FINAL

Regulatory Impact Review
for Regulatory Amendment

Halibut IFQ Leasing by CDQ Groups

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National Oceanic and Atmospheric Administration

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Abstract: This Regulatory Impact Review Analysis examines a regulatory amendment that would apply exclusively to the Individual Fishing Quota (IFQ) fishery in the Bering Sea and Aleutian Islands (BSAI) for Pacific halibut (*Hippoglossus stenolepis*), and Community Development Quota (CDQ) groups fishing in the BSAI. The action under consideration in this analysis would allow CDQ groups to lease Area 4B, 4C, and 4D halibut IFQ from quota shareholders in times of low halibut catch limits in Area 4B and Area 4CDE. Under this action, leased halibut IFQ could be harvested on vessels less than or equal to 51 feet length overall, subject to the CDQ group's internal halibut management. The intent is that IFQ would be leased from non-residents for use by residents in the CDQ communities. The purpose of this action is to allow CDQ residents to continue fishing in years where the halibut CDQ may not be large enough to present a viable fishery for participants.

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List of Acronyms and Abbreviations

Acronym	Definition
ADF&G	Alaska Department of Fish and Game
AKFIN	Alaska Fisheries Information Network
APICDA	Aleutian Pribilof Island Community Development Association
BSAI	Bering Sea and Aleutian Islands
BBEDC	Bristol Bay Economic Development Corporation
CBSFA	Central Bering Sea Fishermen's Association
CDQ	Community Development Quota
CVRF	Coastal Villages Region Fund
E.O.	Executive Order
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
FMP	fishery management plan
FR	*Federal Register*
FRFA	Final Regulatory Flexibility Analysis
GOA	Gulf of Alaska
IFQ	Individual Fishing Quota
IRFA	Initial Regulatory Flexibility Analysis
LOA	length overall
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
NAICS	North American Industry Classification System
NSEDC	Norton Sound Economic Development Corporation
NMFS	National Marine Fishery Service
NOAA	National Oceanic and Atmospheric Administration
NPFMC	North Pacific Fishery Management Council
PA	Preferred alternative
PPA	Preliminary preferred alternative
RFA	Regulatory Flexibility Act
RIR	Regulatory Impact Review
SBA	Small Business Act
TAC	total allowable catch
U.S.	United States
QS	Quota share
YDFDA	Yukon Delta Fisheries Development Association

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1 INTRODUCTION

This document analyzes proposed management measures that would apply exclusively to the Individual Fishing Quota (IFQ) fishery in the Bering Sea and Aleutian Islands (BSAI) for Pacific halibut (*Hippoglossus stenolepis*), and Community Development Quota (CDQ) groups fishing in the BSAI. The proposed action under consideration in this analysis would allow CDQ groups to lease Area 4B, 4C, and 4D halibut IFQ from quota share (QS) holders in times of low halibut catch limits in Area 4B and Area 4CDE. Under this action, leased halibut IFQ could be harvested on vessels less than or equal to 51 feet length overall, subject to the CDQ group's internal halibut management. The intent is that IFQ would be leased from non-residents for use by residents in the CDQ communities. The purpose of this action is to allow CDQ residents to continue fishing in years where the halibut CDQ may not be large enough to present a viable fishery for participants.

This document is a Regulatory Impact Review (RIR).[1] An RIR provides assessments of the economic benefits and costs of the action alternatives, as well as their distribution. This RIR addresses the statutory requirements of the Magnuson Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), the National Environmental Policy Act, Northern Pacific Halibut Act of 1982, Presidential Executive Order 12866. An RIR is a standard document produced by the North Pacific Fishery Management Council (Council) and the National Marine Fisheries Service (NMFS) Alaska Region to provide the analytical background for decision-making.

Implementation of the management measures evaluated in this analysis would require a change to Federal regulations about the IFQ Program. Implementation of the Council's PA would also require changes to International Pacific Halibut Commission (IPHC) regulations. NMFS will recommend these amendments to the IPHC for consideration at its annual meeting in January 2018. If the IPHC adopts the regulatory revisions, NMFS will coordinate with the IPHC to ensure that the revised IPHC regulations are effective at the same time NMFS regulations to implement the proposed action are effective. This will ensure that domestic halibut regulations for Alaska are consistent with IPHC regulations as required by the Northern Pacific Halibut Act of 1982. The Council's PA would not require an amendment to a Fishery Management Plan.

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

1.1 Purpose and Need

The CDQ program, as specified by the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), is intended to provide western Alaska communities the opportunity to participate and invest in BSAI fisheries, to support economic development in western Alaska, to alleviate poverty and provide economic and social benefits for residents of Western Alaska, and to achieve sustainable and diversified local economies in western Alaska (§305(i)).

The recent years of low halibut abundance and the resulting low catch limits in IPHC regulatory Area 4, have presented difficulties in most CDQ groups' ability to create a viable halibut fishing opportunity for their residents. Given the social and cultural dependence on this species, as well as the economic importance it renders for small vessel fishing operations, the purpose of this action would be to provide an opportunity for CDQ groups to alleviate the adverse impacts of decreasing available halibut resource on Western Alaskan communities. The intention is to work towards the goals of the CDQ program without compromising the goals of the IFQ program.

The Council adopted the following purpose and need statement in December 2015:

> *The Community Development Quota (CDQ) Program was established to provide an opportunity to eligible western Alaska communities to invest and participate in BSAI fisheries. Among the species CDQ groups are allocated, Pacific halibut is of primary importance to many resident small-boat fishermen for providing employment and income in many of the member communities. Most small vessels fishing halibut CDQ generally do not fish halibut IFQ, and recent years of low abundance have created hardships for participating CDQ halibut fishermen. In times of low halibut catch limits, additional opportunity for CDQ groups to lease and use halibut IFQ for fishing in Areas 4B and 4CDE may benefit resident CDQ fishermen without undermining the goals of the halibut IFQ Program.*

1.2 History of this Action

In June 2015, the Council initiated a discussion paper to examine a proposal to allow CDQ groups to lease halibut IFQ from individuals in Areas 4B, 4C, and 4D[2] for harvest by CDQ residents in years with low halibut catch limits in regulatory areas 4CDE. This discussion paper was presented to the IFQ Implementation Committee, Advisory Panel (AP), and the Council in December 2015. At this December meeting, the Council adopted a purpose and need, and created a set of alternatives.

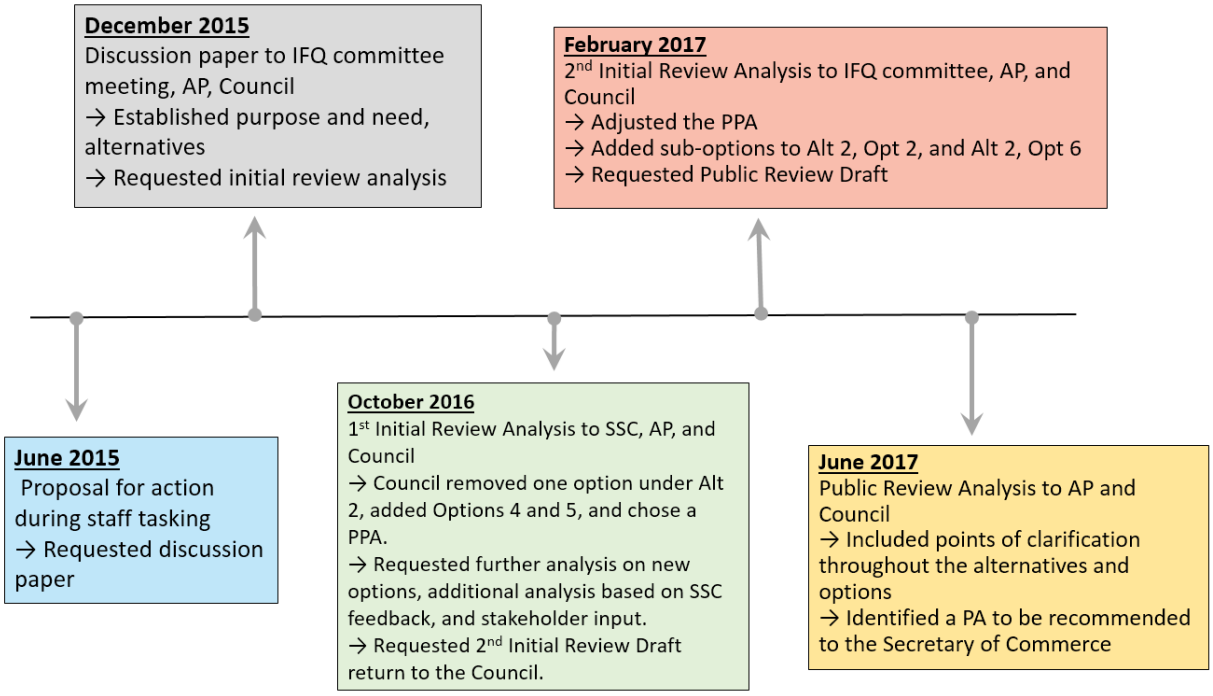
In October 2016, the Initial Review Draft analysis was presented to the Scientific and Statistical Committee (SSC), AP, and the Council. The Council removed one option under the suite of Alternatives (see Section 2.2), added Options 4 and 5 under Alternative 2, and identified a preliminary preferred alternative (PPA). Based on requests for more information from the SSC, public testimony, as well as the addition of options, the Council requested another round of Initial Review for the package.

[2] The motion for this proposal also suggested leasing Area 4E QS; however, IFQ is not issued in Area 4E. This clarification was made in the December 2015 alternatives.

In February 2017, the IFQ committee, the AP, and the Council discussed the second Initial Review analysis on this issue. The Council adjusted the alternatives with the inclusion of a new set of sub-options under Alternative 2, Option 2, a new Alternative 2, Option 6, and some minor clarification language to the existing alternatives. It redefined the PPA.

In June 2017, the Council took action to recommend a Preferred Alternative (PA). The Council chose its PPA, augmented with additional clarifying language throughout its recommendation (see Section 2.3 for the Council's rationale).

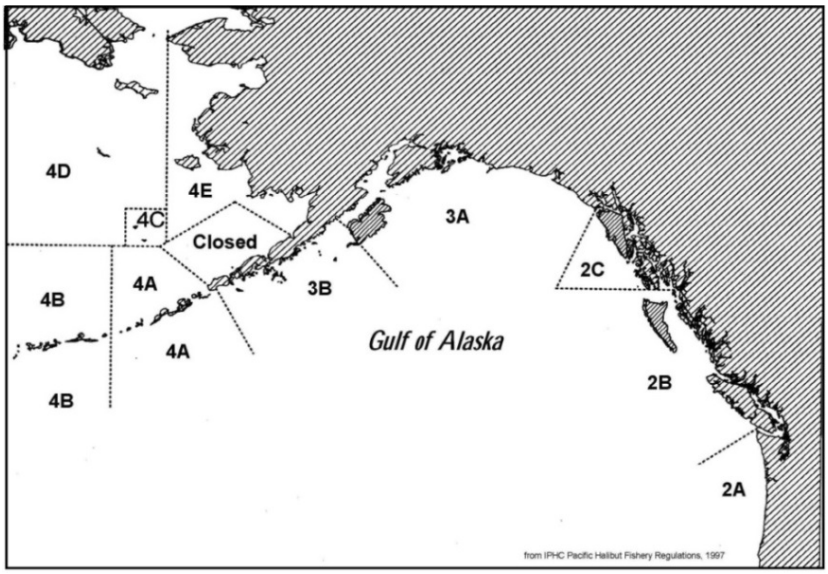
Figure 1 Timeline of Council action on this issue



1.3 Description of Management Area

The proposed action would apply to IPHC regulatory Area 4B, 4C, 4D, and 4E (Figure 2). The halibut catch limits for Area 4B, 4C, and 4D are shared between CDQ groups and the IFQ program. Throughout the duration of the IFQ Program, Area 4E catch limit has been exclusively allocated to the CDQ program; therefore, no 4E IFQ is allocated and therefore, could not be leased to a CDQ group. Option 4, of Alternative 2 would allow Area 4D IFQ to be leased to CDQ groups and harvested in Area 4E. The current harvest flexibilities across IPHC area boundaries that are available to IFQ and CDQ participants are explained in Section 3.5.2.

Figure 2 Regulatory areas for halibut in Alaska.



Source: IPHC

2 DESCRIPTION OF THE ALTERNATIVES

The action alternative in this analysis was designed to accomplish the stated purpose and need for the action; to provide CDQ groups with an opportunity to provide their residents additional opportunity to harvest BSAI halibut, during times of low halibut abundance. The Council adopted the alternative for analysis in December 2015. The alternatives and options were revised in October 2016 and scheduled to return to the Council for additional initial review. In February 2017, the action alternative was revised slightly and scheduled to be released for Public Review. The Council identified its Preferred Alternative (PA) in June 2017, represented below in bold.

Alternative 1. No Action

Alternative 2. **Allow CDQ groups to lease halibut IFQ in Areas 4B, 4C and 4D in years of low halibut catch limits in regulatory Areas 4B and 4CDE. A CDQ group may lease IFQ only in areas it is allocated halibut CDQ. Any IFQ transferred to a CDQ group under this provision would be added to their available halibut CDQ. No vessel over 51 feet LOA would be eligible to harvest the leased IFQ and vessels would have to comply with IFQ use restrictions.**

Option 1. **Defining 'low catch limits' for the purpose of allowing leases. Designation of low catch limits can be independently determined for Areas 4B and 4CDE. The threshold for designating a year of low halibut catch limit in each area is less than:**

Sub-option 1. 1 million pounds for Area 4B
Sub-option 2. 1.3 million pounds
Sub-option 3. 1.5 million pounds for Area 4CDE

Option 2. **Leased Area 4D IFQ may be fished in Area 4E.**

Sub-option 1. Area 4D A Class IFQ owned by CDQ groups may be fished in Area 4E when the abundance threshold in Area 4CDE is triggered
Sub-option 2. Any CDQ owned or non-CDQ owned Area 4D A Class IFQ leased by a CDQ group may be fished in Area 4E by vessels less than or equal to 51 feet when the catch limit threshold in Area 4CDE is triggered

Option 3. Any Area 4B, 4C, or 4D catcher vessel QS transferred after December 14, 2015 may not be leased as IFQ to CDQ groups under this action for a period of:

Sub-option 1. 3 years
Sub-option 2. 4 years
Sub-option 3. 5 years

Option 4. No individual halibut QS holder may lease catcher vessel halibut IFQ to any CDQ group, on a consecutive basis, for more than:

Sub-option 1. 2 years
Sub-option 2. 3 years
Sub-option 3. 4 years

Option 5. Limit the ability to lease Area 4B catcher vessel halibut IFQ to CDQ groups under this action to quota holders that own less than the following total area 4B holdings, inclusive of all class and blocked or unblocked categories:

Sub-option 1. 2,000 lbs
Sub-option 2. 5,000 lbs
Sub-option 3. 7,500 lbs
Sub-option 4. Convert Sub-option 3 to 2016 QS units

Option 6. Require CDQ groups to submit a report for each year the group leases IFQ. The report must specify the criteria used to select IFQ holders leasing to a CDQ group, the criteria used to determine who can receive leased IFQ, and the amount and type of IFQ leased. A CDQ group will not be eligible to lease halibut IFQ until a timely and complete report is submitted.

The Council intends for IFQ to be leased from non-residents for use by residents of a CDQ community.

2.1 Alternative 1, No Action

In this analysis, the no action alternative is the regulatory status quo. With no action, CDQ groups are not eligible to purchase halibut or sablefish QS/IFQ, with the exception of Class A shares (catcher/ processor shares; see Section 2.2 for description of QS classes).

Additionally, under current regulations, leasing of IFQ derived from catcher vessel shares has generally been prohibited (for individuals or CDQ groups) since 1998. Several provisions are included in the program that allowed for outright leasing under special conditions. This includes leasing of IFQ derived from class A shares. It also includes leasing of catcher vessel IFQ through:

1) temporary medical leases,
2) survivorship transfer privileges,
3) military leases,
4) leases through CQEs, and
5) IFQ to guided angler fish (GAF) transfers.

Therefore, CDQ groups and residents of Western Alaska communities that are not QS holders, generally do not have access to catcher vessel IFQ leasing options to supplement halibut CDQ. A greater description of what is available under no action is described in Section 3.7.

2.2 Alternative 2, Allow Halibut IFQ Leasing by CDQ Groups

The action alternative would allow CDQ groups to lease catcher vessel halibut IFQ in Areas 4B, 4C, and 4D in years of low halibut catch limits in regulatory Areas 4B and 4CDE. A CDQ group may lease IFQ only in areas it is allocated halibut CDQ. Any halibut IFQ transferred to a CDQ group under this provision would be available for use in conjunction with halibut CDQ. This action would *not* convert transferred IFQ to CDQ. CDQ allocations of halibut would not change under this action. Only vessels less than or equal to 51 feet LOA would be eligible to harvest the leased halibut IFQ, subject to the group's internal halibut management.

Alternative 2, Option 1 includes a series of sub-options for defining 'low catch limits' which would trigger the ability to lease. Separate sub-options could be established for Area 4B and Area 4CDE. Options include 1 million pounds, 1.3 million pounds, and 1.5 million pounds.

Under current regulations, Area 4D halibut IFQ is only able to be harvested in Area 4D. However, in 2003, the IFQ program was amended to allow CDQ group participants to harvest allocations of Area 4D CDQ in Area 4E. This action was intended to allow residents in CDQ communities along the Western Alaska coast more ability to have near-shore fishing opportunities to harvest their group's CDQ halibut (see Section 3.5.2). Option 2 under Alternative 2 would allow Area 4D catcher vessel IFQ (i.e., Class B and C shares) that is leased to a CDQ group be fished in Area 4E. Thus, leased Area 4D catcher vessel IFQ would have the same flexibility as Area 4D CDQ. Without the adoption of this option, regulatory boundaries apply as under status quo (described in Section 3.5.2).

The majority of the proposed action does not apply to Class A halibut IFQ, as this class designation already has the flexibility to be leased to whomever, even in years when halibut abundance is high. However, two mutually exclusive sub-options under Alternative 2, Option 2 would extend Area 4D harvest flexibility to Class A shares when the catch limits dropped below the established thresholds. Two sub-options under Option 2 are included for harvest flexibility. The first would allow Area 4D Class A IFQ that was held by a CDQ group be fished in Area 4E when the abundance threshold was triggered. The second would allow any Area 4D Class A IFQ leased by a CDQ group be fished in Area 4E when the abundance threshold was triggered, regardless of who holds the QS.

Alternative 2 also contains three options (which are not mutually exclusive) that would include restrictions on who could lease catcher vessel IFQ to a CDQ group and for how long. Option 3 would lock in a set of years after the acquisition of QS (i.e., a cooling-off period) in which that QS could not be leased to a CDQ group. Sub-options include 3, 4, and 5 years. For example, if the Council adopted Option 3, Sub-option 3 and an individual bought halibut QS on December 14th, 2015, they could lease IFQ from that QS to CDQ groups as soon as the action was implemented (assuming all other requirements are met - i.e., it's a low catch limit year). If the Council adopted Option 3, Sub-option 3 and an individual bought halibut QS on December 15th, 2015, they could not lease IFQ from that QS to CDQ groups until December 15th, 2020.

Option 4 would establish the maximum consecutive number of years a QS holder could lease their catcher vessel IFQ to CDQ groups. This includes sub-options of 2, 3, and 4 years. Consecutive means that if, for example under Sub-option 2, an individual leased for two years and the third year the catch limit rose

above the low catch limit threshold (Alternative 2, Option 1), in the fourth year that individual would be eligible to lease again if the catch limit dropped below the low catch limit threshold.

Option 5 would only apply to Area 4B catcher vessel QS and would limit the ability to lease Area 4B halibut IFQ to CDQ groups exclusively to those individuals or entities holding small amounts of QS. Thresholds considered include less than 2,000, 5,000, or 7,5000 pounds, or establishing one of these thresholds as 2016 QS units.

The final option under consideration would establish an additional reporting requirement for CDQ groups that have taken advantage of the opportunity to lease catcher vessel halibut IFQ. This report would include the criteria used to select the QS holder the group will lease IFQ from, the criteria used to determine who will fish the leased IFQ, and the amount and type of IFQ leased. The purpose of this report would be to evaluate the leasing behavior of the CDQ groups, and provide a continued opportunity for the Council to assess whether this behavior is consistent its intent for the action.

2.3 Rationale for the Preferred Alternative

The Council chose Alternative 2 as its PA. The purpose of this action is to alleviate the adverse impacts of decreasing available halibut resource on Western Alaskan communities by providing additional opportunities for halibut harvest in some years. The intent of this PA is to promote the goals of the CDQ program without negatively impacting the goals of the IFQ program.

The analysis describes that this PA would be expected to provide positive distributional impacts to CDQ community residents that have traditionally been involved in the halibut CDQ fishery by allowing for continued employment and income from the fishery. The opportunity may have a particularly meaningful impact for these residents, as there tends to be limited regional economic diversity in these communities, resulting in few substitute employment options for residents. The analysis describes that the benefits from the proposed action likely would be different among CDQ groups; some of the groups would be more likely to utilize the option in low catch limit years.

The Council also continued to recommend a limit on the length of vessels that could participate in the harvesting of leased halibut IFQ. Only vessels less than or equal 51 feet length overall (LOA) would be eligible to harvest the leased IFQ under the PA. The Council established this threshold based on recent testimony indicating that this is the largest size vessel available to CDQ community residents that has landed halibut CDQ. While landings data show that vessels greater than 51 feet LOA have landed halibut CDQ in the recent past, the objective of the action alternative is to allow for additional (or continued) opportunity for participation among vessels already available in the CDQ group communities, so that resident skippers and crew members can benefit from the resulting harvest of halibut IFQs. Thus, this vessel size threshold is a proxy for limiting additional harvest opportunity to residents of the CDQ communities. Vessels greater than 51 feet LOA, are generally owned by the CDQ groups themselves or non-resident individuals that benefit the groups and communities by paying a lease fee for the use of CDQ. The Council intended for the proposed action to benefit CDQ community residents because it determined these residents had been particularly adversely impacted by low halibut catch limits in recent years because they have more limited harvest opportunities compared to other QS holders (including these non-resident vessel owners/crew).

In a previous action in which the Council chose to release CDQ vessels from License Limitation Program (LLP) requirements (NMFS 2015b), it was determined that vessels that were owned by CDQ community residents were 46 feet LOA or under. For this action, the additional participation by resident-owned vessels up to the 51-foot length designation was confirmed by vessel ownership data for active vessels in 2014 and 2015.

The Council also clarified under the PA that the CDQ groups would only be eligible to lease halibut IFQ in regulatory areas in which they currently hold CDQ. Again, this provision was included to ensure the benefits manifest with the intended recipients, the resident halibut fleet in the CDQ communities. Generally, CDQ groups hold CDQ in the areas adjacent to their communities (although some groups hold CDQ in additional areas as well (See Figure 2, Figure 3, and Figure 4), therefore a leasing option in these areas should be enough to provide residents with additional or continued opportunity to harvest halibut.

Under Alternative 2, Option 1, separate sub-options were selected as "low catch limit thresholds" as a PA for Area 4B and Area 4CDE. The Council selected Sub-option 1, 1 Mlb as the PA for Area 4B and Sub-option 3, 1.5 Mlb as the PA for Area 4CDE.

These sub-options were selected in an effort to balance the desire to provide additional opportunity for CDQ residents in years where the CDQ allocation alone may not be enough to sustain a small vessel resident fishery, with potential adverse distributional impacts on other halibut IFQ users. The Council wanted this flexible to remain a "worst case scenario" opportunity for CDQ management seeking to provide economic opportunity for their residents. Thus, the threshold for Area 4CDE was set at 1.5 Mlb. Between 2008 and 2017, the Area 4CDE catch limit has only fallen below this threshold twice (2014 and 2015; Table 16). The threshold for Area 4B was set at a lower mark (1 Mlb), due to public testimony on the potentially adverse distributional impacts on the non-CDQ community of Adak. Throughout this time period (2008-2017), Area 4B catch limits have never fallen below the 1 Mlb threshold.

Alternative 2, Option 2 was adopted as part of the PA in order to allow Area 4D catcher vessel IFQ leased by CDQ groups to be harvested in Area 4E. This additional flexibility is intended to improve the effectiveness of the proposed action by enabling leased IFQ to be fished closer to Western Alaska communities, similar to Area 4D CDQ. This flexibility brings the harvesting opportunity to nearshore areas that small vessels can safely prosecute.

Class A QS was also included in this amendment package with the adoption of Alternative 2, Option 2, Sub-option 2. This addition would allow any Area 4D Class A IFQ leased to a CDQ group (whether the underlying QS is held by an CDQ group or not) be fished in Area 4E by vessels less than or equal to 51 feet LOA, when the catch limit threshold is met. This extends the flexibility previously explained, particularly since the primary holder of Area 4D Class IFQ are CDQ groups. This option may allow a CDQ group that holds Area 4D Class A IFQ lease IFQ to themselves, to be harvested by their resident fleet in area 4E (see Section 3.8.6).

In addition to establishing the catch limit threshold, the Council's motion seeks to minimize the disruption to the IFQ program and IFQ stakeholder, through the Council's PA under Option 3, 4 and for Area 4B, Option 5. The PA establishes a cooling-off period in which a QS holder must wait three years after the acquisition of QS before they are eligible to lease. This sub-option is included so as not to encourage entry into the halibut QS market with the sole intention of leasing halibut IFQ to CDQ groups.

