, NMFS foresees that this action would qualify for a Categorical Exclusion from further review under NEPA. For that reason, this document does not include an Environmental Assessment (EA)<sup>3</sup>.

## 1.1. History of this Action

At the October 2019 Council meeting, the Council tasked staff with a discussion paper in response to the concerns expressed by some stakeholders in the less than 60' H&L or pot CV sector that described some challenges smaller H&L or pot CVs face, including increased participation within the less than 60' H&L or pot CV sector and inter-sector competition from a subgroup of vessels typically 58' LOA with increased capacity and efficiencies.

*“In addition to increased participation, the rise of ‘Super 8s’ within the <60 vessel class contributes to growing disparities and unfair competition within the <60 vessel class*

<sup>3</sup> The analysts have consulted with NMFS Alaska Region and preliminarily determined that none of the alternatives have the potential to have an effect individually or cumulatively on the human environment. This determination is subject to further review and public comment. If this determination is confirmed when a proposed rule is prepared, the proposed action will be categorically excluded from the need to prepare an EA.

<sup>4</sup> The Council does not have a formal definition for a ‘Super 8’ vessel, but the term indicates the vessel is at or below 58' LOA and has dimensions or attributes that are supersized relative to its length (CFEC 2015).<sup>4</sup> Typically the bigger

*size. These disparities are rooted in non-traditional efficiency improvements within the Super 8 fleet (e.g., power, capacity, vessel width, etc.), and have detrimental effects on long-term participants and communities dependent on fixed gear Pacific cod fisheries.”<sup>5</sup>*

In October 2019, the Council tasked staff with evaluating “the potential impact of expanding the allowable participants to fish off of the jig sector allocation to small, fixed gear catcher vessels (e.g., <57’, trip limits up to 15,000 lbs., pot limits less than 25 pots)” to address the access challenges smaller vessels face while operating in the less than 60’ H&L or pot CV sector.

At the June 2021 Council meeting, the Council received a presentation on the discussion paper tasked in October 2019. That paper and presentation provided the Council an opportunity to discuss and give direction on its preference for potential future work related to small vessel access opportunities in the BSAI Pacific cod less than 60’ H&L or pot CV sector. To address the unintended inter-sector competition, which may be potentially constraining smaller CV’s ability to harvest BSAI Pacific cod by the larger vessels with increased efficiencies, the Council adopted a purpose and need statement and a set of alternatives for this issue in June 2021.

## 1.2. Purpose and Need

The Council is considering this action because the less than 60’ H&L or pot CV sector has seen an increase in participation in recent years, and the sector has become unintentionally marked by two vessel size categories—CVs typically 58’ LOA that have additional efficiencies (e.g., width and power) and smaller H&L or pot CVs typically less than or equal to 56’ LOA. The purpose of this action is to provide additional opportunities for smaller H&L and pot vessels by redefining the current BSAI Pacific cod jig sector to include these H&L or pot CVs without negatively impacting jig fishery participants. The BSAI Pacific cod jig sector has historically underutilized its 1.4 percent allocation of BSAI Pacific cod under Amendment 85, the majority of which has historically been reallocated to the less than 60’ H&L or pot CV sector (see Table 3-8).

Council adopted the following Purpose and Need statement on June 15, 2021.

*Increased participation in the <60 ft hook-and-line and pot catcher vessel Pacific cod sector by higher-capacity vessels over 57 ft LOA has negatively impacted smaller vessels in the sector through shortened seasons. These shortened seasons limit smaller vessels’ ability to compete within the sector as they are limited to fish in less productive waters near port due to their size. The jig sector allocation has not historically been fully utilized, particularly in the A and C seasons. Allowing these smaller catcher vessels using hook-and-line and pot gear to harvest Pacific cod from the jig sector allocation may provide additional opportunities for current fishery participants and potential new entrants with smaller catcher vessels without negatively impacting catcher vessels using jig gear.*

The scope of this action is limited to the BSAI Pacific cod less than 60’ H&L or pot CV and jig sectors. Alternative 2 would require an amendment to the BSAI Groundfish FMP. An Amendment is necessary to change the allocations for each sector, redefine the existing sectors, and/or create a new sector because the BSAI Pacific cod allocations were assigned as an amendment to the BSAI Groundfish FMP. This amendment would not redefine any other Amendment 85 sector or their allocations.

## 2. Description of the Alternatives

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attributes benefit the fishing effectiveness of a Super 8 vessel, such as more expansive deck space that allows for more fishing pots and other gear onboard.

<sup>5</sup> Unalaska Native Fishermen’s Association. October 2019. Public Comment Letter.

The Council adopted the following alternatives for analysis in June 2021.

**Alternative 1:** Status quo

**Alternative 2:** Redefine the current BSAI Pacific cod jig sector to include H&L/pot CVs less than or equal to:

Option 1: 55' LOA

Option 2: 56' LOA

Suboption: B-season fishery would remain jig gear only fishery.

## 2.1. Alternative 1, No Action

Amendment 85 to the BSAI Groundfish FMP modified the non-Community Development Quota (CDQ) Pacific cod allocations among nine defined sectors. Under Alternative 1, no action, every BSAI Pacific cod sector, their allocation, and the hierarchy of reallocations of BSAI Pacific cod among sectors set in Federal regulations at *50 CFR part 679* would remain unchanged. Therefore, under Alternative 1, the current BSAI Pacific cod less than 60' H&L or pot CV and jig sectors would remain as is.

## 2.2. Alternative 2, Redefine the Current BSAI Pacific Cod Jig Sector

Alternative 2 would affect vessels fishing in Federal waters with a Federal Fisheries Permit (FFP) and a Limited License Permit (LLP) in the current BSAI Pacific cod less than 60' H&L or pot and jig sectors. Based on the June 2021 discussion paper exploring this action, and public comment received at the October 2019 and June 2021 Council meetings, the Council's motion considers two different options for a vessel LOA limit to define eligibility for a new BSAI Pacific cod small vessel sector.<sup>6</sup> Under Alternative 2, the BSAI Pacific cod jig sector would be redefined as the new BSAI Pacific cod small vessel sector which would include jig CVs and CPs as well as H&L or pot CVs that are less than or equal to:

Option 1: 55' LOA

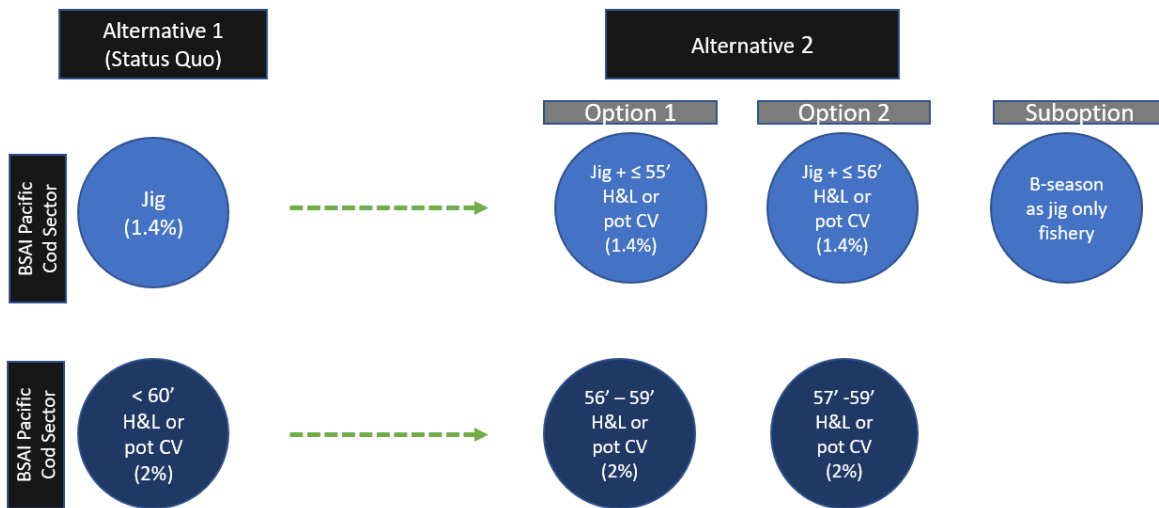
Option 2: 56' LOA

The current less than 60' H&L or pot CV sector would be redefined to exclude H&L or pot CVs less than either 55' or 56' LOA. Figure 2-1 below compares the proposed changes to each sector and the allocation under Alternative 2, option 1 and option 2.

The BSAI Pacific cod jig sector has three seasonal allowances: Jan 1—Apr 30 (60%); Apr 30—Aug 31 (20%), and Aug 31—Dec 31 (20%), whereas the less than 60' H&L or pot CV sector was excluded from the limitation of seasonal allocations under Amendment 85 and instead receives their entire allocation of BSAI Pacific cod on January 1. The Council's rationale for this action at the June 2021 meeting clarified the Council's intent that the new BSAI Pacific cod small vessel sector would harvest BSAI Pacific cod from the jig sector's 1.4 percent allocation, and that it would continue to be apportioned on a trimester basis. All CVs remaining in the redefined less than 60' H&L or pot CV would continue to access the sector's 2 percent allocation of BSAI Pacific cod.

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<sup>6</sup> Vessel owners must report the LOA to NMFS on their FFP and to the Alaska Commercial Fisheries Entry Commission (CFEC).



**Figure 2-1 Comparison of changes to the BSAI Pacific cod less than 60' H&L or pot CV and jig sectors under Alternative 1 and Alternative 2**

**2.2.1. Suboption, B-season as jig fishery only**

The suboption proposes an option for analysis where jig CVs and CPs would be the only gear-type allowed to fish during the B season (Apr 30 – Aug 31). The Council’s rationale for including this suboption is that jig vessels make the majority of their BSAI Pacific cod deliveries between April and September when the weather is safest for smaller vessels to operate. H&L and pot CVs typically prosecute other fisheries during the jig sector’s B season and their BSAI Pacific cod sector has not been open during the spring/summer months in recent years.

**3. Description of Fisheries**

This RIR examines the economic costs and benefits of a proposed regulatory amendment that would allow H&L or pot CVs less than or equal to either 55’ or 56’ LOA currently operating in the Federal BSAI Pacific cod less than 60’ H&L or pot CV sector to harvest Pacific cod from the jig sector’s Federal allocation of BSAI Pacific cod. The purpose of this action is to provide additional opportunities for current fishery participants and potential new entrants with smaller H&L or pot vessels without negatively impacting vessels using jig gear.

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

*In deciding whether and how to regulate, agencies should assess all costs and benefits of available regulatory alternatives, including the alternative of not regulating. Costs and benefits shall be understood to include both quantifiable measures (to the fullest extent that these can be usefully estimated) and qualitative measures of costs and benefits that are difficult to quantify, but nevertheless 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, the environment, public health or safety, or State, local or tribal governments or communities;
- Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
- Raise novel legal or policy issues arising out of legal mandates, the President’s priorities, or the principles set forth in E.O. 12866.

### **3.1. Statutory Authority**

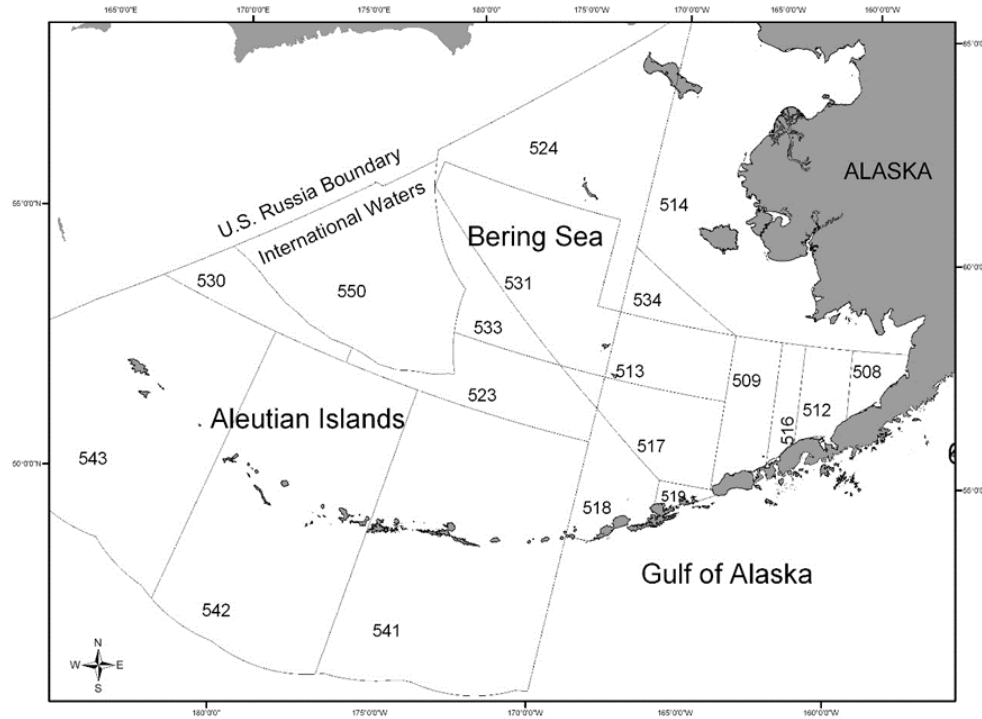
Under the MSA (16 U.S.C. 1801, *et seq.*), the United States has exclusive fishery management authority over all marine fishery resources found within the exclusive economic zone (EEZ). The management of these marine resources is vested in the Secretary of Commerce (Secretary) and in the Regional Fishery 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 groundfish fisheries in the EEZ off Alaska are managed under the FMP for Groundfish of the Bering Sea and Aleutian Islands Management Area (BSAI FMP) and the FMP for Groundfish of the Gulf of Alaska (GOA FMP). The proposed action under consideration would amend the BSAI Groundfish FMP and Federal regulations at *50 CFR §679*. Actions taken to amend FMPs or implement regulations governing these fisheries must meet the requirements of applicable Federal laws, regulations, and Executive Orders.

### **3.2. BSAI Pacific Cod Fishery Management**

BSAI Pacific cod harvest specifications establish an over-fishing level (OFL), ABC, and TAC for the Bering Sea subarea of the BSAI, and a separate OFL, ABC, and TAC for the Aleutian Islands subarea of the BSAI. Figure 3-1 shows the BSAI Pacific cod reporting areas.

Before the Pacific cod TACs are established, the Council and NMFS consider social and economic factors, management uncertainty, as well as two factors relevant to BSAI Pacific cod: Pacific cod guideline harvest (GHL) fisheries that occur in the State-waters of the BSAI, and an overall 2 million mt optimum yield limit on the maximum amount of TAC that can be specified for all BSAI groundfish. Pacific cod TACs are specified at levels that account for the GHL fisheries so the combined harvest limits from GHL fisheries and the TACs do not exceed the ABCs specified for the BS or AI.



**Figure 3-1 Map of NMFS BSAI sub-areas for management**

Once separate BS and AI TACs are established, regulations at § 679.20(a)(7)(i) allocate 10.7 percent of the BS Pacific cod TAC, and 10.7 percent of the AI Pacific cod TAC, to the CDQ program for the exclusive harvest by Western Alaska CDQ groups. The remaining portion of BS and AI TACs, after deducting the 10.7 percent allocation for CDQ Program, is the initial total allowable catch (ITAC). For the BSAI Pacific cod H&L and pot gear sectors, the Regional Administrator will specify the amount of Pacific cod that NMFS estimates will be taken as incidental catch while fishing for groundfish other than Pacific cod by the H&L and pot gear sectors. This amount will be the incidental catch allowance (ICA) specified in the harvest specifications and will be deducted from the aggregate portion of Pacific cod TAC annually allocated to the H&L and pot gear sectors before the allocations are made to these sectors. Since Amendment 85 implementation this amount has been 400 to 500 mt. After the CDQ allocation is subtracted from the BS and AI TACs, NMFS combines the remaining BS and AI TACs into one BSAI non-CDQ TAC, which is available for harvest by nine non-CDQ fishery sectors. Table 3-1 shows the BSAI Pacific cod ABC, TAC, and ITAC from 2003 to 2013 and Bering Sea and Aleutian Island BSAI Pacific cod ABC, TAC, and ITAC 2014 to 2022 (amounts in mt).

Regulations at § 679.20(a)(7)(ii)(A) define the nine Pacific cod non-CDQ fishery sectors in the BSAI and specify the percentage allocated to each. The non-CDQ fishery sectors are defined by a combination of gear type, operation type, and vessel size categories. Through the annual harvest specifications process, NMFS allocates an amount of the combined BSAI non-CDQ TAC to each of the nine non-CDQ fishery sectors.

The nine non-CDQ fishery sectors, and the percentage of the combined BSAI non-CDQ TAC allocated to each sector, are shown in Table 3-2 by amendment since 1994. Beginning in 1994, Amendment 24 to the BSAI groundfish FMP established a TAC for BSAI non-CDQ, which was fully distributed among three gear sectors: H&L, pot, trawl, and jig gear. The allocations for each sector were set under the FMP and reflected percentages of sector harvest between 1991 to 1993. Those allocations were later changed in 1997 with Amendment 46 of the FMP and shifted the majority of the TAC from trawl to H&L and pot



gear. Amendment 46 also bisected trawl apportionment between CVs and CPs and authorized NMFS to reallocate any portion of the Pacific cod TAC that was projected to remain unused among the various sectors if necessary. Subsequent apportionment changes (BSAI Amendments 64, 67, and 77) have resulted in the BSAI Pacific cod TAC being divided among nine harvesting sectors. Amendment 85 modified the BSAI non-CDQ Pacific cod TAC allocation and defined specific harvesting sectors. The existing overall sector allocations have been in place for fourteen years under Amendment 85.

**Table 3-1 BSAI Pacific cod ABC, TAC, and ITAC from 2003 through 2013 and BS and AI Pacific cod ABC, TAC, and ITAC from 2014 through 2022 (amounts in mt)**

Year	BSAI			BS*			AI**								
	ABC	TAC	ITAC	ABC	TAC	ITAC	ABC	TAC	ITAC						
2003	223,000	207,500	191,938	N/A											
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						
2019				181,000	166,475	148,662	20,600	14,214	12,693						
2020				137,000	124,625	111,290	20,600	14,214	12,693						
2021				123,805	111,380	499,462	20,600	13,756	12,320						
2022				153,383	136,466	121,864	20,600	13,796	12,320						

Source: NMFS Final Specifications

\*The BS Pacific cod TAC accounts for the GHL in State waters of the BS, which is 11 percent of the BS ABC as of 2022.

\*\*The AI Pacific cod TAC accounts for the GHL in State waters of the AI, which would be 39 percent of the AI ABC as of 2022, except the AI GHL may not exceed 15 million pounds (6,804 mt).

**Table 3-2 Percent of non-CDQ BSAI Pacific cod sector allocations by BSAI groundfish FMP amendment**

<b>Sector</b>	<b>Amend 24 1994</b>	<b>Amend 46 1997</b>	<b>Amend 64 2000</b>	<b>Amend 77 2004</b>	<b>Amend 85 2008</b>
<b>Jig</b>	2.0	2.0	2.0	2.0	1.4
<b>H&amp;L/Pot CV &lt;60' LOA</b>	44.0	51.0	0.7	0.7	2.0
<b>H&amp;L CV ≥60' LOA</b>			0.2	0.2	0.2
<b>H&amp;L CP</b>			40.8	40.8	48.7
<b>Pot CV ≥60' LOA</b>			9.3	7.6	8.4
<b>Pot CP</b>				1.7	1.5
<b>AFA trawl CP</b>	54.0	23.5	23.5	23.5	2.3
<b>Non-AFA trawl CP</b>					13.4
<b>Trawl CV</b>					23.5

Seasonal allowances of BSAI non-CDQ Pacific cod allocations are managed at the BSAI level. Because there are no non-CDQ sector allocations specific to each area, there are no gear specific seasonal allowances by area. An allocation to a non-CDQ fishery sector may be harvested in either the BS or the AI, subject to the non-CDQ Pacific cod TAC specified for the BS or the AI. If the non-CDQ Pacific cod TAC is or will be reached in either the BS or AI, NMFS will prohibit directed fishing for Pacific cod in that subarea for all non-CDQ fishery sectors. The other area will remain open to directed fishing for all sectors as long as Pacific cod TAC is available in that area and the sector has Pacific cod available from their BSAI allocation.

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 Steller sea lion protection measures implemented in 2015. Any unused portion of the seasonal allowance from any sector *except the jig sector* is rolled over to that sector's next season during the current fishing year unless the Regional Administrator determines that sector will be unable to harvest its allocation. Unused jig TAC from any season will be reallocated to the less than 60' H&L or pot CV sector and any projected unused portion of the C season jig TAC must be reallocated on or near September 1 (50 CFR 679.20(a)(7)(iv)(C)).

NMFS manages each of the non-CDQ fishery sectors 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 pollock directed fishery or IFQ fishery). For the non-CDQ fishery sectors, NMFS carefully tracks both directed and incidental catch of Pacific cod. NMFS takes appropriate management measures, such as closing directed fishing for a non-CDQ fishery sector, to ensure that total directed fishing and incidental fishing harvests do not exceed that sector’s allocation.

**Table 3-3 2022 BSAI Pacific cod non-CDQ sector allocations and seasonal allowances**

Sector	BSAI Sector Allocation (mt)	BSAI Seasons and allowance (mt)		
		A	B	C
<b>H&amp;L/Pot CV &lt; 60’ LOA</b>	2,671	No seasonal allowances		
<b>H&amp;L CV ≥ 60’ LOA</b>	267	<i>Jan 1-June 10</i> (51%) 136	<i>June 10 -Dec 31</i> (49%) 131	n/a
<b>H&amp;L CP</b>	65,027	<i>Jan 1-June 10</i> (51%) 33,164	<i>June 10 -Dec 31</i> (49%) 31,863	n/a
<b>Pot CV ≥ 60’ LOA</b>	11,216	<i>Jan 1-June 10</i> (51%) 5,720	<i>Sept 1 -Dec 31</i> (49%) 5,496	n/a
<b>Pot CP</b>	2,003	<i>Jan 1-June 10</i> (51%) 1,021	<i>Sept 1 -Dec 31</i> (49%) 981	n/a
<b>Jig</b>	1,879	<i>Jan 1- Apr 30</i> (60%) 1,127	<i>Apr 30-Aug 31</i> (20%) 376	<i>Aug 31- Dec 31</i> (20%) 376
<b>AFA Trawl CP</b>	3,086	<i>Jan 20-April 1</i> (75%) 2,315	<i>April 1-June 10</i> (25%) 772	<i>June 10- Nov 1</i> (0%) 0
<b>Amendment 80</b>	17,981	<i>Jan 20-April 1</i> (75%) 13,485	<i>April 1-June 10</i> (25%) 4,495	<i>June 10- December 31</i> (0%) 0
<b>Trawl CV</b>	29,655	<i>Jan 20-April 1</i> (74%) 21,944	<i>April 1-June 10</i> (11%) 3,262	<i>June 10-Nov 1</i> (15%) 4,448

Source: NMFS Final 2022 Sector Allocations and Seasonal Allowances of the BSAI Pacific Cod TAC;  
[https://www.govinfo.gov/content/pkg/FR-2022-03-02/pdf/2022-04292.pdf?utm\\_campaign=subscription+mailing+list&utm\\_source=federalregister.gov&utm\\_medium=email](https://www.govinfo.gov/content/pkg/FR-2022-03-02/pdf/2022-04292.pdf?utm_campaign=subscription+mailing+list&utm_source=federalregister.gov&utm_medium=email)

### 3.3. Reallocations Among BSAI Pacific Cod Sectors

Decisions to reallocate BSAI Pacific cod TAC are based on the hierarchy set in Federal regulations at §679.20(a)(7)(iii). Reallocation decisions take into account the capability of a sector to harvest both their initial Pacific cod allocation and any reallocations they may receive. Any reallocation of Pacific cod requires publication in the *Federal Register* before it is effective. This process generally takes about a week.

In the BSAI, most sector's A season allocations are fully harvested, and if not, any remaining A season allowance rolls over to the next season for that sector. Therefore, reallocations of A season TAC are rare. One exception is the BSAI Pacific cod jig sector where any projected unused portion of the A season allowance is required to be reallocated to the less than 60' H&L or pot CV sector. The less than 60' H&L or pot CV sector does not have seasonal allowances under Steller sea lion protection measures. Instead, this sector's annual allocation is available on January 1, and they have historically relied on reallocations from other sectors to have fishing reopen later in the year once their annual allocation has been harvested. NMFS has historically reallocated most of the jig sector's A-season allowance to the less than 60' H&L or pot CV sector (typically between January and March). The less than 60' H&L or pot CV sector has received seasonal reallocations from the BSAI Pacific cod jig, greater than or equal to 60' H&L CV, greater than or equal to 60' pot CV, and trawl sectors.

NMFS tries to reallocate projected amounts of unharvested Pacific cod to sectors that may be able to harvest these amounts; however, the decision to reallocate these amounts are complex and factor in many considerations. The primary consideration is not to reallocate Pacific cod from a sector that may have the capacity to catch their allocation. This means NMFS must first determine a sector's remaining Pacific cod allocation and the capacity for the sector to catch the remaining amount. This requires communication with vessel operators and processors. If any vessel operator or processor indicates that they will remain active or become active in the fishery before the end of the year, NMFS will likely be more conservative in leaving amounts of Pacific cod available for that sector. As a result, Pacific cod sometimes remains uncaught at the end of the year because these vessels either do not participate or their actual catch rates are insufficient to catch a sector's remaining Pacific cod.

For example, in the fall, some sectors fishing effort may decrease or stop for several reasons including (but not limited to) poor weather, low catch rates, directed fishing closures due to attainment of prohibited species catch limits, low Pacific cod prices, high fuel prices, vessel breakdowns or maintenance, or closure of directed fishing for all non-CDQ Pacific cod sectors in the BS subarea or AI subarea. These factors can be difficult to predict when NMFS considers whether to make Pacific cod reallocations. NMFS will also consider that catch data may change over time. To prevent exceeding TAC or ABC, NMFS typically leaves small amounts of TAC as a buffer to account for changes in catch data, which may occur for a variety of reasons. Also, in recent years until 2022, the BSAI Pacific cod TAC has decreased; therefore, less Pacific cod TAC is remaining for the sectors that have historically been provided reallocated Pacific cod. As a result, NMFS must be more conservative in completing reallocations.

In October 2021, the Council selected, as a preferred alternative, to create a BSAI Pacific cod trawl CV limited access privilege program (NPFMC 2021). The preferred alternative would allocate quota shares to groundfish LLP licenses based on the harvest of qualifying trawl CV BSAI Pacific cod catch. As part of the preferred alternative, only A and B season quota share would be allocated to cooperatives leaving the 15 percent C season allowance as a limited access trawl CV fishery for any vessel assigned to an eligible groundfish LLP license with applicable area endorsements. The C season limited access trawl CV fishery would be managed as it is currently by NMFS, including management of incidental catches of Pacific cod in other directed fisheries. Remaining trawl CV C season, A season and B season ICAs that NMFS projects to go unused, and any remaining cooperative quota after the B season would be

subject to reallocation to other sectors under current reallocation rules. As a result of leaving the C season as a limited access fishery for the trawl CV sector, reallocation of Pacific cod TAC to other sectors that rely on Pacific cod reallocations would likely continue. Typically, the reallocation from the BSAI Pacific cod jig sector, but also the trawl CV sector, allows the less than 60' H&L or pot CV sector to remain open during the fall.

### 3.4. License Limitation Program

Since 2000, a Federal LLP license is required for vessels participating in directed fishing for LLP groundfish species.<sup>7</sup> LLP groundfish species are target species and “other species” specified annually pursuant to Federal regulations at 679.20(a)(2). Vessels in the less than 60' H&L or pot CV sector need a non-trawl LLP to participate in the Federal fisheries, but they are exempt from the Pacific cod endorsement on their LLP because they are less than 60' (see 679.4(k)(9)(iv)(B)). In 2021, 26 vessels participated in the less than 60' H&L or pot sector with both an FFP and LLP.<sup>8</sup> Vessels fishing in the BSAI Pacific cod jig sector do not need an LLP license in the BSAI if they are less than 60' LOA and use no more than five jig machines, one line per machine, and 15 hooks per line. There are no AI or BS jig LLPs.

Historically, the LLPs have not generally been applicable in State waters (inside 3 nm), but in 2012 NMFS implemented regulations to limit the access of Federally permitted pot and H&L CPs in the Pacific cod parallel fishery<sup>9</sup> for the BS and AI (76 FR 73513) by requiring a Federally permitted pot or H&L CP to have the appropriate LLP endorsements to participate in the parallel fishery. In 2021 these regulations were extended to include CV pot, H&L, and any trawl vessels. Federally permitted vessels with no LLP may participate in the state-managed GHL fishery, subject to vessel length restrictions, but may not fish in state-waters (the parallel fishery) while the Federal season is open. Vessels that are not Federally permitted (do not have an FFP) are not required to hold an endorsed LLP to participate in the parallel fishery but are subject to State regulations. A vessel may surrender its FFP and fish exclusively in State waters, but this is limited to once in each 3-year FFP cycle so that a vessel may not frequently surrender an FFP and later reapply for an FFP multiple times within each 3-year period. This limits the ability for a vessel to move in and out of Federal requirements (85 FR 78038).

### 3.5. State Management Measures

The State manages three GHL fisheries for Pacific cod within State waters in the BSAI. There is one GHL fishery for Pacific cod in the AI, the AI Subdistrict fishery. There are two that occur in a subarea of the BS, the DHS pot fishery and the DHS jig fishery.

The State-managed AI fishery was established by the BOF in 2006. From 2006 through 2015, the AI GHL was 3 percent of the Federal BSAI Pacific cod ABC. In December 2015, the Alaska Board of Fisheries (BOF) 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 was 27 percent of the AI ABC. The AI State Pacific cod management plan includes annual “step-up” provisions that increase the amount of the GHL fishery if at least 90 percent of the previous year’s GHL is harvested. If the GHL

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<sup>7</sup> There are a few exceptions for LLP requirements in the BSAI. This includes vessels that do not exceed 32' LOA; vessels that are at least 32' LOA but that do not exceed 46' LOA that are registered with their CDQ group to harvest CDQ groundfish; vessels that do not exceed 60' LOA and are using jig gear (but no more than 5 jig machines, one line per machine, and 15 hooks per line); and certain vessels constructed for and used exclusively in the CDQ fisheries.

<sup>8</sup> LLP draws from the NMFS RAM division LLP database and was sourced through Alaska Fisheries Information Network (AKFIN).

<sup>9</sup> The BSAI Pacific cod parallel fishery occurs when the State opens State waters while the Federal BSAI Pacific cod fishery is open and any harvest that occurs in State waters is deducted from Federal TAC.

fishery continues to be nearly fully harvested it can increase annually by 4 percent up to a maximum of 39 percent of the AI ABC or to a maximum of 6,804 mt (15 million lbs.), whichever is less. The 2020 and 2021 AI GHL were capped at 15 million pounds (6,804 mt).

Allowable gear in the AI GHL fisheries includes trawl, longline, pot, and jig gear. Allowable vessel size varies by gear sector and time of year. The majority of the AI GHL has been harvested by vessels using trawl and pot gear. Table 3-4 summarizes the State AI GHL participation, catch, and value for the years 2006 through 2021. Additional information on the AI GHL fishery can be found in the AI Pacific Cod Harvest Set-Aside RIR that addressed issues with Amendment 113 (NPFMC 2018).

**Table 3-4 Aleutian Islands State-waters Pacific cod fishery guideline harvest level and harvest from 2006 through 2021**

Year	Season	Initial GHL <sup>a</sup>		Harvest <sup>a</sup>	Vessels		Landings	Average price per pound <sup>b</sup>	Fishery value <sup>c</sup>
2006	A season	4,071		3,857	26		68	\$0.23	\$1.30
	B season	1,745	d	160	5		19	\$0.38	\$1.40
	TOTAL	5,815		4,017	30	e	87	\$0.31	\$2.70
2007	A season	3,693		3,733	27		97	\$0.45	\$3.60
	B season	1,583	f	1,546	12		106	\$0.52	\$1.70
	TOTAL	5,276		5,279	39	e	203	\$0.49	\$5.30
2008	A season	3,696		3,392	30		116	\$0.63	\$4.50
	B season	1,584	g	1,924	18		77	\$0.57	\$1.80
	TOTAL	5,280		5,316	45	e	193	\$0.61	\$6.30
2009	A season	3,822		2,512	22		50	NA	NA
	B season	1,638	g	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	g	375	3		4	\$0.32	\$1.10
	TOTAL	5,220		3,985	16	e	88	\$0.29	\$2.70
2011	A season	4,935		CF	3		4	CF	CF
	B season	2,115	g	CF	4		16	CF	CF
	TOTAL	7,050		270	6	e	20	CF	CF
2012	A season	6,594		5,199	21		201	\$0.31	\$3.60
	B season	2,826	g	432	7		25	CF	CF
	TOTAL	9,420		5,598	26	e	226	CF	CF
2013	A season	6,447		CF	12		CF	CF	CF
	B season	2,763	g	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	g	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	g	0	0		0	\$0.00	\$0.00
	TOTAL	8,178		CF	2		CF	CF	CF
2016		4,752	h	CF	6		39	CF	CF
2017		5,805	h	CF	3		84	CF	CF
2018		5,805	h	CF	13		132	CF	CF
2019		6,386	h	6,198	18		155	\$0.38	\$5.08
2020		6,804	h	6,762	15		187	\$0.35	\$5.12
2021		6,804	h	6,703	13		170	\$0.38	\$5.44

Source: ADF&G

Note: CF = Confidential

<sup>a</sup> In metric tons

<sup>b</sup> Price per pound of landed weight.

<sup>c</sup> Fishery value based on landed weight, in millions of dollars.

<sup>d</sup> ADF&G made 3.5 million pounds of the GHL available to NMFS effective on September 1.

<sup>e</sup> Some vessels participated in both seasons.

<sup>f</sup> Overage from the A season was deducted from the B season GHL. Initial GHL shown.

<sup>g</sup> A season GHL was not fully harvested, remaining A season GHL rolled over into B season GHL; initial GHL shown.

<sup>h</sup> Regulation changed to only one season for Aleutian Island Subdistrict state-waters Pacific cod.

In October 2013, the Alaska Board of Fisheries (BOF) created a DHS State-waters Pacific cod fishery management plan for the Bering Sea, and the DHS fishery was first opened to pot fishing in 2014. The DHS fishery is open to vessels less than or equal to 58’ LOA using pot gear with a limit of 60 pots per vessel. The DHS fishery season opens seven days after the federal BSAI less than 60’ H&L or pot CV sector’s closure and may close and re-open as needed to coordinate with Federal fishery openings. A summary of the regulations is provided in Table 3-5.<sup>10</sup>

**Table 3-5 Summary of Dutch Harbor Subarea State-waters Pacific cod guideline harvest fishery regulations**

Area	DHS state-waters opens	DHS state-waters closes	Gear	Vessel length
<b>Dutch Harbor Subarea GHL pot gear fishery</b>	<ul style="list-style-type: none"> <li>The DHS state-waters Pacific cod season will open by emergency order 7 days after closure of the initial Federal BSAI Pacific cod season for the &lt; 60’ H&amp;L and pot gear CV sector.</li> <li>The DHS State-waters fishery can reopen if GHL Pacific cod vessels are available when the Federal BSAI Pacific cod &lt; 60’ H&amp;L /pot gear CV sector closes after harvesting any reallocation.</li> <li>The DHS is defined as waters between 162.30 and 170 west longitude.</li> </ul>	<ul style="list-style-type: none"> <li>When the GHL is taken or at the regulatory season closure date (December 31), whichever comes first.</li> <li>If the Federal BSAI Pacific cod &lt; 60’ H&amp;L/pot gear CV sector receives a reallocation of Federal TAC and is reopened, the DHS state- waters Pacific cod season may close.</li> </ul>	<ul style="list-style-type: none"> <li>Pot gear vessels using 60 or fewer pots unless the Commissioner modifies regulations after October 1.</li> <li>DHS is an exclusive registration area for Pacific cod and participants must purchase buoy tags and attach a tag to each pot prior to fishing.</li> </ul>	Less than or equal to 58’ LOA, unless modified by ADF&G news release after October 1.
<b>Dutch Harbor Subarea GHL jig gear fishery</b>	<ul style="list-style-type: none"> <li>May 1 opens a 100,000 lb. fishery.</li> </ul>	<ul style="list-style-type: none"> <li>When the GHL is taken or at the regulatory season closure date (December 31) whichever occurs first.</li> </ul>	<ul style="list-style-type: none"> <li>Jig gear with a limit of 5 jigging machines.</li> <li>The limit on the number of jigging machines may be lifted by the commissioner any time after October 1, to allow the fleet to harvest the GHL.</li> </ul>	Less than or equal to 58’ LOA

Source: <http://www.adfg.alaska.gov/FedAidPDFs/FMR18-05.pdf>

Under current State regulations, each year the DHS fishery is set at 8 percent of the BS ABC with an annual 1 percent increase if 90 percent of the GHL is harvested until the GHL reaches 15 percent of the BS ABC. The 15 percent GHL will continue unless changed by the BOF. The 2022 DHS fishery was set at 11 percent of the BS ABC. The GHL amount and reported harvest from 2014 to 2021 for this fishery

<sup>10</sup> In 2014 and 2015, the DHS fishery occurred in the area between 164 degrees and 167 degrees west longitude. The area was expanded east and west to between 164 degrees and 170 degrees west longitude prior to the 2016 season and again expanded westward prior to the 2019 season to 162.30 degrees west longitude. At the BOF October 2018 meeting it again expanded the area to include waters between 162.30 degrees and 170 degrees west longitude.



are shown in Table 3-6. All landings from the DHS pot fishery are delivered to shoreside plants and inshore floating processors because the fishery is prosecuted by pot vessels that are less than or equal to 58’ LOA. Thirty-seven pot gear vessels participated in the fishery in 2019, 40 pot gear vessels in 2020, and 29 pot gear vessels in 2021.

**Table 3-6 Pacific cod harvest (lbs.) with pot gear in the State of Alaska DHS GHL Pacific cod fishery from 2014 through 2021**

Year	GHL		Harvest		% harvested
	Pounds	mt	Pounds	mt	
2014	17,863,874	8,103	17,666,510	8,013	98.90%
2015	18,029,404	8,178	17,636,103	8,000	97.80%
2016	35,979,072	16,320	35,519,920	16,112	98.70%
2017	33,721,562	15,296	33,247,414	15,081	98.60%
2018	28,360,000	12,864	29,055,603	13,180	102.50%
2019	31,922,600	14,480	32,345,033	14,672	101.30%
2020	30,927,000	14,028	30,928,649	14,029	100.00%
2021	27,292,000	12,380	27,585,848	12,513	101.00%

Source ADF&G

The BOF created a second BS GHL fishery which began in 2019 and allocates 100,000 lb. or roughly 45 mt. to jig vessels. The fishery was not opened to jig gear until 2019 because the Federal jig season typically occurs year-round, so there has historically been no benefit to having a separate jig gear GHL state-waters fishery. The DHS jig gear fishery is not a super-exclusive fishery, so persons may register and fish that fishery and other State fisheries for Pacific cod. As noted in Table 3-7, one vessel has participated in the fishery on an annual basis, so harvest information is confidential for the DHS jig fishery; however, the GHL was achieved in 2019.

**Table 3-7 Dutch Harbor Subdistrict State-waters Pacific cod jig fishery harvest, effort, value, and season dates, 2019 through 2021**

Year	GHL (lbs.)	Harvest (lbs.)	Vessels	Landings	Average price per pound	Fishery value	Season dates		Season duration (days)
							Opened	Closed	
2019	100,000	CF	1	5	CF	CF	5/1/2019	6/6/2019	37
2020	100,000	CF	1	4	CF	CF	5/1/2020	12/31/2020	245
2021	100,000	CF	1	3	CF	CF	5/1/2021	12/31/2021	245

Source ADF&G

### 3.6. Impacted Sectors

#### 3.6.1. BSAI Pacific Cod Less Than 60’ H&L or Pot CV Sector

The less than 60’ H&L or pot CV sector includes all CVs that are less than 60’ LOA using H&L or pot gear, but the typical length of vessels that participate in this sector ranges from 28’ to 58’ LOA. Since 2000, a Federal LLP license has been required for vessels participating in directed fishing for LLP groundfish species, unless exempt (see Section 3.4). Vessels in this sector need a non-trawl LLP to participate in the Federal fisheries, but they are exempt from the Pacific cod endorsement on their LLP, see § 679.4(k)(9)(iv)(B). Currently, an LLP holder can switch from H&L or pot gear to legal jig gear and prosecute the jig sector’s allocation if their vessel was configured in such a way to use all the gear types.

From 2008 through 2021, the number of vessels participating in the less than 60’ H&L or pot CV sector has ranged from a low of 21 in 2014 to high of 41 in 2020. The annual average level of participation in

the BSAI Pacific cod less than 60' H&L or pot CV sector is 27 vessels. The sector has had a 2 percent allocation of BSAI Pacific cod since Amendment 85 was implemented in 2008, and they receive their entire allocation on January 1 each year because CVs less than 60' are not subject to the seasonal restrictions that apply to other vessels. The amount of harvested Federal BSAI Pacific cod has ranged from a low of 4,469 mt in 2009 to a high of 12,448 mt in 2014. There has been a gradual shortening of the initial fishing period when the sector harvests its initial allocation as the number of days this sector needs to harvest its initial allocation has been reduced from nearly 75 to as little as 12 days. In 2021, the sector closed on January 26 and had 26 vessels participate.

The sector routinely harvests their entire initial allocation in addition to a significant portion of BSAI Pacific cod reallocated from other sectors. Reallocation amounts to the less than 60' H&L or pot CV sector have ranged from a low of 1,297 mt in 2009<sup>11</sup> to high of 7,500 mt in 2014. On average, the less than 60' H&L or pot CV sector has harvested 214 percent of its initial allocation since 2008. The less than 60' H&L or pot CV sector has historically received reallocations from the BSAI Pacific cod jig, greater than or equal to 60' H&L CV, greater than or equal to 60' pot CV, and trawl sectors. However, the jig sector has consistently reallocated Pacific cod to the less than 60' H&L or pot CV sector since 2008. On average, reallocations from the jig sector have accounted for 30 percent of the less than 60' H&L or pot CV sector's final allocation (Table 3-8).

The less than 60' H&L or pot CV sector receives a reallocation from the jig sector early in the year which extends their season to harvest Pacific cod. In the past, NMFS was able to reallocate more BSAI Pacific cod TAC to the less than 60' H&L or pot sector in the spring but this has not occurred in recent years due to the increased effort in the BSAI Pacific cod fisheries, coinciding with a decrease in overall allocations for all BSAI Pacific cod sectors. Regulations require another reallocation from the jig sector to the less than 60' H&L or pot CV sector on or around September 1 if unused TAC is projected in the jig sector, and NMFS has historically been able to open the sector on September 1.

H&L or pot CVs participating in the sector primarily focus on halibut, groundfish, and salmon using a mix of gear types. The length of these vessels allows them to participate in State of Alaska salmon fisheries which usually requires vessels to be no longer than 58' (however, vessels must be 32' or less to participate in Bristol Bay salmon drift gillnet fishery). From 2008 through 2020, the total gross ex-vessel revenue for all fisheries for vessels participating in the less than 60' H&L or pot CV sector has ranged from \$21.30 million in 2009 to \$41.65 million in 2019.<sup>12</sup> The gross ex-vessel revenue for Federal BSAI Pacific cod has ranged from \$3.34 million in 2009 to \$8.66 million in 2019, and the annual average amount of gross ex-vessel revenue for this fishery is \$6.76 million during the same time period. However, the IFQ fishery has contributed the largest percent of total gross ex-vessel revenue for the sector at 32 percent, followed by the Federal BSAI Pacific cod and GHL Pacific cod fisheries at 21 and 20 percent respectively (on average). Other fishing activities by the vessel size category include salmon and GOA Pacific cod, which in recent years has diminished due to the decline in the GOA Pacific cod biomass and the resulting limitations on the GOA Pacific cod fishery.

Fishing activity in the AI and DHS GHL fisheries by vessels operating in the BSAI Pacific cod less than 60' H&L or pot CV sector has increased significantly, both in terms of the number of vessels and the amount of GHL Pacific cod that is harvested. Since 2014, the majority of the Pacific cod harvested in BSAI GHL fisheries is taken in the DHS pot fishery. Prior to 2014, fishing activity occurred in the AI GHL fishery because it was the only GHL fishery in the BSAI. The number of less than 60' H&L or pot

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<sup>11</sup> 1,297 mt is derived from the 1,600 mt reallocation from the jig sector minus the reallocation of 303 mt from the less than 60' H&L or pot sector to other sectors.