Three years was chosen based on the transfer rates presented in Figure 12 and Table 18. There was concern that choosing 4 or 5 years (Sub-option 2 or 3) would eliminate too much of the QS pool from eligibility. This could make it difficult for CDQ groups to identify QS eligible and willing to be leased, particularly in combination with the additional restrictions.

Under Option 4, a QS holder cannot lease more than two consecutive years in a row. The most restrictive sub-option of two years was adopted into the PA in order to discourage QS holders from relying on the ability to lease as part of their regular business plans.

Finally, in Area 4B, only QS holders with Area 4B QS holdings under 7,500 pounds (in 2016 units) would be eligible to lease under this action. This threshold was established with input from public testimony on the possible negative distributional impacts leasing may have on communities like Adak, which is not a CDQ group. Limiting leasing eligibility to approximately 12.8% of the Area 4B QS pool (a percentage that can change based on the buying and selling of QS; see Table 21and Table 22), is intended to mitigate the negative spillover impacts on other non-CDQ communities in the area. Going to a smaller limit (Sub-options 1 and 2), would mean only approximately 5.7% and only 1.5% of the Area 4B QS pool (respectively) may be available for leasing. This percentage would decrease even further given the combined restrictions from Option 3 and 4.

The combined effect of these options is expected to balance the constraint on the efficacy of the action (i.e., still providing a meaningful way for CDQ community residents to continue harvesting halibut even and times of low halibut catch limits), while at the same time being responsive to other IFQ Program stakeholders (see Section 3.8.2) and the original intent of the IFQ Program (Section 3.8.3).

While discussing the purpose and need for the proposed action, the Council also highlighted areas behind its intent of action that would be difficult or redundant for NMFS to manage and enforce. For instance, the intended beneficiaries of the action are residents of the CDQ communities in times when halibut catch limits are low. The Council considered including a statement that under Alternative 2 that leased halibut IFQ was, "intended to be leased from non-residents for use only by residents of a CDQ community with a halibut CDQ permit and a CDQ hired master permit". However, after deliberation, the Council clarified that it did not intend to establish a regulatory definition for "CDQ resident", nor did it intend for NMFS to verify that "residents" were not leasing their own IFQ, and that "residents" were in fact receiving the harvest benefits. CDQ groups have different methods of defining "residents" in their communities and different techniques for determining who will harvest their halibut CDQ (see Section 3.5.3). Given the diverse systems CDQ groups use to determine who will fish their halibut IFQ, and the burden to attempt to identify and enforce a consistent regulatory definition of "resident" across groups, the Council determined this would not be a productive approach to ensuring the intent of action.

Rather, the Council chose to adopt Option 6 as part of the PA which requires CDQ groups to submit an annual report in years where IFQ is leased. The reports must specify from whom the CDQ groups lease IFQ and who harvests the leased IFQ for the CDQ groups. Thus, this option allows the Council and the public to monitor the use of this flexibility, and determine whether it is being used in line with the original purpose of action. The Council clarified through a policy statement that it intends for IFQ to be leased from non-residents for use by residents of a CDQ community.

The Council stated that this PA is consistent with the requirements of the Halibut Act. The proposed allocation of fishing privileges is fair and equitable consistent with the provisions of the CDQ and IFQ Programs. The PA also maintains the IFQ Program excessive share provisions and limits the opportunity to lease halibut IFQ to ensure that no particular individual, corporation, or other entity acquires an excessive share of the halibut fishing privileges. The PA balances the Council's intent to balance the needs of CDQ and non-CDQ participants in the Area 4B, 4C and 4D directed halibut fisheries.

And finally, while this action is taken under authority of the Halibut Act, it is also consistent with National Standard 8 of the Magnuson-Stevens Act, which specifies that conservation and management measures shall provide for the sustained participation of such communities, and to the extent practicable, minimize adverse economic impacts on such communities.

2.4 Alternatives and Options Considered but Not Further Analyzed

One additional option under Alternative 2 was previously considered. This option would have allowed the leased IFQ pounds to be harvested on a vessel of any size (less than or equal to 51 feet LOA) regardless of the class designations of QS.

When the halibut/ sablefish IFQ Program was first implemented, halibut QS was designated as one of four QS classes (also called "vessel category" or "size category" of QS). These classes included one class for catcher processor (freezer) vessels (Class A), and three classes for catcher vessels. Although Class A halibut IFQ has the ability to be processed onboard, it may also be landed shore side by catcher vessels. Class A IFQ can be used to harvest halibut on any size vessel. The three classes of catcher vessel shares are distinct in their length designations: Class B can be used on catcher vessels of any size; Class C can be used on catcher vessels up to 60 feet LOA; and Class D can be used on catcher vessels less than or equal to 35 feet LOA. In response to safety concerns in the BSAI, a program amendment allows "fishing up" of Class D QS in Areas 3B, 4C, and 4B. This means IFQ designated as D class can be harvested on a vessel less than or equal to 60 feet LOA in these areas. Table 1 demonstrates the current use restrictions by share category and how "Fish up" and "Fish down" adds flexibility for QS/ IFQ holders.

Table 1 Current vessel QS class specifications for the halibut IFQ fisheries

IFQ Species	QS Class	Vessel Length Designation
Halibut	A	Any length
	B	Any length
	C	≤ 60 feet
	D*	≤ 35 feet

*Under the "fish up" provision, halibut IFQ Category D shares are able to be used on vessel ≤ 60 feet LOA in Areas 3B, 4C, and 4B.

Since the threshold for the proposed action would only allow vessels less than or equal to 51 feet LOA to participate (subject to the CDQ group's internal management), based on the current flexibility under the

"fish up" provisions in Area 4B and 4C, no additional regulations would need to be changed for vessels less than or equal to 51 feet LOA to use any class of Area 4B and 4C QS in these areas.

Furthermore, based on the characteristics of the historical participation, (specifically the larger vessels that prosecuted the open waters of the Bering Sea in Area 4D), no Class D shares were initially issued for Area 4D. Therefore, no additional regulations would need to be changed for vessels less than or equal to 51 feet LOA to use any available class of Area 4D QS in Area 4D, or (based on the adoption of Alternative 2, Option 2) in Area 4E.

3 REGULATORY IMPACT REVIEW

This Regulatory Impact Review (RIR) examines the benefits and costs of a proposed regulatory amendment to allow CDQ groups to lease commercial halibut IFQ from quota share (QS) holders in times of low halibut abundance.[3]

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

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

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

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

3.1 Management Authority

Management of the halibut fishery off Alaska is based on an international agreement between Canada and the United States and is given effect by the Northern Pacific Halibut Act of 1982. The Act provides that, for the halibut fishery off Alaska, the Council may develop regulations, including limited access regulations, to govern the fishery, provided that the Council's actions are in addition to, and not in conflict with, regulations adopted by the International Pacific Halibut Commission (IPHC).

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

Regulations implementing the commercial IFQ fishery for Pacific halibut may be found at 50 CFR 679: Fisheries of the Exclusive Economic Zone off Alaska, Subpart D – Individual Fishing Quota Management Measures, Sections 679.40 through 679.45.

3.2 Purpose and Need for Action

The Council adopted the following purpose and need statement in December 2015:

> *The Community Development Quota (CDQ) Program was established to provide an opportunity to eligible western Alaska communities to invest and participate in BSAI fisheries. Among the species CDQ groups are allocated, Pacific halibut is of primary importance to many resident small-boat fishermen for providing employment and income in many of the member communities. Most small vessels fishing halibut CDQ generally do not fish halibut IFQ, and recent years of low abundance have created hardships for participating CDQ halibut fishermen. In times of low halibut catch limits, additional opportunity for CDQ groups to lease and use halibut IFQ for fishing in Areas 4B and 4CDE may benefit resident CDQ fishermen without undermining the goals of the halibut IFQ Program.*

3.3 Alternatives

The action alternative in this analysis was designed to accomplish the stated purpose and need for the action; to provide CDQ groups with an opportunity to provide their residents additional opportunity to harvest BSAI halibut, during times of low halibut abundance. The Council adopted the following alternatives for analysis in December 2015. The alternatives and options were revised in October 2016 and scheduled to return to the Council for additional initial review. In February 2017, the action alternative was revised slightly and scheduled to be released for Public Review. The Council identified its Preferred Alternative (PA) in June 2017, represented below in bold.

Alternative 1. No Action

Alternative 2. **Allow CDQ groups to lease halibut IFQ in Areas 4B, 4C and 4D in years of low halibut catch limits in regulatory Areas 4B and 4CDE. A CDQ group may lease IFQ only in areas it is allocated halibut CDQ. Any IFQ transferred to a CDQ group under this provision would be added to their available halibut CDQ. No vessel over 51 feet LOA would be eligible to harvest the leased IFQ and vessels would have to comply with IFQ use restrictions.**

> **Option 1**. **Defining 'low catch limits' for the purpose of allowing leases. Designation of low catch limits can be independently determined for Areas 4B and 4CDE. The threshold for designating a year of low halibut catch limit in each area is less than:**
>
> > **Sub-option 1. 1 million pounds for Area 4B**
> > Sub-option 2. 1.3 million pounds
> > **Sub-option 3. 1.5 million pounds for Area 4CDE**

Option 2. **Leased Area 4D IFQ may be fished in Area 4E.**

Sub-option 1. Area 4D A Class IFQ owned by CDQ groups may be fished in Area 4E when the abundance threshold in Area 4CDE is triggered

Sub-option 2. Any CDQ owned or non-CDQ owned Area 4D A Class IFQ leased by a CDQ group may be fished in Area 4E by vessels less than or equal to 51 feet when the catch limit threshold in Area 4CDE is triggered

Option 3. Any Area 4B, 4C, or 4D catcher vessel QS transferred after December 14, 2015 may not be leased as IFQ to CDQ groups under this action for a period of:

Sub-option 1. 3 years
Sub-option 2. 4 years
Sub-option 3. 5 years

Option 4. No individual halibut QS holder may lease catcher vessel halibut IFQ to any CDQ group, on a consecutive basis, for more than:

Sub-option 1. 2 years
Sub-option 2. 3 years
Sub-option 3. 4 years

Option 5. Limit the ability to lease Area 4B catcher vessel halibut IFQ to CDQ groups under this action to quota holders that own less than the following total area 4B holdings, inclusive of all class and blocked or unblocked categories:

Sub-option 1. 2,000 lbs
Sub-option 2. 5,000 lbs
Sub-option 3. 7,500 lbs
Sub-option 4. Convert Sub-option 3 to 2016 QS units

Option 6. Require CDQ groups to submit a report for each year the group leases IFQ. The report must specify the criteria used to select IFQ holders leasing to a CDQ group, the criteria used to determine who can receive leased IFQ, and the amount and type of IFQ leased. A CDQ group will not be eligible to lease halibut IFQ until a timely and complete report is submitted.

The Council intends for IFQ to be leased from non-residents for use by residents of a CDQ community.

3.4 Methodology for Analysis of Impacts

The evaluation of impacts in this analysis is designed to meet the requirement of E.O. 12866, which dictates that an RIR evaluate the costs and benefits of the alternatives, to include both quantifiable and qualitative considerations. Additionally, the analysis should provide information for decision-makers "to maximize net benefits (including potential economic, environment, public health and safety, and other

advantages; distributive impacts; and equity), unless a statute requires another regulatory approach." The costs and benefits of this action with respect to these attributes are described in the sections that follow, comparing the No Action Alternative 1 with the action alternative. The analyst then provides a qualitative assessment of the net benefit to the Nation of the action alternative, compared to no action.

This analysis primarily uses Alaska Department of Fish and Game (ADF&G) fish ticket data to describe the fishing behavior of the CDQ halibut small vessel fleet, which in this document is referring to vessels less than or equal to 51 feet length LOA that have previously relied on halibut CDQ to land halibut. In addition, NMFS Restricted Access Management (RAM) Program IFQ database is used to provide information on QS holdings. Publicly available information from NMFS RAM Program Transfer Reports (NMFS 2015a) provides information on QS prices and other transfer statistics. Anecdotal information was also gathered from representative of the CDQ groups, as well as other individuals involved in the halibut IFQ fisheries. A list of persons consulted is included in Section 5.

3.5 Background on the CDQ Halibut Fishery

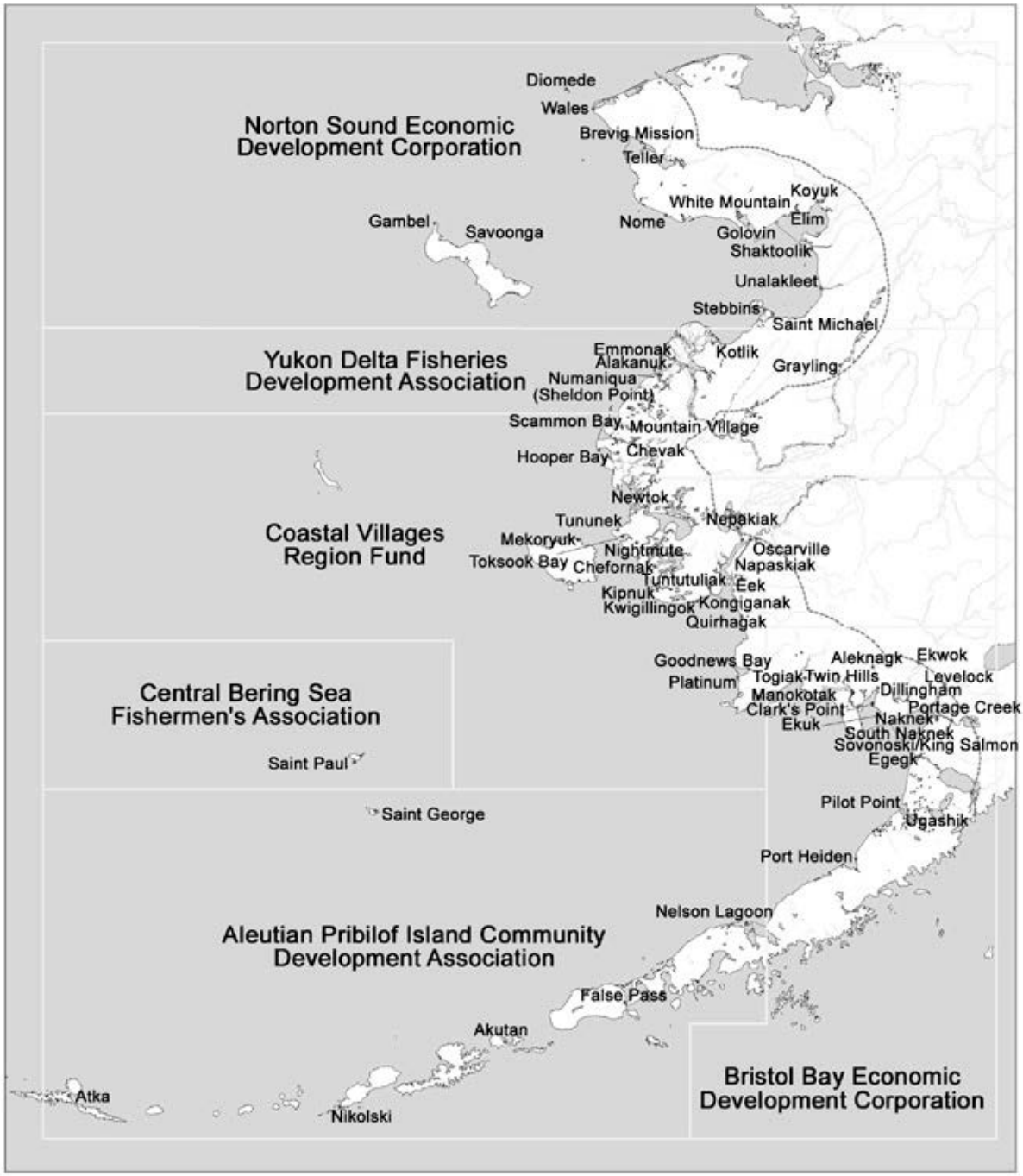
The CDQ Program is an economic development program associated with federally managed fisheries in the Bering Sea/ Aleutian Islands (BSAI). NMFS, the State of Alaska, and the Western Alaska Community Development Association (WACDA) administer the CDQ Program. Its purpose, as specified in the Magnuson-Stevens Act (§305(i)(1)(A)), is to provide western Alaska communities the opportunity to participate and invest in BSAI fisheries, to support economic development in western Alaska, to alleviate poverty and provide economic and social benefits for residents of western Alaska, and to achieve sustainable and diversified local economies in western Alaska.

In fitting with these goals, NMFS allocates a portion of the annual catch limits for a variety of commercially valuable marine species in the BSAI to the CDQ Program. The percentage of each annual BSAI catch limit allocated to the CDQ Program varies by both species and management area. These apportionments are, in turn, allocated among six different non-profit managing organizations representing different affiliations of communities (CDQ groups), as dictated under the Magnuson-Stevens Act. Eligibility requirements for a community to participate in the western Alaska Community Development Program are identified in the Magnuson-Stevens Act at §305(i)(1)(D). The six CDQ groups include:

- Aleutian Pribilof Island Community Development Association (APICDA)
- Bristol Bay Economic Development Corporation (BBEDC)
- Central Bering Sea Fisherman's Association (CBSFA)
- Coastal Villages Region Fund (CVRF)
- Norton Sound Economic Development Corporation (NSEDC)
- Yukon Delta Fisheries Development Association (YDFDA)

Figure 3 identifies the names and relative locations of the CDQ groups and the communities they represent.

Figure 3 Western Alaska CDQ communities and groups



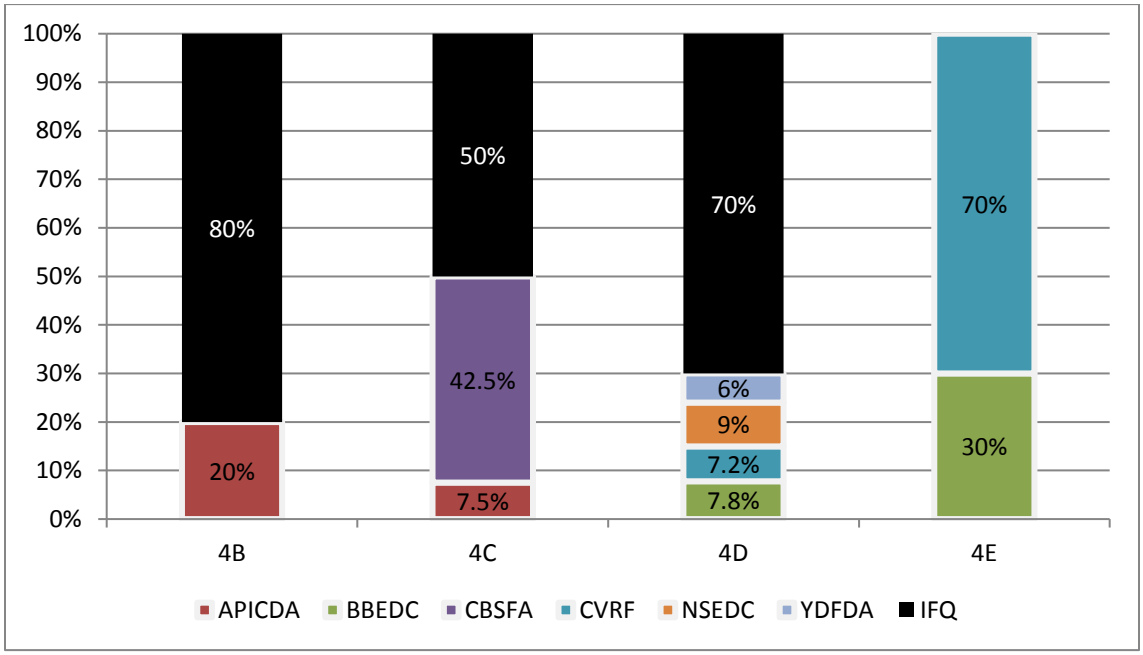
Source: NOAA, Alaska Fisheries Science Center

3.5.1 CDQ Allocations

Among the species CDQ groups are allocated for commercial fishing, Pacific halibut is an important species for resident employment and income in many of the groups. Halibut fisheries are regulated by the IPHC and NMFS, in consultation with the Council, as specified by the Northern Pacific Halibut Act. In practice, the IPHC establishes catch limits for directed halibut fisheries and other halibut conservation

measures, and the Council recommends regulations to govern the fisheries, including limited access and allocation decisions. Halibut is allocated to CDQ groups for commercial fisheries in four IPHC regulatory areas: 4B, 4C, 4D, and 4E (see Figure 4 and Table 2).

Figure 4 Halibut CDQ/ IFQ allocation in the regulatory Areas 4B, 4C, 4D and 4E



Source: 2016 CDQ program quota categories, target and non-target CDQ reserves, allocation percentages, and group quotas: https://alaskafisheries.noaa.gov/sites/default/files/reports/annualmatrix2016.pdf

Allocations of halibut quota are expected to provide CDQ groups real opportunities for small vessel fishing for their fleets, and, as such, area allocations of halibut CDQ are generally correlated with the location of the groups (refer to Figure 2, 3 and 4). For instance, Area 4B is located in the Aleutian Islands where the full CDQ allocation is held by APICDA. Area 4C surrounds the Pribilof Islands and the CDQ portion of the TAC is split 85% to St. Paul Island's CBSFA and 15% to APICDA, which includes St. George Island as a member. The CDQ portion of Area 4D is split 20% to YDFDA, 30% to NSEDC, 24% to CVRF, and 26% to BBEDC. Of the final Area 4E halibut CDQ, 70% is allocated to CVRF and 30% to BBEDC. Table 2 demonstrates the pounds that these percentages have represented over time (2008 through 2015).

Table 2 Annual halibut CDQ allocation by regulatory area (all units in net headed and gutted pounds)

Area	Year	TAC	Program Allocations	APICDA	BBEDC	CBSFA	CVRF	NSEDC	YDFDA
4B	2008	1,860,000	20%	372,000	0	0	0	0	0
	2009	1,870,000		374,000	0	0	0	0	0
	2010	2,164,000		432,000	0	0	0	0	0
	2011	2,180,000		436,000	0	0	0	0	0
	2012	1,869,000		373,800	0	0	0	0	0
	2013	1,450,000		290,000	0	0	0	0	0
	2014	1,140,000		228,000	0	0	0	0	0
	2015	1,140,000		228,000	0	0	0	0	0
	2016	1,140,000		228,000	0	0	0	0	0
4C	2008	1,769,000	50%	132,675	0	751,825	0	0	0
	2009	1,569,000		117,675	0	666,825	0	0	0
	2010	1,625,000		121,875	0	690,625	0	0	0
	2011	1,690,000		126,750	0	718,250	0	0	0
	2012	1,107,356		83,052	0	470,626	0	0	0
	2013	859,000		64,425	0	365,075	0	0	0
	2014	596,600		44,745	0	253,555	0	0	0
	2015	596,600		44,745	0	253,555	0	0	0
	2016	733,600		55,020	0	311,780	0	0	0
4D	2008	1,769,000	30%	0	137,982	0	127,368	159,210	106,140
	2009	1,569,000		0	122,382	0	112,968	141,210	94,140
	2010	1,625,000		0	126,750	0	117,000	146,250	97,500
	2011	1,690,000		0	131,820	0	121,680	152,100	101,400
	2012	1,107,356		0	86,374	0	79,730	99,662	66,441
	2013	859,000		0	67,002	0	61,848	77,310	51,540
	2014	596,600		0	46,535	0	42,955	53,694	35,796
	2015	596,600		0	46,535	0	42,955	53,694	35,796
	2016	733,600			57,221		52,819	66,024	44,016
4E	2008	352,000	100%	0	105,600	0	246,400	0	0
	2009	322,000		0	96,600	0	225,400	0	0
	2010	330,000		0	99,000	0	231,000	0	0
	2011	340,000		0	102,000	0	238,000	0	0
	2012	250,290		0	75,087	0	175,203	0	0
	2013	212,000		0	63,600	0	148,400	0	0
	2014	91,800		0	27,540	0	64,260	0	0
	2015	91,800		0	27,540	0	64,260	0	0
	2016	192,800		0	57,840	0	134,960	0	0
4CDE	2008	3,890,000		132,675	243,582	751,825	373,768	159,210	106,140
	2009	3,460,000		117,675	218,982	666,825	338,368	141,210	94,140
	2010	3,580,000		121,875	225,750	690,625	348,000	146,250	97,500
	2011	3,720,000		126,750	233,820	718,250	359,680	152,100	101,400
	2012	2,465,002		83,052	161,461	470,626	254,933	99,662	66,441
	2013	1,930,000		64,425	130,602	365,075	210,248	77,310	51,540
	2014	1,285,000		44,745	74,075	253,555	107,215	53,694	35,796
	2015	1,285,000		44,745	74,075	253,555	107,215	53,694	35,796
	2016	1,660,000		55,020	115,061	311,780	187,779	66,024	44,016

Source: CDQ program quota categories, target and non-target CDQ reserves, allocation percentages, and group quotas (2008 through 2016): https://alaskafisheries.noaa.gov/sites/default/files/reports/annualmatrix2016.pdf

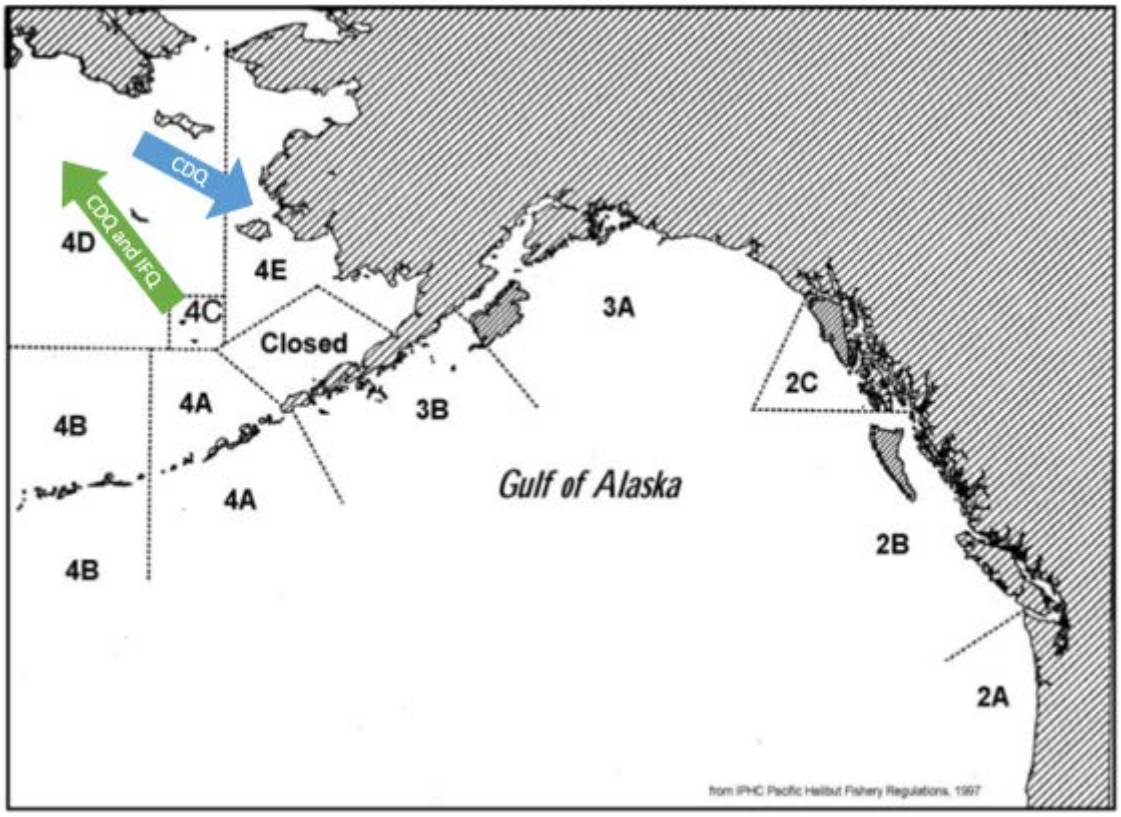
3.5.2 Harvest Flexibility (CDQ/ IFQ)

There is some fishing flexibility within the halibut regulatory areas as well (Figure 5). The IPHC considers the halibut in Areas 4C, 4D, and 4E to be a single stock unit for stock assessment and management purposes. Separation of these areas was a socio-economic decision established in the Council's Catch Sharing Plan for Area 4 (61 FR 11337). Therefore, there has been latitude for the Council to consider exemptions to harvesting halibut allocations across these management areas.

Effective April 2, 2003, NMFS amended the IFQ Program to allow CDQ Program participants to harvest allocations of Area 4D halibut CDQ in Area 4E (68 FR 9902, March 3, 2003). This action was intended to allow residents in CDQ communities along the Western Alaska coast to have more near-shore opportunities to harvest their group's CDQ halibut. Therefore, the IPHC regulations dictate the total amount of permissible halibut harvest for Area 4E is the sum of the 4E and 4D CDQ TAC.

Effective July 22, 2005, in response to reports of localized depletion, decreasing catch per unit effort, and resultant limitations on the optimal utilization of Area 4C IFQ and CDQ, the Council passed an Omnibus (IV) amendment package providing for the harvest of Area 4C IFQ and CDQ in Area 4D (70 FR 43328, July 27, 2005). Therefore, the total amount of permissible halibut harvest for Area 4D is the sum of Area 4D TAC and Area 4C TAC.

Figure 5 Halibut CDQ and IFQ harvest flexibility in Areas 4CDE



3.5.3 The Halibut CDQ Fleet

The characteristics of the resident halibut CDQ fleets vary by group and are impacted by factors such as: the number of interested and qualified residents, the location of the halibut resource relative to nearshore fishing grounds, other fishing opportunities (such as salmon and crab fishing), other employment opportunities, and the availability of processing operations. Also, as some parts of the CDQ small vessel fishing operations have been subsidized by groups in the past, the resident fleet is also impacted by internal economic decisions made by the CDQ groups and the ways they choose to promote economic development in their communities.

Criteria for participation in CDQ fisheries also vary by group. Some groups have a formalized process in which interested participants must submit an application demonstrating length of residency in one of the communities represented by the CDQ group. Some groups require that the vessel harvesting CDQ is 100% owned by a resident of a CDQ community. Other groups have a traditional set of local participants and therefore a more informal process to harvesting their groups' privileges. Many of the groups will make CDQ freely available to their eligible residents, but charge a lease rate in a situation where the CDQ is prosecuted by non-resident vessels. The intention is, that in the latter case, the revenues collected from leasing CDQ can be used for other types of economic development opportunities in the communities they represent.

The majority of the CDQ resident fleet has typically been comprised of small vessels. Between 2009 and 2015, the fleet landing halibut CDQ was made of 96% vessels less than or equal to 51 feet LOA, and 90% of the vessels were less than or equal to 32 feet LOA (see Table 3). On average, about 70% of the weight of landed halibut CDQ was harvested on vessels less than or equal to 51 feet LOA. This indicates a primarily participation by small vessels, with several larger vessels that contribute substantially to overall landings.

The sharp decrease in the number of vessels participating in halibut CDQ fishing observed between 2013 and 2014 in Table 3 is in part due to the decline in available halibut CDQ (dropping in Areas 4CDE from 1.93 Mlb to 1.285 Mlb). However, it also represents the CDQ groups' internal management responses to this decline and their decisions in how to best promote economic opportunity in their communities.

Table 3 Count and harvest of vessels landing halibut CDQ by vessel length overall

Year	Length overall	Count of vessels landing halibut CDQ	Average harvest (pounds)	Total harvest (pounds)	Percent of total annual harvest
2009	≤ 22 ft	97	1,288	124,901	6%
	>22 ft and ≤ 32 ft	109	8,381	913,529	44%
	> 32 ft and ≤ 51 ft	10	33,854	338,537	16%
	>51 ft	7	102,960	720,719	34%
	2009 total	223	9,407	2,097,686	100%

Year	Length overall	Count of vessels landing halibut CDQ	Average harvest (pounds)	Total harvest (pounds)	Percent of total annual harvest
2010	≤ 22 ft	89	1,515	134,879	6%
	>22 ft and ≤ 32 ft	103	9,796	1,008,974	42%
	> 32 ft and ≤ 51 ft	10	39,202	392,016	16%
	>51 ft	9	95,548	859,929	36%
	2010 total	211	11,354	2,395,798	100%
2011	≤ 22 ft	105	1,194	125,389	5%
	>22 ft and ≤ 32 ft	114	9,298	1,060,024	40%
	> 32 ft and ≤ 51 ft	10	47,383	473,827	18%
	>51 ft	10	96,539	965,390	37%
	2011 total	239	10,982	2,624,630	100%
2012	≤ 22 ft	98	1,559	152,804	8%
	>22 ft and ≤ 32 ft	118	6,677	787,880	41%
	> 32 ft and ≤ 51 ft	13	28,254	367,307	19%
	>51 ft	10	59,986	599,864	31%
	2012 total	239	7,983	1,907,855	100%
2013	≤ 22 ft	116	1,160	134,614	10%
	>22 ft and ≤ 32 ft	112	6,302	705,875	51%
	> 32 ft and ≤ 51 ft	9	25,568	230,110	17%
	>51 ft	7	44,244	309,705	22%
	2013 total	244	5,657	1,380,304	100%
2014	≤ 22 ft	25	3,786	94,656	10%
	>22 ft and ≤ 32 ft	57	7,640	435,472	44%
	> 32 ft and ≤ 51 ft	9	23,424	210,817	21%
	>51 ft	5	50,051	250,255	25%
	2014 total	96	10,325	991,200	100%
2015	≤ 22 ft	17	2,957	50,263	6%

Year	Length overall	Count of vessels landing halibut CDQ	Average harvest (pounds)	Total harvest (pounds)	Percent of total annual harvest
	>22 ft and ≤ 32 ft	30	10,591	317,730	36%
	> 32 ft and ≤ 51 ft	10	29,168	291,679	33%
	>51 ft	8	27,445	219,557	25%
	2015 total	65	13,527	879,229	100%

Source: AKFIN comprehensive_ft database

A revenue diversification table can highlight vessel dependency on a particular fishery by comparing the value a vessel generates in one fishery versus all their other sources of fishing revenue in a given season. For instance, Table 4 demonstrates that in 2009, of the 97 vessels ≤ 22 feet LOA that participated in landing halibut CDQ, none of those vessels also landed halibut IFQ in the same year. These vessels derived 96% of their total fisheries ex vessel revenue from halibut CDQ fishing. Overall, Table 4 illustrates that only a small number of vessels fishing halibut CDQ are generally also fishing halibut IFQ in the same year. Not shown in Table 4 is that of the 444 unique vessels that fished halibut CDQ between 2009 and 2015, only 58 of these vessels also reported landing halibut IFQ (about 13%; note this is not shown in Table 4).

Table 4 illustrates a clear ex vessel dependency distinction related to vessel size. For vessels 32 feet LOA and under, nearly all of their halibut revenues in a given year (2009 to 2015) are generated from CDQ halibut (rather than IFQ halibut). Considering ex vessel revenue from all sources of fishing (including state fisheries like salmon and herring), halibut CDQ is shown to be the primary source of revenue for vessels that do not exceed 32 feet LOA. Larger vessels are more likely to participate in the halibut IFQ fishery and in other (non-halibut CDQ) fisheries, with an average of 33% of their total halibut-related ex vessel revenue being derived from halibut CDQ and an average of 14% of their total fisheries-related ex vessel revenue being derived from halibut CDQ. There also appears to be some movement among all vessel length categories towards greater seasonal diversification, particularly in 2014 and 2015.

One caveat of this method of identifying diversification, is that it relies on the overlap in fishing by a vessel. If, for example, an individual fished halibut CDQ on their own skiff in nearshore waters, then prosecuted their 4D halibut IFQ on a partner's vessel, this would not be captured in Table 4. Table 14 in Section 3.8.3 also displays QS holders in Area 4A, 4C, and 4D by registered address, providing a further metric identifying potential overlap between these stakeholder groups.

Table 4 Diversification of ex vessel revenue for vessels that participate in the halibut CDQ fishery by LOA

Length overall (feet)	Count of vessels landing halibut CDQ	Average ex vessel rev from halibut CDQ	Count of vessels that also landed halibut IFQ in the same year	Of the vessels that landed IFQ and CDQ, average ex vessel rev from halibut IFQ	Rev dependence on CDQ halibut versus IFQ halibut for (all vessels landing halibut CDQ)	Average ex vessel rev from all fisheries for vessel landing halibut CDQ	Rev dependence on CDQ halibut versus total fisheries ex vessel rev
≤ 22	97	$2,361.58	0	-	100%	$2,710.96	96%
>22 and ≤ 32	109	$14,752.23	4	$12,660.83	97%	$26,380.91	62%
>32 and ≤ 51	10	$67,170.56	2	**	88%	$126,857.86	58%
>51	7	$199,666.22	7	$376,232.16	37%	$1,288,032.10	17%
2009 total	223	$17,517.65	13	$214,527.61	61%	$60,194.10	32%
≤ 22	89	$3,737.91	2	**	95%	$4,496.17	90%
>22 and ≤ 32	103	$28,382.50	4	$54,590.86	94%	$43,419.83	71%
>32 and ≤ 51	10	$118,567.55	5	$18,576.84	93%	$198,070.62	65%
>51	9	$280,150.88	8	$665,514.07	34%	$1,368,447.80	22%
2010 total	211	$33,000.50	19	$297,566.58	57%	$90,848.99	39%
≤ 22	105	$4,167.42	0	-	100%	$4,463.19	98%
>22 and ≤ 32	114	$38,015.70	4	$4,468.64	100%	$49,927.53	80%
>32 and ≤ 51	10	$201,873.02	2	**	88%	$317,443.83	67%
>51	10	$403,090.25	10	$697,050.04	37%	$2,458,148.89	17%
2011 total	239	$45,276.16	16	$468,956.67	60%	$141,909.21	34%
≤ 22	98	$5,735.98	2	**	97%	$6,173.14	96%
>22 and ≤ 32	118	$25,542.16	3	$79,572.73	93%	$41,089.86	64%
>32 and ≤ 51	13	$112,627.15	5	$205,649.99	60%	$282,922.02	41%
>51	10	$215,073.21	10	$456,000.92	33%	$1,659,377.14	13%
2012 total	239	$30,087.80	20	$292,354.70	56%	$107,637.36	29%
≤ 22	116	$4,007.99	3	$14,656.18	91%	$4,506.45	90%
>22 and ≤ 32	112	$22,415.06	10	$35,225.87	88%	$35,390.16	64%
>32 and ≤ 51	9	$81,714.03	4	$112,036.87	63%	$190,963.25	44%
>51	7	$136,160.43	7	$321,048.48	30%	$1,256,954.87	11%
2013 total	244	$19,114.60	24	$128,821.42	61%	$61,490.98	32%
≤ 22	25	$13,727.72	3	$18,399.63	86%	$15,951.97	86%
>22 and ≤ 32	57	$25,759.15	10	$30,667.85	83%	$45,852.36	56%
>32 and ≤ 51	9	$90,913.64	6	$110,531.30	55%	$259,238.33	35%
>51	5	$189,397.84	5	$289,050.77	40%	$1,721,123.56	11%
2014 total	96	$37,257.05	24	$102,929.96	59%	$1,723,166.49	26%
≤ 22	17	$11,530.65	2	**	79%	$14,639.17	79%
>22 and ≤ 32	30	$44,433.01	7	$41,718.40	82%	$66,088.16	67%
>32 and ≤ 51	10	$116,613.08	5	$145,383.68	62%	$289,713.80	40%
>51	8	$114,144.77	8	$373,024.62	23%	$1,235,113.06	9%
2015 total	65	$55,512.31	22	$184,363.13	47%	$230,916.20	24%

Source: AKFIN comprehensive_ft database, Note: Ex vessel values are in real 2015 USD based on the BLS CPI, ** represents confidential data

Table 4 demonstrates diversification of fishing effort by a vessel within the same year, but it is not clear what, if any, alternative fisheries a vessel would participate in if the operator chose not to (or is not able to) participate in halibut CDQ fishing for a season. The availability of alternative fisheries to participate in is also an important distinction in understanding vessel dependency on a fishery.

Inter-seasonal fishery diversification is demonstrated in Table 5 by vessel LOA. Of the 444 vessels that landed halibut CDQ at least once between 2009 and 2015, this table shows other non-halibut fisheries that these vessels have participated in. Note this list is not all encompassing of possible fisheries these vessels could have participated in, but include some of the most popular alternatives. This table demonstrates that the smaller vessels (less than or equal to 22 ft LOA) also have some participation in salmon and herring fisheries, while the larger vessels are more diversified in groundfish and sablefish. Mid-sized vessels (greater than 22 ft to less than or equal to 51 ft LOA) have had some participation in landing rationalized crab IFQ and crab CDQ.

Table 5 Of the 444 vessels that landed halibut CDQ between 2009 through 2015, other fisheries these vessels participated in, by LOA

Year	Herring	Salmon	BS Sablefish	Crab CDQ and IFQ	Other Shellfish	BSAI groundfish	GOA groundfish
Vessels ≤ 22 ft LOA							
2009		1					
2010		3					
2011		1					
2012		2					
2013	6	1				2	
2014							
2015							
Vessels >22 ft and ≤ 32 ft LOA							
2009	2	14		5			
2010		10		4			
2011	2	13		3			
2012	2	19		5			
2013	14	15		1		13	
2014		12		2			
2015		14		1			
Vessels >32 ft and ≤ 51 ft LOA							
2009			1	5		3	1
2010	1			4		1	
2011	1		1	4			2
2012	1	1		4		3	3
2013	1	1		3	1		1
2014			1	3		2	1
2015				4		2	1

Year	Herring	Salmon	BS Sablefish	Crab CDQ and IFQ	Other Shellfish	BSAI groundfish	GOA groundfish
Vessels >51 ft LOA							
2009			3	2		2	2
2010			3		1	3	4
2011		1	7		1	2	5
2012			5	1	1	6	4
2013		1	2			3	3
2014			2			3	1
2015		1	3			2	2

Source: AKFIN comprehensive_ft database

Although Table 3 demonstrated a significant drop off in the number of small vessels participating in halibut CDQ fisheries between 2013 and 2014 (continued into 2015), Table 5 does not reveal a prominent trend of small vessels identifying other fisheries to participate in. In part, this may be the result of the reduced catch limits, and the desire to minimize costs by consolidating harvest of multiple participants on fewer vessels. However, many Western Alaskan fishermen were not able to participate in the halibut CDQ fishery in recent years, as CVRF scaled back their resident fleet, eventually closing their Goodnews Bay processing operations in Platinum, AK. CVRF determined that the amount of funds needed to subsidize the only processing plant in the region did not provide benefits for enough of their residents to justify the expense (Demer 2017; Wagner 2016). Thus, given the lack of regional processing, it is unlikely that many of these vessels were able to diversify to other species.

In addition to vessel dependency as demonstrated through revenue diversification in Table 4, other recent Council documents have worked to explain BSAI community dependence on halibut through other metrics. Particularly relevant for the scope of this proposal, is Appendix C to the recent Public Review Draft of Amendment 111 to the BSAI groundfish Fishery Management Plan (FMP) which describes BSAI community engagement in the BSAI halibut fishery (NPFMC 2015a). This document presents a broad range of information, such as the role of the fishing sector in each CDQ group regional economy, and in particular the role of the commercial halibut fishing sector. In addition to demographic statistics, it presents the number of community resident-owned BSAI halibut catcher vessels versus resident-owned catcher vessels used for other fisheries, as well as the number of participants with permits in the halibut fishery compared to other types of fishing permits. Some of this information is not only inclusive of residents that participate in halibut CDQ fishing in the BSAI, but also QS holders, vessel owners, and crew members that participate in the halibut IFQ fishery and are located in these communities.

3.6 Background on the Area 4 Halibut IFQ Fishery

In 1991, the Council recommended an IFQ program for the management of the fixed gear (hook and line) halibut and sablefish fisheries off of Alaska (NPFMC & NMFS 1992). The Secretary of Commerce approved the Council's IFQ program as a regulatory amendment in 1993, and the program was implemented by NMFS for the fishing season in 1995. The fundamental component of the IFQ program is QS, issued to participants as a percentage of the QS pool for a species-specific IFQ regulatory area, which is translated into annual IFQ allocations in the form of fishable pounds.

This section of the analysis provides background information on the halibut IFQ fishery which is necessary for the subsequent discussion of impacts resulting from the proposed action alternative. This section includes Areas 4B, 4C and 4D-specific data on IFQ allocations, harvest, and a description of participating vessels. For Area 4E, all of the catch limit is allocated to CDQ, thus no Area 4E IFQ is harvested. Further information on the IFQ Program are incorporated into the analysis of impacts in relation to the proposed action.

There are also many sources that can provide more comprehensive and extensive background data on the IFQ Program. For example, the IFQ Program Review presented at the October 2016 Council meeting provides a comprehensive assessment of the progression of the program, framed around the 10 objectives identified by the Council when it developed the program (NPFMC/NMFS 2016). Additionally, QS transfer data, disaggregated in many ways, can also be found in the NOAA Fisheries Alaska Region Restricted Access Management (RAM) Transfer Report (NMFS 2015a), and choice statistics about the fishery were provided in the RAM Report to the Fleet (NMFS 2014), which was produced annually up until 2012.

3.6.1 Status of Halibut Stock

Pacific halibut (*Hippoglossus stenolepsis*) is one of the largest species of fish in the world, with individuals growing up to eight feet in length and over 500 lb. The range of Pacific halibut that the IPHC manages covers the continental shelf from northern California to the Aleutian Islands and throughout the Bering Sea. Pacific halibut are also found along the western north Pacific continental shelf of Russia, Japan, and Korea.

The depth range for halibut is up to 250 fathoms (457 m) for most of the year and up to 500 fathoms (914 m) during the winter spawning months. During the winter (November through March), the eggs are released, move up in the water column, and are caught by ocean currents. Female halibut release a few thousand eggs to several million eggs, depending on the size of the fish. Eggs are fertilized externally by the males. Prevailing currents carry the eggs north and west. By the age of 6 months, young halibut settle to the bottom in shallow nearshore areas such as bays and inlets. Research has shown that the halibut then begin what can be called a journey back. This movement runs counter to the currents that carried them away from the spawning grounds and has been documented at over 1,000 miles for some fish. Most male halibut are sexually mature by about 8 years of age, while half of the females are mature by about age 11.6 (NPFMC/NMFS). At this age, females are generally large enough to meet the minimum size limit currently established for the commercial fishery of 32 inches; for males it takes several more years due to slower dimorphic growth. Halibut feed on plankton during their first year of life. Young halibut (1 to 3 years old) feed on euphausiids (small shrimp-like crustaceans) and small fish. As halibut grow, fish make up a larger part of their diet. Larger halibut eat other fish, such as herring, sand lance, capelin, smelt, pollock, sablefish, cod, and rockfish. They also consume octopus, crabs, and clams.

Halibut also move seasonally between shallow waters and deep waters. Mature fish move to deeper offshore areas in the fall to spawn, and return to nearshore feeding areas in early summer. It is not yet clear if fish return to the same areas to spawn or feed, year after year.

The IPHC uses an ensemble approach to its coastwide stock assessment for the Pacific halibut stock, described in its assessment (IPHC 2018a). In this approach, multiple models are included in the estimation of management quantities, and uncertainty about these quantities. The results of the 2017 assessment indicate that the stock declined continuously from the late 1990s to around 2010 (IPHC 2018a).

The IPHC assesses the coastwide biomass of halibut, including fish that are accessible in the IPHC setline survey and to the commercial halibut fishery (generally O26 halibut). The IPHC estimates the distribution of the coastwide stock based on survey catch rate among Areas using information from its annual setline survey. Because the IPHC setline survey does not extend throughout the Bering Sea, IPHC staff use the eastern Bering Sea trawl and other surveys to extrapolate the IPHC setline results across Area 4CDE.

In general, recruitment has decreased substantially since the highs of the 1980s. Several factors affect recruitment of new fish into the population. As described by the IPHC (2018b), although there has been a very strong trend of declining weight-at-age coastwide in recent decades, there are marked differences in the magnitude of this decline among Areas. The coastwide trend is driven largely by trends in Area 3 (corresponding to the central and western GOA), where the bulk of the commercially available biomass occurs. Overall, while there have been weight-at-age declines in Area 4 (corresponding to the BSAI), they have not been as steep as in, for example Area 3A (IPHC 2018b). There do not appear to be consistent or strong trends from 2010 to 2017 in the area-specific data (IPHC 2018b).

Based on the most recent stock assessment conducted (IPHC 2018c), the IPHC notes that:

> Coastwide mortality (removals; including all sizes of Pacific halibut) from all sources in 2017 were estimated to be 42.4 million pounds (~19,200 t), up slightly from 41.8 million pounds (~18,960 t) in 2016….
>
> The stock is projected to decrease gradually over the period from 2018- 20 for removals around the reference spawner per recruit (SPR, $_{46\%}$) level (31 million pounds, ~14,060 t). There is a relatively small chance (21%) that the stock will decline below the threshold reference point ($SB_{30\%}$) in projections for all the levels of TCEY up to 40 million pounds (~18,100 t) evaluated over three years; for TCEYs exceeding that level, the probability begins to increase rapidly….

Generally, studies of similar BSAI and GOA groundfish have confirmed that an exploitation rate of $F_{35\%}$ is an adequate proxy for the level of fishing that will achieve maximum sustainable yield (F_{MSY}; Goodman et al. 2002). Catch that corresponds to an $F_{40\%}$ rate is precautionary relative to $F_{35\%}$ and is generally considered to accommodate uncertainty in the stock assessment. An $F_{40\%}$ harvest rate is considered a conservative maximum reference point in Alaskan fisheries, including flatfish such as halibut.