<sup>12</sup> Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive\_FT; small\_boat\_div(12-6-21)

CVs that also participate in the AI and DHS GHL fisheries has ranged from a low of zero participating vessels in 2010 to 35 in 2020, harvesting between 3 mt in 2011 to 14,655 mt in 2018.<sup>13</sup>

Provided in Table 3-9 are data on the less than 60' H&L or pot CV sector's ex-vessel price (2020 real \$) for BSAI Pacific cod, gross ex-vessel revenue for BSAI Pacific cod, and the gross first wholesale value of BSAI Pacific cod from 2008 through 2020. The price for BSAI Pacific cod has ranged from a high of \$.60 in 2008 to a low of \$.27 in 2009 and 2015; the average price for BSAI Pacific cod during this time period is \$.35. Gross first wholesale value has ranged from \$5 million in 2009 to \$19 million in 2014 and 2018.

Table 3-10 shows the total deliveries of Federal BSAI Pacific cod for the less than 60' H&L or pot CV sector as well as the total number of ports within the bounds of confidentiality restrictions. The number of ports the sector has delivered BSAI Pacific cod to has ranged from a low three in 2014, 2016, and 2017 to a high of seven in 2019. Of the delivery ports, Dutch Harbor/Unalaska has routinely received the most deliveries from the less than 60' H&L or pot CV sector during the analyzed period.

Table 3-11 provides data on the annual halibut mortality, and red king crab, bairdi, *C. opilio*, Chinook salmon PSC, and non-Chinook salmon PSC for the sector while targeting BSAI Pacific cod from 2008 to 2021. The pot CVs in the less than 60' H&L or pot CV sector do not have PSC limits for halibut, crab, or salmon. The H&L CVs in this sector, however, share a halibut PSC limit with the greater than or equal to 60' H&L CVs. The BSAI H&L CV Pacific cod fishery has never reached the halibut PSC limit for this sector. Halibut mortality for the H&L vessels operating in the sector ranges from a low of one mt to a high of 7 mt in 2014.

Table 3-12 provides a count, by community of ownership address and year from 2008 through 2020, for vessels participating in the less than 60' H&L or pot CV sector for all Alaska communities as well as Washington and other states (primarily Oregon and California) with any vessels active in the sector. The less than 60' H&L or pot CV sector is a geographically diverse fleet; however, 71 vessels (76 percent) that participated in the less than 60' H&L or pot CV sector have a registered ownership address in an Alaska community.

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<sup>13</sup> Source: NMFS Alaska Region Catch Accounting System, data compiled by AKFIN in Comprehensive\_BLEND\_CA; sector\_landings\_tgt\_SMPC(5-3-22).

**Table 3-8 Count of vessels in the BSAI Pacific cod less than 60' H&L or pot CV sector, the sector's initial allocation (mt), reallocation amounts from other sectors (mt), and final allocation (mt) from 2008 through 2021**

Year	Vessel count for target fishery	Initial allocation (mt)	Final allocation (mt)	Final allocation as a % of initial allocation	Reallocation (mt) from jig sector	Reallocation (mt) from other sectors	Jig reallocation as a percent of final allocation
2008	31	3,033	5,210	172%	2,024	153	39%
2009	28	3,137	4,434	141%	1,600	-303	36%
2010	23	2,998	5,509	184%	1,760	751	32%
2011	22	4,055	9,005	222%	1,970	2,980	22%
2012	24	4,645	8,880	191%	2,800	1,435	32%
2013	27	4,627	9,177	198%	3,200	1,350	35%
2014	21	4,518	12,018	266%	3,073	4,427	26%
2015	25	4,438	10,630	240%	3,018	3,174	28%
2016	22	4,476	10,674	238%	3,050	3,148	28%
2017	24	4,259	9,271	218%	2,886	2,126	31%
2018	29	3,627	8,748	241%	2,400	2,721	24%
2019	36	3,214	9,800	305%	1,765	4,486	18%
2020	41	2,766	4,967	180%	1,927	274	39%
2021	26	2,222	4,444	200%	1,500	222	34%

Source: NOAA Fisheries Alaska Region, [BSAI Pacific cod reallocations \(1995–present\)](https://media.fisheries.noaa.gov/dam-migration/bsai-pcod-reallocation-1995-present.pdf) report at <https://media.fisheries.noaa.gov/dam-migration/bsai-pcod-reallocation-1995-present.pdf>

NMFS Alaska Region Catch Accounting System, data compiled by AKFIN in Comprehensive\_BLEND\_CA; sector\_landings\_tgt(11-19-21)

**Table 3-9 Less than 60' H&L or pot CV sector BSAI Pacific cod ex-vessel price (\$), BSAI Pacific cod gross ex-vessel revenue (millions \$), BSAI Pacific cod gross first wholesale value (millions \$) from 2008 through 2020**

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Ex-vessel price (\$ per lbs.)	0.60	0.27	0.29	0.33	0.35	0.28	0.28	0.27	0.28	0.31	0.41	0.44	0.40
Gross ex-vessel revenue (millions \$)	7	3	4	6	7	6	8	6	6	7	8	9	4
Gross first wholesale value	11	5	8	14	14	13	19	14	16	17	19	15	7

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive\_FT; sector\_landings\_rev(2-18-22)

**Table 3-10 Total number of less than 60' H&L or pot CV delivery ports and total number of deliveries of targeted BSAI Pacific cod from 2008 through 2020**

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Number of ports</b>	5	5	5	6	4	5	3	4	3	3	5	7	5
<b>Total deliveries</b>	278	274	203	255	291	293	*	350	*	*	279	332	219

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive\_FT; small\_boat\_proc\_div(2-5-22) and small\_boat\_monthlylandings(2-15-22)

**Table 3-11 Halibut, crab, and salmon prohibited species catch by the less than 60' H&L or pot CV sector while targeting Federal BSAI Pacific cod from 2008 through 2021**

Species	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
Halibut	5	3	2	2	2	4	7	3	1	1	5	2	1	1	30
Mortality (mt)															
Red King crab	9,063	957	407	1,535	1,126	18,543	31,626	51,730	457	5,405	45,383	6,515	3,569	52,471	218,361
C. Bairdi	340,701	151,108	66,444	69,719	30,199	47,632	178,562	127,075	32,396	90,979	28,825	15,025	9,464	2,794	632,668
C. Opilio PSC	0	0	0	0	0	0	0	0	0	0	0	0	47	0	47
Other C. Opilio	144,745	60,900	38,443	38,443	5,237	3,353	21,198	23,831	1,603	17,573	1,476	1,145	6,090	5,981	125,929
Chinook	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Non-Chinook	0	0	0	0	0	1	2	0	0	0	0	0	1	0	5

Source: AKFIN October 2021; sector\_PSC(10-1-21)

Table 3-12 Vessels <60' LOA targeting Federal BSAI Pacific cod with H&L or pot gear by community of vessel historic ownership address, 2008 - 2020

Region	Community	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Annual Average 2009-2020 (#)	Annual Average 2009-2020 (%)	Unique Vessels 2009-2020 (#)
		Alaska	Dutch Harbor/Unalaska	7	6	6	6	5	6	6	5	3	3	3	3	4	4.8
Anchor Point	2		2	1	0	0	0	0	0	0	0	0	0	0	0.4	1.42%	2
Homer	3		2	1	1	2	2	2	3	4	4	2	5	7	2.9	10.80%	16
Kodiak/Port Lions	7		3	5	5	5	5	4	4	4	4	5	9	9	5.6	20.74%	18
<b>Homer/Kodiak/Anchor Point</b>	<b>12</b>		<b>7</b>	<b>7</b>	<b>6</b>	<b>7</b>	<b>7</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>11</b>	<b>14</b>	<b>15</b>	<b>8.9</b>	<b>32.95%</b>	<b>36</b>
Adak	1		1	0	1	0	0	0	0	0	0	0	0	0	0.2	0.85%	2
Cordova	1		0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.28%	1
Delta Junction	0		0	0	0	0	0	0	0	0	0	0	0	1	0.1	0.28%	1
Douglas	0		0	1	0	0	0	0	1	0	0	0	0	0	0.2	0.57%	2
False Pass	0		0	0	0	0	0	0	0	0	0	0	0	1	0.1	0.28%	1
Girdwood	1		0	0	0	0	0	0	0	0	0	0	1	1	0.3	1.14%	2
Haines	0		0	0	0	0	0	0	0	0	0	0	0	1	0.1	0.28%	1
Juneau	0		1	2	0	0	0	1	1	1	1	0	0	1	0.6	2.27%	4
Kenai	0		1	1	1	0	0	0	0	0	0	0	0	0	0.2	0.85%	1
Ketchikan	1		0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.28%	1
King Cove	0		0	0	0	0	0	0	0	0	0	0	0	2	0.2	0.57%	2
King Salmon	0		1	0	0	0	0	0	0	0	0	0	0	0	0.1	0.28%	1
Klawock	0		0	0	0	0	1	0	1	0	0	0	0	0	0.2	0.57%	1
Mekoryuk	0		0	0	0	0	1	0	0	0	0	0	0	0	0.1	0.28%	1
Nikolaevsk	0		1	0	1	1	0	0	0	0	0	0	0	0	0.2	0.85%	2
Nome	0		0	0	0	0	0	0	0	0	0	0	0	1	0.1	0.28%	1
Petersburg	0		1	1	0	0	1	0	2	3	2	3	2	4	1.5	5.40%	6
Sand Point	0		1	0	0	0	0	0	0	0	0	0	0	1	0.2	0.85%	2
Seward	0		0	0	0	1	1	1	1	1	1	1	1	1	0.7	2.56%	1
Sitka	0		0	0	0	0	0	1	0	0	0	0	0	1	0.2	0.57%	2
Soldotna	0		0	0	0	0	0	0	0	0	0	0	0	1	0.1	0.28%	1
Wasilla	0		1	1	1	2	2	2	2	2	2	2	2	2	1.6	5.97%	2
Willow	0		1	0	0	0	0	0	0	0	0	0	0	0	0.1	0.28%	1
<b>Other AK</b>	<b>4</b>		<b>8</b>	<b>6</b>	<b>3</b>	<b>4</b>	<b>6</b>	<b>5</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>7</b>	<b>12</b>	<b>13</b>	<b>6.8</b>	<b>25.28%</b>	<b>37</b>
<b>Alaska</b>	<b>23</b>		<b>21</b>	<b>19</b>	<b>15</b>	<b>16</b>	<b>19</b>	<b>17</b>	<b>20</b>	<b>18</b>	<b>18</b>	<b>21</b>	<b>29</b>	<b>32</b>	<b>20.6</b>	<b>76.14%</b>	<b>71</b>
WA	Bellingham	1	1	1	0	0	0	0	0	0	0	0	0	0	0.2	0.85%	1
	Dear Park	0	0	0	0	0	0	0	0	0	0	1	1	1	0.2	0.85%	1
	Elma	0	0	1	0	0	0	0	0	0	0	0	0	0	0.1	0.28%	1
	Friday Harbor	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	0.28%	1
	Montesano	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.28%	1
	Mount Vernon	0	1	1	1	2	1	1	1	0	0	1	1	0	0.8	2.84%	2
	Seattle	4	2	2	5	4	4	3	3	2	3	2	2	3	3.0	11.08%	13
	<b>Washington</b>	<b>6</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>4</b>	<b>5</b>	<b>4.5</b>	<b>16.48%</b>	<b>16</b>
<b>Other States</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>3</b>	<b>4</b>	<b>2.0</b>	<b>7.39%</b>	<b>12</b>	
<b>Grand Total</b>	<b>31</b>	<b>27</b>	<b>24</b>	<b>21</b>	<b>24</b>	<b>26</b>	<b>22</b>	<b>25</b>	<b>22</b>	<b>24</b>	<b>29</b>	<b>36</b>	<b>41</b>	<b>27.1</b>	<b>100.00%</b>	<b>91</b>	

### 3.6.2. BSAI Pacific Cod Jig Sector

The BSAI Pacific cod jig sector includes all vessels (CVs and CPs) using jig gear. Vessels in this sector do not need an LLP license in the BSAI if they are less than 60' LOA and are using no more than five jig machines, one line per machine, and 15 hooks per line. Note that all vessels less than or equal to 32' LOA operating in the BS and AI are not subject to LLP requirements.

The number of jig vessels participating in the sector from 2008 through 2021 has varied, ranging from a low of zero participating vessels in 2021 to a high of 15 participating vessels in 2008. The annual average level of participation is four vessels. Since 2008, the jig sector has harvested 16 percent of its initial allocation (on average). The three years where a higher percent of the initial allocation was utilized were 2010 at 17 percent, 2011 at 18 percent, and 2012 at 14 percent (Table 3-13). Due to the jig sector's relatively low utilization of its initial allocation, a significant portion has been reallocated to the less than 60 H&L or pot CV sector early in the year as required by Amendment 85 regulations.

From 2008 through 2020, the annual average total gross ex-vessel revenue for all fisheries for jig vessels is \$448,077, and the annual average gross ex-vessel revenue for jig vessels participating in the Federal BSAI Pacific cod fishery is \$98,541 during the same time period. However, State-waters GHL Pacific cod has contributed the largest percent of gross ex-vessel revenue for jig vessels at 24 percent, followed by the Federal BSAI Pacific cod fishery at 22 percent and IFQ fisheries at 19 percent from 2008 through 2020 (on average). Other fishing activities by the jig sector include GOA Pacific cod and salmon.<sup>14</sup>

Provided in Table 3-14 are data on the jig sector's ex-vessel price (2020 real \$) for BSAI Pacific cod, gross ex-vessel revenue for BSAI Pacific cod, and the gross first wholesale value of BSAI Pacific cod from 2008 through 2020. The price for BSAI Pacific cod has ranged from a low of \$.21 in 2013 to a high of \$.52 in 2008; the average price for BSAI Pacific cod for the jig sector is \$.33 during the same time period.

Overall, the jig sector has had a relatively low level of participation in the BSAI Pacific cod fishery and the majority of this sector's initial allocation—approximately 90 percent – has been reallocated to other BSAI Pacific cod sectors (except for 2010 through 2012 where a higher percent of the sector's initial allocation was utilized).

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<sup>14</sup> Source: ADFG Fish Tickets, data compiled by AFKIN in Comprehensive\_FT small\_boat\_div (2-8-22). Due to data confidentiality restrictions, the analysis does not display quantitative diversification data for the BSAI Pacific cod jig sector.

**Table 3-13 Count of vessels in the BSAI Pacific cod jig sector, initial allocation (mt), final allocation (mt), and reallocation amounts (mt) to other BSAI Pacific cod sectors from 2008 through 2021**

Year	Vessel count	Initial allocation (mt)	Final allocation (mt)	Reallocations (mt)	Final allocation as a % of initial allocation
2008	15	2,134	180	-2,104	8%
2009	3	2,207	25	-2,182	1%
2010	7	2,110	350	-1,760	17%
2011	11	2,850	510	-2,340	18%
2012	4	3,263	463	-2,800	14%
2013	6	3,251	51	-3,200	2%
2014	2	3,174	101	-3,073	3%
2015	4	3,118	100	-3,018	3%
2016	2	3,144	94	-3,050	3%
2017	1	2,993	13	-2,980	0%
2018	1	2,549	149	-2,400	6%
2019	2	2,259	159	-2,100	7%
2020	3	1,945	18	-1,927	1%
2021	0	1,565	65	-1,500	4%

Source: NOAA Fisheries Alaska Region, [BSAI Pacific cod reallocations \(1995–present\)](https://media.fisheries.noaa.gov/dam-migration/bsai-pcod-reallocation-1995-present.pdf) report at <https://media.fisheries.noaa.gov/dam-migration/bsai-pcod-reallocation-1995-present.pdf>  
NMFS Alaska Region Catch Accounting System, data compiled by AKFIN in Comprehensive\_BLEND\_CA; sector\_landings\_tgt(11-19-21)

**Table 3-14 BSAI Pacific cod jig sector ex-vessel price (\$), BSAI Pacific cod gross ex-vessel revenue (millions \$), BSAI Pacific cod gross first wholesale value (millions \$) from 2008 through 2020**

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Ex-vessel price (\$ per lbs.)	0.52	*	0.28	0.34	0.28	0.21	*	0.27	*	*	*	*	*
Gross ex-vessel revenue (\$)	202,302	*	209,779	375,083	51,706	6,752	*	16,691	*	*	*	*	*
Gross first wholesale value	373,203	*	501,447	847,728	135,494	20,526	*	38,902	*	*	*	*	*

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive\_FT; sector\_landings\_rev(2-18-22)



### 3.7. Product Composition and Flow of Pacific Cod

The following section provides information on the production composition and flow of Pacific cod, and it largely draws from the 2019 Wholesale Market Profiles for Alaska Groundfish and Crab Fisheries (AFSC 2019) and the 2020 Economic Status of the Groundfish Fisheries of Alaska (NMFS 2022).

Pacific cod is a whitefish found in the coastal Pacific Ocean from Alaska to California with the largest concentrations found in the GOA and the Bering Sea. In 2017, Alaska's Pacific cod accounted for 18 percent of the total global cod harvest. Pacific cod are highly valued for their mild, white flesh and are primarily processed into fillet and head and gutted (H&G) products. Alaska's Pacific cod harvest is primarily processed as H&G and is largely purchased by China, Japan, and Europe for further processing including the production of salt cod. Other final cod products include fillet blocks, individually frozen fillets, or fish sticks which are either individually quick-frozen or processed into shatterpack – layered frozen fillets that separate individually when hit against a hard surface—or layer pack. There is a significant shore-based production of Alaska's Pacific cod fillets. Single-frozen Alaska cod fillets are a high-value product destined primarily for domestic markets. The final markets include upscale dining establishments, institutional food service, quick-service restaurants, retail fish markets, grocery stores, and overseas markets (AFSC 2019).

H&L or pot vessels that operate in the less than 60' H&L or pot CV sector do not process Pacific cod at-sea, instead delivering to floating or shore-based processors. Pacific cod caught by this sector is processed into fillets that are either shatterpack or individually quick frozen. In the past, vessels operating in this sector had access to fresh markets where product was packaged whole and fresh before being air freighted to Korea (H&L/pot fisherman, personal communication).

In 2017, Alaska processors produced 136,990 mt of Pacific cod products, valued at \$510.2 million. Production volume in 2017 was the lowest since 2010, which mirrors trends of declining TAC for both the GOA and BSAI. Despite lower volumes, 2017 production value rose to a 12-year high of \$510 million due to an exceptionally strong market. Price increases are generally understood to be the result of strong demand combined with a reduction in Pacific and Atlantic cod harvest volume, as well as a reduction in the haddock quota in the Barents Sea. In 2017, Alaska Pacific cod H&G product accounted for 72 percent of production volume (98,489 mt) in 2017, and 67 percent of first wholesale value (\$341 million). Fillets accounted for 12 percent by wholesale volume (16,538 mt) and 25 percent of first wholesale value (\$127 million). Other products (e.g., roe, milt, fish meal) collectively made-up 16 percent of wholesale volume with 21,963 mt valued at \$42.5 million (AFSC 2019).

The ex-vessel prices for H&G Pacific cod caught and processed by H&L and pot gear vessels have been consistently higher than the prices received by trawl vessels (NMFS 2022, 48). According to an industry representative, this price difference occurs because fish caught by H&L 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. An industry representative also confirmed that it is common for BSAI Pacific cod jig operations to bleed cod while still alive, resulting in a high-quality product.

## 4. Analysis of Impacts

### 4.1. Methods and Approach for Impact Analysis

The impact analysis in this document is designed to meet the requirements of E.O. 12866, which necessitates an RIR to 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 analysis is supported by recent fisheries data, analyses, and reference documents with the goal of using the best scientific information available (National Standard 2) to inform the Council’s decision-making. Chapter 4 contains the analysis of economic and social impacts comparing the No Action Alternative 1 to the Action Alternative 2. Secondary data include detailed information on the dynamics of the BSAI Pacific cod fishery, market, and communities that are associated with the impacted sectors by way of harvesting or processing. In particular, the description of fisheries (Chapter 3) and the Analysis of Impacts (Chapter 4) draw from:

#### **Annual Community Engagement and Participation Overview (ACEPO) (Wise et al., 2021).**

ACEPO is an annual report that provides an overview of communities that are substantially involved with harvesting or processing groundfish or crab in Alaska. [https://www.npfmc.org/wp-content/PDFdocuments/Publications/ACEPO\\_ESSR\\_FY21.pdf](https://www.npfmc.org/wp-content/PDFdocuments/Publications/ACEPO_ESSR_FY21.pdf)

#### **Amendment 85 (72 FR 50788, September 2007; effective January 1, 2008).**

Amendment 85 created the existing sector allocations for non-Community Development Quota (CDQ) program BSAI Pacific cod. (In 2014 the BSAI Pacific cod stock was split into separate BS and AI stocks for the purposes of setting OFL and ABC, but sector allocations continue to be determined based on the summed total of BS and AI TACs, after deduction of 10.7% for CDQ allocation. Sector allocations may be fished in either the BS or AI, subject only to the sector’s overall harvest limit.) Amendment 85 also established NMFS’s ability to make in-season TAC reallocations (rollovers) between sectors.