The Fishery Management Plans for groundfish in federal waters off Alaska describe control rules that use limit reference points for setting biologically sustainable catch limits (NPFMC 2017a; 2017b). The control rules follow a tiered system that considers both data availability and stock status. Common among all tiers are harvest limit rules for specifying both an overfishing limit (OFL) and allowable biological catch level (ABC). The ABC is always specified below the OFL such that it provides for scientific uncertainty. Several tiers (tiers 2-4) use $F_{40\%}$ as the fishing mortality rate that specifies the maximum permissible ABC. A fishing mortality rate at $F_{40\%}$ is expected to reduce the spawning biomass per recruit

(equivalent to lifetime egg production) to 40% of its equilibrium value for an unfished stock. A limit reference point between $F_{35\%}$ and $F_{40\%}$ is well defined in the literature and in technical guidance NMFS uses to ensure compliance with Magnuson-Stevens Act National Standards as a proxy for F_{MSY} (Restrepo et al., 1998) and is used as such for most groundfish stocks where F_{MSY} is not directly estimated (Clark 1993, Gabriel and Mace 1999, Mace 1994). Gabriel and Mace (1999) found this fishing mortality range to be appropriate for stocks with average to low resiliency (which is the case for most Alaska groundfish stocks, and would be expected to apply to halibut). In the case of Alaska groundfish stocks, $F_{35\%}$ is a proxy for F_{MSY}, and $F_{40\%}$ provides an appropriately conservative rate of harvest relative to what is the best available information to estimate F_{MSY} (NMFS 2004).

Since 2014, the IPHC has set catch limits that result in a total fishing impact that would be considered conservative by fishery management scientists (IPHC 2018c). Since 2014, there is no information to suggest that halibut is subject to "overfishing," as that term is commonly applied to stocks managed under the Magnuson-Stevens Act. The Halibut Act does not define "overfishing" or require that an overfishing limit be defined. However, the halibut stock is currently managed in a manner that is not likely to result in a chronic long-term decline in the halibut resource coastwide due to fishing mortality from all sources of removals. As part of the 2017 stock assessment process, the IPHC did present an assessment of the status of the halibut stock that characterized its status relative to what the IPHC staff would consider an allowable catch limit. This would be analogous to an ABC in the context of groundfish fisheries off Alaska. The IPHC has also presented an assessment of fishing intensity relative to the IPHC's interim management procedure ($F_{46\%}$), and in all recent years, fishing intensity has been greater than the current $F_{46\%}$ SPR (see Figure 6).

Figure 6 Status summary of Pacific halibut at the end of 2017

Indicators	Values	Trends	Status
Total mortality 2017: Retained mortality 2017: Average mortality 2013-17:	42.44 Mlbs, 19,250 t[1] 35.29 Mlbs, 11,864 t 43.34 Mlbs, 19,659 t	Mortality stable 2014-17	**2017 MORTALITY BELOW 100-YEAR AVERAGE**
SPR_{2017}: P(SPR<46%): P(SPR<limit):	40% (29-58%)[2] 75% Limit not specified	Fishing intensity increased from 2016 to 2017	**FISHING INTENSITY HIGHER THAN REFERENCE LEVEL**[3]
SB_{2018} (Mlb): SB_{2018}/SB_0: $P(SB_{2018}<SB_{30})$: $P(SB_{2018}<SB_{20})$:	202 Mlbs (148–256) 40% (26-60%) 6% <1%	SB decreased from 2017 to 2018	**NOT OVERFISHED**[4]
O32 stock distribution: All stock distribution:	See Table 1 and Figure 6	Distribution stable 2013-17	**REGION 2 ABOVE, REGION 3 BELOW HISTORICAL VALUES**

[1] Weights in this document are reported as 'net' weights, head and guts removed; this is approximately 75% of the round (wet) weight).
[2] Ranges denote approximate 95% confidence intervals from the stock assessment ensemble.
[3] Status determined relative to the IPHC's interim reference Spawning Potential Ratio level of 46%.
[4] Status determined relative to the IPHC's interim management procedure biomass limit of $SB_{20\%}$.

Source: IPHC 2018a

The current level of female spawning biomass (SB) for halibut is estimated to be approximately 40% of the equilibrium condition in the absence of fishing ($SB_{40\%}$), with a 6 out of 10 chance that the stock is below $B_{30\%}$. The IPHC's harvest policy sets a threshold reference point of $SB_{30\%}$ and the limit reference point of $B_{20\%}$ as triggers of reductions in halibut harvest rates. A more detailed description of $SB_{30\%}$ and $B_{20\%}$ is provided in Hicks and Stewart (2017). These harvest control rules have not been triggered, even during the most recent years of relatively low spawning biomass. Generally speaking, the harvest rates since 2014 are considered risk-averse relative to short or long term halibut resource sustainability, with catch corresponding to a harvest rate at or above $F_{40\%}$ during this time period.

3.6.2 Allocation and Harvest

Table 6 and Table 7 provide a reference for Area 4B as well as Area 4C and 4D halibut IFQ allocation and harvest over time (see also Figure 11 and Figure 12). Area 4B has seen high prosecution rates of halibut IFQ, with only a few years that dipped below 90% prosecution of the catch limit (2005, 2009, 2010, and 2013). Prior to the passage of an amendment that allowed Area 4C IFQ be harvested in Area 4D, Area 4C was experiencing a steady drop in catch rates. During the 2003 fishing season, Area 4C participants landed just 42% of the total Area 4C halibut IFQ allocation compared to a statewide average of 97% for all areas. Declining catch rates in Area 4C were assumed to be indicative of a decrease in halibut abundance over time in the area, which was associated with concentrated fishing effort in a relatively small fishing area and reduced recruitment and immigration into Area 4C.

After the implementation of the 2005 amendment, Area 4C and 4D harvests have been reported together due to this flexibility. Thus, Area 4C and 4D catch limits, as well as harvest are combined in Table 7. During the first three years following the implementation of the amendment, 4C and 4D harvests were under 90% of the combined TACs, perhaps indicative of 4C IFQ holders adjusting to the new harvesting flexibility. Since 2008, over 90% of the combined TACs of Areas 4C and 4D have been harvested, except for 2013 when only 89% was harvested.

It is also informative to observe the trends in catch limits over time in Areas 4B, 4C, and 4D. Area 4B halibut IFQ catch limit has dropped substantially from 2001 to 2007, with a slight rise between 2007 and 2011, then a continuation of the downward trend to 2015. In 2015, the Area 4B halibut IFQ catch limit was less than a quarter of what it was in 2000. Areas 4C and 4D have seen more fluctuation in the halibut IFQ catch limits during this time period, but still with a strong downward trend.

Table 6 Area 4B IFQ allocation and harvest

Year	4B TAC	4B harvest	% 4B TAC harvested
2000	3,928,000	3,626,754	92%
2001	3,928,000	3,517,658	90%
2002	3,344,000	3,213,189	96%
2003	3,344,000	3,005,534	90%
2004	2,284,000	2,169,480	95%
2005	1,808,000	1,595,682	88%
2006	1,336,000	1,220,833	91%
2007	1,152,000	1,088,443	94%
2008	1,488,000	1,357,128	91%
2009	1,496,000	1,232,219	82%
2010	1,728,000	1,394,752	81%
2011	1,744,000	1,595,524	91%
2012	1,495,200	1,370,408	92%
2013	1,160,000	986,945	85%
2014	912,000	864,227	95%
2015	912,000	852,286	93%

Source: NMFS IFQ landings database sourced by AKFIN

Table 7 Area 4C and Area 4D IFQ allocation and harvest

Year	4C TAC	4C harvest	% 4C TAC harvested	4D TAC	4D harvest	% 4D TAC harvested
2000	1,015,000	731,358	72%	1,421,000	1,378,038	97%
2001	1,015,000	724,815	71%	1,421,000	1,368,875	96%
2002	1,015,000	484,815	48%	1,421,000	1,360,253	96%
2003	1,015,000	424,935	42%	1,421,000	1,421,028	100%
2004	860,000	478,274	56%	1,204,000	1,202,152	99%
	4C/4D TAC		**4C/4D harvest**		**% TAC harvested**	
2005	2,178,000		1,756,825		81%	
2006	1,932,000		1,655,348		86%	
2007	2,239,800		1,986,725		89%	
2008	2,122,800		2,113,434		99%	
2009	1,882,800		1,737,668		92%	
2010	1,950,000		1,809,616		93%	
2011	2,028,000		1,847,773		91%	
2012	1,328,827		1,207,051		91%	
2013	1,030,800		917,155		89%	
2014	715,920		688,225		96%	
2015	715,920		690,581		96%	

Source: NMFS IFQ landings database sourced by AKFIN

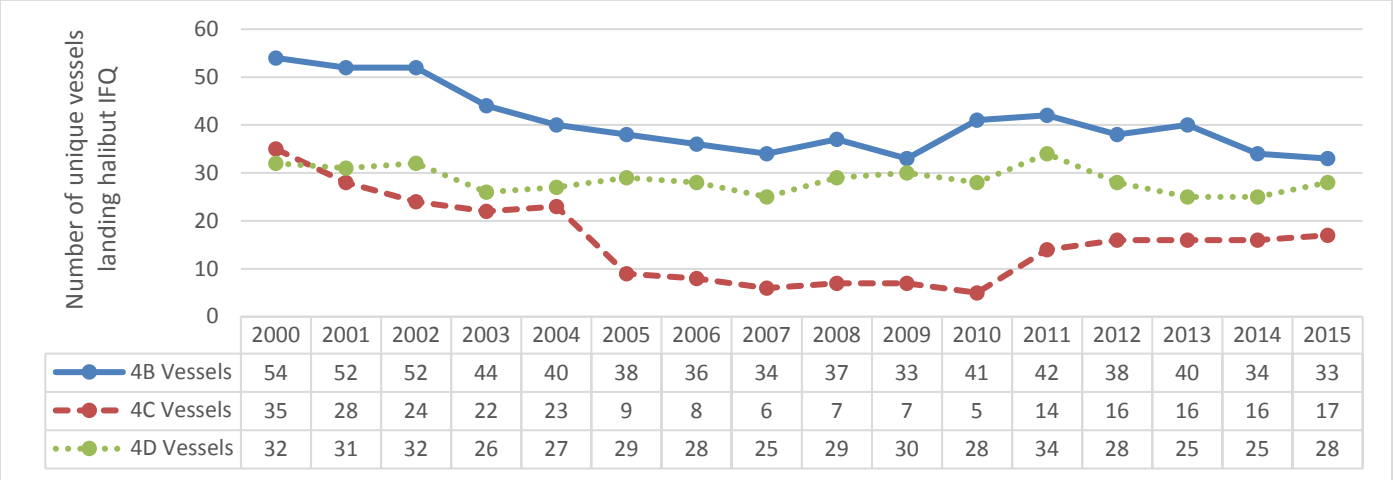
Note: In 2005, a regulatory amendment allowed Area 4C IFQ to be harvested in Area 4D. Therefore, catch limits and harvest have been reported as combined from 2005 on.

3.6.3 The Halibut IFQ Fleet and Harvest Strategies

This section discusses the current fleet harvesting halibut IFQ in Areas 4B, 4C and 4D in terms of number and LOA of active vessels, trends in walk-on activity, the number of permit holders per vessel, the number of vessels at or near the vessel IFQ cap, and use of hired masters.

Figure 7 and Figure 8 illustrate the size composition of the fleet in Areas 4B, 4C, and 4D both in terms of the number of active vessels (2000 to 2015) and vessel LOA (2009 to 2015). These figures highlight that beginning in 2004, there was a sharp decrease in the number of participating vessels in Area 4C. In Area 4C, again, this is likely due to the harvest flexibility permitted of Area 4C QS into Area 4D beginning in 2005.

Figure 7 Count of unique vessels landing Area 4B, 4C, and 4D halibut IFQ

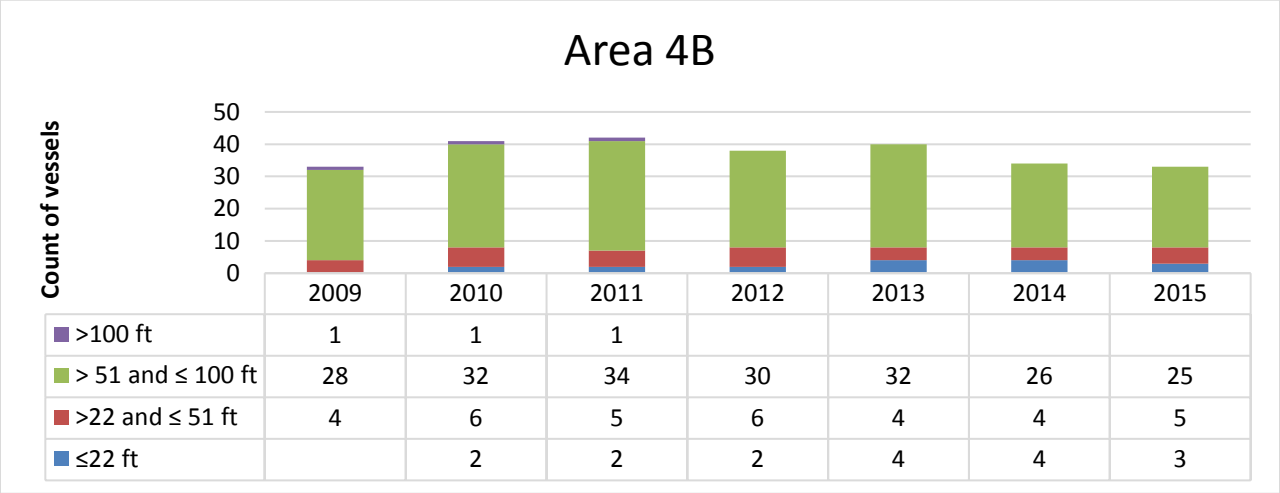


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
4B Vessels	54	52	52	44	40	38	36	34	37	33	41	42	38	40	34	33
4C Vessels	35	28	24	22	23	9	8	6	7	7	5	14	16	16	16	17
4D Vessels	32	31	32	26	27	29	28	25	29	30	28	34	28	25	25	28

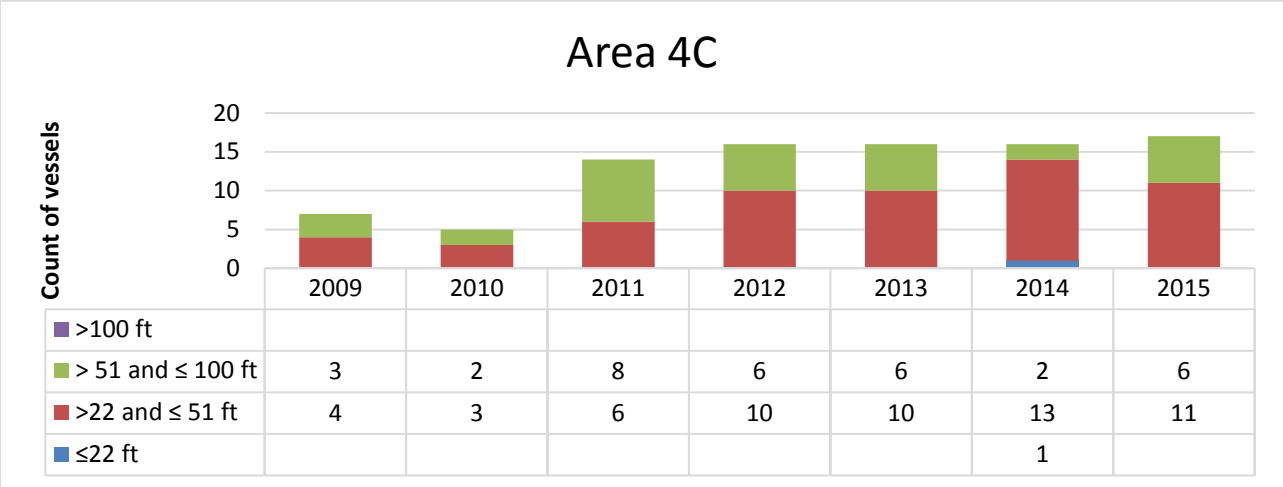
Source: NMFS IFQ landings database sourced by AKFIN

Figure 8 also illustrates the much smaller fleet in Area 4C compared to Areas 4B and 4D in terms of physical vessel size. A few vessels less than or equal to 22 feet LOA have harvested halibut IFQ in Area 4B during this time period, while only 5 vessels less than or equal to 51 feet LOA have harvested halibut IFQ in Area 4D, all of which are greater than 22 feet LOA. While there is some overlap between CDQ and IFQ fishing (see Table 4), Figure 4 illustrates a contrast in IFQ fleet characteristics compared to the halibut CDQ fleet described in Table 3. Vessels that have traditionally harvested IFQ in these areas tend to be larger; better suited for open ocean and variable weather and seas.

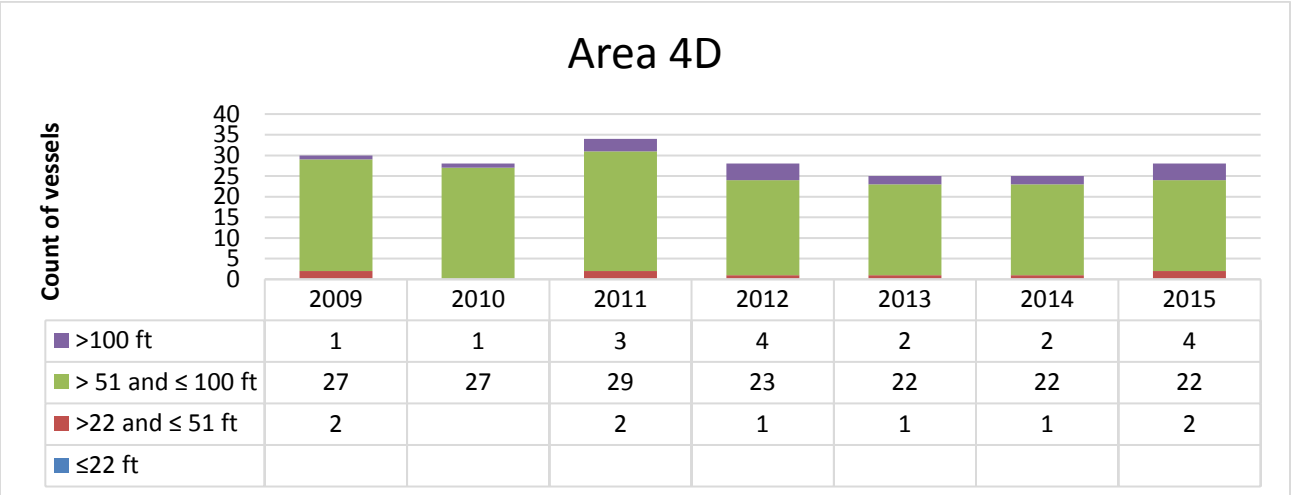
Figure 8 Count of unique vessels landing Area 4B, 4C, and 4D halibut IFQ by vessel length overall



	2009	2010	2011	2012	2013	2014	2015
>100 ft	1	1	1				
> 51 and ≤ 100 ft	28	32	34	30	32	26	25
>22 and ≤ 51 ft	4	6	5	6	4	4	5
≤22 ft		2	2	2	4	4	3



	2009	2010	2011	2012	2013	2014	2015
>100 ft							
> 51 and ≤ 100 ft	3	2	8	6	6	2	6
>22 and ≤ 51 ft	4	3	6	10	10	13	11
≤22 ft						1	



	2009	2010	2011	2012	2013	2014	2015
>100 ft	1	1	3	4	2	2	4
> 51 and ≤ 100 ft	27	27	29	23	22	22	22
>22 and ≤ 51 ft	2		2	1	1	1	2
≤22 ft							

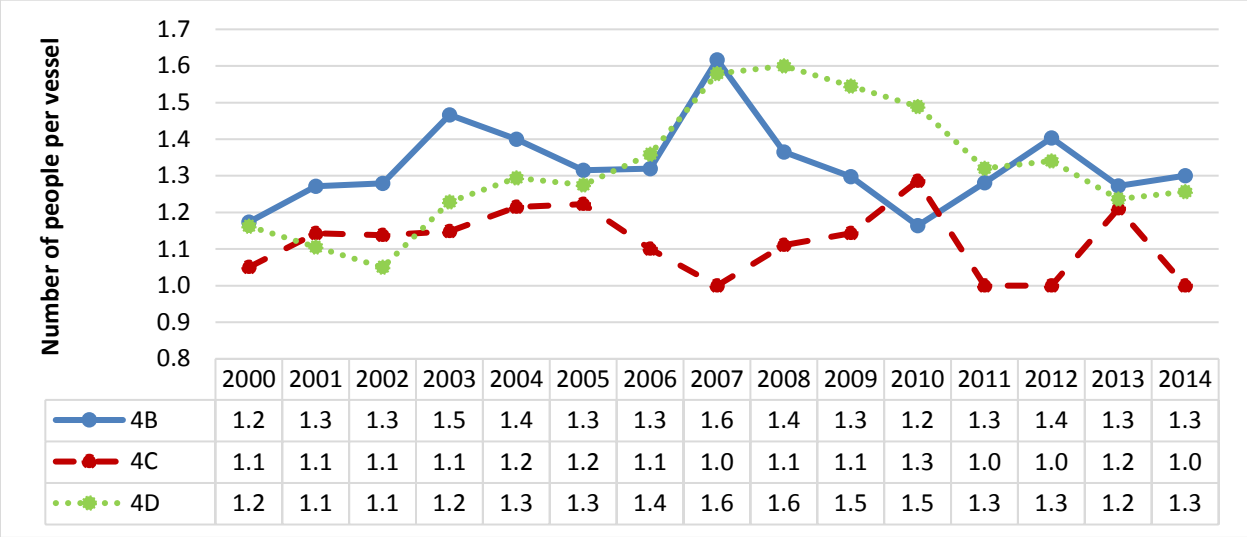
Source: NMFS IFQ landings database sourced by AKFIN

There are many different business strategies that are used by QS holders in order to harvest their IFQ. The implementation of the IFQ Program provided for greater opportunity for collaboration and cooperation among stakeholders in the halibut and sablefish fisheries. For example, “walk-on” activity occurs when the harvester (i.e., IFQ permit holder) is not the same person as the vessel owner. A person may choose to walk on a fishing vessel if they do not own their own vessel, it is not appropriately geared up for the fishery, or if there is high opportunity cost in bringing their own vessel to the fishing grounds. Contracting out and fishing on a local vessel can help the QS holder minimize costs and can bring positive economic activity to a community. Previous iterations of this analysis attempted to match IFQ permit holders with vessel ownership to demonstrate the extent of walk-on activity in Area 4. Unfortunately, there are some limitations in available vessel ownership data. These data can identify everyone who is a direct owner of a vessel (even if it is just 1%), but complete data is not available on *indirect* ownership of a vessel. 'Indirect ownership' here refers to ownership through an entity (e.g., a corporation or an LLC), which is common practice in order to separate any liability of ownership of the vessel from the value of the QS. NMFS has records of indirect ownership in the case of hired master arrangements, because these participants are required to demonstrate at least 20% vessel ownership, but not necessarily in other situations.

What can be said about walk-on activity is that it has occurred in all Areas 4B, 4C, and 4D. This behavior is likely more common with increased costs associated with harvesting and with declining halibut catch limits. Under these conditions fishery participants will have more incentive to seek out ways to increase the efficiency of their operations, coordinate with others and share variable costs in order to maintain profitability.

One type of walk-on fishing is coordinating with other QS holders to consolidate one or more person’s IFQ on a single vessel. This means consolidating harvesting privileges by walking on board a vessel with other IFQ holders to share in the purchase of fuel, crew wages, food, etc. At the onset of the IFQ Program there was significant and immediate consolidation of harvest on vessels due to the increased ability for fishery participants to coordinate rather than compete. This opportunity led to a continued slowly increasing trend in “IFQ holders per vessel” (i.e., QS holders, hired masters or persons leasing IFQ) over the decade that followed based on all IFQ areas, with substantial inter-annual variability (Figure 9). Between 2000 and 2014, on average, Area 4B, 4C and 4D had 1.3, 1.1, and 1.3 “IFQ holders per vessel”, respectively.

Figure 9 IFQ holders per vessel in Area 4B, 4C and 4D



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
4B	1.2	1.3	1.3	1.5	1.4	1.3	1.3	1.6	1.4	1.3	1.2	1.3	1.4	1.3	1.3
4C	1.1	1.1	1.1	1.1	1.2	1.2	1.1	1.0	1.1	1.1	1.3	1.0	1.0	1.2	1.0
4D	1.2	1.1	1.1	1.2	1.3	1.3	1.4	1.6	1.6	1.5	1.5	1.3	1.3	1.2	1.3

Source: NOAA RAM Program, IFQ Transfer Report 2015, available online: https://alaskafisheries.noaa.gov/sites/default/files/reports/halibut-transferfrpt2015.pdf
Note: "person" represents QS holders, hired masters, or persons leasing IFQ

It has been suggested in Council public testimony that vessel IFQ caps have prevented some QS holders from further consolidation of halibut IFQ that may have otherwise occurred. Consolidation of IFQ onto a single vessel can save on variable costs, particularly in times when QS holdings are worth a smaller number of pounds of IFQ (at low catch limits). The vessel IFQ caps are a regulatory element of the IFQ Program that dictates an annual cap on the amount of IFQ one vessel can land in a given season. For halibut, there is a vessel IFQ cap of 0.5% of all of the halibut IFQ TAC combined.[4] Of the vessels that have harvested Area 4B, 4C, and/or 4D halibut IFQ, Table 8 illustrates the number of vessels whose halibut IFQ harvest (from all areas) has come within 10% of the vessel IFQ cap in each year.

Table 8 Number of vessels landing Areas 4B, 4C, and/ or 4D halibut IFQ that are within 10% of the vessel IFQ cap based on total annual halibut harvest from all areas

Year	Halibut Vessel Cap (net pounds)	Number of vessels landing Area 4B, 4C, 4D halibut	Number of vessels within 10% of cap	Percent of total 4B, 4C, 4D halibut vessels
2010	201,490	56	18	32%
2011	151,910	65	29	45%
2012	120,015	60	23	38%
2013	109,054	60	22	37%
2014	79,772	61	24	39%
2015	85,685	59	21	36%

Source: NMFS IFQ landings database sourced by AKFIN

At the outset of the IFQ Program, the Council intended for catcher vessel QS to be held by owner-operators. However, the Council allowed initial QS recipients to use a hired master – a person designated

[4] Area 2C has an additional halibut vessel IFQ cap of 1% of the Area 2C halibut IFQ TAC.

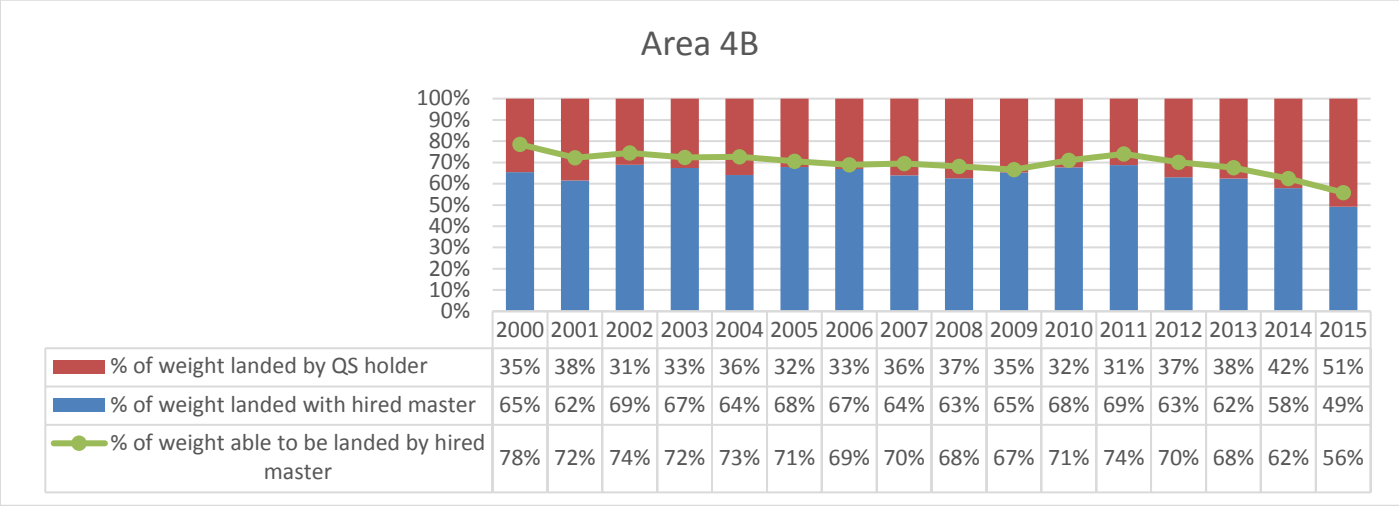
by the shareholder to land that shareholder's IFQ – in order to provide these initial recipients with the flexibility to continue in the business practices that they had had prior to the implementation of the IFQ Program. Eligibility to use a hired master is tied to the shareholder and not the QS, so initial recipients could use a hired master on QS that they acquired over time. Additionally, non-individual entities are permitted to use hired masters, as this is necessary to land their IFQ.[5]

Over the 20 years of the IFQ Program, the hired master use provision has been amended several times to address regulatory loopholes. The Council's intent was that the shareholder using a hired master remains a vested participant in the IFQ fisheries, so the IFQ Program initially included a vessel ownership requirement for shareholders intending to use hired masters to land their IFQ. In 1999, the Council specified that shareholders must have at least a 20% ownership interest in the vessel upon which their IFQ is being fished. In 2002, an amendment to the program allowed shareholders to substitute indirect ownership of a vessel through corporate or other non-individual entity interest for all or part of direct vessel ownership by the shareholder for purposes of using a hired master to land that shareholder's IFQ. In 2007, an amendment to the program specified the formal, government-issued documents that shareholders must use to demonstrate the 20% vessel ownership interest requisite for using a hired master. In 2014, an amendment to the program added a 12-month requirement for the minimum 20% vessel ownership interest. Also in 2014, an amendment to the program was implemented prohibiting initial QS recipients from using a hired master to harvest IFQ derived from catcher vessel QS received by transfer after July 28, 2014. This amendment also prohibited non-individual entities that were initial recipients from receiving catcher vessel QS by transfer. Until implementation of this amendment, these non-individual entities had been able to purchase catcher vessel QS because they were initial recipients. The 2014 amendments were in response to increasing evidence of overall reliance on hired masters by shareholders, many of whom had ownership interest in vessels only for the duration of the fishing trip during which their IFQ was being harvested.

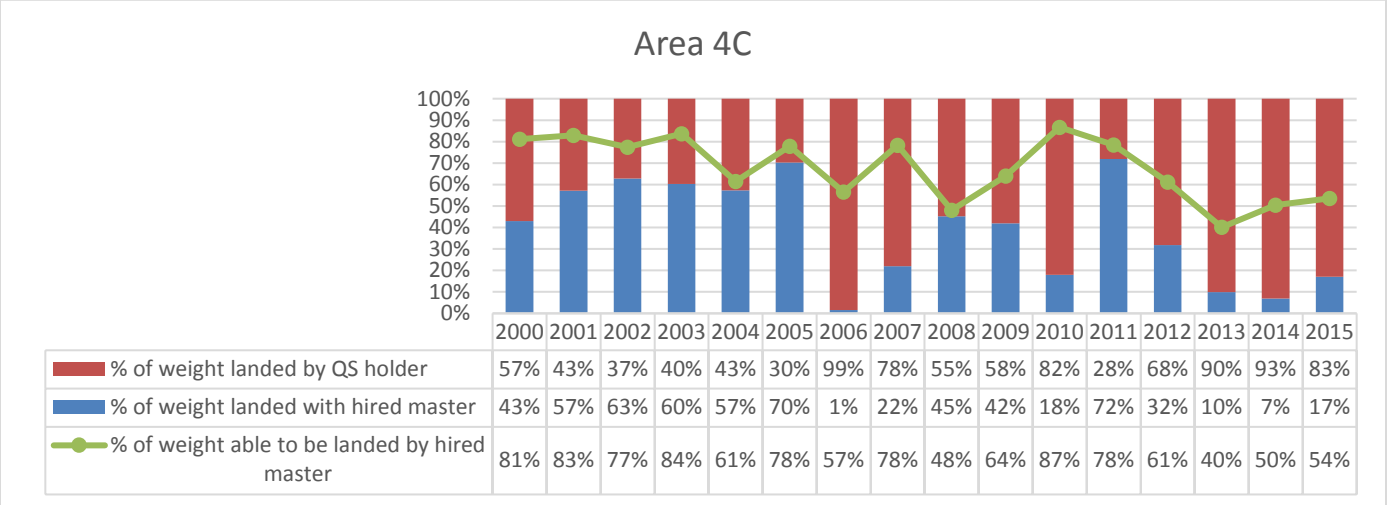
Figure 10 illustrates halibut catcher vessel IFQ landed by hired masters in Area 4B, 4C, and 4D, as well as the IFQ able to be landed by a hired master. Note that all Class A IFQ is able to be both leased as well as harvested by a hired master and is not included in this figure. As this figure is based on analysis of *landed* halibut IFQ, QS that is flagged as able to be harvested by a hired master is only represented if the IFQ is harvested. This may account for some of the stark variation in Area 4C, in 2004, 2006 and 2008. It could be that IFQ that was able to be harvested by a hired master, was not harvested at all. It may also be that this weight was harvested in Area 4D. In Figure 10, Area 4C also demonstrates substantial variation in the percent of total IFQ that is landed by a hired master. Again, this is likely due to the very low number of vessels landing IFQ in Area 4C. Area 4B and 4C see a slightly decreasing trend of hired master use between 2000 and 2015; ranging from 31 to 51% of QS holders fishing their IFQ in Area 4B and from 27 to 48% of the QS holders fishing their IFQ in Area 4D. The percent of IFQ able to be harvested by a hired master has also seen a slight decreasing trend between 2000 and 2015 in these two areas. This would be expected as hired master use privileges are exclusive to initial issuees that are individuals and non-individual entities, and this privilege does not continue once the QS has been transferred.

[5] In Southeast Alaska (halibut Area 2C and the Southeast Outside District of the sablefish fishery), the Council limited hired master use to non-individual entities that received an initial QS allocation in order to maintain what had historically been an owner-operated fleet in this area.

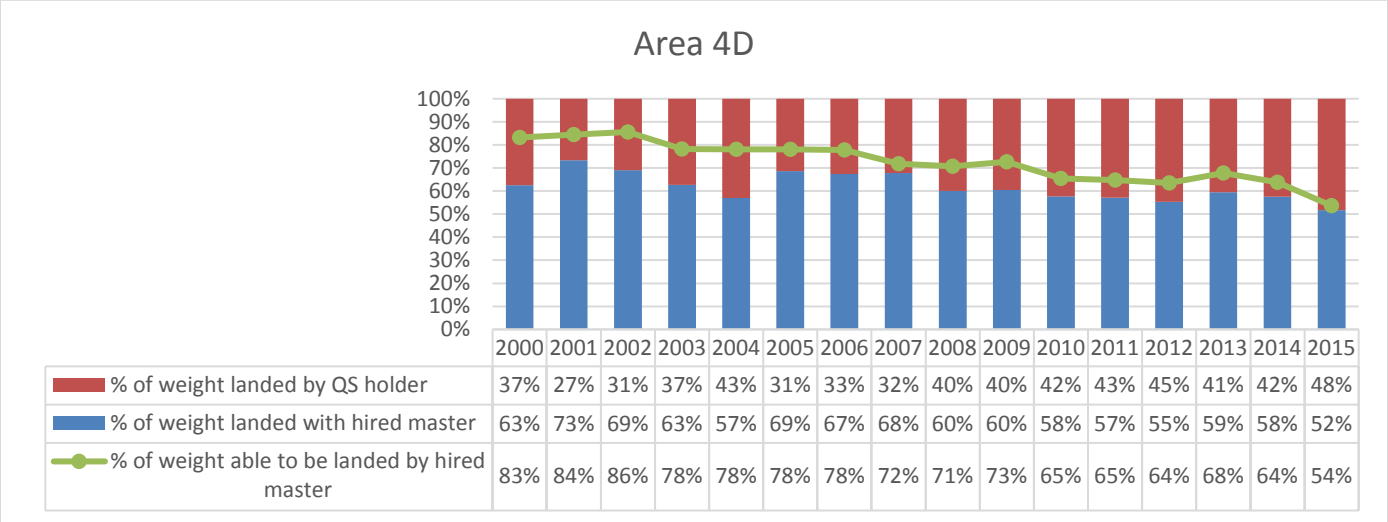
Figure 10 Percent of Area 4B, 4C, and 4D halibut catcher vessel IFQ landed with a hired master



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
% of weight landed by QS holder	35%	38%	31%	33%	36%	32%	33%	36%	37%	35%	32%	31%	37%	38%	42%	51%
% of weight landed with hired master	65%	62%	69%	67%	64%	68%	67%	64%	63%	65%	68%	69%	63%	62%	58%	49%
% of weight able to be landed by hired master	78%	72%	74%	72%	73%	71%	69%	70%	68%	67%	71%	74%	70%	68%	62%	56%



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
% of weight landed by QS holder	57%	43%	37%	40%	43%	30%	99%	78%	55%	58%	82%	28%	68%	90%	93%	83%
% of weight landed with hired master	43%	57%	63%	60%	57%	70%	1%	22%	45%	42%	18%	72%	32%	10%	7%	17%
% of weight able to be landed by hired master	81%	83%	77%	84%	61%	78%	57%	78%	48%	64%	87%	78%	61%	40%	50%	54%



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
% of weight landed by QS holder	37%	27%	31%	37%	43%	31%	33%	32%	40%	40%	42%	43%	45%	41%	42%	48%
% of weight landed with hired master	63%	73%	69%	63%	57%	69%	67%	68%	60%	60%	58%	57%	55%	59%	58%	52%
% of weight able to be landed by hired master	83%	84%	86%	78%	78%	78%	78%	72%	71%	73%	65%	65%	64%	68%	64%	54%

Source: NMFS IFQ landings database sourced by AKFIN

3.7 Analysis of Impacts: Alternative 1, No Action

In this analysis, the no action alternative is the regulatory status quo. Under status quo, there are two regulatory elements that inhibit CDQ groups from leasing catcher vessel IFQ for use by their resident fleet.

In particular, with no action, CDQ groups are not eligible to purchase or lease halibut or sablefish QS/IFQ, with the exception of Class A shares. CDQ groups can and some have acquired Class A share halibut QS. Class A QS are the most flexible harvesting privileges. They can be used for either harvesting and processing activities, or just harvesting activities on a vessel of any size.[6] Three of the CDQ groups currently hold Area 4 halibut A class QS (see Table 9).

Table 9 CDQ group holdings of halibut Class A QS, 2016

CDQ Group		2C	3A	3B	4A	4B	4D
APICDA	QS units	3,067	51,618	2,766	2,669	2,368	213,044
	% of all Area QS pool	0.01%	0.03%	0.01%	0.02%	0.03%	4.30%
BBEDC	QS units		709,914	304,803		370,314	122,473
	% of all Area QS pool		0.38%	0.56%		3.99%	2.47%
NSEDC	QS units			148,216			
	% of all Area QS pool			0.27%			
YDFDA	QS units				190,598	55,927	55,528
	% of all Area QS pool				1.31%	0.60%	1.12%

Source: NMFS RAM Program

Technically, these CDQ groups may already be able to have residents that participate in the small vessel CDQ halibut fishery act as hired masters to fish some of this IFQ, augmenting their CDQ allocation. However, because of the flexibility of Class A QS, it tends to be more valuable. Leasing A share IFQ to residents would forego revenue from a lease rate that they might be able to get from a private party. Therefore, leasing A share QS to their residents may come at a higher opportunity cost for CDQ groups than the ability to lease B, C or D Class QS (catcher vessel shares). In addition, the Class A QS would need to be designated in an area near the group's resident fleet to be useful to the small vessel fleet.

The other reason status quo constrains the proposed action from occurring relates to the owner-on-board requirements of catcher vessel shares under the IFQ program. The program contains limitations on both leasing and the use of hired masters.

[6] In recent years, Class A share halibut IFQ has been exclusively fished on catcher vessels and landed on shore for processing.

Under current regulations, leasing of IFQ derived from catcher vessel shares has generally been prohibited (for individuals or CDQ groups) since 1998. Several provisions are included in the program that allow for outright leasing of catcher vessel QS under special conditions. Special exceptions for leasing catcher vessel IFQ include the following situations:

1) temporary medical leases,
2) survivorship transfer privileges,
3) military leases,
4) leases through CQEs, and
5) IFQ to guided angler fish (GAF) transfers.

Therefore, individuals who are not holders of catcher vessel QS generally do not have access to catcher vessel IFQ leasing options.

It is possible that CDQ community residents could increase participation in the IFQ fisheries by acting as a hired master for a catcher vessel QS holder.[7] However, as illustrated in Figure 10, the opportunity to use a hired master is only available to certain QS holders in the program. Except for Class A QS, those catcher vessel QS holders who are eligible to use a hired master (i.e. initial issuees that are individuals and non-individual entities) must also demonstrate a 20% interest in the vessel that is landing the IFQ. CDQ resident participants, the intended beneficiaries of the proposed action, are likely to own their own vessels (some CDQ groups require this to be the case in order to be eligible to use CDQ without being charged a lease rate). Moreover, unless the CDQ resident holds QS themselves, a QS holder is unlikely to have equity in a CDQ resident's vessel. Therefore, under status quo, CDQ group residents are unlikely to be eligible to operate as a hired master, even though there are still QS holders that are eligible to use a hired master (as shown in Figure 10). If hired master use is not permitted, the QS holder would need to be on board the CDQ resident's vessel if they were to fish another person's IFQ.

There are a few other options for CDQ residents to expand their halibut operations in times of low halibut abundance. When available, CDQ groups can lease CDQ from each other. Additionally, with available funds CDQ residents could seek to acquire halibut QS to hold and use on their own. As seen in Table 4, however, there are low rates of harvest overlap of vessels that participate in landing halibut CDQ as well as halibut IFQ under status quo. This indicates that residents harvesting halibut CDQ generally have not had an opportunity or have made a choice not to participate in the halibut IFQ fishery.

The implications of Alternative 1 are heavily dependent on the health of the halibut resource. Since the proposed action under Alternative 2 only applies in times of low catch limits, if halibut catch limits remain above any of the proposed thresholds, the only difference between adopting an Alternative 1 and Alternative 2 is increased administrative effort to revise regulations and develop administrative processes for years in which CDQ groups may lease IFQ. If the catch limits for these areas do become low, the results of adopting status quo could include more negative impacts on residents of CDQ communities

[7] The primary difference between leasing and acting as a hired master is that leasing IFQ requires approval by the Regional Administrator, a transfer application, and the IFQ permit is issued in the lessee's name; while in contrast, a hired master must obtain a hired master's permit, but their harvest is debited from an IFQ permit authorized under the name of the QS holder. The QS holder remains liable for any fishing violations reported associated with that permit. Additionally, for the use of hired masters, regulations require the QS holder to have a 20% ownership interest in the vessel used to harvest the IFQ, demonstrated for at least a 12-month period.

who have historically relied on CDQ halibut than might be achieved with action. However, no action would reduce the risk of exacerbating any possible negative impacts of low halibut catch limits on Area 4 IFQ crew and vessel owners, as well as potentially certain processors and communities. A greater discussion of the qualitative costs and benefits are included in the analysis for Alternative 2 under Section 3.8 and Section 3.9.

3.8 Analysis of Impacts: Alternative 2, Allow CDQ Groups to Lease Halibut IFQ

The action alternative would allow CDQ groups to lease halibut catcher vessel IFQ in Areas 4B, 4C, and 4D in years of low halibut catch limits in regulatory Areas 4B and 4CDE. Any IFQ transferred to a CDQ group under this provision would be available for use in conjunction with halibut CDQ, intended for use by residents that have traditionally harvested halibut CDQ. This action would *not* convert IFQ to CDQ. CDQ allocations would not change. No vessel over 51 feet LOA would be eligible to harvest the leased IFQ, and all vessels harvesting IFQ must comply with IFQ use restrictions. This proposal does not limit the amount of IFQ that could be leased by a CDQ group in a year.

3.8.1 Potential Benefits

Halibut is a culturally and economically significant species for many user groups in the North Pacific. Thus, dramatic declines in IPHC Area 4 biomass levels (as well as coast-wide) have greatly impacted a substantial number of individuals, businesses, and communities. Particularly given the recent low catch limits for the commercial (IFQ and CDQ) fishery in Area 4, some of the CDQ groups are seeking opportunities to keep their residents actively fishing through these periods.

By allowing for continued employment and income, this action would be expected to provide benefits most directly to CDQ community residents who have traditionally been involved in the halibut CDQ fishery. This opportunity may have a particularly meaningful impact on these residents, as there tends to be limited regional economic diversity in these communities, resulting in few substitute employment options for residents.[8]

The benefits that could be derived from such action are different among CDQ groups and would likely even be distributional within a group. Overall, this action is not necessarily expected to result in a financial gain for a CDQ group that chooses to lease halibut IFQ. It is likely that some or all of the leasing fee would need to be subsidized by the group. However, in particular, representatives from the CDQ groups CBSFA, NSEDC, and APICDA have all suggested that if available and feasible, their group would likely take advantage of the opportunity. Representatives have emphasized that the opportunity to keep community members employed has distributional benefits to the individuals involved in the fishery that would likely be worth the subsidized expense to the CDQ group (Jeff Kaufman, 10/9/2015, personal communication).

[8] AFSC "community snapshots" demonstrate fishing involvement and demographic characteristics for BSAI communities (as well as other Alaskan communities):
https://www.afsc.noaa.gov/REFM/Socioeconomics/Projects/communitysnapshots/fullmap.php

If the halibut catch limit for Area 4B and Area 4CDE falls below a low threshold (determined in Option 1 of this alternative), the actual use of this leasing opportunity by a CDQ group will depend on a number of factors. The small vessel fleet that could potentially benefit from increased access to harvest opportunities tends to stay in nearshore areas and be more sensitive to ocean and weather conditions. Therefore, a CDQ group may be more motivated to use this option in a year where the halibut are found close enough to shore and when weather allowed them to fully prosecute their CDQ allocation in addition to any leased IFQ.

The current nature of the halibut fishery for some CDQ groups make it less likely that they would take advantage of this flexibility. In recent years where halibut catch limits have been very low, CVRF has made the internal management decision to not open their small vessel halibut fishery; therefore, it is unknown whether CVRF would ever take advantage of this additional flexibility. BBEDC and YDFDA halibut fisheries are such that either residents do not have direct access to the halibut resource due to location of the communities relative to the available stock or quota (such as YDFDA's allocation of Area 4D halibut CDQ), or residents target halibut around other priority fisheries (such as salmon fishing in Bristol Bay). However, representatives from BBEDC have still voiced support for this proposal (Anne Vanderhoeven, 10/20/2015, personal communication).

If Area 4B, 4C, and/or 4D halibut IFQ leasing is employed by some CDQ groups, this action could shift some of the harvesting patterns of halibut IFQ to match that of halibut CDQ. The proposed action could also provide distributional benefits to some processing plants, secondary service providers, and communities as a whole (note adverse distributional impacts are discussed in Section 3.8.2). CDQ groups and their resident harvesters have a variety of relationships with the processing facilities in their region.

For instance, in the years where halibut is accessible to APICDA's resident fleet (in nearshore areas), residents in AI primarily deliver halibut to the shore-side processor in Atka. Atka is home to the processor, Atka Pride Seafoods, which serves the local halibut fleet and employs local residents. Atka Pride Seafoods began processing in 1995, and is a joint ownership venture between APICDA Joint Ventures and Atka Fisherman's Association. Its current primary species are halibut and sablefish (NMFS 2015b; Luci Roberts, APICDA, 5/6/2014, personal communication). While other ports have received Area 4B halibut CDQ between 2010 and 2015, Atka is the only port in which the majority of its halibut landings are CDQ (Table 10). Thus, if APICDA leases Area 4B catcher vessel IFQ in years of low halibut abundance, the community of Atka, the processing plant, and secondary service providers in this region have the potential to benefit.

Table 10 Ports that have received Area 4B halibut IFQ or CDQ between 2010 and 2015

Ports that have received 4B halibut	CDQ	IFQ	Majority of 4B halibut landings were CDQ
ADAK	x	x	
AKUTAN	x	x	
ATKA	x	x	x
DUTCH/UNALASKA	x	x	
HOMER		x	
KING COVE		x	
KODIAK		x	
OTHER AK		x	
SAND POINT	x	x	
WHITTIER		x	

Source: NMFS RAM Program

Area 4C halibut CDQ is held by CBSFA and APICDA (Figure 4). This halibut CDQ has been landed on St. Paul Island, as well as in St. George and in Dutch Harbor/ Unalaska (Table 11). Table 11 also demonstrates that halibut CDQ does not make up the majority of halibut landed in Dutch Harbor. St. Paul Island contains one shore-side processor, Trident Seafoods. In 1994, Trident Seafoods purchased the processing plant, previously owned by Unipac, and has operated the processor since then. This Trident processor operates about seven months of the year and is primarily dedicated to processing crab (Tridentseafoods.com). The Trident plant is not affiliated with CBSFA, but it has custom processed the group's halibut CDQ in the past (NMFS 2015b). Thus, if CBSFA or APICDA was able to lease Area 4C halibut IFQ during years of low halibut abundance there may be distributional benefits to these communities and secondary service providers located there.

Table 11 Ports that have received Area 4C halibut IFQ or CDQ between 2010 and 2015

Ports that have received 4C halibut	CDQ	IFQ	Majority of 4C halibut landings are CDQ
ADAK		x	
AKUTAN		x	
DUTCH/UNALASKA	x	x	
FALSE PASS		x	
KING COVE		x	
SAND POINT		x	
ST PAUL	x	x	x
ST GEORGE	x	x	x

Source: NMFS RAM Program

YDFDA, NSEDC, CVRF and BBEDC all hold Area 4D halibut IFQ (Figure 4). As previously mentioned, given the location of the harvest opportunity (and halibut resource) compared to their residents, YDFDA generally leases its halibut CDQ to be harvested on larger (often non-resident) vessels. BBEDC also generally leases its halibut CDQ due to the priority fisheries in their region. Therefore, Area 4D has more overlap between ports that have received halibut CDQ and those that have received halibut IFQ (Table 12).

NSEDC does have a number of residents who have traditionally harvested their Area 4D halibut CDQ. The bulk of the processing capacity for the Norton Sound region occurs in Nome through Norton Sound Seafood Products (NSSP), a division of NSEDC. Halibut CDQ fishery participants in the Norton Sound region generally either deliver halibut catch to this plant in Nome or to the NSSP halibut processing facilities in Savoonga. NSSP in Nome has maintained the facilities for halibut, crab, salmon, bait fish, and some Pacific cod fillet processing (NFMS 2015b; Simon Kinneen, NSEDC, 5/12/2014, personal communication). If NSEDC leases 4D halibut IFQ during times of low halibut abundance, it may allow for continued operations in these halibut processing facilities, providing benefits for the community and secondary service providers.