#### **BSAI Pacific cod Allocation Review (NPFMC 2019).**

The BSAI Pacific cod allocation review analyzed the BSAI Pacific cod allocations established under Amendment 85 to ensure the optimal yield is being achieved under current conditions. The review can be found here: [https://www.npfmc.org/wp-content/PDFdocuments/catch\\_shares/Pcod/BSAIPcodAllocationReview2019.pdf](https://www.npfmc.org/wp-content/PDFdocuments/catch_shares/Pcod/BSAIPcodAllocationReview2019.pdf)

#### **Endangered Species Act Section 7 Biological Opinion: Authorization of the Alaska groundfish fisheries under the proposed revised Stellar Sea Lion Protection Measures (NMFS 2014).**

The Endangered Species Act Section 7 Consultation Biological Opinion considered the action proposed by NMFS Alaska Region Sustainable Fisheries Division (SFD) to modify the federal groundfish fisheries and State of Alaska parallel groundfish fisheries for Atka mackerel, Pacific cod, and pollock in the Aleutian Islands subarea. This consultation also considers proposed research to better understand the potential effects of these fisheries on Stellar sea lions and on the efficacy of conserving prey in areas closed to fishing. The Biological Opinion can be found here: <https://repository.library.noaa.gov/view/noaa/17196>

#### **Local Knowledge, Traditional Knowledge, and Subsistence Search Engine.**

When preparing this analysis, staff used the Local Knowledge, Traditional Knowledge, and Subsistence (LKTKS) search engine developed by the LKTKS Taskforce to look for action-specific sources of information containing LK and TK. The search engine contains scientific articles in peer-reviewed journals, white papers, archival references, and other sources of information related to LK, TK, the social science of LK and TK, and subsistence information. No results were returned specific to LK from the affected BSAI Pacific cod sectors or TK related to BSAI Pacific cod more broadly. Some results were returned for subsistence which provided important contextual information but the sources were not widely used in the analysis, because the areas of academic study were not relevant to the communities that are engaged in or dependent on the BSAI Pacific cod less than 60' H&L or pot CV and jig sectors (see Section 4.5). Additionally, because the proposed action alternative (Alternative 2) would redefine two current commercial BSAI Pacific cod sectors, there are no anticipated direct or indirect impacts on the subsistence harvest, sharing or use of BSAI Pacific cod. The search engine can be found here:

[https://www.npfmc.org/lktns\\_information/](https://www.npfmc.org/lktns_information/)

### **Stock Assessment and Fishery Evaluation (SAFE) Report for the Groundfish Fisheries of the Gulf of Alaska and Bering Sea/Aleutian Islands Area: Economic Status of the Groundfish Fisheries off Alaska (NMFS 2020).**

The Economic SAFE report contains economic data and information about the Federal groundfish fisheries in the Gulf of Alaska and the BSAI. This report is published annually as an appendix to the Stock Assessment and Fishery Evaluation reports to provide data on catch, discards, prohibited species catch, ex-vessel and first-wholesale production and value. The 2020 Economic SAFE is available here:

<https://meetings.npfmc.org/CommentReview/DownloadFile?p=bc83c1f0-2cc5-49a4-850c-ee822082b6be.pdf&fileName=D7%20Groundfish%20Economic%20SAFE.pdf>

### **Wholesale Market Profiles for Alaska Groundfish and Crab Fisheries (AFSC 2019).**

This report evaluates a series of comprehensive wholesale market profiles for Federally managed groundfish and crab species caught in Alaska commercial fisheries. The report is available here:

<http://www.mcdowellgroup.net/wp-content/uploads/2020/09/wholesale-market-profiles-for-alaska-groundfish-and-crab-fisheries-noaa.pdf>.

For this analysis, the reference information, tables, and figures largely use quantitative harvest, harvesting vessel, value, and processor activity from 2008 through 2021. 2008 through 2021 is time period in which the current BSAI Pacific cod allocations under Amendment 85 have been implemented. These fishery data were obtained through the Alaska Fishery Information Network (AKFIN). AKFIN has access to a variety of data sources including the catch accounting system (CAS) data which is the best available estimate of total catch in the groundfish fisheries off Alaska. In 2003, NMFS changed the methodologies used to determine catch estimates from the NMFS blend database (1995 through 2002) to the CAS (2003 through present). Currently, the CAS relies on data derived from a mixture of production and observer/electronic monitoring reports as the basis of the total catch estimates.

AKFIN also has access to Commercial Fisheries Entry Commission (CFEC) Fish Ticket data, and Alaska Department of Fish and Game (ADFG) Commercial Operators Annual Report (COAR) data, from which AKFIN can supply catch and discard records, as well as estimates of gross ex-vessel and first wholesale revenues. eLandings, which houses Fish Ticket data, was implemented in 2009. Prior to 2009, paper Fish Tickets were used. Paper Fish Tickets did not obtain consistent reporting for the management program codes which is how AKFIN determines participation in Federal fisheries.

The analysis uses vessel LOA data reported to the CFEC because it is considered the most up to date data source for length. A vessel's length is typically modified when it changes ownership or when it needs modifications. It is important to note it is possible that the reported United States Coast Guard (USCG) Documented Length would be different for vessels operating in the less than 60' H&L or pot CV sector. However, the United States Coast Guard (USCG) does not measure vessels on an annual basis and in some instances may not have measured a vessel for an extended period (see Chapter 5 for further analysis on LOA considerations).

Effort was made to provide the most relevant fisheries data while adhering to confidentiality constraints. The BSAI Pacific cod jig sector has had a relatively low level of participation in recent years, and the majority of information for the jig sector (i.e., landings, revenue, port delivery, etc.) is confidential. Additionally, there are five unique H&L or pot CVs that are 56' LOA that have participated in the Federal BSAI Pacific cod fishery (2008-2021). On average, two vessels that are 56' LOA have participated in the BSAI Pacific cod less than 60' H&L or pot CV sector each year. For this reason, data are often aggregated so that H&L or pot CVs less than or equal to 56' (option 2) are analyzed in the new BSAI Pacific cod small vessel sector to provide the best available information for all H&L or pot CVs less than or equal to 56' within the bounds of confidentiality.

## 4.2. Alternative 1, Status Quo

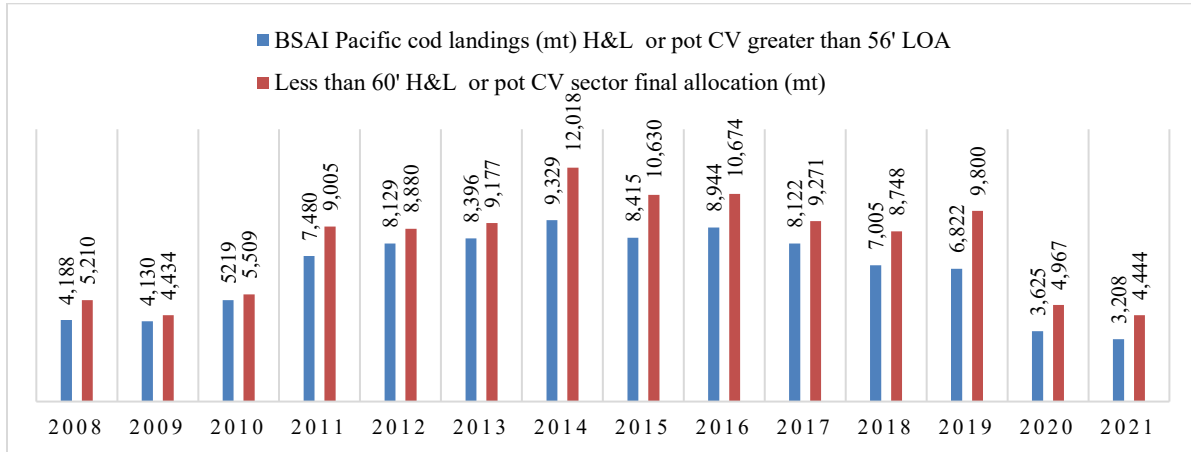
Under Alternative 1, no action, the BSAI Pacific cod less than 60' H&L or pot CV and jig sectors, their allocation, and the hierarchy of reallocations of BSAI Pacific cod among all sectors currently set in Federal regulations at §679.20(a)(7)(iii) would remain unchanged as described in Chapter 3 and the corresponding subsections of this RIR.

Figure 4-1 reports the Federal BSAI Pacific cod landings (mt) for H&L and pot CVs greater than 56' LOA compared to the less than 60' H&L or pot CV sector's final allocation (mt) from 2008 through 2021. The annual amount (mt) of Federal BSAI Pacific cod harvested by H&L or pot CVs greater than 56' LOA has ranged from a low of 3,208 mt in 2021 to a high of 9,329 mt in 2014. H&L or pot CVs greater than 56' LOA have harvested 83 percent of the sector's final allocation on average from 2008 through 2021. Smaller vessels operating in the less than 60' H&L or pot CV sector could be constrained by the larger H&L or pot CVs that have historically harvested the majority of the sector's final allocation. However, the most recent five years for which data are available (2017-2021) show H&L or pot CVs greater than 56' LOA have harvested 79 percent of the sector's final allocation on average. **As such, it does not appear that H&L or pot CVs greater than 56' are harvesting a larger portion of the sector's final allocation over time.**

Under the status quo, there are several factors likely contributing to a more competitive fishery for the less than 60' H&L or pot CV sector. As described in Chapter 3, the sector receives their entire allocation on January 1 each year because CVs less than 60' are not subject to the seasonal restrictions that apply to other vessels, and vessels that participate in the sector compete for their share of the allocated TAC on an annual basis. All BSAI Pacific cod sector's allocation of BSAI Pacific cod TAC fluctuates with abundance, and the amount of BSAI Pacific cod TAC that is available has declined every year since 2012, until 2022 (for reference, see Table 3-1). The less than 60' H&L or pot CV sector has routinely harvested their entire allocation of BSAI Pacific cod in addition to reallocations from other sectors including the BSAI Pacific cod jig, greater than or equal to 60' H&L, greater than or equal to 60' pot CV, and trawl sectors; although it is the jig sector that has consistently contributed reallocated Pacific cod. At the same time, fishing activity in the BSAI Pacific cod less 60' H&L or pot CV sector has increased and there has been a gradual shortening of this sector's season since 2008.

**Under Alternative 1, there are no anticipated impacts of the status quo on the BSAI Pacific cod jig sector or H&L and pot CVs greater than 56' LOA.** A potential impact of Alternative 1 for H&L or pot

CVs less than or equal to either 55’ or 56’ LOA is that they would continue to compete with larger vessels in their sector that have additional capacity and efficiencies. However, the overall declining BSAI Pacific cod TAC in recent years (except for 2022), increased fishing activity, and a relative shortening of the fishing season suggest the less than 60’ H&L or pot CV sector is becoming more competitive regardless of the vessel’s length.



**Figure 4-1 BSAI Pacific cod landings (mt) for H&L and pot CVs greater than 56’ LOA compared to the less than 60’ H&L or pot CV sector’s final allocation from 2008 through 2021**

Source: NMFS Alaska Region Catch Accounting System, data compiled by AKFIN in Comprehensive\_BLEND\_CA; sector\_landings\_tgt(11-19-21)

### 4.3. Alternative 2, Redefine the Current BSAI Pacific Jig Sector

Alternative 2 would redefine the Federal BSAI Pacific cod jig and less than 60’ H&L or pot CV sectors. The BSAI Pacific cod jig sector would be redefined as the new BSAI Pacific cod small vessel sector which would include H&L or pot CVs less than or equal to either 55’ or 56’ LOA (option 1 and 2, respectively) and jig CVs and CPs. The current less than 60’ H&L or pot CV sector would be redefined to exclude H&L or pot CVs less than or equal to either 55’ or 56’ LOA.

Alternative 2 would allow the new BSAI Pacific cod small vessel sector to harvest BSAI Pacific cod from the jig sector’s 1.4 percent allocation. The redefined less than 60’ H&L or pot CV sector would harvest BSAI Pacific cod from the current less than 60’ H&L or pot CV sector’s 2 percent allocation. Eligibility for either sector – the new BSAI Pacific cod small vessel sector or the redefined less than 60’ H&L or pot CV sector– would be based on a vessel’s length and gear type, meaning a H&L or pot vessel could not opt into one sector or another. Alternative 2 does not impact the definition or allocation for any other BSAI Pacific cod sector.

Federally permitted H&L or pot CVs eligible for a new BSAI Pacific cod small vessel sector or the redefined less than 60’ H&L or pot CV sector would still be required to have a Federal LLP license under Alternative 2. Vessels in the less than 60’ H&L or pot sector need a non-trawl LLP to participate in the Federal fisheries (unless exempt), but they are exempt from the Pacific cod endorsement on their LLP, see § 679.4(k)(9)(iv)(B).

#### 4.3.1. Historical Participation

Since 2008, 33 unique vessels have participated in the BSAI Pacific cod jig sector. The jig sector has had a relatively low level of participation in the fishery in recent years: zero jig vessel participated in the Federal fishery in 2021, three vessels participated in 2020, and two vessels in 2019 (see Table 3-13

above). There is one jig vessel that has regularly participated (nine out of fourteen years from 2008 through 2021) in the Federal BSAI Pacific cod fishery and would be most impacted by Alternative 2.

Since 2008, 94 unique vessels have participated in the Federal BSAI Pacific cod less than 60' H&L or pot CV sector. Of these 94 vessels, 61 are greater than 56' LOA, five are equal to 56' LOA, and 28 are less than 55' LOA. However, the majority of vessels that participate in the less than 60' H&L or pot CV sector are 58' LOA as there are 57 unique vessels that are 58' LOA that have participated in this sector since 2008.

Redefining the less than 60' H&L or pot CV and jig sectors would impact the potential number of participants for both sectors. Table 4-1 uses historical data to depict the count of vessels that would have been in the new BSAI Pacific cod small vessel sector and the redefined less than 60' H&L or pot CV sector from 2008 through 2021 under option 1 and option 2, had these sectors existed. This shows the potential level of participation the Council and NMFS could expect in these sectors. Under option 1, the BSAI Pacific cod small vessel sector would have had an average of nine vessels (H&L, pot, and jig gear) participating from 2008 through 2021. The average number of vessels in the BSAI Pacific cod small vessel sector increases to 12 under option 2. The slight variation in participation between the options is because there are five vessels that are 56' LOA that have participated in the Federal BSAI Pacific cod fishery since 2008 and the average level of participation for this LOA is two vessels.

**Table 4-1 Count of vessels that would have been eligible for the new BSAI Pacific cod small vessel sector and the redefined less than 60' H&L or pot CV sector under option 1 and option 2 from 2008 through 2021**

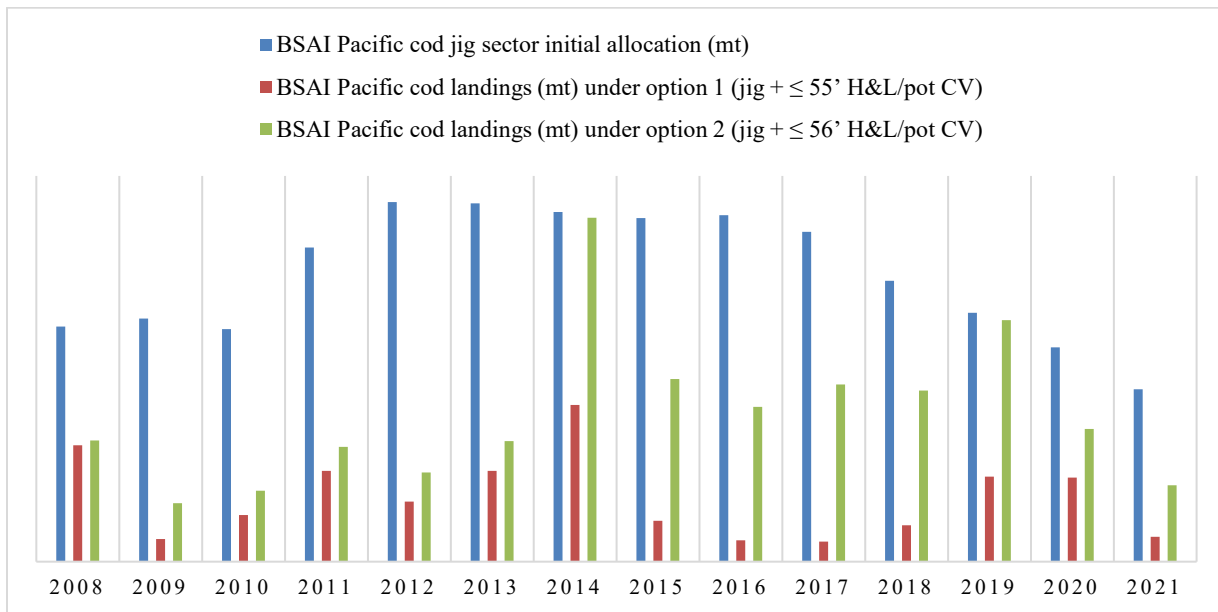
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Annual Average Count
<b>Option 1</b>	<i>Small vessel sector (jig + ≤ 55' H&amp;L /pot CV)</i>	22	12	11	17	10	13	7	8	4	2	4	7	10	2	9
	<i>Redefined &lt;60' sector (≥56' H&amp;L /pot CV)</i>	21	19	19	16	18	20	16	21	20	22	26	31	34	24	22
<b>Option 2</b>	<i>Small vessel sector (jig + ≤ 56' H&amp;L/pot CV)</i>	24	15	13	18	11	15	9	11	7	5	7	11	13	5	12
	<i>Redefined &lt;60' sector (≥57' H&amp;L/pot CV)</i>	19	16	17	15	17	18	14	18	17	19	23	27	31	21	19

Source: NMFS Alaska Region Catch Accounting System, data compiled by AKFIN in Comprehensive\_BLEND\_CA; sector\_landings\_tgt(11-19-21)

### 4.3.2. Harvest Information

Figure 4-2 compares the BSAI Pacific cod jig sector’s initial allocation and the targeted landings of Federal BSAI Pacific cod of vessels (H&L, pot, and jig) that would be eligible for the new BSAI Pacific cod small vessel sector under option 1 and 2 (amounts are mt). Due to confidentiality restrictions the landings amount (mt) cannot be displayed. These historical catch accounting data show **there would have been enough TAC in the BSAI Pacific cod jig sector’s 1.4 percent allocation to support the new BSAI Pacific cod small vessel sector in every year from 2008 through 2021 under option 1 and 2.**

It is the Council’s intent that under Alternative 2 the new BSAI small vessel sector would have TAC apportioned on a trimester basis (Jan 1—Apr 30 (60%); Apr 30 –Aug 31 (20%), and Aug 31—Dec 31 (20%)).<sup>15</sup> It is not possible to quantitatively display the historical BSAI Pacific cod landings (mt) data for vessels that would be eligible for the new BSAI Pacific cod small vessel sector due to confidentiality restrictions. However, it is generally anticipated there would be enough BSAI Pacific cod apportioned in each trimester to support a new BSAI Pacific cod small vessel sector under option 1 and option 2. In the most recent five years for which data are available (2017-2021), there would have been enough BSAI Pacific cod apportioned in each trimester to support a new BSAI Pacific cod small vessel sector under option 1 and every trimester except for the 2019 C season under option 2.



**Figure 4-2 Comparison of BSAI Pacific cod jig sector initial allocation (mt) and the target landings (mt) of jig, H&L, and pot vessels that would be eligible for the new BSAI Pacific cod small vessel sector under option 1 and 2 from 2008 through 2021**

Source: NMFS Alaska Region Catch Accounting System, data compiled by AKFIN in Comprehensive\_BLEND\_CA; sector\_landings\_tgt(11-19-21)

<sup>15</sup> Changing the jig sector’s seasonal allocation of BSAI Pacific cod TAC would require a Section 7 Consultation for Stellar sea lions because that management decision would change the way TAC is issued seasonally. Seasonal apportionments for BSAI Pacific cod fisheries were the result of the Steller sea lion mitigation measures that aim to keep important prey species from being harvested in a condensed time when females might need ready access to prey during pup rearing, since longer foraging trips would lead to less provisioning of pups on the rookeries. The jig sector is primarily a nearshore fishery that occur closer to the rookeries.



### 4.3.3. Reallocation Considerations

NMFS typically reallocates projected unused BSAI Pacific cod jig TAC to the less than 60' H&L or pot CV sector between January and March to ensure this sector does not experience a disruption of fishing between their initial allocation and the reallocation. NMFS tries to reallocate projected amounts of unharvested Pacific cod to sectors that may be able to harvest these amounts, but NMFS tries not to reallocate Pacific cod from a sector that may have the capacity to catch their allocation. To evaluate a sector's capacity, NMFS must first determine a sector's remaining Pacific cod allocation and whether the sector could harvest the remaining amount. Making these determinations about capacity requires communication with vessel operators and processors. If any vessel operator or processor indicates that they will remain active or become active in the fishery before the end of the season or the year, NMFS will likely be more conservative in leaving amounts of Pacific cod available for that sector.

Under Alternative 2, it is uncertain if or when NMFS would know whether any TAC would be available from the new BSAI Pacific cod small vessel sector to reallocate to the redefined less than 60' H&L or pot CV sector. Under Alternative 2, option 1 and 2, it is anticipated that smaller H&L or pot CVs eligible for the new BSAI Pacific cod small vessel sector would have an opportunity to harvest more Pacific cod in the A season and these vessels could fully utilize the jig sector's A season allowance. It is also possible that the new BSAI Pacific cod small vessel sector would not fully utilize the jig sector's A season allowance, but because smaller H&L or pot CVs could extend their fishing season early in the year, it would be uncertain when NMFS would be able to project whether any TAC would be available from the new BSAI Pacific cod small vessel sector to reallocate to the redefined less than 60' H&L or pot CV sector.

In a scenario where there was enough BSAI Pacific cod remaining in the new BSAI Pacific cod small vessel sector that could be reallocated to the redefined less than 60' H&L or pot CV sector, NMFS might not have enough information to confidently make that reallocation until March or April. There is no recent history where the less than 60' H&L or pot CV sector has been open continuously from January 1 – April 30. It is unclear whether the larger H&L or pot CVs in the redefined less than 60' H&L or pot CV sector would be available to fish BSAI Pacific cod at that time or if there would be enough BSAI Pacific cod to reallocate to allow for a re-opening. If there was only a small amount to reallocate, and the redefined less than 60' H&L or pot CV sector was already closed, it is possible that the fishery could not be re-opened even if vessels were available to participate due to the small amount of BSAI Pacific cod that would be available. However, if a small amount of Pacific cod was available to reallocate while the redefined less than 60' H&L or pot CV sector was still open, the small amount could rollover into the larger allocation and the sector could continue to fish.