Table 12 Ports that have received Area 4D halibut IFQ or CDQ between 2010 and 2015

Ports that have received 4D halibut	CDQ	IFQ	Majority of 4D halibut landings are CDQ
ADAK		x	
AKUTAN	x	x	
DUTCH/UNALASKA	x	x	
FALSE PASS	x	x	
HOMER		x	
KING COVE	x	x	
KODIAK	x	x	
NOME	x		x
SAND POINT	x	x	
SAVOONGA	x		x
ST PAUL	x	x	

Source: NMFS RAM Program

The ports receiving Area 4E halibut CDQ are relevant to this discussion because with the adoption of Alternative 2, Option 2, Area 4D IFQ could be fished in Area 4E. Thus, leased Area 4D IFQ may follow the patterns of Area 4E halibut CDQ. However, many of the communities listed in Table 13, which had previously received halibut from CVRF residents, have not done so in the past few years (Wagner 2016; Demer 2017).

Within CVRF's region, Coastal Villages Seafoods (CVS), a subsidiary of CVRF, previously had six small halibut processors distributed throughout the 20-member communities and one larger regional seafood processing plant in Platinum, AK. Halibut fishermen of CVRF either delivered to one of these seven

plants or to tenders. Once the fish was delivered it was put on ice in totes and collected by tenders, then taken to the Goodnews Bay processor in Platinum. This processing operation was subsidized by profits from CVRF's pollock, Pacific cod, and crab fishing operations in the BSAI. CVRF did not directly profit from buying fish in the region—the Yukon-Kuskokwim delta (NMFS 2015b). In part due to the drop in halibut abundance, CVRF determined that the amount of funds needed to subsidize the only processing plant in the region did not provide benefits for enough of their residents to justify the expense. The group began scaling back their fleet and closed the resident fishery in 2016 and 2017 (Wagner 2016; Demer 2017). It is possible that under the proposed action, if CVRF chooses to lease Area 4D IFQ in the future, these communities could experience distributional benefits. However, CVRF would need to determine if the subsidized cost of leasing would provide broad enough benefits to its residents to justify the expense.

Table 13 Ports that have received Area 4E halibut IFQ or CDQ between 2010 and 2015

Ports that have received 4E halibut	CDQ	IFQ	Majority of 4E halibut landings are CDQ
CHEFORNAK	x		x
DILLINGHAM	x		x
GOODNEWS BAY	x		x
HOOPER BAY	x		x
KIPNUK	x		x
MEKORYUK	x		x
NAKNEK	x		x
NOME	x		x
NUNIVAK ISLAND	x		x
OTHER AK	x		x
TOGIAK	x		x
TOKSOOK BAY	x		x
TUNUNAK	x		x
QUINHAGAK	x		x

Source: NMFS RAM Program

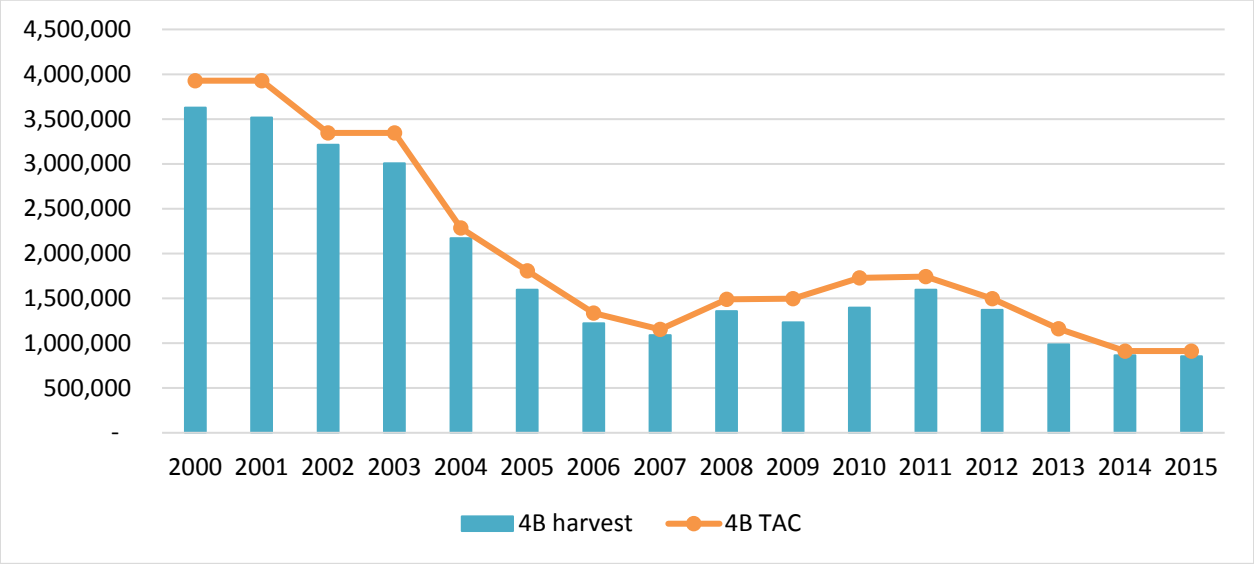
Although not described as the need for action, under the purpose and need (Section 3.2), halibut QS holders of Areas 4B, 4C, and 4D may also benefit from this opportunity. These QS holders may feel constrained as their QS is associated with smaller and smaller pounds of IFQ. In years of low halibut abundance, it may not be economically viable for some QS holders to harvest their small amounts of IFQ, particularly in these remote areas in which operating costs are higher relative to other regulatory areas. Depending on operating costs and catch limits, QS holders leasing their IFQ to CDQ groups may be able to earn more revenue from leasing IFQ than from harvesting it themselves or hiring a master to harvest the IFQ (if the QS holder is eligible). To be clear, this action would not propose any amendments to QS use caps or vessel IFQ caps. This action would provide an opportunity for halibut QS holders with QS in

Areas 4B, 4C, or 4D a chance to lease this IFQ to CDQ groups in years when the harvest limits drop below a certain threshold, without a specified limit to the leasing potential.

Currently IFQ leasing is prohibited, expect for the specific exemptions explained in Section 3.7. IFQ hired master restrictions seeking to retain the owner-on-board characteristics of the fleet, do not permit the use of a hired master for all halibut QS holders (see Figure 10). Specifically, non-initial issuees may not use a hired master to harvest their IFQ. Also in 2014, an amendment to the program was implemented prohibiting initial QS recipients from using a hired master to harvest IFQ derived from catcher vessel QS received by transfer after July 28, 2014. Therefore, this proposed action would present some halibut QS holders their *only* opportunity to have someone else harvest their Areas 4B, 4C, and 4D halibut QS. They could benefit from this opportunity by earning a lease rate for the IFQ they may or may not have fished and saving on the expense of traveling to the fishing grounds.

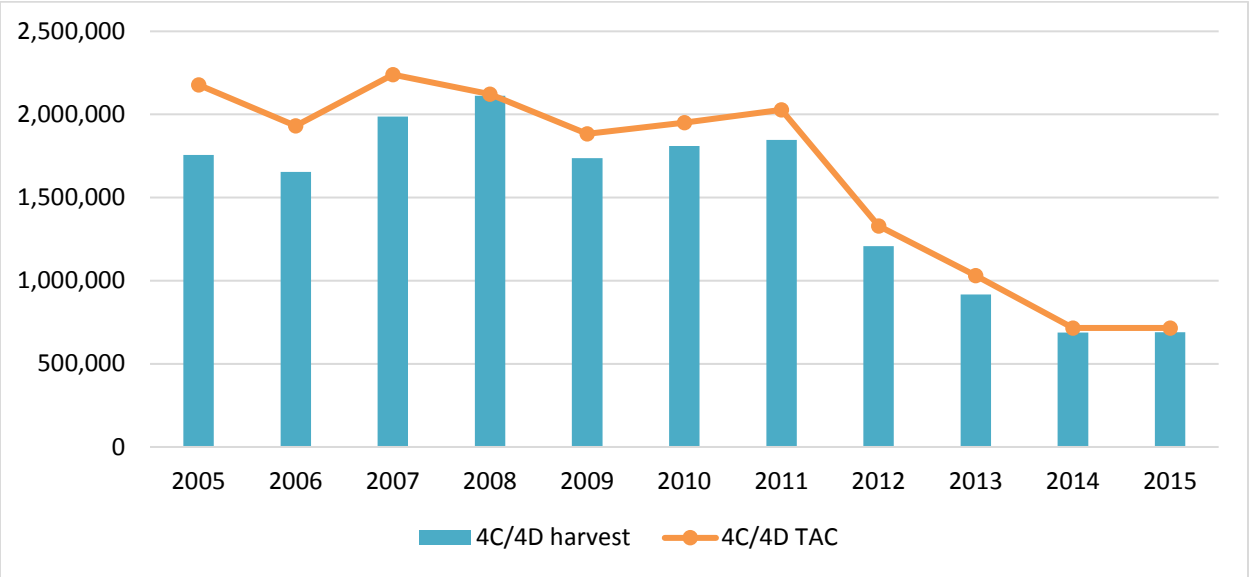
It should be noted that the halibut IFQ catch limit has been nearly fully prosecuted in Area 4B, Area 4C/ 4D. Figure 11 and Figure 11 demonstrate the percent utilization of the IFQ catch limit relative to the declining catch limit (also included in Table 6 and Table 7). However, this does not necessarily mean that there has not been increased economic struggles relative to prosecuting small amounts of halibut IFQ in years of low catch limits. Recent public testimony has highlighted challenges associated with generating the economies of scale necessary to prosecute the small amount of IFQ.

Figure 11 Halibut IFQ catch limits and harvest for Area 4B



Source: NMFS IFQ landings database sourced by AKFIN

Figure 12 Halibut IFQ catch limits and harvest for Area 4C/D



Source: NMFS IFQ landings database sourced by AKFIN
Note: See associated numbers in Table 6 and Table 7.

3.8.2 Potential Costs

Direct impacts would be expected to be positive or neutral for both CDQ resident halibut fishery participants and QS holders (as discussed in Section 3.8.1), because the opportunity for this additional flexibility in years of low halibut abundance would be voluntary for both user groups.

However, Alternative 2 could plausibly have adverse indirect effects on some stakeholders of the halibut IFQ fishery. This action could prompt some amount of temporary IFQ consolidation; impacting the number of trips taken, or resulting in some vessels not being used in the halibut fishery at all in a season. This could result in a displacement of some captain and crew jobs for the duration of time that the halibut catch limits are low enough to allow IFQ leasing. To the extent that they are not the QS holder making the decision to lease, this opportunity may also disadvantage vessel owners who have earned commission on the use of their vessel to harvest halibut IFQ. As more state and federal fisheries involve barriers to entry (e.g. limited entry permits or quota share), temporary diversification opportunities are more difficult to identify. The uncertainty about how much IFQ may be leased, from whom, and how this would impact current operations, is the challenge associated with predicting the extent to which this action may have a negative impact on these stakeholders.

Communities that have specialized in processing/ receiving halibut IFQ may experience adverse distributional impacts if CDQ groups lease IFQ and it is no longer landed in their community. As discussed in Section 3.8.1, under this action, IFQ leased by CDQ groups and harvested by their resident fleets would be expected to follow similar landing patterns to the current halibut CDQ operations. The communities that *may be* vulnerable to adverse distributional impacts based on the historical patterns of halibut IFQ landings can be seen in Table 10 through Table 12.

Out of all Area 4B halibut landings, Table 10 demonstrates the number of ports between 2010 and 2015 that exclusively received halibut IFQ (and not halibut CDQ), as well as ports in which the majority of their Area 4B halibut landed weight was halibut IFQ. This includes: Adak, Akutan, Dutch Harbor, Homer, King Cove, Kodiak, Other AK, Sand Point, and Whittier.

Out of all Area 4C halibut landings, Table 11 demonstrates that Adak, Akutan, False Pass, King Cove, and Sand Point all specialized in halibut IFQ (compared to halibut CDQ). Processors in Dutch Harbor received both, but the majority of their Area 4C halibut weight was halibut IFQ.

Out of all Area 4D halibut landings, Table 12 demonstrates that Adak, Akutan, Dutch Harbor, False Pass, Homer, King Cove, Kodiak, Sand Point, and St. Paul either exclusively received halibut IFQ or the majority of their Area 4C halibut weight was halibut IFQ.

While these tables refine the scope of impacted communities, this is not to say that all these communities will be negatively impacted with the same magnitude or even at all. These tables are not able to illustrate processor dependence on halibut IFQ in terms of total fisheries revenue due to confidentiality concerns. However, of these locations, the majority of these processors are highly diversified in species outside of halibut. In recent years (2014 through 2016) the exceptions include Adak and Homer, as well as Kodiak, Seward, and False Pass to a lesser extent.[9]

If the locations of port of origin and landings change with leased IFQ, there is a potential some communities may lose out in terms of raw fish tax, levied by the municipality as a percent of ex vessel revenue, and business landing tax, which is also a fish tax levied by the state (and shared with the communities), as a percent of ex vessel revenue. These communities may also lose out in terms of the economic activity associated with the fishing trip; purchase of food and fuel and the potential for a local vessel to be leased for the harvest of a visiting QS holder's halibut IFQ. These are distributional impacts; therefore, they could represent loses to some communities, while other communities (those with traditional halibut CDQ participation), may benefit.

A low halibut catch limit is a prerequisite for the availability of this leasing opportunity. The negative impacts from a low catch limit could confound the negative distributional effects of additional leasing opportunity. Lower catch limits alone can result in a QS holder discovering that it is no longer economically viable to harvest their halibut IFQ as they previously had. This could result in further consolidation of IFQ and even IFQ left unfished; both of which may have adverse distributional impacts on associated captains, crew, vessel owner, communities, processors, secondary service providers, and others. Nevertheless, allowing for additional catcher vessel leasing opportunities could further exacerbate the impacts of a diminished halibut stock.

3.8.3 Consistency with IFQ Program Goals

The IFQ program was developed to address issues associated with the race-for-fish that had resulted from the open-access and effort control management of the halibut and sablefish fisheries. Specifically, the Council identified several problems that emerged in these fisheries due to the previous management

[9] Note while all these ports have processed or received halibut from Area 4 at lease once from 2010 to 2016, this dependence includes halibut IFQ from all regulatory areas (NOAA RAM).

regime, including increased fishing, processing, and marketing costs without increasing catch, decreased product quality, sablefish and halibut prices, and the availability of fresh halibut, increased conflicts among halibut fishermen, sablefish fishermen, or other interest groups, adverse effects on halibut and sablefish stocks, and unintended distributions of benefits and costs.

In the original Supplemental Environmental Impact Statement (SEIS) for the IFQ program (NPFMC & NMFS 1992), the Council identified 10 policy objectives that it intended to address through specific elements of the IFQ program. Specifically, in selecting the elements of the IFQ program the Council attempted to do the following:

1) Address the problems that occurred with the open-access management regime.
    - The Council identified 10 specific problems: Allocation conflicts, gear conflicts, deadloss from lost gear, bycatch loss, discard mortality, excess harvesting capacity, product wholesomeness, safety, economic stability in the fisheries and communities, and rural coastal community development of a small boat fleet.
2) Link the initial quota share allocations to recent dependence on the halibut and sablefish fixed gear fisheries.
3) Broadly distribute quota share to prevent excessively large quota share from being given to some persons.
4) Maintain the diversity in the fleet with respect to vessel categories.
5) Maintain the existing business relationships among vessel owners, crews, and processors.
6) Assure that those directly involved in the fishery benefit from the IFQ program by assuring that these two fisheries are dominated by owner/operator operations.
7) Limit the concentration of quota share ownership and IFQ usage that will occur over time.
8) Limit the adjustment cost to current participants including Alaskan coastal communities.
9) Increase the ability of rural coastal communities adjacent to the Bering Sea and Aleutian Islands to share in the wealth generated by the IFQ program.
10) Achieve previously stated Council goals and objectives and meet Magnuson-Stevens Act requirements.

In developing the Alaska halibut and sablefish IFQ Program the Council was concerned with the potential for the emergence of a class of absentee catcher vessel shareholders. The Council believed that absentee QS holders would be in opposition to its intent that benefits from the fishery flow to those directly involved in it. Objective #6 highlights this concern, by stating the intent to, “assure that those directly involved in the fishery benefit from the IFQ program by assuring that these two fisheries are dominated by owner/operator operations.”

Therefore, the Council included an owner-on-board requirement for catcher vessel QS holders in the IFQ Program. The intent of the owner-on-board requirement was to provide for a transition of the catcher vessel fleet to becoming fully owner-operated. Class A shares were exempt from the owner-on-board requirement, because these shares were already largely corporate owned at the time the IFQ Program was being implemented and comprise a very small percentage of the total QS in the two fisheries.

Leasing of IFQ is generally prohibited (with the exceptions stated in Section 3.7) and hired master use is limited to initial recipients (except for Area 2C, in which initial recipients are not permitted to use hired

masters) and non-individual entities. Individual and non-individual entity initial recipients are eligible to use a hired master for QS held before July 28, 2014. The Council included these exemptions to provide initial recipients with the latitude to continue in the business practices that they had had prior to the implementation of the IFQ Program.

The Council has made a number of regulatory amendments to the IFQ Program to further limit the amount of leasing and hired skipper use that occurs in the fishery (see NPFMC/NMFS, 2016 for a list of examples). These examples reinforce the Council's continued interest in discouraging absentee ownership and moving towards an owner-operated program. The proposed action may be considered counter to this purpose, as it allows for an avenue to lease halibut QS without any owner-on-board provisions.

Proponents of the proposed action may argue that this type of leasing would be only permitted in dire circumstances (when halibut abundance has dropped below a certain threshold), and only involving a limited scope of participants (halibut CDQ participants and Area 4B, 4C, or 4D QS holders). With the inclusion of some of the options under Alternative 2, provisions would attempt to further contain the effects by: limiting the incentive to buy QS with the sole intention of leasing (Alternative 2, Option 3), limiting the number of consecutive years a QS holder could lease (Alternative 2, Option 4), and further restricting the QS holders able to lease in Area 4B (Alternative 3, Option 5). Additionally, goal #9 of the IFQ Program states it is an objective of the Program to "increase the ability of the rural coastal communities adjacent to the BS/AI to share in the wealth generated by the IFQ program" (NMFPC 1992).

It is a policy judgement whether this flexibility is warranted under the goals of the IFQ program. The purpose and need of this action specifically addresses the need to consider the objectives of both the IFQ and the CDQ programs.

3.8.4 Potential Market Effects

Allowing for the opportunity for CDQ groups to lease halibut QS in Area 4B, 4C, and 4D could have an impact on the halibut QS market.

Without the adoption of Option 4 (establishing a cooling off period for CDQ leasing opportunities), the proposed action could result in individuals seeking to privately acquire more halibut QS with the intention of leasing it to the CDQ groups. This potential result of the proposed action would especially work counter to the IFQ program's goal of promoting an owner-operated fleet, in addition to increasing the QS demand, which could impact the QS market. These impacts may be mitigated by establishing a cooling-off period, during which newly acquired QS could not be leased, as provided in Option 4. This is option is discussed under Section 3.8.7.

Particularly with a cooling off period for leasing, by only allowing CDQ groups to lease, rather than permanently acquire QS, this proposed action would not likely induce QS movement or consolidation among QS holders. Conversely, this action may motivate some QS holders that may otherwise consider selling, to hold onto their Area 4B, 4C or 4D halibut QS. This result could be considered either positive or negative, depending on an individual's interest in the fishery. Individuals that currently hold Area 4B, 4C, and 4D QS may find their holdings more valuable with the additional flexibility.

For those individuals seeking entry into the halibut QS market, the lack of QS movement may not be a positive result. If more QS came on the market there could be an opportunity for individuals in CDQ communities to buy their own. Table 14 shows the distribution of QS holdings by registered address. The majority of QS is held by individuals with addresses not near the fishing grounds, which could represent a higher opportunity cost of prosecuting the fishery. QS prices in Area 4B, 4C, and 4D, similar to other regulatory areas, appear to be increasing (Table 15). However, compared to other IPHC areas off of Alaska, acquiring halibut QS in these areas is generally less expensive per pound. Between 2012 and 2014, reported price per pound averaged $40.66, $34.33, $21.75, $16.55 in Areas 2C, 3A, 3B, and 4A, respectively (NMFS 2015a) compared to the prices identified in Table 15 for Areas 4B, 4C, and 4D. Offering a leasing opportunity could increase the price of Area 4B, 4C, and 4D QS and discourage movement in the QS market.

Table 14 Halibut QS holders in Area 4B, 4C, and 4D by QS area and registered address, 2015

4B			
Address	QS holders	QS holdings	% of Area QS pool
Alaska	**39**	**4,374,156**	**47.1%**
ADAK	2	702,575	7.6%
ANCHORAGE	4	532,419	5.7%
ATKA	6	352,180	3.8%
CORDOVA	2	213,869	2.3%
DILLINGHAM	1	370,314	4.0%
DUTCH HARBOR	1	135,240	1.5%
FAIRBANKS	1	22,392	0.2%
HAINES	1	7,293	0.1%
HOMER	2	174,732	1.9%
JUNEAU	1	2,368	0.0%
KODIAK	15	1,588,001	17.1%
PETERSBURG	1	2	0.0%
SITKA	2	272,771	2.9%
Outside Alaska	**39**	**4,910,618**	**52.9%**

4C			
Address	QS holders	QS holdings	% of Area QS pool
Alaska	**21**	**1,944,790**	**48.4%**
ANCHORAGE	4	297,437	7.4%
DELTA JUNCTION	1	366,151	9.1%
HOMER	2	19,948	0.5%
ST GEORGE ISLAND	3	80,621	2.0%
ST PAUL ISLAND	12	1,070,655	26.7%
SEWARD	1	12,077	0.3%
UNALASKA	1	96,994	2.4%
WASILLA	1	907	0.0%
Outside Alaska	**21**	**2,071,562**	**51.6%**

4D			
Address	QS holders	QS holdings	% of Area QS pool
Alaska	**12**	**1,472,738**	**30%**
ANCHORAGE	4	198,868	4.0%
DELTA JUNCTION	1	292,706	5.9%
DILLINGHAM	1	122,473	2.5%
JUNEAU	1	213,044	4.3%
KODIAK	2	342,286	6.9%
ST PAUL ISLAND	1	38,984	0.8%
SEWARD	1	44,173	0.9%
UNALASKA	1	220,204	4.4%
Outside Alaska	**30**	**3,485,512**	**70.3%**

Source: NOAA RAM Program, accessed 11/18/2015, available online: https://alaskafisheries.noaa.gov/permits-licenses

Note: APICDA holds Area 4 class A QS registered to Juneau. YDFDA holds Area 4 class A QS registered to Anchorage. BBEDC Area 4 class A QS is registered to Dillingham.

Table 15 Prices for halibut QS transfers by regulatory area

Area	Year	Number of transactions used for pricing	Price per pound			Price per QS unit		
			Mean Price	Stan Dev of price	Total pounds transferred used for pricing	Mean Price	Stan Dev of price	Total QS units transferred used for pricing
4B	2005	8	$ 7.49	$ 1.18	63,139	$ 1.46	$ 0.23	324,243
	2006	2	C	C	7,850	C	C	54,558
	2007	9	$ 8.45	$ 2.51	37,045	$ 1.05	$ 0.31	298,569
	2008	18	$ 9.99	$ 2.35	131,987	$ 1.60	$ 0.38	823,570
	2009	12	$ 10.39	$ 1.36	129,379	$ 1.67	$ 0.22	802,982
	2010	5	$ 8.93	$ 1.53	21,700	$ 1.66	$ 0.28	116,598
	2011	15	$ 11.05	$ 1.86	122,182	$ 2.08	$ 0.35	650,471
	2012	4	$ 19.60	$ 1.26	58,425	$ 3.16	$ 0.20	362,811
	2013	1	C	C	508	C	C	4,066
	2014	3	C	C	10,332	C	C	105186
4C	2005	7	$ 5.46	$ 2.02	86,607	$ 1.23	$ 0.46	383,147
	2006	0	$ -	$ -	0	$ -	$ -	0
	2007	6	$ 8.04	$ 1.82	67,184	$ 1.87	$ 0.42	289,134
	2008	7	$ 8.65	$ 1.47	61,260	$ 1.90	$ 0.32	278,173
	2009	6	$ 11.41	$ 1.56	67,133	$ 2.23	$ 0.31	343,693
	2010	4	$ 9.90	$ 0.22	55,116	$ 2.00	$ 0.04	272,450
	2011	18	$ 12.20	$ 2.31	116,704	$ 2.57	$ 0.49	554,708
	2013	3	C	C	6,873	C	C	64,271
	2014	4	$ 13.33	$ 1.46	10,983	$ 0.99	$ 0.11	147,877
4D	2005	4	$ 9.09	$ 1.31	19,557	$ 2.33	$ 0.34	76,317
	2006	0	$ -	$ -	0	$ -	$ -	0
	2007	9	$ 8.77	$ 2.18	114,370	$ 2.31	$ 0.57	434,031
	2008	1	C	C	3,526	C	C	14,118
	2009	3	C	C	11,584	C	C	52,298
	2010	4	$ 9.50	$ 2.85	39,239	$ 2.18	$ 0.65	171,040
	2011	10	$ 13.58	$ 1.14	163,162	$ 3.24	$ 0.27	683,856
	2012	0	$ -	$ -	0	$ -	$ -	0
	2013	2	C	C	3,683	C	C	30,370
	2014	3	C	C	5,148	C	C	61,127

Source: NOAA RAM Program, IFQ Transfer Report 2015, available online: https://alaskafisheries.noaa.gov/sites/default/files/reports/halibut-transferfrpt2015.pdf

Note: C denotes confidential information. Quota share prices in dollars per QS unit are not comparable across areas because the ratio of IFQs to QS differs from area to area and may differ from year to year as TACs change. QS prices in dollars per pound of associated IFQ are more comparable across areas.

3.8.5 Option 1: Defining 'Low Catch Limit'

The action alternative identifies that the IFQ leasing option would only be available to CDQ groups, in years of low halibut catch limits in regulatory Areas 4B and 4CDE. Thus, one key Council decision point is in setting that threshold of low catch limits.

One thing to note is that, while Area 4E is not open to halibut IFQ fishing, and therefore 4E halibut IFQ would not be available to lease under the proposed action, the IPHC generates an estimate of exploitable biomass for Areas 4CDE (including biomass from closed areas) as one combined number and treats 4CDE as a single unit when recommending the catch limit for a given year. The 4C, 4D, and 4E subareas

were created to serve the needs of the Council's Area 4CDE Catch Sharing Plan (CSP). Once the catch limit is set for Area 4CDE by the IPHC, that limit is further apportioned to each of the three subareas using the CSP developed by the Council.[10] In light of this apportionment process, the IPHC staff recommends Option 1 consider a 'low abundance' threshold at the combined Area 4CDE-level, due to the quota sharing among some of the 4CDE regulatory areas and ultimately the combined halibut abundance estimated for Area 4CDE.[11] The IPHC does specify separate catch limits for Area 4B and 4CDE. Thus, the Option 1 of Alternative 2 allows the threshold for Area 4B to be chosen independently of Area 4CDE:

> **Option 1. Defining 'low catch limits' for the purpose of allowing leases. Designation of low catch limits is independently determined for Areas 4B and 4CDE. The threshold for designating a year of low halibut catch limit in each area is less than (separate sub-options may be selected for Area 4B and Area 4CDE):**
>
> **Sub-option 1. 1 million pounds (PA for Area 4B)**
> Sub-option 2. 1.3 million pounds
> **Sub-option 3. 1.5 million pounds (PA for Area 4CDE)**

To provide some context, these proposed thresholds are compared to the adopted catch limits in Area 4B and Area 4CDE, as well as attainment between 2008 and 2017 in Table 16. Throughout this time period, none of the catch limits have fallen below the 1 Mlb threshold. Area 4CDE was below the 1.3 Mlb threshold in 2014 and 2015 (1.285 Mlb). Area 4B was below the 1.3 Mlb threshold in 2014, 2015, 2016, and 2017 (1.14 Mlb) and was below the 1.5 Mlb threshold in 2013 (1.45 Mlb). For most CDQ groups, a drop in the number of small vessels participating in the CDQ halibut fishery occurred in either 2013, 2014 or both years (refer to Table 3).

[10] The Council's Catch Share Plan sets the combined Area CDE limits as: 46.43% to Area 4C, 46.43% to Area 4D, and 7.14% to Area 4E, when the total catch limit *does not exceed* 1,657,600 pounds. If the Area CDQ catch limit exceeds 1,657,600 pounds, then an addition fixed 80,000 pounds is set aside for Area 4E (CDQ), and the percentages are applied to the remainder.

[11] All of the proposed 'low catch limits' are below the threshold which changes the Area 4CDE allocations, therefore, it should not make a mathematical difference whether the Council used the combined Area 4CDE catch limits or the individual Area 4C and 4D catch limits to create a threshold to trigger the allowance of IFQ leasing; these apportionments will move together at all of the proposed thresholds.

Table 16 Adopted catch limits and commercial catch (including IPHC research catch; in pounds, net weight) for Area 4B and Area 4CDE, 2008 through 2017

Year	4B		4CDE	
	Catch Limit	Commercial Catch	Catch Limit	Commercial Catch
2008	1,860,000	1,763,000	3,890,000	3,876,000
2009	1,870,000	1,593,000	3,460,000	3,310,000
2010	2,160,000	1,829,000	3,580,000	3,315,000
2011	2,180,000	2,054,000	3,720,000	3,429,000
2012	1,869,000	1,738,000	2,465,000	2,341,000
2013	1,450,000	1,253,000	1,930,000	1,771,000
2014	1,140,000	1,119,000	1,285,000	1,258,000
2015	1,140,000	1,111,000	1,285,000	1,194,000
2016	1,140,000	*1,117,000*	1,660,000	*1,482,000*
2017	1,140,000	NA	1,700,000	NA

Source: IPHC RARA, Chapter 2 Fishery Removals. 2.1. 2016 Commercial fishery and regulatory changes: http://iphc.int/publications/rara/2016/IPHC-2016-RARA-26-R-2.1_Commercial_fishery.pdf
Notes: NA = not available data. Additional carryover from the underage/ overage not included. Catch from 2016 are preliminary estimates.

3.8.6 Option 2: Leased Area 4D IFQ May Be Fished in Area 4E

Option 2 of the action alternative would allow for harvest flexibility of Area 4D IFQ into Area 4E. This option is stated as:

Option 2. Leased Area 4D IFQ may be fished in Area 4E.

Even without the adoption of Option 2, this action has the potential to change some of the historic patterns of harvest; both within a regulatory area and among areas, as some IFQ can be harvested across area lines (see Figure 5). As illustrated in Section 3.5.2, some QS can be harvested in multiple IPHC regulatory areas. The Area 4C CDQ/ IFQ allocation may be fished in 4C or 4D. The Area 4D CDQ allocation may be fished in 4D or 4E.

Although there is no IFQ fishery in Area 4E, and Area 4D IFQ cannot be fished in Area 4E under the status quo, harvest in Area 4E could be indirectly impacted by this proposal as well. For example, if NSEDC wanted to expand their halibut fishing opportunities in Area 4E (the Nome halibut fishery), they may attempt to lease Area 4D halibut IFQ QS. Without Option 2, this non-CDQ IFQ would not be transferable to harvest opportunities in Nome, however NSEDC could use this IFQ to provide opportunities to their Savoonga fishery, freeing up Area 4D CDQ to be transferred to their Nome fishery.

Historically, due to the harvest flexibility described in Section 3.5.2, Area 4E has had up to 67% harvest above its allocated level due to this ability to move fishing effort from Area 4D. Area 4D harvest is often lower than its harvest limit, even with the inclusion of 4C allocation caught in Area 4D. Thus, while the IPHC may not perceive this potential for change in locational fishing intensity from the proposed action to be a threat to overall stock conservation as long as the Area 4CDE total catch limit is not exceeded,

there is a possibility of localized impacts on fishing opportunities if fishing effort patterns were to change substantially.

The adoption of Alternative 2, Option 2, would require regulatory approval from the IPHC regulations as well as to the Secretary of Commerce. In order for 'CDQ-leased' Area 4D IFQ to be harvested in Area 4E, IPHC and NMFS regulations would need to be amended. For IPHC regulation changes, the Commissioners would need to take action on these changes at its annual meeting in January. IPHC-recommended regulation changes are then forwarded to the governments of the U.S. and Canada for implementation before the start of the fishing season in that same year. If the Council and NMFS recommend regulation changes to the IPHC, they would do so during IPHC's call for regulatory proposals in the fall of the year prior to anticipated implementation. Regulatory change proposals are due to IPHC at the end of October each year to be considered for action by the Commissioners for the next year's fishery.

A preliminary evaluation has determined that the following IPHC regulations may need to be revised with the inclusion of Option 3: [12]

- Section 7 (Fishing in Regulatory Area 4E and 4D) to add IFQ leased by CDQ,
- Section 11 (Catch Limits) to add IFQ amounts leased by CDQ, and
- Section 18 (Fishing Multiple Regulatory Areas), which currently has specific prohibitions about how much halibut from multiple areas may be possessed on board a vessel in any specific area at any time.

While the majority of the current proposal does not apply to Class A QS, as this category of QS already has the flexibility to be leased to whomever, Alternative 2, Option 2, Sub-options 1 and 2 considers allowing for some increased harvest flexibility, currently not available to Class A QS. Just like Area 4D catcher vessel QS, under status quo, Area 4D Class A QS cannot be harvested in Area 4E. Alternative 2, Option 2, Sub-options 1 and 2 would allow Area 4D Class A QS leased by CDQ groups to be fished in Area 4E during times when the catch limit drops below the thresholds established under Alternative 2, Option 2. This flexibility would be restricted to IFQ leased (or owned) by a CDQ group, and fished on vessels less the 51 feet LOA. In line with the rest of the action alternative the intent is to provide CDQ residents with additional (or continued) opportunities to harvest halibut from a source outside of what is currently available to them or that may be more accessible to vessels in the resident fleets in the CDQ communities.

Considering the proximity of CDQ communities relative to Area 4E, these sub-options could theoretically benefit NSEDC, YDFDA, CVRF, and/ or BBEDC. The CDQ groups BBEDC and YDFDA would have the option of using their own Area 4D Class A IFQ to support a resident small-vessel halibut fleet located in the Area 4E region. However, both of these groups hold Area 4D CDQ, which already has the ability to be leased and fished in Area 4E. Given the past harvesting patterns of these groups' Area 4D CDQ, it seems unlikely that these two groups would rely on this additional opportunity, expect in perhaps very dire circumstances (Matt Robinson, 04/28/2017, personal communication).

[12] Note that some of these regulations may need to be amendment for Alternative 2 even without the adoption of Option 3.

Both NSEDC and CVRF hold Area 4D CDQ as well, which is already granted the harvest flexibility between Area 4D and Area 4E. Representatives from NSEDC have noted their interest in this additional opportunity to fish leased Area 4D IFQ in Area 4E.

Representatives from CVRF testified at the June 2017 Council meeting against this harvest flexibility, expressing concern that more vessels could be fishing off the shores of their villages in a time when the halibut catch limits are not large enough to support its historically prominent, small vessel fishery. The CVRF representatives were concerned about impacts to the subsistence fishery should residents from other CDQ groups travel to waters near its communities to harvest halibut. The Council spoke to this concern when taking final action, with one member stating that based on testimony from other group representatives, the distance between CDQ group communities, and the size of the vessels as described in Table 3, he believed it unlikely that CDQ residents from other communities would travel to waters near CVRF community shores to harvest halibut.

The two mutually exclusive sub-options create a distinction between whose Class A QS the harvest flexibility would apply to. The sub-options are:

> Sub-option 1. Area 4D A Class IFQ owned by CDQ groups may be fished in Area 4E when the abundance threshold in Area 4CDE is triggered
>
> **Sub-option 2. Any CDQ owned or non-CDQ owned Area 4D A Class IFQ leased by a CDQ group may be fished in Area 4E by vessels less than or equal to 51 feet when the catch limit threshold in Area 4CDE is triggered**

The first sub-option applies only to the Class A IFQ leased by a CDQ group when the QS holder is a CDQ group (when the catch limits are lower than the threshold established under Alternative 2, Option 1). The second sub-option applies to any Class A IFQ leased by a CDQ group (when the catch limits are lower than the threshold established under Alternative 2, Option 1). This difference is best explained by considering the current Area 4D Class A QS holders (Table 17). Class A QS makes up about 8% of the total QS pool for Area 4D. Based on 2016 holdings, approximately 94% of the Area 4D Class A QS pool is held by a CDQ group, with one non-CDQ group holding the remaining 6%. Thus, the effective difference between Sub-option 1 and 2, based on current QS holdings, is the ability for one additional Class A QS holder to have the opportunity to lease during times of low catch limits.

Table 17 Area 4D A Class QS holder and their QS holdings, 2016

A Class QS holder	QS units	% of all Area 4D	% of 4D A Class QS
APICDA	213,044	4.30%	51%
BBEDC	122,473	2.47%	30%
YDFDA	55,528	1.12%	13%
ALASKA TROJAN FISHERIES	22,891	0.5%	6%

Source: NMFS RAM Program

3.8.7 Option 3: Cooling Off Period for Lease of QS

As described in Section 3.8.3, there is a potential for QS market effects given a new opportunity to lease IFQ. Individuals could seek to acquire halibut QS in Areas 4B, 4C, or 4D without the intention of fishing it themselves. Rather, they may have the intention of leasing the IFQ to the CDQ groups, and earning a lease fee from the transaction. As described in Section 3.8.3, while the original IFQ Program goals sought to maintain existing business relationships (goal #5), the program was also focused on discouraging new business models that may perpetuate an absentee owner fishery (goal #6). Recent program amendments have reinforced the Council's commitment towards this original objective of maintaining an owner-operated fleet (NPFMC/NMFS 2016). Therefore, if the Council wishes to discourage the type of market behavior in which an individual may purchase QS without the intention of ever fishing it themselves, the Council could include a provision that establishes a "cooling-off period". A cooling-off period would be a period of time after QS is acquired in which the IFQ derived from that QS could not be leased. More specifically the option states:

> Option 3. Any Area 4B, 4C, or 4D catcher vessel QS transferred after December 14, 2015[13] may not be leased as IFQ to CDQ groups under this action for a period of:
>
> **Sub-option 1. 3 years**
> Sub-option 2. 4 years
> Sub-option 3. 5 years

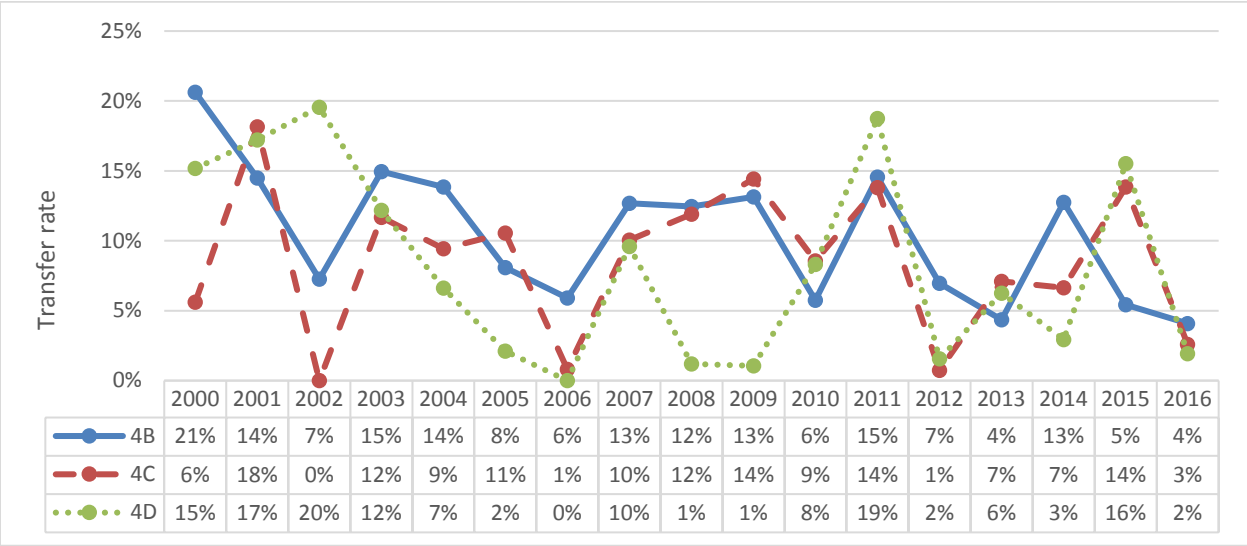
A cooling-off period would discourage a person from buying QS with the intention of leasing the IFQ. It is difficult to make a large investment, such as a QS purchase, by relying on potential sources of revenue (lease rates) several years away. Moreover, it is difficult to predict what the halibut stock conditions (and ultimately catch limits) will be 3, 4, or 5 years out. Therefore, a buyer would be uncertain of whether this option would even be available to them. The inclusion of this option would make it more difficult to consider leasing as a viable opportunity when determining whether or not to buy QS.

The tradeoff to this option is the potential to constrict the available pool of leasable QS to a point where is not a viable option for CDQ groups to lease. An analysis of Area 4B, 4C, and 4D QS transfers can provide a sense for how constraining Option 3 and its sub-options may be on a CDQ group in search of leasable QS. Figure 13 demonstrates substantial trends in inter-annual variability for QS transfers in these areas. The average total annual transfers in Area 4B, 4C, and 4D represent about 10%, 9%, and 8% of the corresponding QS pools, respectively. Not demonstrated in the figure is that the median transfer each year has generally been less than 1% of the QS pool for each area, with only a few exceptions.

The percentages in Figure 13 likely represent an overestimate as they are calculated as the number of QS units transferred compared to the total QS pool. In other words, if 1,000 units of QS change hands in a year 3 times, this will be depicted as 3,000 QS units transferred divided by the total QS pool. This also means there could be more than 100% represented if the same QS units are transferred more than once.

[13] The Council selected the control date, based on the date they first considered the proposal as a discussion paper and first considered setting a control date.

Figure 13 Transfer rates of halibut QS in Area 4B, 4C, and 4D



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
4B	21%	14%	7%	15%	14%	8%	6%	13%	12%	13%	6%	15%	7%	4%	13%	5%	4%
4C	6%	18%	0%	12%	9%	11%	1%	10%	12%	14%	9%	14%	1%	7%	7%	14%	3%
4D	15%	17%	20%	12%	7%	2%	0%	10%	1%	1%	8%	19%	2%	6%	3%	16%	2%

Source: NMFS RAM QS/IFQ transfer data sourced through AKFIN

Given that QS transfers patterns are tied to many external factors, such as, importantly, halibut catch limits, it is very difficult to predict future transfer rates. In lieu of predicting how much Areas 4B, 4C, and 4D QS will be transferred in future years, (thereby making it temporarily unavailable for leasing to CDQ groups under Option 3), looking back on transfer rates in different increments can provide a basis with which to consider effects of this type of restriction. Table 18 illustrates that, had the provisions been in place in 2000 (using Sub-option 1 as an example), and a CDQ group wished to lease Area 4B QS in 2003, up to 42.4% of the 4B QS would be unavailable due to recent transfers.

Table 18 Percent of QS pool transferred in 3-year increments, Area 4B, 4C, and 4D

3-year range	4B	4C	4D
2000-2002	42.4%	23.8%	51.9%
2003-2005	36.9%	31.7%	20.9%
2006-2008	31.1%	22.8%	10.8%
2009-2011	33.5%	36.8%	28.1%
2012-2014	24.0%	14.5%	10.8%

Source: NMFS RAM QS/IFQ transfer data sourced through AKFIN

While Table 18 presents some example-periods based on the Council's PA, the effect of Sub-option 2 (a 4-year cooling-off period) and Sub-option 3 (a 5-year cooling-off period) may also be considered by summing the percentage points under total transfers for 3 or 4 year increments in Figure 13.[14] For instance, consider a scenario in which the Council set a 5-year cooling off period, it is 2016, and a CDQ

[14] Note that this provides and approximate percent of the QS pool transferred as the QS pool changed slightly in Area 4C and 4D during this time period.

group wants to lease Area 4C QS. According Figure 13, up to 32% of the Area 4C QS would be unavailable due to a recent transfer. Again, it is necessary to remember these percentages represent an overestimate as some QS may have been transferred multiple times.

Option 3 would require NMFS RAM Program to investigate the transaction history of QS holdings before approving a lease of IFQ. This would most likely be done on a case-by-case basis at the time of transaction. Although NMFS has indicated it will automate this process as much as possible, the need to review transfer history may increase the time to process the leasing transaction and increase administrative costs.

3.8.8 Option 4: Limit to the Duration of Leasing

Option 4 was included to address the policy concerns associated with allowing for a non-owner operated fishing option (described in Section 3.8.3.1). Alternative 2 would already restrict duration of use by only being available in years in which the catch limits fall below the specified levels (established under Alternative 2, Option 1). The intent behind Option 4 is to further limit the amount of time a halibut QS holder could depend on leasing as a viable business decision. Option 4 states:

> Option 4. No individual halibut QS holder may lease catcher vessel halibut IFQ to any CDQ group, on a consecutive basis, for more than:
>
> **Sub-option 1. 2 years**
> Sub-option 2. 3 years
> Sub-option 3. 4 years

It is difficult to understand the impacts from Option 4 because there is no basis with which to predict how many consecutive years the halibut catch limit in Area 4B and in Areas 4C and 4D, would fall below the thresholds identified under Alternative 2, Option 1. Additionally, it is unclear which QS holders would be motivated to lease their IFQ and how much IFQ a CDQ group would seek to lease. The answers to these latter questions are situational dependent. For instance, as mentioned, a CDQ groups' interest in leasing IFQ may depend on how accessible the halibut resource is to local fishing grounds. Clearly, if the Council chooses to allow leasing for a lower number of consecutive years, a QS holder may be more likely to be constrained in their leasing efforts than if the Council chose a greater number.

There is likely to be administrative costs associated with both flagging years in which, under Alternative 2, these leasing opportunities were available, but also in identifying the halibut QS holders that are eligible to lease their IFQ during these years. While this process will be automated to the extent possible, NMFS RAM Program has indicated this would likely be done on a case-by-case basis at the time of transfer, which particularly under a limited number of transfers, may minimize the administrative burden. Option 4 would require RAM Program to identify the number of consecutive years a QS holder has leased IFQ to a CDQ group before approving a transfer.

3.8.9 Option 5: Limit to the Size of Leasable QS

In an effort to minimize the negative impacts on Aleutian Island communities near Area 4B fishing grounds, the Council included Option 5 for analysis in October 2016. In public testimony, stakeholders described that communities in the Aleutian Islands benefit from QS holders that fly out to the Aleutian

Islands, pay a fee to walk onboard a resident's vessel, pay business and raw fish tax to the state and community based on the weight of their landings, and may also purchase food, fuel and other goods and services in town. Community representatives expressed concern about losing this economic activity should these QS holders choose to lease their IFQ to a CDQ group and have it ultimately used by residents in a different community.

The Council included Option 5 as a way to allow for some leasing by QS holders with small holdings of IFQ, while maintaining owner-on-board requirements for those QS holders with larger amounts of IFQ. QS holders that are only issued a small amount of pounds in a year may be more prone to leaving IFQ unharvested, particularly if a QS holder incurs high economic costs to reach the 4B fishing grounds (i.e., they do not live in the Aleutian Islands). Option 5 would provide the Area 4B leasing opportunity exclusively to those with small holdings of QS/IFQ while maintaining the benefits to Adak from harvests of larger amounts of Area 4B IFQ that could not be leased. It states:

> Option 5. Limit the ability to lease Area 4B catcher vessel halibut IFQ to CDQ groups under this action to quota holders that own less than the following total area 4B holdings, inclusive of all class and blocked or unblocked categories:
>
> Sub-option 1. 2,000 pounds
> Sub-option 2. 5,000 pounds
> Sub-option 3. 7,500 pounds
> **Sub-option 4. Convert pounds in Sub-options 1 through 3 to 2016 QS units**

The Council clarified that when evaluating eligibility for leasing, NMFS RAM would consider all classes of QS holdings, regardless of blocked or unblocked status. Additionally, NMFS RAM would only consider Area 4B holdings. Therefore, even if their total QS for all areas exceeded the threshold of pounds chosen under Option 5, an individual with less Area 4B QS than established under the Option 5 threshold would still qualify to lease their Area 4B IFQ during low abundance years.

Table 19 and Table 20 provide some context for number of QS holders and characteristics of IFQ holdings in Area 4B that would be eligible to lease their IFQ based on Option 5, Sub-option 1-3. Because Sub-option 1-3 would establish the threshold in pounds, with no reference year, eligibility for a QS holder to lease will change depending on the halibut catch limits (i.e., the QS:IFQ ratio for the season). The lower the catch limits drop, the more QS holders become eligible to lease their halibut IFQ. Thus, even without buying or selling QS, an individual may be eligible to lease one year of particularly low catch limits, and no longer eligible to lease when the catch limits increase.

For example, Table 19 demonstrates a scenario in which the Area 4B catch limit is one million pounds; the Council's PA 'low catch limit threshold' under Alternative 2, Option 1. Once the CDQ allocation is deducted, this would result in 800,000 pounds of IFQ issued to QS holders. In Area 4B, 1.3% of the QS pool is Class A, already eligible for leasing, and therefore outside of this discussion. Under this action, if for example, the Council limited leasing of catcher vessel halibut IFQ to those who held less than 7,500 pounds, this would represent 16.2% of the total Area 4B IFQ based on 2016 QS holdings. If the catch limit dropped to a half million pounds, this would result in 400,000 pounds of IFQ issued to QS holders. If the Council limited leasing of catcher vessel halibut IFQ to those who held less than 7,500, now the

amount of catcher vessel IFQ eligible for leasing would rise to 41.9% of total Area 4B IFQ. In the former scenario (with a one million pound catch limit), 41 catcher vessel QS holders would be eligible for leasing their IFQ. In the later scenario (with a half a million pound catch limit) 60 catcher vessel QS holders would be eligible for leasing their IFQ.