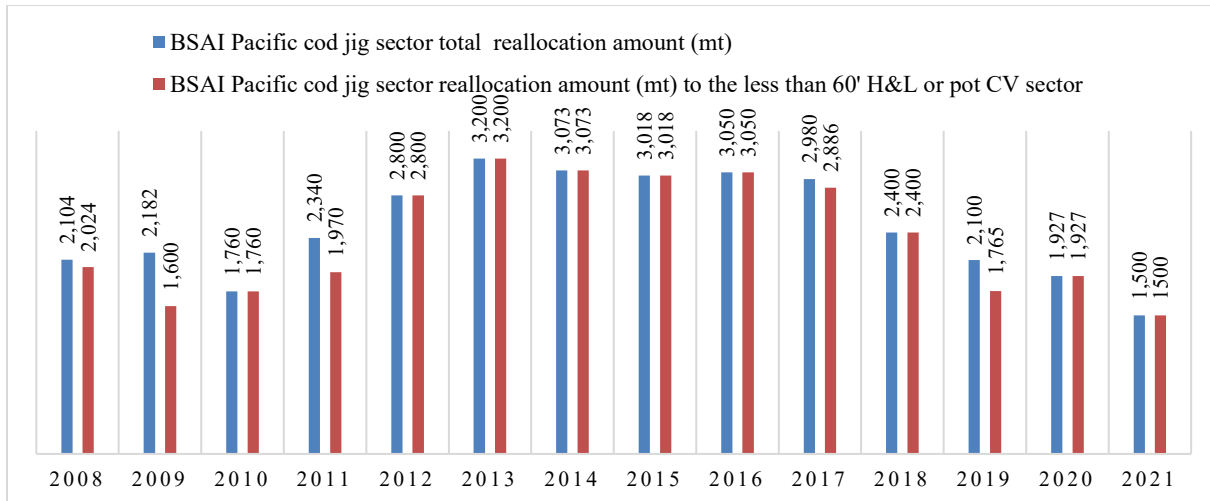
Under Alternative 2, the Council would need to consider whether an unused portion of a seasonal allowance in the new BSAI Pacific cod small vessel sector would be reallocated to the redefined less than 60' H&L or pot CV sector or whether it would rollover to the small vessel sector's next fishing season. The current regulations at 679.20(a)(7)(iv)(B) and (C) allow any unused portion of the seasonal allowance from any sector except the jig sector to be rolled over to that sector's next season during the current fishing year unless the Regional Administrator determines that sector would be unable to harvest its allocation. For the BSAI Pacific cod jig sector, the Regional Administrator will reallocate any projected unused portion of a seasonal allowance to the less than 60' H&L or pot vessel sector. Any unused C seasonal allowance of Pacific cod must be reallocated to the less than 60' H&L or pot CV sector on or near September 1. If the Council were to choose to rollover an unused portion of a seasonal allowance in the new BSAI Pacific cod small vessel sector, NMFS does not anticipate any issues with the unused portion of a seasonal allowance in the new BSAI Pacific cod small vessel sector being rolled over to the next fishing season. However, in a year where the new BSAI Pacific cod small vessel sector would not have the capacity to harvest the allocation, it is possible that the timing of a reallocation to the larger H&L

or pot vessels in the redefined less than 60' H&L or pot CV sector would not occur at a time when they would be able to fish it.

A significant portion of BSAI Pacific cod from the BSAI Pacific cod jig sector's initial allocation has historically been reallocated from the jig sector to the less than 60' H&L or pot CV sector on an annual basis. Figure 4-3 compares the total amount (mt) of BSAI Pacific cod that has been reallocated from the jig sector to all BSAI Pacific cod sectors and the amount (mt) that has historically been reallocated to the less than 60' H&L or pot CV sector (2008 through 2021). The amount of BSAI Pacific cod jig sector TAC that has historically been reallocated to the less than 60' H&L or pot CV sector has ranged from a low of 1,500 mt to 3,200 mt. In nine out of fourteen years, 100 percent of the BSAI Pacific cod jig sector's reallocation has been reallocated to the less than 60' H&L or pot CV sector. From 2008 through 2021, 95 percent of the BSAI Pacific cod jig's initial allocation that has been reallocated to the less than 60' H&L or pot CV sector (on average).

Historically common patterns of annual reallocations from the BSAI Pacific cod jig sector to the less than 60' H&L or pot CV sector, which has occurred every year since 2008, are likely to be impacted under Alternative 2. This would represent a change in historical patterns of use between sectors as seen over the 2008-2021 period, which could result in some inefficiencies as more BSAI Pacific cod is harvested by smaller H&L or pot CVs relative to the more efficient larger H&L or pot vessels. While there would be fewer vessels participating in the redefined less than 60' H&L or pot CV sector under Alternative 2, because vessels less than or equal to either 55' or 56' LOA would be excluded, the relative contribution of the jig sector's reallocation (mt) is greater than the landings (mt) of the smaller H&L or pot CVs in all but one year (2019) from 2008 through 2021 (see Table 4-2). Larger H&L or pot CVs that remain in the less than 60' H&L or pot CV sector could fish at a faster pace as there would be less BSAI Pacific cod TAC available early in the year when these vessels target BSAI Pacific cod in the Federal fishery. This could have cumulative effects on these vessel's safety, and it is more challenging for NMFS to conservatively manage a fishery with smaller quotas and fished at a faster pace.

**Therefore, under Alternative 2, there are potential incidental allocative effects that would impact H&L or pot CVs that would remain in the redefined less than 60' H&L or pot CV sector under option 1 and option 2.** These incidental allocative effects could occur under option 1 and option 2 and are more likely to occur under option 2 because 56' H&L or pot CVs would be eligible for the new BSAI Pacific cod small vessel sector. These effects could occur: a) if a new BSAI Pacific cod small vessel sector harvests the entire 1.4 percent allocation, a scenario that is more likely to occur under option 2; b) a scenario where the new BSAI Pacific cod small vessel sector does not harvest all of its initial allocation but there is either too little TAC to reallocate to the redefined less than 60' H&L or pot CV sector or the reallocation would occur at a time in the year when vessels are not able to fish; c) the overall BSAI Pacific cod biomass declines resulting in a reduction of the available BSAI Pacific cod TAC (a scenario which would impact all Amendment 85 sectors); d) more vessels participate in either the new BSAI Pacific cod small vessel sector or the redefined less than 60' H&L or pot CV sector over time.



**Figure 4-3 Comparison of the BSAI Pacific cod jig sector's total reallocation amount (mt) to all BSAI Pacific cod sectors and the reallocation amount (mt) to the less than 60' H&L or pot CV sector from 2008 through 2021**

Source: NOAA Fisheries Alaska Region, [BSAI Pacific cod reallocations \(1995–present\)](https://media.fisheries.noaa.gov/dam-migration/bsai-pcod-reallocation-1995-present.pdf) report at <https://media.fisheries.noaa.gov/dam-migration/bsai-pcod-reallocation-1995-present.pdf>

**Table 4-2 Comparison of BSAI Pacific cod less than 60' H&L or pot CV sector final allocation (mt), the target landings (mt) of BSAI Pacific cod by H&L or pot CVs less than or equal to 56' LOA, and the jig sector's reallocation amount (mt) from 2008 through 2021**

Year	BSAI Pacific cod <60' H&L/pot CV sector final allocation (mt)	≤56' H&L/ pot CV BSAI Pacific cod landings (mt)	BSAI Pacific cod jig reallocation (mt) to <60' H&L/pot CV sector
2008	5,210	926	2,024
2009	4,434	519	1,600
2010	5,509	299	1,760
2011	9,005	546	1,970
2012	8,880	748	2,800
2013	9,177	1,083	3,200
2014	12,018	3,119	3,073
2015	10,630	1,629	3,018
2016	10,674	1,357	3,050
2017	9,271	1,828	2,886
2018	8,748	1,553	2,400
2019	9,800	2,049	1,765
2020	4,967	1,193	1,927
2021	4,444	692	1,500

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive\_FT

#### 4.3.4. Diversification and Revenue Information

There is uncertainty about the magnitude of the incidental allocative effects that could occur under Alternative 2. To provide more clarity about the fishing activities of the H&L or pot CVs that could be impacted under Alternative 2, the following sections provide revenue diversification data for H&L or pot CVs greater than 56', as well as an estimate of the potential revenue impacts for H&L or pot CVs greater than 56' LOA and for H&L or pot CVs less than or equal to 56' LOA. Due to data confidentiality restrictions, the analysis groups all H&L or pot CVs less than or equal to 56' LOA (i.e., option 1 and 2) together.

##### 4.3.4.1. H&L or pot CVs Greater Than 56' LOA

Table 4-3 reports revenue diversification data for the larger H&L or pot CVs that would remain in the redefined less than 60' H&L or pot CV sector. From 2008 through 2020, H&L or pot CV's greater than 56' LOA total gross ex-vessel revenue for all fisheries has ranged from a low of \$17.57 million in 2009 to a high of \$33.49 million in 2019. The annual average total gross ex-vessel revenue from all fisheries for H&L or pot CVs greater than 56' LOA is \$26.61 million. The gross ex-vessel revenue for Federal BSAI Pacific cod for H&L or pot CVs greater than 56' LOA has ranged from a low of \$2.95 million in 2009 to a high of \$6.93 million in 2012. The annual average gross ex-vessel revenue from Federal BSAI Pacific cod for these vessels is \$5.63 million during the same time period. On average, the IFQ fisheries have contributed the largest portion of total gross ex-vessel revenue for H&L or pot CVs greater than 56' LOA at 29 percent, followed by the Federal BSAI Pacific cod and GHL fisheries (21 and 20 percent, respectively). At the vessel level, Federal BSAI Pacific cod has accounted for 50 percent or more of the total gross ex-vessel revenue for 19 of these vessels, and for 90 percent or more of the total gross ex-vessel revenue for six of these vessels (on average). Other fishing activities by H&L or pot CVs greater than 56' include salmon, CDQ, and the GOA Pacific cod, which in recent years has diminished significantly due to the decline in the GOA Pacific cod biomass and the resulting limitations on the GOA Pacific cod directed fishing.

Table 4-4 provides data on the gross ex-vessel revenue H&L or pot CVs greater than 56' have earned from the Federal BSAI Pacific cod fishery in the less than 60' H&L or pot CV sector, and an estimate of the revenue these vessels received from the BSAI Pacific cod jig sector's reallocation to the less than 60' H&L or pot CV sector. An important caveat to this data is that NMFS cannot track the landings that are derived from a sector's initial allocation or subsequent reallocations. Therefore, it is not possible to precisely estimate the potential revenue impact for H&L or pot CVs greater than 56' or the potential revenue opportunity for H&L or pot CVs less than or equal to 56' under Alternative 2.

In a scenario described above where NMFS could not maintain the historically common patterns of reallocations from the BSAI Pacific cod jig sector to the less than 60' H&L or pot CV sector, the incidental allocative effects would negatively impact H&L or pot CVs greater than 56' that remain in the redefined less than 60' H&L or pot CV sector. Annual jig reallocations to the less than 60' H&L or pot CV sector have ranged from 1,600 mt to 3,200 mt, accounting for an average of 30 percent of the sector's final allocation (2008-2020). The maximum estimated revenue impact for H&L or pot CVs greater than 56' LOA assumes the amount of BSAI Pacific cod reallocated from the jig sector to the less than 60' H&L or pot CV sector has been fully utilized in every year, and that it has been fully utilized by H&L or pot CVs greater than 56' LOA. This approach provides the upper bound of the potential revenue impact for these vessels. Based on these assumptions, the maximum estimated revenue derived from the BSAI Pacific cod jig sector's reallocation for H&L or pot CVs greater than 56' ranges from \$1.06 million to \$2.58 million (2020 real \$). The estimated maximum annual average gross ex-vessel revenue impact for H&L or pot CVs greater than 56' LOA is \$1.66 million.

This is likely an over-estimate because H&L or pot CVs greater than 56' LOA do not utilize 100 percent of the less than 60' H&L or pot CV sector's final allocation. From 2008 through 2020, H&L or pot CVs greater than 56' LOA have utilized approximately 85 percent of their sector's final allocation (on average). When accounting for the portion of the less than 60' H&L or pot CV's allocation that is harvested by vessels greater than 56' LOA, the estimated annual average gross ex-vessel revenue impact for these vessels is \$1.41 million. However, these impacts are expected to be partially mitigated by the ability of H&L or pot CVs greater than 56' LOA to fully utilize the current less than 60' H&L or pot CV sector's 2 percent allocation without competition from smaller vessels that would be excluded from the redefined less than 60' H&L or pot CV sector. When the BSAI Pacific cod landings (mt) from H&L or pot CVs less than or equal to 56' LOA and the associated gross ex-vessel revenue are also considered, **the estimated annual average gross ex-vessel revenue impact for H&L or pot CVs greater than 56' LOA is a decrease of \$1.26 million, which is 22 percent of these vessel's annual average total gross ex-vessel revenue for Federal BSAI Pacific cod (on average).** It does not appear H&L or pot CVs greater than 56' would be able to easily compensate for the anticipated loss of historically common reallocations of BSAI Pacific cod from the jig sector.

#### 4.3.4.2. H&L or pot CVs Less Than or Equal to 56' LOA

From 2008 through 2020, the total gross ex-vessel revenue for all fisheries for H&L or pot CVs less than or equal to 56' LOA has ranged from \$2.67 million in 2013 to \$8.16 million in 2019. The IFQ fishery contributed the largest source of gross ex-vessel revenue for H&L or pot CVs less than or equal to 56', ranging from approximately \$596,502 in 2008 to \$5.15 million in 2011. On average, the IFQ fishery has accounted for approximately 52 percent of the total gross ex-vessel revenue for H&L or pot CVs less than or equal to 56' LOA from 2008 through 2020, followed by the Federal BSAI Pacific cod and GHL fisheries at 22 and 16 percent, respectively. At the vessel level, Federal BSAI Pacific cod accounts for 50 percent of the total gross ex-vessel revenue for five H&L or pot CVs less than or equal to 56' LOA and there is one 56' vessel that depends on the Federal BSAI Pacific cod fishery for the majority of its gross ex-vessel revenue during the same time period. Other primary fishing activities by these smaller H&L or pot CVs include salmon, CDQ, and the GOA Pacific cod, although these fisheries have contributed, on average, 2 to 3 percent of these vessel's total gross ex-vessel revenues since 2008.

Table 4-5 provides data on the BSAI Pacific cod jig sector's initial allocation (mt), H&L or pot CVs less than or equal to 56' BSAI Pacific cod landings (mt), and the H&L or pot CVs less than or equal to 56' gross ex-vessel revenue from Federal BSAI Pacific cod from 2008 through 2020 to estimate the potential maximum additional revenue opportunity for H&L or pot CVs less than or equal to 56' LOA under Alternative 2. The estimated maximum additional revenue opportunity for H&L or pot CVs less than 56' LOA assumes these vessels could fully utilize the BSAI Pacific cod jig sector's 1.4 percent allocation. This approach provides the upper bound of the estimated potential revenue opportunity.

The BSAI Pacific cod jig sector's initial allocation has ranged from a low of 1,945 mt in 2020 to a high of 3,263 mt in 2012. The Federal BSAI Pacific cod landings of less than or equal to 56' H&L or pot CVs has ranged from a low of 299 mt in 2010 to a high of 3,119 mt in 2014. Based on the above assumption, the estimated maximum additional revenue opportunity for H&L or pot CVs less than or equal to 56' LOA under Alternative 2 ranges from \$38,455 to \$1.97 million (2020 real \$). The estimated maximum annual average additional revenue opportunity for H&L or pot CVs less than or equal to 56' LOA is \$1.87 million. A more accurate estimate considers historical levels of participation from BSAI Pacific cod jig sector vessels and their associated revenue from the fishery. While revenue information for jig vessels cannot be quantitatively displayed due to confidentiality restrictions, when the historical participation of BSAI Pacific cod jig sector vessels is accounted for, **the annual average additional revenue opportunity for H&L or pot CVs less than or equal to 56' LOA is \$1.08 million under Alternative 2.**

However, there is uncertainty about the actual annual additional revenue opportunity for smaller H&L or pot CVs that would be eligible for the new BSAI Pacific cod small vessel sector. It is uncertain whether H&L or pot CVs less than or equal to 56' and jig vessels have the capacity to fully utilize the BSAI Pacific cod jig sector's initial allocation in the new BSAI Pacific cod small vessel sector (see Figure 4-2). Because there is no history of smaller H&L or pot CVs fishing behavior in a new BSAI Pacific cod sector, staff cannot accurately predict fishing effort. Additionally, the Council is considering a suboption (analyzed in Section 4.3.6 below) that would reserve BSAI Pacific cod TAC apportioned in the new BSAI Pacific cod small vessel sector's B season for harvest by jig vessels only. The B season allowance would be 20 percent of the sector's initial allocation. Historical participation in the BSAI Pacific cod jig sector has varied, and it is not possible to accurately predict what the future effort of jig vessels would be in the B season. Finally, under Alternative 2, the Council would need to consider whether unused BSAI Pacific cod TAC in the new small vessel sector would be reallocated to the redefined less than 60' H&L or pot CV sector or whether unused TAC would be rolled over to the next fishing season. If the Council were to choose not to rollover unused BSAI Pacific cod TAC in the new small vessel sector to the next fishing season, that would impact the potential revenue opportunity for smaller H&L or pot CVs.

#### 4.3.4.3. DHS State-waters Pot Fishery

The DHS pot fishery opens seven days after the Federal BSAI Pacific cod less than 60' HAL or pot CV sector closes and is open to vessels less than or equal to 58' LOA using pot gear with a limit of 60 pots per vessel. Under Alternative 2 (option 1 and option 2), the BOF would need to address the trigger for opening the DHS pot fishery because the less than 60' H&L or pot CV sector would be redefined and no longer exist as it currently does in Federal regulations under Alternative 2. The BOF, with industry input, would also need to determine what the new trigger should be – the new BSAI Pacific cod small vessel sector closing date, the redefined less than 60' H&L or pot CV sector closing date, or some other trigger such as a hard start date. If the BOF chose to select one of the newly defined sectors' closure date as the trigger, vessels that operate in that trigger sector would be able to choose to fish in the Federal BSAI Pacific cod fishery until it closed and then fish in the DHS pot fishery once it opened. **However, vessels that do not operate in the trigger sector would likely need to decide whether they want to participate in Federal or State waters if both were open at the same time.** Alternative 2 would not impact the DHS State waters jig fishery because the fishery opens with a hard date of May 1.

The BOF, with industry input, set regulations to open the DHS pot fishery seven days after the Federal BSAI Pacific cod less than 60' H&L or pot CV sector closes because pot vessels would be available to fish in the DHS registration area. This management approach also provides pot vessels the opportunity to fully harvest the Federal BSAI Pacific cod fishery before starting the DHS pot fishery. The DHS fishery is a significant opportunity for pot vessels less than or equal to 58' LOA. From 2014 through 2021, an average of 15 pot CVs greater than 56' LOA and an average of three pot CVs less than or equal to 56' LOA have participated in the DHS fishery. The annual average gross ex-vessel revenue pot CVs greater than 56' earn from the DHS fishery is \$6.67 million, accounting for 24 percent of these vessel's total gross ex-vessel revenue across all fisheries (2014-2020). The annual average gross ex-vessel revenue pot CVs less than or equal to 56' earn from the DHS GHL fishery is \$1.21 million, accounting for 20 percent of their total gross ex-vessel revenue across all fisheries (2014-2020)<sup>16</sup>.

It is uncertain what action the BOF would take to open the DHS pot fishery. However, if the BOF selected the redefined less than 60' H&L or pot CV sector as the trigger to open the DHS fishery, pot vessels operating in the new BSAI Pacific cod small vessel sector could fish in the Federal fishery until the DHS GHL fishery opened and then register to participate in the State-waters DHS fishery. This could potentially leave an uncertain amount of Federal BSAI Pacific cod under-utilized in the A season by the

<sup>16</sup> Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive\_FT; Small\_boat\_SMPC\_breakout(4-11-22)

new small vessel sector. Conversely, if the BOF selected the new BSAI Pacific cod small vessel sector as the trigger to open the DHS fishery, it is possible the GHL fishery would open later, and the larger pot vessels may not be available to fish the DHS pot fishery as smaller H&L or pot CVs in the new BSAI Pacific cod small vessel sector would have an opportunity to extend their fishing within jig sector's A season. Table 4-6 reports the Federal BSAI Pacific cod less than 60' H&L or pot CV sector and DHS pot fishery season dates from 2014 through 2021 to provide a snapshot of the timing of these fisheries.

**Table 4-3 Vessel count, gross ex-vessel revenue (\$), and percent of gross ex-vessel revenue (\$) by fishery from 2008 through 2020 for H&L or pot CVs greater than 56' LOA**

Year	BSAI Pacific cod			GHL Pacific cod			GOA Pacific cod			IFQ fisheries			Salmon			CDQ			Total value (\$)
	Vessel count	Gross ex-vessel value (\$)	% of total	Vessel count	Gross ex-vessel value (\$)	% of total	Vessel count	Gross ex-vessel value (\$)	% of total	Vessel count	Gross ex-vessel value (\$)	% of total	Vessel count	Gross ex-vessel value (\$)	% of total	Vessel count	Gross ex-vessel value (\$)	% of total	
2008	18	6,652,103	25%	13	1,598,941	6%	16	3,041,654	11%	12	3,644,207	14%	2	*	*	-	-	-	26,791,656
2009	16	2,951,989	17%	8	*	*	10	1,948,069	11%	11	7,203,094	41%	7	3,651,725	21%	1	*	*	17,569,699
2010	16	3,955,016	17%	8	*	*	11	2,601,820	11%	12	11,169,561	48%	7	2,733,884	12%	2	*	*	23,392,164
2011	15	6,338,559	21%	7	*	*	8	3,932,847	13%	10	13,799,181	46%	7	1,778,063	6%	2	*	*	30,295,572
2012	16	6,928,330	25%	12	3,198,012	11%	8	2,403,238	9%	10	9,231,334	33%	6	*	*	6	*	*	28,269,447
2013	18	5,821,985	22%	12	2,643,318	10%	8	1,468,727	5%	12	7,533,364	28%	8	5,042,784	19%	4	4,234,619	11%	26,724,236
2014	14	6,285,723	28%	12	5,749,381	25%	3	*	*	8	5,340,776	24%	6	1,464,020	6%	4	*	*	22,622,962
2015	18	5,482,695	23%	16	5,631,474	24%	9	1,103,953	5%	8	6,096,401	26%	10	2,664,981	11%	4	1,715,421	6%	23,622,694
2016	17	6,153,445	25%	17	8,292,268	33%	7	1,195,910	5%	8	5,618,679	22%	8	1,639,997	7%	5	1,475,928	7%	25,035,079
2017	19	5,796,555	22%	18	8,240,006	31%	7	928,049	3%	10	6,997,985	26%	7	2,494,797	9%	5	1,661,174	7%	26,872,592
2018	23	6,844,833	22%	22	12,091,330	38%	6	393,217	1%	10	7,610,074	24%	8	1,824,899	6%	4	1,986,501	6%	31,453,035
2019	27	6,588,011	20%	25	11,443,296	34%	3	*	*	12	7,360,138	22%	12	4,119,508	12%	4	*	*	33,490,524
2020	31	3,415,791	12%	30	11,052,170	37%	7	14,880	0%	20	7,584,741	26%	11	1,500,632	5%	3	2,511,254	8%	29,481,311

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive\_FT; Small\_boat\_div (2-8-22)



**Table 4-4 Estimated range of potential gross ex-vessel revenue impacts for H&L or pot CVs greater than 56' LOA under Alternative 2 from 2008 through 2020, (real 2020 \$)**

Year	<60' H&L/ pot CV sector final allocation (mt)	<60' H&L/ pot CV landings (mt)	>56' H&L/ pot CV landings (mt)	≤56' H&L/ pot CV landings (mt)	BSAI Pacific cod jig re- allocation (mt)	>56' H&L/ pot CV landings as a % of total	≤56' H&L/ pot CV landings as a % of total	Jig re- allocation as a % of <60' H&L/ pot CV sector final allocation	<60' H&L/ pot CV sector BSAI Pacific cod gross ex- vessel revenue (\$)	>56' H&L/pot CV BSAI Pacific cod gross ex- vessel revenue (\$)	≤56' H&L or pot CV BSAI Pacific cod gross ex- vessel revenue (\$)	Maximum estimated revenue impact for >56' H&L/ pot CV based on full utilization of jig reallocation (\$)	Estimated revenue impact for >56' H&L/pot CV based on proportionate utilization of jig reallocation (\$)	Adjusted estimated revenue impact for >56' H&L/ pot CV based on proportionate utilization of jig reallocation and excluding ≤56' H&L/pot CVs (\$)
<b>2008</b>	5,210	5,144	4,188	926	2,024	82%	18%	39%	8,165,746	6,652,103	1,513,643	2,584,233	2,116,302	1,948,699
<b>2009</b>	4,434	4,649	4,130	519	1,600	89%	11%	36%	3,344,577	2,951,989	392,588	1,065,219	946,302	918,289
<b>2010</b>	5,509	5,518	5,219	299	1,760	95%	5%	32%	4,193,203	3,955,016	238,187	1,263,537	1,195,071	1,186,288
<b>2011</b>	9,005	8,026	7,480	546	1,970	93%	7%	22%	6,807,924	6,338,559	469,366	1,386,669	1,292,336	1,267,391
<b>2012</b>	8,880	8,877	8,129	748	2,800	92%	8%	32%	7,604,752	6,928,330	676,422	2,184,608	2,000,528	1,961,502
<b>2013</b>	9,177	9,479	8,396	1,083	3,200	89%	11%	35%	6,582,389	5,821,985	760,404	2,030,113	1,798,168	1,741,584
<b>2014</b>	12,018	12,448	9,329	3,119	3,073	75%	25%	26%	8,466,496	6,285,723	2,180,773	1,607,258	1,204,540	797,840
<b>2015</b>	10,630	10,043	8,415	1,629	3,018	84%	16%	28%	6,592,653	5,482,695	1,109,959	1,556,610	1,304,280	1,175,357
<b>2016</b>	10,674	10,301	8,944	1,357	3,050	87%	13%	29%	7,081,239	6,153,445	927,793	1,758,291	1,526,664	1,439,365
<b>2017</b>	9,271	9,950	8,122	1,828	2,886	82%	18%	31%	7,115,258	5,796,555	1,318,703	1,804,428	1,472,922	1,306,068
<b>2018</b>	8,748	8,558	7,005	1,553	2,400	82%	18%	27%	8,325,620	6,844,833	1,480,787	1,877,869	1,537,097	1,342,103
<b>2019</b>	9,800	8,872	6,822	2,049	1,765	77%	23%	18%	8,656,204	6,588,011	2,068,193	1,186,514	912,353	520,728
<b>2020</b>	4,967	4,817	3,625	1,193	1,927	75%	25%	39%	4,502,222	3,415,791	1,086,431	1,325,192	997,264	832,582
<b>Total</b>	108,323	106,652	89,804	16,849	31,473	-	-	-	87,438,285	73,215,036	14,223,249	21,630,547	18,303,826	16,437,797
<b>Av.</b>	8,333	8,204	6,908	1,296	2,421	85%	15%	30%	6,726,021	5,631,925	1,094,096	1,663,888	1,407,987	<b>1,264,446</b>

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive\_FT; Small\_boat\_div(2-8-22)

**Table 4-5 Estimated maximum potential revenue opportunity for H&L or pot CVs less than or equal to 56' LOA under Alternative 2 from 2008 through 2020, (real 2020 \$)**

Year	BSAI Pacific cod jig sector initial allocation (mt)	≤56' H&L/pot CVs Federal BSAI Pacific cod landings (mt)	≤56' H&L/pot CVs BSAI Pacific cod landings (mt) as a % of the jig sector initial allocation	≤56' H&L/ pot CVs BSAI Pacific cod gross ex-vessel revenue (\$)	Estimated maximum potential revenue opportunity for ≤56' H&L/ pot CVs (\$)	Estimated total revenue for ≤56' H&L/ pot CVs (\$)
2008	2,134	926	43%	1,513,643	1,974,600	3,488,242
2009	2,207	519	24%	392,588	1,276,853	1,669,440
2010	2,110	299	14%	238,187	1,442,658	1,680,844
2011	2,850	546	19%	469,367	1,980,617	2,449,982
2012	3,263	748	23%	676,422	2,274,333	2,950,755
2013	3,251	1,083	33%	760,404	1,522,212	2,282,616
2014	3,174	3,119	98%	2,180,773	38,455	2,219,228
2015	3,118	1,629	52%	1,109,959	1,014,566	2,124,524
2016	3,144	1,357	43%	927,793	1,221,788	2,149,581
2017	2,993	1,828	61%	1,318,703	840,421	2,159,124
2018	2,549	1,553	61%	1,480,787	949,686	2,430,472
2019	2,259	2,049	91%	2,068,193	211,967	2,280,160
2020	1,945	1,193	61%	1,086,431	684,825	1,771,256
Total	34,997	16,849	-	14,223,250	15,432,982	29,656,225
Average	2,692	1,296	48%	1,094,096	<b>1,187,152</b>	2,281,248

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive\_FT; Small\_boat\_div(2-8-22)

**Table 4-6 Federal BSAI Pacific cod less than 60' H&L or pot CV sector and DHS Pacific cod pot fishery season dates from 2014 through 2021**

<b>Year</b>	<b>&lt;60' H&amp;L/pot CV sector open</b>	<b>&lt;60' H&amp;L/pot CV sector closed</b>	<b>DHS GHL pot fishery open</b>	<b>DHS GHL pot fishery closed</b>
<b>2014</b>	January 1	February 4	February 11	September 1
<b>2015</b>	January 1	February 2	February 9	March 31
<b>2016</b>	January 1	February 5	February 12	April 22
<b>2017</b>	January 1	February 2	February 9	April 8
<b>2018</b>	January 1	January 23	January 30	March 1
<b>2019</b>	January 1	January 12	January 19	February 24
<b>2020</b>	January 1	January 19	January 26	March 12
<b>2021</b>	January 1	January 26	February 2	March 25

Source: ADF&G; DHS Season Dates\_NPFMCpaper\_4.11.22 and SeasonDatesIBs\_cod\_pollock\_TLAS\_PSC

#### 4.3.5. Additional Fishing Opportunities for H&L or pot CVs

The Council is considering this action to provide additional opportunities for current fishery participants and potential new entrants with H&L or pot CVs less than or equal to either 55' or 56' LOA without negatively impacting vessels that currently operate in the BSAI Pacific cod jig sector. Overall, it is uncertain whether Alternative 2 would provide additional opportunities to H&L or pot CVs that would be eligible for the new BSAI Pacific cod small vessel sector under option 1 or option 2.

Figure 4-2 above compares the BSAI Pacific cod jig sector's initial allocation to the BSAI Pacific cod landings of the new BSAI Pacific cod small vessel sector under option 1 and option 2 (2008 through 2021). These catch accounting data show the BSAI Pacific cod jig sector's 1.4 percent allocation would have had enough TAC to support a new small vessel sector in every year from 2008 through 2021 under option 1 and 2. This suggests a new BSAI Pacific cod small vessel sector could provide additional fishing opportunities for H&L or pot CVs as it is anticipated there would be enough TAC available to support their historical level of BSAI Pacific cod harvest. However, it is important to note that the number of participating vessels could increase over time, and it is uncertain what the future fishing effort of smaller H&L or pot CVs would be in the new BSAI Pacific cod small vessel sector absent the competition of larger vessels with additional efficiencies.

Under option 1, there are five vessels 56' LOA and have historically participated in the less than 60' H&L or pot CV sector that would be in the redefined less than 60' H&L or pot CV sector. Excluding H&L or pot CVs less than or equal to 55' from the redefined less than 60' H&L or pot CV sector could create an opportunity for 56' vessels to harvest more of the 2 percent cod BSAI Pacific cod allocation. However, these 56' vessels do not have the same efficiencies as larger vessels typically 58' LOA and could be at a disadvantage compared to the larger vessels in the redefined less than 60' H&L or pot CV sector.

Small H&L vessels eligible for the new BSAI Pacific cod small vessel sector could see additional fishing opportunities under Alternative 2, option 1 and option 2. In a scenario where the GHF pot fishery in the DHS and the new BSAI Pacific cod small vessel sector were to be open concurrently, smaller H&L vessels would have the opportunity to continue fishing in the Federal fishery early in the year while small pot vessels could continue fishing in the redefined small vessel sector in Federal waters or switch over to the pot fishery in the DHS.

Alternative 2, option 1 and option 2, could adversely impact current fishery participants with H&L or pot CVs greater than 56' LOA. The historically common pattern of annual reallocations from the BSAI Pacific cod jig sector to the less than 60' H&L or pot CV sector, which has occurred in every year since 2008, would likely change under Alternative 2, option 1 and option 2. Any reduction in the over BSAI Pacific cod TAC that is available to H&L or pot CVs greater than 56' LOA could reduce the fishing opportunity for current participants and could potentially disincentivize future entrants with larger vessels from entering the fishery.

#### 4.3.6. Suboption – B Season as Jig Only Fishery

Under Alternative 2, the Council is considering a suboption for analysis that would reserve BSAI Pacific cod TAC apportioned in the B season for the new BSAI Pacific cod small vessel sector for jig CVs and CPs only. Vessels participating in the BSAI Pacific cod jig sector primarily fish between April and September when the weather is safest for smaller vessels to operate. The deliveries of vessels operating in the less than 60' H&L or pot CV sector, regardless of their size, are concentrated in January and the fall (September to December), which is also when these fisheries have been open.

Table 4-7 reports the count of BSAI Pacific cod deliveries, the average number of deliveries, and the percent of total deliveries made in the jig sector's seasons from 2008 through 2021 by vessels operating in

the BSAI Pacific cod less than 60' H&L or pot CV and jig sectors. From 2008 through 2021, the BSAI Pacific cod jig sector made 430 deliveries of Federal BSAI Pacific cod, of which 373 (87 percent) occurred during the B season. From 2008 through 2021, the less than 60' H&L or pot CV sector made 3,993 deliveries of Federal BSAI Pacific cod, of which 2,618 (66 percent) occurred in the jig sector's A season. **If H&L or pot CVs eligible for the new BSAI Pacific cod small vessel sector under Alternative 2 were allowed to harvest BSAI Pacific cod during the B season, it is possible these vessels could constrain jig vessels**, particularly if there were to be an increase in the number of participating H&L or pot vessels over time or if there were to be less BSAI Pacific cod available for the new BSAI Pacific cod small vessel sector to harvest.

Three percent of the less than 60' H&L or pot CV sector's deliveries were made in the jig sector's B season from 2008 through 2021. Vessels operating in the less than 60' H&L or pot sector participate in salmon, IFQ, and other important fisheries during the jig sector's B season, and the sector has not been open during the jig B season since 2011. Some small H&L CVs have made landings in the jig sector's B season in State-waters inside 3 nm during the spring/summer months even though the Federal fishery for the less than 60' H&L or pot CV sector has closed. The State of Alaska does not differentiate between processing sectors (CPs and CVs) and the H&L CP sector in the BSAI is open year-round. That means a H&L CV of any size could participate in the parallel fishery after the Federal season closed. However, NMFS does not anticipate this fishing behavior to increase because of the Council's 2019 action that precluded Federal H&L, pot and trawl gear vessels from participating in the BSAI Pacific cod parallel fisheries unless they have an LLP license with the correct LLP endorsements and a designated FFP. This action also required Federally permitted or licensed vessels that fish in the parallel fishery to adhere to Federal sector and seasonal BSAI Pacific cod closures and would restrict those vessels from surrendering and later reapplying for the FFP within a specified time period.<sup>17</sup>

Because the less than 60' H&L or pot CV sector is typically closed by the time the jig sector's B season begins on April 30 and does not reopen until September 1 after the B season is closed, **there are no anticipated impacts of including the suboption which largely mirrors the historical fishing activity of both affected sectors.**

**Table 4-7 Count of BSAI Pacific cod deliveries, the average number of deliveries, and the percent of total deliveries made by vessels operating in the BSAI Pacific cod less than 60' H&L or pot CV and jig sectors in each jig sector trimester from 2008 through 2021**

	Season	Count of deliveries	Average number of deliveries	% of total deliveries
<b>Jig</b>	A (Jan 1 - Apr 30)	14	1	3%
	B (Apr 30 – Aug 31)	373	27	87%
	C (Aug 31 - Dec 31)	43	3	10%
<b>&lt;60' H&amp;L /pot</b>	A (Jan 1 - Apr 30)	2,618	187	66%
	B (Apr 30 – Aug 31)	113	8	3%
	C (Aug 31 - Dec 31)	1,261	90	31%

Source: NMFS Alaska Region Catch Accounting System, data compiled by AKFIN in Comprehensive\_BLEND\_CA; small\_boat\_monthlylandings (2-15-22)

<sup>17</sup> The Council action for parallel fisheries can be found at 85 FR 78038, Dec 3, 2020.

#### 4.4. Summary of Impacts on Fishing Activity

Table 4-8 provides a summary of expected impacts of this proposed action on fishing activity.

**Table 4-8 Summary of impacts on fishing activity**

Category	Option 1	Option 2 without suboption	Option 2 with suboption
<b>Fishing Location</b>	Not likely to change fishing location. This is outside of the scope of the action.		
<b>Timing and Effort</b>	Minimally modify timing for new vessels in redefined BSAI Pacific cod jig sector (Section 4.3.2 and 4.3.3). May also minimally modify effort for the redefined less than 60' H&L or pot CV sector because the reallocations are likely to change (Section 4.3.3).		No anticipated impacts, may closely mirror historical fishing activity of both sectors (Section 4.3.6).
<b>Authorized Gear Types</b>	No changes to authorized gear types. H&L, pot, and jig gear are authorized under the BSAI groundfish FMP. Additionally, Federal BSAI Pacific cod sectors are defined by gear type, operation type, and vessel size categories (Section 3.2 and 3.6).		
<b>Harvest Levels</b>	No changes to harvest levels or sector allocation structure. The BSAI Pacific cod TAC is set in accordance with the Pacific cod biomass (Section 3.2).		

#### 4.5. Community Impacts

The following sections characterize the communities that are engaged in or dependent on the BSAI Pacific cod less than 60' H&L or pot CV and jig sectors, and they largely rely on quantitative fishery information, within the bounds of confidentiality restrictions, that could be impacted by Alternative 2. This information helps to identify patterns of engagement in and dependency on the Federal BSAI Pacific cod fishery based on the distribution of vessels in the sectors most likely to be affected by Alternative 2 across communities. Given that Alternative 2 would impact two commercial BSAI Pacific cod sectors, there are no anticipated direct or indirect impacts on the subsistence harvest, sharing or use of BSAI Pacific cod (Reedy & Maschner 2014). As such, there are no stand-alone discussions of the BSAI Pacific cod subsistence fisheries provided in the fishing communities analysis.

##### 4.5.1. H&L or pot CVs Greater Than 56' LOA

Table 4-9 provides a count, by community of ownership address and year (2008-2020), of H&L or pot CVs greater than 56' LOA for all Alaska communities as well as Washington and other states (primarily Oregon and California) with any vessels active in the BSAI Pacific cod less than 60' H&L or pot CV sector during this time. There are 59 unique vessels greater than 56' LOA that have participated in the Federal BSAI Pacific cod less than 60' H&L or pot CV sector (2008 through 2020), of which 43 (73 percent) have a reported ownership address in an Alaska community. **Kodiak has the highest number of unique H&L or pot CVs greater than 56' LOA with a registered ownership address at 15 followed**

**by Homer at nine.** All communities across Kodiak Island<sup>18</sup> are engaged in commercial fisheries, but the majority of commercial vessels, including the less than 60' H&L or pot CV sector, and seafood processing plants are in Kodiak City. Commercial fishing, seafood processing, and commercial fishing support services are the major industries contributing to the local economy. Commercially significant groundfish species harvested in the Kodiak area include Pacific cod, sablefish, lingcod, skates, black rockfish, and pollock (Wise et al., 2021).

Table 4-10 reports the gross ex-vessel revenues for H&L or pot CVs greater than 56' from the Federal BSAI Pacific cod fishery by community of the vessel's historical ownership address (2008-2020, 2020 real \$). H&L or pot CVs greater than 56' LOA with a registered ownership address in an Alaska community generated approximately \$4.1 million in annual average gross ex-vessel revenue from the Federal BSAI Pacific cod fishery, which is approximately 21 percent of all gross ex-vessel revenues for those vessels in the same time period (Table 4-11).

During the same time period, the Homer/Kodiak/Anchor Point "community fleet" (all commercial fishing vessels with a registered ownership address participating in any area, gear, and species fisheries) annually averaged approximately \$222 million in gross ex-vessel revenue for all commercial fisheries, of which BSAI Pacific cod caught by H&L or pot CVs greater than 56' LOA accounted for approximately 1.2 percent (\$2.6 million) of the total combined revenue of the Homer/Kodiak/Anchor Point community fleet (Table 4-12).

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<sup>18</sup> Kodiak Island has been inhabited for thousands of years by Alaska Native populations, many of which are Alutiiq. The Alutiiq culture relies on the harvesting of fish, marine vertebrates, and marine mammals. Salmon caught in both salt and fresh water have been extremely important resources and Alutiiq peoples have traditionally hunted whales (Himes-Cornell et al., 2013).

**Table 4-9 Vessels greater than 56' LOA targeting Federal BSAI Pacific cod with H&L or pot gear by community of vessel historic ownership address from 2008 through 2020 (number of vessels)**

Region	Community	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Annual Average 2008-2020 (number)	Annual Average 2008-2020 (percent)	Unique Vessels 2008-2020 (number)
Alaska	<b>Dutch Harbor/Unalaska</b>	1	1	0	2	1	1	1	1	1	1	1	1	2	1.1	5.62%	3
	Anchor Point	1	1	1	0	0	0	0	0	0	0	0	0	0	0.2	1.20%	1
	Homer	1	1	1	1	2	2	2	3	4	3	1	3	3	2.1	10.84%	9
	Kodiak	5	2	5	4	5	5	4	4	4	5	9	9	8	5.3	27.71%	15
	<b>Homer/Kodiak/Anchor Point</b>	7	4	7	5	7	7	6	7	8	8	10	12	11	7.6	39.76%	25
	Cordova	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.40%	1
	Girdwood	1	0	0	0	0	0	0	0	0	0	0	1	1	0.3	1.61%	1
	Haines	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	0.40%	1
	Juneau	0	0	1	0	0	0	1	1	1	1	1	0	1	0.5	2.41%	3
	Kenai	0	1	1	1	0	0	0	0	0	0	0	0	0	0.2	1.20%	1
	Ketchikan	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.40%	1
	King Cove	0	0	0	0	0	0	0	0	0	0	0	0	2	0.2	0.80%	2
	Klawock	0	0	0	0	0	1	0	1	0	0	0	0	0	0.2	0.80%	1
	Nikolaevsk	0	1	0	0	0	0	0	0	0	0	0	0	0	0.1	0.40%	1
	Petersburg	0	1	1	0	0	1	0	2	2	1	2	1	3	1.1	5.62%	5
	Sand Point	0	1	0	0	0	0	0	0	0	0	0	1	1	0.2	1.20%	2
	Seward	0	0	0	0	1	1	1	1	1	1	1	1	1	0.7	3.61%	1
	Sitka	0	0	0	0	0	1	0	0	0	0	0	0	0	0.1	0.40%	1
	Wasilla	0	1	1	1	2	2	2	2	2	2	2	2	2	1.6	8.43%	2
	<b>Other AK</b>	3	5	4	2	3	6	4	7	6	5	6	8	10	5.3	27.71%	23
<b>Alaska</b>	11	10	11	9	11	14	11	15	15	14	17	21	23	14.0	73.09%	43	
<b>Washington</b>	5	4	5	6	6	4	3	3	1	2	3	3	4	3.8	19.68%	14	
<b>Other States</b>	2	2	0	0	0	0	0	0	1	3	3	3	4	1.4	7.23%	9	
<b>Grand Total</b>	18	16	16	15	17	18	14	18	17	19	23	27	31	19.2	100.00%	59	

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive\_FT; smallboat\_SIA\_lessthan60\_breakouts (5-12-22)



**Table 4-10 Gross ex-vessel revenues for H&L or pot CVs greater than 56' LOA targeting Federal BSAI Pacific cod by community of vessel historic ownership address, 2008 through 2020 (thousands of real 2020 dollars)**

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Annual Average gross ex-vessel revenue (\$ thousands)	Annual Average gross ex-vessel revenue (percent)
Dutch/Unalaska	*	*	*	*	*	*	*	*	*	*	*	*	*	\$142	3.1%
Homer/Kodiak/Anchor Point	\$3,643	\$839	\$1,988	\$3,856	\$3,427	\$3,422	\$2,562	\$1,994	\$2,446	\$2,280	\$2,419	\$2,923	\$1,708	\$2,578	42.6%
Other Alaska	*	*	*	*	*	*	*	*	*	*	*	*	*	\$1,404	30.4%
<b>Alaska</b>	<b>\$4,058</b>	<b>\$1,299</b>	<b>\$2,478</b>	<b>\$4,665</b>	<b>\$5,411</b>	<b>\$5,268</b>	<b>\$4,723</b>	<b>\$4,379</b>	<b>*</b>	<b>\$4,482</b>	<b>\$4,575</b>	<b>\$4,309</b>	<b>\$2,684</b>	<b>\$4,123</b>	<b>76.0%</b>
<b>Other States</b>	<b>\$2,594</b>	<b>\$1,653</b>	<b>\$1,477</b>	<b>\$1,674</b>	<b>\$1,517</b>	<b>\$554</b>	<b>\$1,563</b>	<b>\$1,103</b>	<b>*</b>	<b>\$1,315</b>	<b>\$2,270</b>	<b>\$2,279</b>	<b>\$732</b>	<b>\$1,509</b>	<b>24.0%</b>
<b>Grand Total</b>	<b>\$6,652</b>	<b>\$2,952</b>	<b>\$3,955</b>	<b>\$6,339</b>	<b>\$6,928</b>	<b>\$5,822</b>	<b>\$6,286</b>	<b>\$5,483</b>	<b>\$6,153</b>	<b>\$5,797</b>	<b>\$6,845</b>	<b>\$6,588</b>	<b>\$3,416</b>	<b>\$5,632</b>	<b>100.0%</b>

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive\_FT; smallboat\_SIA\_lessthan60\_breakouts (5-12-22)

**Table 4-11 Gross ex-vessel revenue diversification for H&L or pot CVs greater than 56' LOA targeting Federal BSAI Pacific cod by community of vessel historic ownership address, 2008 through 2020 (millions of real 2020 dollars)**

Geography	Annual Average Number of Vessels	Annual Average Gross Ex-vessel Revenue from Federal BSAI Pacific od Only (millions 2020 real \$)	Annual Average Gross Ex-vessel Revenue Revenues from All Area, Gear, and Species Fisheries (millions 2020 real \$)	Federal BSAI Pacific cod Ex-Vessel Value as a Percentage of Total Ex-Vessel Gross Revenue Annual Average
Dutch/Unalaska	1.1	\$0.1	\$0.8	18.3%
Homer/Kodiak/Anchor Point	7.7	\$2.6	\$11.4	22.5%
Other Alaska	5.5	\$1.4	\$7.6	18.5%
<b>Alaska</b>	<b>14.3</b>	<b>\$4.1</b>	<b>\$19.8</b>	<b>20.8%</b>
<b>Other States</b>	<b>5</b>	<b>\$1.5</b>	<b>\$6.9</b>	<b>22.0%</b>
<b>Grand Total</b>	<b>19.3</b>	<b>\$5.6</b>	<b>\$26.7</b>	<b>21.1%</b>

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive\_FT; smallboat\_SIA\_lessthan60\_breakouts (5-12-22)

**Table 4-12 Revenue diversification for communities with vessels greater than 56' LOA targeting Federal BSAI Pacific cod by gross ex-vessel revenue, 2008 through 2020 (millions of 2020 real dollars)**

<b>Geography</b>	<b>Annual Average Number of Vessels</b>	<b>Annual Average Number of All Commercial Fishing Vessels in those Same Communities</b>	<b>Annual Average Gross Ex-vessel Revenue from Federal BSAI Pacific cod &lt;60' H&amp;L/Pot Only (millions 2020 real \$)</b>	<b>Annual Average Gross Ex-vessel Revenue from All Areas, Gears, and Species Fisheries for the Community Fleet (millions 2020 real \$)</b>	<b>Ex-Vessel Gross Revenue as a Percentage of Total Community Ex-Vessel Gross Revenue Annual Average</b>
Dutch/Unalaska	1.1	14.2	\$0.1	\$4.0	3.5%
Homer/Kodiak/Anchor Point	7.6	649.3	\$2.6	\$221.6	1.2%
Other Alaska	5.3	2,000.2	\$1.4	\$369.2	0.4%
<b>Alaska</b>	<b>14.3</b>	<b>2,663.7</b>	<b>\$4.1</b>	<b>\$594.8</b>	<b>0.7%</b>
<b>Other States</b>	<b>5.2</b>	<b>480.9</b>	<b>\$1.5</b>	<b>\$655.7</b>	<b>0.2%</b>
<b>Grand Total</b>	<b>19.5</b>	<b>3,144.7</b>	<b>\$5.6</b>	<b>\$1,250.5</b>	<b>0.5%</b>

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive\_FT; smallboat\_SIA\_lessthan60\_breakouts (5-12-22)

#### 4.5.2. H&L or Pot CVs Less Than or Equal to 56' LOA

Table 4-13 provides a count, by community of ownership address and year (2008-2020), of H&L or pot CVs less than or equal to 56' LOA for all Alaska communities as well as Washington and other states (primarily Oregon and California) with any vessels active in the BSAI Pacific cod less than 60' H&L or pot CV sector during this time. Data confidentiality constraints limit the amount of revenue information that can be provided for vessels in the less than or equal to 56' LOA size category on a community or aggregated community-level.

There are 32 unique vessels less than or equal to 56' LOA that have targeted Federal BSAI Pacific cod in the less than 60' H&L or pot CV sector (2008-2020), of which 28 (83 percent) have a reported ownership address in an Alaska community. **Dutch Harbor/Unalaska has the largest number of unique vessels with a registered ownership address at 11 followed by Homer at seven.** Dutch Harbor/Unalaska's<sup>19</sup> economy is based on commercial fishing, fish processing, and fleet service, such as maintenance, trade, repairs, fuel and transportation. Onshore and offshore processors provide some local employment; however, non-resident workers are usually present during peak seasons, particularly during the pollock A season. Commercially significant species harvested by vessels with a registered ownership address in Dutch Harbor/Unalaska include Pacific cod, halibut, and salmon (Wise et al., 2021).

Table 4-14 reports the gross ex-vessel revenues for H&L or pot CVs less than or equal to 56' from the Federal BSAI Pacific cod fishery by community of vessel historical ownership address (2008-2020, 2020 real \$). H&L or pot CVs that are less than or equal to 56' LOA with an Alaska community ownership address generated approximately \$737,000 in annual average gross ex-vessel revenues from the Federal BSAI Pacific cod fishery, which is 19.5 percent of all gross ex-vessel revenues for those vessels in the same time period (Table 4-15).

During the same time period, the Dutch Harbor/Unalaska community fleet (all commercial fishing vessels with a registered ownership address participating in any area, gear, and species fisheries) annually averaged approximately \$4 million in gross ex-vessel revenue for all commercial fisheries, of which Federal BSAI Pacific cod caught in the less than 60' H&L or pot CV sector accounted for approximately 10 percent (\$400,000) of the total combined revenue for the Dutch Harbor/Unalaska community fleet (Table 4-16).

Overall, these data suggest that, while the majority of vessels operating in the less than 60' H&L or pot CV sector have a reported ownership address in an Alaska community, there is variation for reported owner address among the different vessel LOA categories. Most notably, Kodiak has the largest number of reported vessel owners for H&L or pot CVs greater than 56' LOA whereas Dutch Harbor/Unalaska has the largest number of reported owners for smaller H&L or pot CVs. **Therefore, under Alternative 2, it is anticipated there could be a distributional impact at the community-level.**

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<sup>19</sup> Unalaska Island has been inhabited for thousands of years by Alaska Natives, primarily the Unangan. Subsistence activities are important to the Unangan peoples and to many long-term, non-Native residents of Dutch Harbor/Unalaska. According to a survey conducted by AFSC in 2011, community leaders reported that more important subsistence marine or aquatic resources to residents are sockeye salmon, halibut, coho salmon, and crab (Himes-Cornell et al., 2013).

**Table 4-13 Vessels less than or equal to 56' LOA targeting Federal BSAI Pacific cod with H&L or pot gear by community of vessel historic ownership address from 2008 through 2020 (number of vessels)**

Region	Community	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Annual Average 2008-2020 (number)	Annual Average 2008-2020 (percent)	Unique Vessels 2008-2020 (number)	
Alaska	<b>Dutch Harbor/Unalaska</b>	6	5	4	4	4	5	5	4	2	2	2	2	2	3.6	46.08%	11	
	Anchor Point	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	1.96%	1	
	Homer	2	1	0	0	0	0	0	0	0	0	1	1	2	4	0.8	10.78%	7
	Kodiak/Port Lions	2	1	0	1	0	0	0	0	0	0	0	0	0	0.3	3.92%	3	
	<b>Homer/Kodiak/Anchor Point</b>	4	3	0	1	0	0	0	0	0	0	1	1	2	4	1.2	15.69%	11
	Adak	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0.2	2.94%	2
	Delta Junction	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.1	0.98%	1
	Douglas	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0.2	1.96%	2
	False Pass	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	0.98%	1	
	Juneau	0	1	1	0	0	0	0	0	0	0	0	0	0	0.2	1.96%	1	
	King Salmon	0	1	0	0	0	0	0	0	0	0	0	0	0	0.1	0.98%	1	
	Mekoryuk	0	0	0	0	0	1	0	0	0	0	0	0	0	0.1	0.98%	1	
	Nikolaevsk	0	0	0	1	1	0	0	0	0	0	0	0	0	0.2	1.96%	1	
	Nome	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	0.98%	1	
	Petersburg	0	0	0	0	0	0	0	0	0	1	1	1	1	0.4	4.90%	1	
	Sitka	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	0.98%	1	
	Soldotna	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	0.98%	1	
	Willow	0	1	0	0	0	0	0	0	0	0	0	0	0	0.1	0.98%	1	
	<b>Other AK</b>	1	4	2	2	1	1	0	1	1	1	1	1	4	3	1.7	21.57%	14
	<b>Alaska</b>	11	12	6	7	5	6	5	5	5	3	4	4	8	9	6.5	83.33%	28
<b>Washington</b>	1	0	0	0	0	1	1	1	1	1	1	1	1	1	0.7	8.82%	2	
<b>Other States</b>	0	0	0	0	2	2	1	1	1	1	0	1	0	0	0.6	7.84%	4	
<b>Grand Total</b>	12	12	6	7	7	9	7	7	7	5	5	6	9	10	7.8	100.00%	32	

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive\_FT; smallboat\_SIA\_lessthan60\_breakouts (5-12-22)

**Table 4-14 Gross ex-vessel revenues for H&L or pot CVs less than or equal to 56' LOA targeting Federal BSAI Pacific cod by community of vessel historic ownership address, 2008 through 2020 (thousands of real 2020 dollars)**

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Annual Average (\$ thousands)	Annual Average (percent)
Dutch/Unalaska	*	*	*	*	*	*	*	*	*	*	*	*	*	\$401	36.8%
Homer/Kodiak/Anchor Point	\$921	\$11	\$0	\$0	\$0	\$0	\$0	\$0	\$0	*	*	*	\$618	\$171	10.2%
Other Alaska	*	\$69	*	*	*	*	*	*	*	*	*	\$737	\$116	\$165	16.7%
<b>Alaska</b>	*	\$393	\$238	\$469	*	\$561	*	*	*	*	*	*	*	\$737	63.7%
<b>Other States</b>	*	\$0	\$0	\$0	*	\$200	*	*	*	*	*	*	*	\$357	36.3%
<b>Grand Total</b>	\$1,514	\$393	\$238	\$469	\$676	\$760	\$2,181	\$1,110	\$928	\$1,319	\$1,481	\$2,068	\$1,086	\$1,094	100.0%

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive\_FT; smallboat\_SIA\_lessthan60\_breakouts (5-12-22)

**Table 4-15 Gross ex-vessel revenue diversification for H&L or pot CVs less than or equal to 56' LOA targeting Federal BSAI Pacific cod by community of vessel historic ownership address, 2008 through 2020 (millions of real 2020 dollars)**

Geography	Annual Average Number of Vessels	Annual Average Ex-Vessel Gross Revenues from Federal BSAI Pacific cod Only (millions 2020 real \$)	Annual Average Total Ex-Vessel Gross Revenues from All Area, Gear, and Species Fisheries	Annual Average Federal BSAI Pacific cod Ex-Vessel Value as a Percentage of Total Ex-Vessel Gross Revenue
Dutch/Unalaska	3.6	\$0.4	\$1.9	21.2%
Homer/Kodiak/Anchor Point	1.2	\$0.2	\$0.7	22.8%
Other Alaska	1.7	\$0.2	\$1.1	14.6%
<b>Alaska</b>	6.5	\$0.7	\$3.8	19.5%
<b>Other States</b>	1.3	\$0.4	\$1.7	21.6%
<b>Grand Total</b>	7.8	\$1.1	\$5.4	20.2%

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive\_FT; smallboat\_SIA\_lessthan60\_breakouts (5-12-22)

**Table 4-16 Revenue diversification for communities with vessels less than or equal to 56' LOA targeting Federal BSAI Pacific cod by gross ex-vessel revenue, 2008 through 2020 (millions of 2020 real dollars)**

<b>Geography</b>	<b>Annual Average Number of Vessels</b>	<b>Annual Average Number of All Commercial Fishing Vessels in those Same Communities</b>	<b>Annual Average Ex-Vessel Gross Revenues from Federal BSAI Pacific cod &lt;60' H&amp;L/Pot Only (millions 2020 real \$)</b>	<b>Annual Average Total Ex-Vessel Gross Revenues from All Areas, Gears, and Species Fisheries for the Community Fleet (millions 2020 real \$)</b>	<b>Ex-Vessel Gross Revenue as a Percentage of Total Community Ex-Vessel Gross Revenue Annual Average</b>
Dutch/Unalaska	3.6	14.7	\$0.4	\$4.0	9.7%
Homer/Kodiak/Anchor Point	1.2	642.6	\$0.1	\$221.6	0.0%
Other Alaska	1.7	1,043.5	\$0.2	\$166.1	0.1%
<b>Alaska</b>	<b>6.5</b>	<b>1,700.8</b>	<b>\$0.7</b>	<b>\$391.7</b>	<b>0.2%</b>
<b>Other States</b>	<b>1.3</b>	<b>244.3</b>	<b>\$0.4</b>	<b>\$566.0</b>	<b>0.1%</b>
<b>Grand Total</b>	<b>7.8</b>	<b>1,945.2</b>	<b>\$1.1</b>	<b>\$957.7</b>	<b>0.1%</b>

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive\_FT; smallboat\_SIA\_lessthan60\_breakouts (5-12-22)

### 4.5.3. Jig Vessels

It is anticipated that BSAI Pacific cod jig sector vessels would be impacted under Alternative 2 (option 1 and option 2) as H&L or pot CVs either less than or equal to either 55' or 56' LOA would be eligible for a new BSAI Pacific cod small vessel sector. However, the potential impacts would be most acute in a scenario where the jig sector's B season would not be a jig only fishery (the suboption) as the B season is when these vessels have historically made the majority of their BSAI Pacific cod deliveries since 2008 (see Table 4-7 for reference). Data confidentiality constraints limit the amount of revenue information that can be provided for jig vessels on a community or aggregated community-level.

Table 4-17 provides a count, by community of ownership address and year (2008-2020), of BSAI Pacific cod jig sector vessels for Alaska communities as well as other states. There are 33 jig vessels that have participated in the Federal BSAI Pacific cod target fishery from 2008 through 2020. Of these 33 BSAI Pacific cod jig vessels, 27 (87 percent) have a registered ownership address in an Alaska community. **Akutan, Dutch Harbor/Unalaska, and Kodiak have each had four unique vessels participate in the BSAI Pacific cod jig sector during the analyzed time period.** However, jig vessels with Akutan as a reported ownership address have not participated in the Federal BSAI Pacific cod jig sector since 2014. Additionally, in more recent years, there is one jig vessel with a reported owner address of Homer that regularly participates in the Federal BSAI Pacific cod jig fishery. Homer<sup>20</sup> is located on the north shore of Kachemak Bay on the southwestern edge of the Kenai Peninsula, and its economy relies on commercial fishing, sport fishing and hunting, and ecotourism. Commercially significant species harvested by vessels with a registered ownership address in Homer include salmon, halibut, Pacific cod, sablefish, and crab (Wise et al., 2021).

Table 4-18 reports the gross ex-vessel revenue diversification for jig vessels by the community of the vessel's historical ownership address (2008-2020). Vessels with an Alaska community ownership address participating in the BSAI Pacific cod jig sector over 2008-2020 generated approximately \$79,000 in annual average gross ex-vessel revenue, which is approximately 21 percent of all gross ex-vessel revenues for those vessels in the same period. From 2008 through 2020, the Homer/Kodiak community fleet (all commercial fishing vessels participating in any area, gear, and species fisheries) annually averaged approximately \$218 million in gross ex-vessel revenue for all commercial fisheries, of which BSAI Pacific cod caught in the jig sector accounted for approximately .02 percent (\$50,000) of the total combined revenue of the Homer/Kodiak fleet (Table 4-19).

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<sup>20</sup> The Homer area is the traditional homelands of the Dena'ina Peoples. Subsistence activities are important to Alaska Native and many long-term, non-Native residents of Homer, particularly marine mammals, salmon, halibut and crab (Fall et al., 2018).

Table 4-17 Vessels targeting Federal BSAI Pacific cod with jig gear by community of vessel historic ownership address, 2008 through 2020

Region	Community	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Annual Average 2008-2020 (number)	Annual Average 2008-2020 (percent)	Unique Vessels 2008-2020 (number)	
Alaska	Akutan	2	2	3	1	1	1	1	0	0	0	0	0	0	0.8	18.03%	4	
	Dutch Harbor/Unalaska	2	0	1	1	1	0	0	2	0	0	0	0	0	0.5	11.48%	4	
	<b>Akutan/Dutch Harbor/Unalaska</b>	<b>4</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1.4</b>	<b>29.51%</b>	<b>8</b>	
	Homer	0	0	0	1	0	0	1	1	1	1	1	1	1	0.6	13.11%	2	
	Kodiak	1	0	2	3	1	0	0	0	0	1	0	0	0	0.6	13.11%	4	
	<b>Homer/Kodiak/Anchor Point</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1.2</b>	<b>26.23%</b>	<b>6</b>	
	Adak	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0.2	4.92%	2
	Anchorage	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	4.92%	3
	Chefornak	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.1	1.64%	1
	Juneau	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.64%	1
	Mekoryuk	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.1	1.64%	1
	Newtok	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.1	1.64%	1
	Port Lions	1	1	0	1	1	1	0	0	0	0	0	0	0	1	0.5	9.84%	3
	Sand Point	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0.2	3.28%	2
	Toksook Bay	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.1	1.64%	1
	<b>Other AK</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>1.5</b>	<b>31.15%</b>	<b>14</b>
	<b>Alaska</b>	<b>11</b>	<b>3</b>	<b>6</b>	<b>9</b>	<b>4</b>	<b>6</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4.1</b>	<b>86.89%</b>	<b>27</b>	
	<b>Other States</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.6</b>	<b>13.11%</b>	<b>7</b>	
<b>Grand Total</b>	<b>15</b>	<b>3</b>	<b>7</b>	<b>11</b>	<b>4</b>	<b>6</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4.7</b>	<b>100.00%</b>	<b>33</b>		

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive\_FT; smallboat\_SIA\_jig\_breakouts (5-12-22)



**Table 4-18 Gross ex-vessel revenue diversification for jig vessels targeting Federal BSAI Pacific cod by community of vessel historic ownership address, 2008 through 2020 (millions of real dollars)**

<b>Geography</b>	<b>Annual Average Number of Vessels</b>	<b>Annual Average Ex-Vessel Gross Revenues from Federal BSAI Pacific cod Only (millions 2020 real \$)</b>	<b>Annual Average Total Ex-Vessel Gross Revenues from All Area, Gear, and Species Fisheries (millions 2020 real \$)</b>	<b>Federal BSAI Pacific cod Ex-Vessel Value as a Percentage of Total Ex-Vessel Gross Revenue Annual Average</b>
Akutan/Dutch/Unalaska	1.4	\$0.009	\$0.050	17.5%
Homer/Kodiak	1.2	\$0.050	\$0.148	33.8%
Other Alaska	1.5	\$0.021	\$0.182	11.4%
<b>Alaska</b>	<b>4.1</b>	<b>\$0.079</b>	<b>\$0.379</b>	<b>20.9%</b>
<b>Other States</b>	<b>0.6</b>	<b>\$0.020</b>	<b>\$0.069</b>	<b>29.2%</b>
<b>Grand Total</b>	<b>4.7</b>	<b>\$0.099</b>	<b>\$0.448</b>	<b>22.2%</b>

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive\_FT; smallboat\_SIA\_jig(5-12-22)

**Table 4-19 Revenue diversification for communities with vessels targeting Federal BSAI Pacific cod with jig gear by gross ex-vessel revenue, 2008 through 2020 (millions of dollars, 2020 real dollars)**

<b>Geography</b>	<b>Annual Average Number of Vessels</b>	<b>Annual Average Number of All Commercial Fishing Vessels in those Same Communities</b>	<b>Annual Average Ex-Vessel Gross Revenues from Federal BSAI Pacific cod jig gear (millions 2020 real \$)</b>	<b>Annual Average Total Ex-Vessel Gross Revenues from All Areas, Gears, and Species Fisheries for the Community Fleet (millions 2020 real \$)</b>	<b>Ex-Vessel Gross Revenue as a Percentage of Total Community Ex-Vessel Gross Revenue Annual Average</b>
Akutan/Dutch/Unalaska	1.4	17.8	\$0.009	\$4.178	0.21%
Homer/Kodiak	1.2	623.7	\$0.050	\$218.037	0.02%
Other Alaska	1.5	551.5	\$0.021	\$132.689	0.02%
<b>Alaska</b>	<b>4.1</b>	<b>1,193.0</b>	<b>\$0.079</b>	<b>\$354.905</b>	<b>0.02%</b>
<b>Other States</b>	<b>0.6</b>	<b>55.5</b>	<b>\$0.020</b>	<b>\$36.182</b>	<b>0.06%</b>
<b>Grand Total</b>	<b>4.7</b>	<b>1,248.5</b>	<b>\$0.099</b>	<b>\$391.087</b>	<b>0.03%</b>

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive\_FT; smallboat\_SIA\_jig(5-12-22)

#### 4.5.4. Impacts to Processors

H&L or pot CVs greater than 56' and less than or equal to 56' LOA make the majority of their deliveries shoreside in Dutch Harbor/Unalaska (2008 through 2020). The annual average number of shoreside processors in Dutch Harbor/Unalaska receiving BSAI Pacific cod from H&L or pot CVs greater than 56' and less than or equal to 56' H&L or pot CVs is 3 and 2.8, respectively. Floating processors (Washington) are the second largest component of processors for H&L or pot CVs. The annual average number of floating processors (Washington) for H&L or pot CVs greater than 56' LOA is 2.2 and 1.5 for H&L or pot CVs less than 56' LOA. Due to confidentiality restrictions, it is not possible to report the processing activities and the associated revenue for BSAI Pacific cod jig sector vessels. However, processors in Dutch Harbor/Unalaska, Adak, and Akutan have accepted BSAI Pacific cod from jig sector vessel during the 2008-2020 time period.

From 2008 through 2020, processors in Dutch Harbor/Unalaska/Akutan accepting deliveries of Federal BSAI Pacific cod from H&L or pot CVs greater than 56' LOA annually averaged \$268 million in gross ex-vessel revenues for all commercially processed species (all areas, gear, and species), of which BSAI Pacific cod delivered by these vessels accounts for approximately 1.4 percent (\$3.8 million) of the total combined revenue (Table 4-20). Processors in Dutch Harbor/Unalaska/Akutan accepting deliveries of Federal BSAI Pacific cod from H&L or pot CVs less than or equal to 56' LOA annually averaged \$236.5 million in gross ex-vessel revenues for all commercially processed species (all areas, gear, and species), of which BSAI Pacific cod delivered by these vessels accounts for approximately .3 percent (\$800,000) of the total combined revenue (Table 4-21).

**Table 4-20 Revenue diversification for processors receiving Federal BSAI Pacific cod from H&L or pot CVs greater than 56' LOA, 2008 through 2020 (millions of 2020 real dollars)**

<b>Geography</b>	<b>Annual Average Number of Processors</b>	<b>Annual Average Ex-Vessel Gross Revenues from Federal Open Access Pacific cod &lt;57' Hook and Line/Pot Only</b>	<b>Annual Average Total Ex-Vessel Gross Revenues from All Area, Gear, and Species Fisheries</b>	<b>Federal BSAI Pacific cod Ex-Vessel Value as a Percentage of Total Ex-Vessel Gross Revenue Annual Average</b>
Dutch/Unalaska/Akutan	4.0	\$3.8	\$267.9	1.4%
Other Alaska/ Floating Processors	3.3	\$1.2	\$70.7	1.6%
<b>Grand Total</b>	<b>7.3</b>	<b>\$5.0</b>	<b>\$338.6</b>	<b>1.5%</b>

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive\_FT; small\_boat\_proc\_SIA(5-12-22)

**Table 4-21 Revenue diversification for processors receiving Federal BSAI Pacific cod from H&L or pot CVs less than or equal to 56' LOA, 2008 through 2020 (millions of 2020 real dollars)**

<b>Geography</b>	<b>Annual Average Number of Processors</b>	<b>Annual Average Ex-Vessel Gross Revenues from Federal Open Access Pacific cod &lt;57' Hook and Line/Pot Only</b>	<b>Annual Average Total Ex-Vessel Gross Revenues from All Area, Gear, and Species Fisheries</b>	<b>Federal BSAI Pacific cod Ex-Vessel Value as a Percentage of Total Ex-Vessel Gross Revenue Annual Average</b>
Dutch/Unalaska/Akutan	3.7	\$0.8	\$236.5	0.3%
Other Alaska/ Floating Processors	2.1	\$0.3	\$31.7	0.8%
<b>Grand Total</b>	<b>5.8</b>	<b>\$1.1</b>	<b>\$268.2</b>	<b>0.4%</b>

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive\_FT; small\_boat\_proc\_SIA(5-12-22)

## 5. Management and Enforcement Considerations

This section discusses monitoring and enforcement considerations for the action alternative, Alternative 2. For a detailed explanation of the BSAI Pacific cod fisheries and impacts, see Chapters 3 and 4.

### *Changes to in-season management and allocations*

Under Alternative 2, the redefined less than 60' H&L or pot CV sector that would exclude H&L or pot CVs less than or equal to either 55' or 56' LOA would continue to receive the entirety of their BSAI Pacific cod allocation on January 1. The redefined less than 60' H&L or pot CV sector could receive reallocations from any projected unused jig and H&L or pot CV Pacific cod A season allocation. Under the status quo (Alternative 1), reallocations from the BSAI Pacific cod jig sector to the less than 60' H&L or pot CV sector usually occurs prior to the end of the A season to allow the less than 60' H&L or pot CV sectors to have an extended fishing season. NMFS is able to make these determinations based on data from past years and assesses the current year's participation to project unused jig sector A season allowance.

The hierarchy of the Pacific cod reallocation among non-CDQ sectors for CVs can be found at 50 CFR 679.20(a)(7)(iii)(A). The Council may want to consider how the redefined sectors under Alternative 2 would fit in with the current reallocation hierarchy.

If the Council selects Alternative 2, and recommends maintaining the current allocation hierarchy, that would require the new BSAI Pacific cod small vessel sector's remaining seasonal allowance to be reallocated to the redefined less than 60' H&L or pot CV sector. NMFS may not be able to reallocate from the new BSAI Pacific cod small vessel sectors' A season allocation until closer to the end of March because it is closer to the regulatory closure of April 30. The addition of H&L or pot CVs less than or equal to 55' or 56' LOA (option 1 or option 2) to the current jig sector (forming the new BSAI Pacific cod small vessel sector) may not allow NMFS to project the unused A season allocation until the end of the season, or the full A season allocation may be caught and a reallocation would not be possible. At the late to end of the A season, the redefined less than 60' H&L or pot CV may not be able to participate in the Pacific cod fishery as the fishery participants may choose to move to other fisheries.

Under Alternative 2, the Council could decide to remove the current regulation that requires the jig sectors' remaining seasonal allowance to be reallocated to the redefined 60' H&L or pot CV sector (50 CFR 679.20(a)(7)(iv)(C) and instead allow it to rollover to the new BSAI Pacific cod small vessel sector B season (option 1 and 2) or the jig sector B season only (Suboption). The Council could maintain the current regulation to require the new small vessel sectors' remaining A season allowance to be reallocated to what would be the redefined less than 60' H&L or pot CV sector even though the sector may not participate in the BSAI Pacific cod fishery until September 1<sup>st</sup> when the sector relies on reallocations from other BSAI Pacific cod sectors to reopen the fishery.

If the Council selects Alternative 2 and the BOF reconsiders the trigger for opening the DHS GHF fishery, it will be more difficult to track Federal and GHF landings of BSAI Pacific cod. NMFS would rely on the vessel reporting the correct statistical area on the fish ticket. It is anticipated that the BOF will choose to close the parallel fishery to pot gear while the GHF fishery is occurring, therefore any pot landings reported in State waters would be attributed to the GHF fishery and anything in Federal waters would be attributed to the Federal BSAI Pacific cod fishery. However, there could be instances where catch is attributed to the incorrect fishery due to vessel's misreporting of statistical areas, and it is not uncommon for there to be reporting inaccuracies.

Vessels that participate in the Federal BSAI Pacific cod less than 60' H&L or pot CV sector with an FFP are required to have VMS transmitting (50 CFR 679.28(f)(6)) so fishery managers and OLE could track whether a vessel was inside or outside of State waters. The GHL fisheries are closely managed by the State and a vessel must be registered to participate. Once registered, that vessel would not be allowed to fish in Federal waters until they un-registered for the State fishery. It is anticipated that the State would notice any stat area misreporting relatively quickly.

### *Observer Coverage*

Current observer coverage requirements for CVs that participate in the current less than 60' H&L or pot CV and jig sectors are defined in regulations at 50 CFR 679.51(a):

- Partial coverage for CVs designated on an FFP including CVs deploying H&L, pot, and jig gear;
- Full coverage for CVs while using H&L gear when groundfish CDQ fishing except for CVs less than or equal to 46 ft LOA which are in the partial coverage category.

For the partial coverage category there are three pools of coverage: no-selection pool, observer trip-selection pool, and EM selection pool. The observer trip-selection pool includes vessels in the partial coverage category that are greater than 40' LOA and are fishing H&L or pot gear. The no-selection pool includes vessels less than 40' LOA and vessels fishing with jig gear. Each year NMFS develops an Annual Deployment Plan in consultation with the Council to describe how observer coverage and electronic monitoring will be assigned to vessels and processors in the partial observer coverage category for the upcoming year. Coverage levels in the partial coverage category can be adjusted if needed, however, **the action alternatives considered by the Council would likely have a minimal impact on selection rates and deployment. There would be no changes to current observer coverage requirements as defined in regulations.**

### *Enforcement Concerns*

The BSAI Pacific cod fisheries are a complex management system for OLE officials who are tasked with enforcing regulations and understanding the nuances between sectors and management jurisdictions. Chapter 3 provides an overview of BSAI Pacific cod management for Federal and State fisheries including the interplay of management requirements. OLE works with fishery participants across State and Federal fisheries, USCG, and the Observer Program to coordinate management, apply regulations, and ensure accurate reporting.

One of the common challenges experienced by OLE and USCG enforcement officials and fishery participants is the growth period after implementation of new regulations and programs. Another challenge is ensuring compliance for participants in Federal and State fisheries and management areas. For example, VMS and the status of fisheries are tools used by enforcement to determine where vessels are fishing and which areas and fisheries are open or closed. However, regulations for the BSAI Pacific cod fisheries are intricate and extensive. As more regulations are added, there are cumulative impacts that directly affect compliance and clarity for enforcement and fishery participants. Alternative 2 would add another layer to an already complex management structure and require added coordination with other agencies such as the State and USCG to ensure compliance for the redefined and newly defined sectors.

### *Additional Considerations*

In June 2021, the Council developed alternatives for analysis based on vessel LOA. As described in Section 4.1 of the analysis, LOA as reported to the CFEC is used in this analysis because it is likely the best source of data for length. The data is collected when vessel owners report the length to NMFS on their FFP and to the CFEC. For compliance with regulations, OLE periodically boards vessels dockside

and measures LOA. During these boardings, OLE often finds discrepancies between the length reported and the LOA measured during the boarding, especially for smaller vessels. Given this information, analysts advise the Council to consider the following caveats regarding the LOA data:

- There are different definitions of length and different ways to measure vessels across management jurisdictions. For example, fishery participants might report the USCG registered length to CFEC instead of using the definition of LOA at 50 CFR 679.2.
- Vessel owners in both Federal and State fisheries may modify their vessel without submitting new survey information to NMFS or CFEC to amend the size of their vessel on their permits.
- When a vessel owner amends the vessel length, the owner must submit a current vessel survey to both agencies to update the FFP and CFEC permits. However, vessel owners do not always make the change to both permits.

Therefore, while LOA is likely the best data source, there are still potentially significant data quality issues and reporting lags. NMFS relies on this length data for management of Federal fisheries and accurate reporting aids compliance. Under Alternative 2, if a length qualifier is used, this may be an incentive for vessel owners to update the length reported on their permits for inclusion or alter the vessel size to be included in a preferred sector. For example, it is possible that smaller H&L or pot CVs might prefer to compete in a sector with more TAC available and could choose to extend the length of their vessel to be eligible for the redefined less than 60' H&L or pot CV sector. Conversely, a larger H&L or pot vessel that does not have additional efficiencies could shorten their LOA to be eligible for the new BSAI Pacific cod small vessel sector.

**Table 5-1 Comparison of definitions of vessel length and ways to measure vessels across management jurisdictions**

Federal regulations	<p style="text-align: center;">679.2 Definitions</p> <p style="text-align: center;">Length overall (LOA) of a vessel means the centerline longitudinal distance, rounded to the nearest foot, measured between:</p> <p>(1) The outside foremost part of the vessel visible above the waterline, including bulwarks, but excluding bowsprits and similar fittings or attachments, and</p> <p>(2) The outside aftermost part of the vessel visible above the waterline, including bulwarks, but excluding rudders, outboard motor brackets, and similar fittings or attachments (see <a href="#">Figure 6</a> to this part).</p>
CFEC regulations	<p style="text-align: center;">Sec 16.05.530 Renewal of vessel license.</p> <p>(b) For calendar year 2006 and following years, the annual fee for a vessel license issued or renewed under this section is set according to the overall length, as <b>defined by the United States Coast Guard</b></p>
USCG code	<p style="text-align: center;">46 U.S. Code 2101(28)(b).</p> <p style="text-align: center;">(28) "overall in length" means -</p> <p>(A) for a foreign vessel or a vessel engaged on a foreign voyage, the greater of -</p> <p>(i) 96 percent of the length on a waterline at 85 percent of the least molded depth measured from the top of the keel (or on a vessel designed with a rake of keel, on a waterline parallel to the designed waterline); and</p> <p>(ii) the length from the fore side of the stem to the axis of the rudder stock on the waterline: and</p> <p style="text-align: center;"><b>(B) for any other vessel, the horizontal distance of the hull between the foremost part of the stern and the aftermost part of the stem, excluding fittings and attachments.</b></p>
ADF&G regulations	<p style="text-align: center;">5 AAC 28.690. Vessel length restrictions for the Bering Sea-Aleutian Islands Area for groundfish</p> <p style="text-align: center;"><b>(d) In this section, "overall length" means the straight line length between extremities of the vessel, excluding anchor rollers.</b></p>

## 6. Affected Small Entities (Regulatory Flexibility Act Considerations)

Section 603 of the Regulatory Flexibility Act (RFA) requires that an initial regulatory flexibility analysis (IRFA) be prepared to identify if a proposed action will result in a disproportionate and/or significant adverse economic impact on the directly regulated small entities, and to consider any alternatives that would lessen this adverse economic impact to those small entities. NMFS Alaska region will prepare the IRFA in the classification section of the proposed rule for an action and a separate IRFA is not necessary for Council final actions on the issue. This section will provide information that NMFS will use to

prepare the IRFA for this action, namely a description and estimate of the number of small, directly regulated entities to which the proposed action will apply.

The proposed action would redefine the BSAI Pacific cod jig sector as the new BSAI Pacific cod small vessel sector which would include H&L or pot CVs less than or equal to either 55' or 56' LOA (option 1 and 2, respectively) and jig CVs and CPs. The current less than 60' H&L or pot CV sector would be redefined to exclude H&L or pot CVs less than or equal to either 55' or 56' LOA.

### **Identification of Directly Regulated Entities**

Entities that could be directly regulated by this action include vessels operating in the Federal BSAI Pacific cod less than 60' H&L or pot CVs and jig CV/CP sectors. This section identifies all entities that could be considered directly regulated entities under the range of alternatives considered and likely represents an overestimate of the number of small entities that would be directly regulated by any one action alternative.

### **Count of Small, Directly Regulated Entities**

Under the RFA, businesses that are classified as primarily engaged in commercial fishing are considered small entities if they have combined annual gross receipts not in excess of \$11.0 million for all affiliated operations worldwide, regardless of the type of fishing operation (81 FR 4469; January 26, 2016). If a vessel has a known affiliation with other vessels – through a business ownership or through a cooperative – these thresholds are measured against the small entity threshold based on the total gross revenues of all affiliated vessels. In the most recent five years for which data are available (2016 through 2020) there were 58 active vessels that participated in the Federal BSAI Pacific cod less than 60' H&L or pot CV and jig sectors. Of these 58 vessels, 55 were active in the less than 60' H&L or pot CV and jig sectors in 2020 and all but one vessel are considered small entities.

- Five vessels participated in the BSAI Pacific cod jig sector (2016 through 2020), of which three were active in 2020. All of these vessels are considered small entities.
- 15 H&L or pot CVs less than or equal to 56' LOA participated in the BSAI Pacific cod fishery (2016 through 2020), of which 14 were active in 2020. All of these vessels are considered small entities.
- 40 H&L or pot CVs greater than 56' LOA participated in the less than 60' H&L or pot CV sector (2016 through 2020), of which 38 were active in 2020. 37 of the 38 vessels are considered small entities.

## **7. Summation of the Alternatives with Respect to Net Benefit to the Nation**

Overall, this action is likely to have a limited effect on the net benefits to the Nation. Under the status quo (Alternative 1), vessels in the BSAI Pacific cod less than 60' H&L or pot CV sector would continue to harvest BSAI Pacific cod from their 2 percent allocation. This could impact H&L or pot CVs less than or equal to either 55' or 56' LOA (option 1 and option 2, respectively) as they compete against larger H&L or pot CVs in the sector with additional efficiencies and capacity typically associated with vessels 58' or greater. However, it does not appear that H&L or pot CVs greater than 56' are harvesting a larger portion of the sector's final allocation over time (see Figure 4-1). As such, the extent of these potential effects is difficult to predict and depends on several factors, including future levels of BSAI Pacific cod TAC and future fishing activity.

Under Alternative 2, H&L or pot vessels that are less than or equal to either 55' or 56' LOA (option 1 and option 2, respectively) would be eligible to harvest BSAI Pacific cod from the jig sector's allocation (1.4



percent). This action could potentially provide benefits to H&L or pot vessels less than or equal to 55' (28 vessels) or 56' (5 vessels) LOA that have historically participated in the BSAI Pacific cod less than 60' H&L or pot CV sector. However, as described in Chapter 4, under Alternative 2, there is a distinct possibility of incidental allocation effects that would impact H&L or pot CVs that are greater than 56' LOA and would remain in the redefined less than 60' H&L or pot CV sector.

Historically common patterns of annual reallocations from the BSAI Pacific cod jig sector to the less than 60' H&L or pot CV sector, which has occurred every year since 2008, are likely to be impacted under Alternative 2. This would represent a change in historical patterns of use between sectors as seen over the 2008-2021 period. These effects could occur under option 1 and option 2 and are more likely under option 2 which includes 56' H&L or pot CVs. As a result, this action would have distributional effects on historical participants in the less than 60' H&L or pot CV sector as routine reallocation(s) of BSAI Pacific cod from the jig sector to the less than 60' H&L or pot CV sector (status quo) would instead be utilized by the new BSAI Pacific cod small vessel sector.

There is potential for NMFS to reallocate any projected remaining BSAI Pacific cod TAC from the new BSAI Pacific cod small vessel sector to the redefined less than 60' H&L or pot CV sector which could mitigate some of distribution effect of this action. However, it is uncertain if or when NMFS would know whether any TAC would be available from the new BSAI Pacific cod small vessel sector to reallocate to the redefined less than 60' H&L or pot CV sector. This could have cumulative effects on these vessel's safety, and it is more challenging for NMFS to conservatively manage a fishery with smaller quotas and fished at a faster pace. However, any reduction in operational efficiency could be somewhat offset by the potential benefits identified in the Council's problem statement that would accrue from supporting smaller H&L or pot CVs that could benefit from harvesting BSAI Pacific cod from the jig sector's allocation absent the competition from larger H&L or pot CVs with modified capacity and efficiencies.

## 8. Magnuson-Stevens Act and FMP Considerations

Below are the 10 National Standards as contained in the MSA. In recommending a preferred alternative at final action, the Council must consider how to balance the National Standards.

A brief discussion of this action with respect to each National Standard will be prepared for final action.

### 8.1. Magnuson-Stevens Act National Standards

Below are the 10 National Standards as contained in the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). In recommending a preferred alternative at final action, the Council must consider how to balance the national standards.

A brief discussion of this action with respect to each National Standard will be prepare for Council final action.

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

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

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

**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 United States 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.

**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.

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

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

**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 by utilizing economic and social data that meet the requirements of National Standard 2, 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.

**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.

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

## **8.2. 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 or 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 for this FMP amendment constitutes the fishery impact statement. The likely effects of the proposed action are analyzed and described throughout this RIR, particularly Chapter 4. The effects of the proposed action on participants in the fisheries and fishing communities are evaluated in sections 4.3 and 4.5. The effects of the proposed action on safety of human life at sea are evaluated in Section 4.3.3.

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.

### 8.3. Council's Ecosystem Vision Statement

In February 2014, the Council adopted, as Council policy, the following:

#### **Ecosystem Approach for the North Pacific Fishery Management Council**

##### ***Value Statement***

*The Gulf of Alaska, Bering Sea, and Aleutian Islands are some of the most biologically productive and unique marine ecosystems in the world, supporting globally significant populations of marine mammals, seabirds, fish, and shellfish. This region produces over half the nation's seafood and supports robust fishing communities, recreational fisheries, and a subsistence way of life. The Arctic ecosystem is a dynamic environment that is experiencing an unprecedented rate of loss of sea ice and other effects of climate change, resulting in elevated levels of risk and uncertainty. The North Pacific Fishery Management Council has an important stewardship responsibility for these resources, their productivity, and their sustainability for future generations.*

##### ***Vision Statement***

*The Council envisions sustainable fisheries that provide benefits for harvesters, processors, recreational and subsistence users, and fishing communities, which (1) are maintained by healthy, productive, biodiverse, resilient marine ecosystems that support a range of services; (2) support robust populations of marine species at all trophic levels, including marine mammals and seabirds; and (3) are managed using a precautionary, transparent, and inclusive process that allows for analyses of tradeoffs, accounts for changing conditions, and mitigates threats.*

##### ***Implementation Strategy***

*The Council intends that fishery management explicitly take into account environmental variability and uncertainty, changes and trends in climate and oceanographic conditions, fluctuations in productivity for managed species and associated ecosystem components, such as habitats and non-managed species, and relationships between marine species. Implementation will be responsive to changes in the ecosystem and our understanding of those dynamics, incorporate the best available science (including local and traditional knowledge), and engage scientists, managers, and the public.*

*The vision statement shall be given effect through all of the Council's work, including long-term planning initiatives, fishery management actions, and science planning to support ecosystem-based fishery management.*

In considering this action, the Council is being consistent with its ecosystem approach policy. There are no anticipated impacts to the human environment and this action would continue to support productive and resilient marine ecosystems. Additionally, this action could potentially provide benefits to H&L or pot vessels less than or equal to either 55' or 56' LOA currently operating in the BSAI Pacific cod less than 60' H&L or pot CV sector, and there are no anticipated direct or indirect impacts on the subsistence harvest, sharing or use of BSAI Pacific cod.

## 9. Preparers and Persons Consulted

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