Note that these scenarios are based on what QS is held in 2016. If an individual buys or sells Area 4B QS, these percentages would change.

Table 19 Individuals qualified to lease and IFQ able to be leased if threshold was established in pounds and Area 4B catch limit dropped to 1 million pounds

Size categories (in pounds)	Number of QS holders	Mean amount of IFQ held (in pounds)	Total amount of IFQ (in pounds)	Percent of Area 4B IFQ
Total	81	9,877	800,000	100.0%
Catcher Processor QS				
A Class	4	2,690	10,760	1.3%
Catcher Vessel QS				
< 2,000	15	927	13,911	1.7%
< 5,000	29	2,057	59,650	7.5%
< 7,500	41	3,161	129,601	16.2%
≥ 7,500	36	18,323	659,639	82.5%

Source: NOAA RAM Program, QS holder database sourced through AKFIN
Note: Based on holdings in 2016

Table 20 Individuals qualified to lease and IFQ able to be leased if threshold was established in pounds and Area 4B catch limit dropped to 0.5 million pounds

Size categories (in pounds)	Number of QS holders	Mean amount of IFQ held (in pounds)	Total amount of IFQ (in pounds)	Percent of Area 4B IFQ
Total	81	4,938	400,000	100.0%
Catcher Processor QS				
A Class	4	1,345	5,380	1.3%
Catcher Vessel QS				
< 2,000	25	829	20,736	5.2%
< 5,000	50	2,062	103,092	25.8%
< 7,500	60	2,791	167,471	41.9%
≥ 7,500	17	13,362	227,149	56.8%

Source: NOAA RAM Program, QS holder database sourced through AKFIN
Note: Based on holdings in 2016.

Table 21 and Table 22 provide contrast with the two previous tables by using the same example catch limits, but with thresholds that are established in QS units (rather than pounds). Table 21 and Table 22 represent examples of Alternative 2, Option 5, Sub-option 4. These tables demonstrate that, regardless of how low the catch limit falls (below the threshold established under Alternative 2, Option 1), if the thresholds are established in QS units, the percentage of the QS pool that is eligible for leasing will stay the same. The number of individual QS holders that are eligible to lease will also remain the same. One

caveat being, when individuals buy or sell Area 4B QS, these number of eligible QS holders and the percentage of leasable QS can change.

For example, if the Council limited leasing catcher vessel QS in Area 4B to those who hold less than 7,500 pounds *in 2016 pounds* (and using the 2016 QS holdings), 12.8% of the Area 4B QS pool would be eligible to be leased at a one million pound catch limit and 12.8% of the Area 4B QS pool would be eligible to be leased at a half-million-pound catch limit. The same 37 individuals that would have been qualified to lease IFQ in 2016 at a one-million-pound catch limit, would also been allow to lease if 2016 had a half-million-pound catch limit. However, as demonstrated in Table 21 and Table 22, the amount of IFQ able to be leased would drop from a maximum of 102,661 pounds down to 51,331 pounds. This is in contrast to the increase in IFQ eligible to be leased when caps are set in pounds and the catch limits fall from one million pounds to a half million pounds (as demonstrated in Table 19 and Table 20).

Table 21 Individuals qualified to lease and IFQ able to be leased if threshold was established in 2016 QS units and Area 4B catch limit dropped to 1 million pounds

Size categories (in 2016 pounds)	Size categories (in 2016 QS units)	Number of QS holders	Mean amount of IFQ held (in pounds)	Total amount of IFQ (in pounds)	Percent of Area 4B IFQ
Total		81	9,877	800,000	100%
Catcher Processor QS					
A Class		4	2,690	10,760	1.3%
Catcher Vessel QS					
< 2,000	< 20,361	14	856	11,981	1.5%
< 5,000	< 50,904	26	1,762	45,802	5.7%
< 7,500	< 76,355	37	2,775	102,661	12.8%
≥ 7,500	≥ 76,355	40	17,164	686,579	85.8%

Source: NOAA RAM Program, QS holder database sourced through AKFIN
Note: Based on holdings in 2016.

Table 22 Individuals qualified to lease and IFQ able to be leased if threshold was established in 2016 QS units and Area 4B catch limit dropped to 0.5 million pounds

Size categories (in 2016 pounds)	Size categories (in QS units)	Number of QS holders	Mean amount of IFQ held (in pounds)	Total amount of IFQ (in pounds)	Percent of Area 4B IFQ
Total		81	4,938	400,000	100%
Catcher Processor QS					
A Class		4	1,345	5,380	1.3%
Catcher Vessel QS					
< 2,000	< 20,361	14	428	5,991	1.5%
< 5,000	< 50,904	26	881	22,901	5.7%
< 7,500	< 76,355	37	1,387	51,331	12.8%
≥ 7,500	≥ 76,355	40	8,582	343,289	85.8%

Source: NOAA RAM Program, QS holder database sourced through AKFIN
Note: Based on holdings in 2016.

Again, it is difficult to say how constraining each threshold would be to CDQ groups, without knowing the supply or demand for leasable catcher vessel QS. Clearly, establishing a lower number of pounds would be both more constraining in terms of the pounds available, but also in the number of QS holders eligible to engage in leasing. These constraints would be augmented with the limitations that could be adopted under Option 3 and 4.

Identifying whether an Area 4B QS holder's annual IFQ is small enough to qualify for leasing to CDQ groups is another element that could increase the administrative burden with the associated leasing transaction. NMFS RAM Program has indicated that like Option 3 and 4, this element would mostly likely require a manual check at the time of transfer. With the expectation that this type of leasing would not occur frequently, the administrative burden would then not be expected to be large. However, this is important to identify because any increase in administrative activity could translate into additional management and enforcement costs recovered under the existing IFQ Cost Recovery Program.

3.8.10 Option 6. Reporting Requirement

Another policy concern that was identified during Council discussions in October 2016 was how to ensure that the benefits of this action would manifest with the intended receipts. There was also discussion about whether there were undesirable leasing situations that could result from this action.

Currently, most CDQ groups provide economic development opportunities to encourage their residents' fishing ventures. This includes tools such as loan programs for vessels and QS, subsidized processing opportunities, and market contacts. It is the responsibility of the CDQ groups to determine how to best maximize the net benefits of their fishery allocations in order to affect the broadest swath of their population. In fitting with this pattern, there is nothing in the proposed action that would *prohibit* self-leasing-type behavior or *require* that the benefits have the greatest impact on the communities.

The Council had considered including a statement that under Alternative 2 that leased halibut IFQ was, "intended to be leased from non-residents for use only by residents of a CDQ community with a halibut CDQ permit and a CDQ hired master permit". However, after deliberation, the Council clarified that it did not intend to establish a regulatory definition for "CDQ resident", nor did it intend for NMFS to verify that "residents" were in fact receiving the harvest benefits. CDQ groups seek to provide economic opportunity for residents in their communities; thus, each group has some way to identify or define who is considered a "resident." A report, required only in years in which CDQ groups took advantage of the additional opportunity to lease catcher vessel halibut IFQ provided in this package, would allow CDQ groups to demonstrate how this opportunity is benefiting its residents without the Council or NMFS needing to define who is a "resident". Thus, the Council added Option 6 which included a requirement for a CDQ group to report the criteria used to determine who received leased IFQ.

In addition to helping the Council and the public identify whether the beneficial effects were reaching their intended beneficiaries, the reporting requirement option was also added as a way to determine if undesirable leasing situations were occurring without having to specifically define what each of those situations may be. Alternative 2 would provide CDQ groups total flexibility, in years of low halibut abundance, in how much QS they lease and from whom. It is possible a CDQ group could choose to lease halibut IFQ from a resident, employee, director, or manager of a CDQ group that might also have access to harvesting halibut CDQ. This situation may benefit one individual, but it may not bring new harvesting opportunity to the community, as described in the purpose and need statement. Instead, one individual in a community may benefit both from earning a lease rate as well as the benefits of harvesting CDQ.

Previous drafts of the analysis considered other ways to monitor and/or restrict the lessors of IFQ. This could be as strict as requiring in regulation that any IFQ leased by CDQ groups is not associated with a member of the community or management of the CDQ group. However, the Council chose to include a reporting requirement as an Option 6 that also included the criteria used to select IFQ holders leasing to a CDQ group and the amount and type of IFQ leased. In addition, the Council stated its intent for IFQ to be leased from non-residents for use by residents of a CDQ community.

The full option is included as follows:

> Option 6. Require CDQ groups to submit a report for each year the group leases IFQ. The report must specify the criteria used to select IFQ holders leasing to a CDQ group, the criteria used to determine who can receive leased IFQ, and the amount and type of IFQ leased. A CDQ group will not be eligible to lease halibut IFQ until a timely and complete report is submitted.
>
> The Council intends for IFQ to be leased from non-residents for use by residents of a CDQ community.

If the Council reviews the annual report and perceives leasing activity to be conducted in a way that does not fit with its intent, the Council has the latitude to take action in the future to add more specificity in defining who a CDQ group can lease to and from.

3.8.11 Other Management and Enforcement Considerations

3.8.11.1 Vessel IFQ Caps

The vessel IFQ cap (also referred to as "vessel cap" or "vessel use cap") restricts the amount of IFQ that can be consolidated and accounts for the IFQ species harvested on one vessel during a season. Vessel IFQ caps do not apply to CDQ. However, in the proposed action, vessel IFQ caps would still apply for the IFQ leased to a CDQ group and fished by the CDQ group's hired masters, just as it does under the status quo for the vessel being used by any other hired skipper to harvest IFQ. Under status quo, if a vessel is harvesting both CDQ and IFQ halibut during a single trip, they are required to ensure these separate harvests are identifiable, and this requirement would be maintained under the proposed action.

While regulations would not change in this situation, the scope of this action may expand this provision to vessels operators that are not familiar with this practice. While it may be unlikely that a small CDQ resident-owned vessel would be in danger of exceeding the vessel IFQ caps for halibut, these vessel operators would still be required to ensure IFQ halibut and CDQ halibut are separate harvests and are identifiable.

3.8.11.2 Overage/ Underage Provision

The overage/ underage provision for the IFQ fishery provides flexibility for IFQ holders who are near their IFQ landing limits. This provision allows for an administrative adjustment of IFQ permits as a result of under- and overfishing the prior year up to 10%. Overages of greater than 10% of the IFQ allocation remaining at time of landing are treated as violations and subject the IFQ holder to enforcement action. Administrative adjustments "follow the QS" so that the adjustment is computed for the permit of the person who, at the beginning of a year, holds the QS associated with the IFQ that was under- or overfished the prior year. Under Alternative 2, this provision would be in place, consistent with the status quo.

3.8.11.3 Certification

For monitoring and enforcement purposes, the more provisions for CDQ hired masters that match what is currently required of halibut IFQ hired masters, the easier this action could be to implement. For example, this would mean a vessel operator harvesting halibut CDQ and halibut IFQ leased to a CDQ group would need to carry:

- CDQ halibut permit
- CDQ hired master permit
- IFQ permit of CDQ group
- IFQ hired master permit

Halibut that is landed would be coming off two separate catch limits. Therefore, for purposes of catch accounting, participants would need to understand which halibut they harvest is associated with the group's CDQ and what is associated with IFQ. This distinction would be recorded on the fish ticket.

3.8.11.4 Cost Recovery

The proposed action alternative would be expected to generate some initial administrative costs. For example, in establishing the regulations to provide for IFQ leasing to CDQ groups during low catch limit years, NMFS would create an IFQ permit held only by CDQ groups. NMFS would also make changes to the database that monitors transfers of IFQ from one permit holder to another and that is used to issue hired master permits. There also may be some small variable costs associated with the annual use of this IFQ leasing flexibility, including verification of the eligibility (as described under Option 3, 4, and 5 in Sections 3.8.7, 3.8.8, and 3.8.9), the issuing of the IFQ hired master permit to hired masters designated by a CDQ group, and any increased enforcement costs.

Section 304(d)(2)(A) of the Magnuson-Stevens Act obligates NMFS to recover the actual costs of management, data collection, and enforcement (direct program cost) of the IFQ fisheries. Therefore, NMFS implemented a cost recovery fee program for the IFQ fisheries in 2000 (65 FR 14919, March 20, 2000) and for CDQ halibut fisheries in 2016 (81 FR 150, January 5, 2016). While costs specific to the CDQ Program halibut fisheries are recoverable through cost recovery, the proposed regulatory changes would be made to the IFQ leasing and hired master use provisions and therefore constitute changes in management of the IFQ Program. CDQ group participants using this flexibility would be expected to contribute to IFQ cost recovery as a portion of the ex-vessel value of their landed halibut; just as any other user of halibut IFQ.

3.9 Affected Small Entities

The Regulatory Flexibility Act (RFA), first enacted in 1980 and codified at 5 U.S.C. §§ 600–611, was designed to place the burden on the government to review all regulations to ensure that, while accomplishing their intended purposes, they do not unduly inhibit the ability of small entities to compete. The RFA recognizes that the size of a business, unit of government, or nonprofit organization frequently has a bearing on its ability to comply with a Federal regulation. Major goals of the RFA are (1) to increase agency awareness and understanding of the impact of their regulations on small business; (2) to require that agencies communicate and explain their findings to the public; and (3) to encourage agencies to use flexibility and to provide regulatory relief to small entities.

The RFA emphasizes predicting significant adverse economic impacts on small entities as a group distinct from other entities, and on the consideration of alternatives that may minimize such impacts, while still achieving the stated objective of the action. When an agency publishes a proposed rule, it must either (1) "certify" that the action will not have a significant adverse economic effect on a substantial number of small entities, and support such a certification declaration with a "factual basis," demonstrating this outcome, or (2) if such a certification cannot be supported by a factual basis, prepare and make available for public review an Initial Regulatory Flexibility Analysis (IRFA) that describes the potential adverse economic impacts of the proposed rule on directly regulated small entities, and the steps the agency has taken to minimize those impacts.. As of January 2017, NMFS Alaska Region will prepare the IRFA in the classification section of the proposed rule for an action. Therefore, the preparation of a separate IRFA is not necessary for Council final action on this issue. This section provides information that NMFS considered for purposes of the RFA, namely a description and estimate of the number of small, directly regulated entities to which the proposed action will apply.

In considering which entities are "directly regulated", the operative phrase in the action alternative under consideration is: "[To] allow CDQ groups to lease halibut IFQ in Areas 4B, 4C, and 4D in years of low halibut catch limits in regulatory Areas 4B and 4CDE". In light of this directive, the universe of entities that might be directly regulated by this action is limited to the individuals/ entities who hold Areas 4B, 4C, or 4D halibut QS, CDQ groups, and the harvesters who have traditionally harvested halibut CDQ and may have an opportunity to harvest leased halibut IFQ as well.[15]

The thresholds applied to determine if an entity or group of entities are "small" under the RFA depend on the industry classification for the entity or entities. CDQ groups are deemed "small non-profits" that are independently owned and not dominant in their field. Therefore, for purposes of the RFA, CDQ groups are considered to be small entities (Queirolo 2013).

In addition to these six CDQ entities, the harvesters who have recently participated in the commercial halibut CDQ fishery are also considered to be directly regulated under the proposed action alternative. Under the action alternative, these entities may also have the opportunity to participate in the halibut IFQ fishery. To the extent that they do not already participate in this fishery, these individuals will be subject to new rules and regulations associated with halibut IFQ fishing, thus directly regulated by this action.

Under the RFA, businesses 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 – are measured against the small entity threshold based on the total gross revenues of all affiliated vessels.

Given data limitation, vessels are considered a proxy for harvesters. AKFIN has provided the analysts with the most recent complete set of gross revenue data by vessel. This includes 244 vessels harvesting halibut CDQ in 2013, 94 vessels in 2014, and 65 vessels in 2015. Based on average annual gross revenue data, including affiliations, all vessels that landed halibut between 2013 and 2015 are considered small entities, except for one vessel which participated in 2013.

Area 4B, 4C, and 4D QS holders could also be directly regulated under the proposed action (Alternative 2). Table 14 demonstrates the number of QS holders in each of these regulatory areas. This action only directly regulates QS holders to the extent that they choose to (and are able to) participate in halibut IFQ leasing as a result of the proposed regulatory changes. Again, this is a voluntary transaction, and nothing above the status quo is "required" of the QS holder unless they choose to participate in this expanded opportunity. Moreover, some QS holder may not be eligible to use this opportunity under Alternative 2, Options 3-5. This means the number of QS holders in Table 14 is an overestimate of those that may be directly regulated by Alternative 2.

[15] The NMFS Regional Economist for Alaska provides guidance on the preparation of the IRFA. That guidance states that for a small entity to be "directly regulated" by the action, the action must require some affirmative action on the part of the specific entity. This is a higher threshold than simply stating that an entity is potentially impacted by the action. The action alternative under consideration merely "allows" CDQ groups and their resident fleets to participant in leasing of B, C and D class IFQ; it does not require it. Secondary impacts of IFQ leasing cannot strictly be described as the result of direct regulation. It is questionable whether any entities or harvesters are directly regulated by the considered action, since no affirmative action on their part is *required*.

In addition, total gross revenue (from all fisheries) cannot be easily tied back to individual QS holders. While vessels owners and operators are not considered "directly regulated" under Alternative 2, gross revenue by vessel may be used as a proxy to determine a count of directly regulated entities considered "small" as defined by the $11.0 million threshold. Of the vessels that made at least one landing of halibut IFQ, 6 of the 57 entities were considered large in 2013, 6 of the 61 entities were considered large in 2014, and 7 of the 54 were considered large in 2015.

There are caveats to using vessels that harvest IFQ as a proxy for QS holders. It is common for more than one QS holder to consolidate their IFQ on one vessel. For example, Figure 9 demonstrates that an average of 1 to 1.6 people harvest their IFQ on one vessel over a season in Area 4B, 4C, and 4D. Therefore, it is very likely that most of the QS holders' total gross revenues are less than the amount reported by vessel, and would be considered small entities. To the extent that a QS holder uses several vessels to harvest their IFQ (this may be the case if they hold QS in multiple regulatory areas), there may be more large entities than reported.

Including the six CDQ groups the total number of small entities directly regulated in the proposed action alternative results in: 300 small entities in 2013, 155 small entities in 2014, and 118 small entities in 2015.

Based upon a preliminary evaluation of the proposed alternatives, it appears that certification is appropriate; therefore, NMFS does not intend to prepare an IRFA as part of the proposed rulemaking for this action. This proposed action would revise IFQ Program regulations to authorize CDQ groups to lease halibut IFQ in certain areas when catch limits are below the established threshold, subject to specific limitations. The directly regulated entities are persons who hold Area 4B, 4C, or 4D halibut QS, CDQ groups, and the harvesters who have traditionally harvested halibut CDQ and may have an opportunity to harvest leased halibut IFQ. Almost all of the directly regulated entities are considered small entities. As described above and in Section 3.8, the directly regulated entities would only be impacted to the extent that they choose to (and are able to) participate in halibut IFQ leasing as a result of the proposed regulatory changes. Direct impacts would be expected to be positive for both CDQ resident halibut fishery participants and QS holders (as discussed in Section 3.8.1) who utilize the IFQ transfer provision because the opportunity for this additional flexibility in years of low halibut abundance would be voluntary for both user groups and would only be undertaken if it would benefit the parties to the transfer. Direct impacts would be expected to be positive for harvesters who have traditionally harvested halibut CDQ and may have an opportunity to harvest leased halibut IFQ under the proposed action because it would provide an opportunity to continue to receive economic benefits from fishery participation in times of low abundance. This proposed action therefore is not expected to have a significant adverse economic effect on a substantial number of small entities directly regulated by this proposed action. A certification memorandum was prepared in advance of the proposed rulemaking for this action.

3.10 Summation of the Alternatives with Respect to Net Benefit to the Nation

This section uses qualitative methods to assess the potential net benefit of action on the Nation (relative to the no action baseline). Compared to 'no action', the proposed action (Alternative 2) in this analysis would allow CDQ groups to lease Area 4B, 4C, or 4D commercial halibut IFQ from QS holders in times

when the catch limit in Area 4B and/or Area 4CDE reaches below a certain limit. Under Alternative 2, any leased halibut IFQ would be available for use by the halibut CDQ fleet onboard vessels less than or equal to 51 feet LOA (with a halibut CDQ permit and a CDQ hired master permit), subject to the group's internal halibut management.

The analysis indicates that if the halibut catch limits for these areas never fall low enough for this flexibility to be available (i.e., the catch limit does not fall below the threshold determined under Alternative 2, Option 1), the proposed action will have no effect on any stakeholder groups compared to the baseline, with the exception that some minor administrative costs will be incurred by NMFS (see Section 3.8.11.4). These costs would be expected to be recovered in the cost recovery fee program for the IFQ fisheries.

If the halibut catch limit does fall below the established threshold, there is no guarantee that any CDQ group will choose to pursue IFQ leasing opportunities. Groups may take advantage of other economic fishing opportunities, such as having residents harvest Class A IFQ, increasing their harvest of CDQ Pacific cod to augment revenue from halibut, leasing halibut CDQ from other CDQ groups, aiding their residents operating as hired masters, and/ or purchasing their own QS. It could also be the case that although the catch limit is low, the halibut resource and/ or ocean and weather conditions are not conducive to promoting additional halibut harvesting opportunities in nearshore areas that are accessible to the CDQ fleet. Furthermore, CDQ groups may choose to use their funds to promote other types of economic opportunities for their residents. In any of these cases, the proposed action will also have no effect on any stakeholder groups, with the exception that some minor administrative costs will be incurred by NMFS.

If a CDQ group does choose to lease IFQ in order to promote additional halibut harvesting opportunities for their residents at times of low halibut catch limits, there are expected to be distributional impacts. Assuming that the groups are acting in the best economic and socio-economic interests of the residents in their communities, this additional opportunity could keep halibut fisheries open to the CDQ fleet, and could keep community members employed in harvesting and secondary service operations and in a culturally important profession. In addition, this action may provide an opportunity for halibut QS holders with QS in Area 4B, 4C, or 4D a chance to lease this IFQ to CDQ groups and receive a lease rate in years when the harvest limits drop below a certain threshold. This may be their only opportunity to lease.

These benefits are in contrast to possible distributional costs on non-QS holding crew and vessel owners, depending on how leased IFQ impacts current operations. There would be possible distributional impacts to processors and communities, to the extent that these processors are not the primary plant for both IFQ and CDQ halibut in the region. The lack of movement in the QS market could create additional barriers to entry for new QS holder; however, QS from these areas has typically been the least expensive compared to other areas off of Alaska. Options 3, 4, and 5 considered under Alternative 2 may mitigate some of the negative distributional impacts felt by limiting the amount of QS that can be leased to CDQ groups.

Overall, there would be no expected changes to the amount of halibut harvested, conservation of the species, product produced, price of the product, or other impacts to the consumers, and therefore the proposed action would either have no effect on net benefits to the Nation, or if negative distributional

costs proved to be minor, and community and socio-economic benefits occurred, action could potentially produce small net benefits to the Nation.

4 NORTH PACIFIC HALIBUT ACT CONSIDERATIONS

The fisheries for Pacific halibut are governed under the authority of the Northern Pacific Halibut Act of 1982 (Halibut Act, 16 U.S.C. 773-773k). For the United States, the Halibut Act gives effect to the Convention between the United States and Canada for the Preservation of the Halibut Fishery of the North Pacific Ocean and Bering Sea. The Halibut Act also provides authority to the Regional Fishery Management Councils, as described in § 773c:

> *(c) Regional Fishery Management Council involvement*
>
> *The Regional Fishery Management Council having authority for the geographic area concerned may develop regulations governing the United States portion of Convention waters, including limited access regulations, applicable to nationals or vessels of the United States, or both, which are in addition to, and not in conflict with regulations adopted by the International Pacific Halibut Commission (IPHC). Such regulations shall only be implemented with the approval of the Secretary, shall not discriminate between residents of different States, and shall be consistent with the limited entry criteria set forth in section 1853(b)(6) of this title. If it becomes necessary to allocate or assign halibut fishing privileges among various United States fishermen, such allocation shall be fair and equitable to all such fishermen, based upon the rights and obligations in existing Federal law, reasonably calculated to promote conservation, and carried out in such manner that no particular individual, corporation, or other entity acquires an excessive share of the halibut fishing privileges.*

The Halibut Act provides that the Council may develop regulations, including limited access regulations, to govern the fishery, provided that the Council's actions are in addition to, and not in conflict with, regulations adopted by the International Pacific Halibut Commission (IPHC). As described in Section 1, implementation of the Council's PA would also require changes to IPHC regulations (Section 3.8.6 includes a preliminary list of possible IPHC regulatory amendments necessary). NMFS will recommend these amendments to the IPHC for consideration at its annual meeting in January 2018. If the IPHC adopts the regulatory revisions, NMFS will coordinate with the IPHC to ensure that the revised IPHC regulations are effective at the same time NMFS regulations to implement the proposed action are effective. This will ensure that domestic halibut regulations for Alaska are consistent with IPHC regulations as required by the Northern Pacific Halibut Act of 1982.

As stated above, the Halibut Act states that regulations shall not discriminate between residents of different States. The Council's PA would seek to benefit residents of CDQ communities at times of low halibut abundance by providing additional flexibility in access to halibut IFQ. The CDQ Program, through its establishment in the Magnuson-Stevens Fishery Conservation and Management Act, qualifies specific communities adjacent to the Bering Sea Coast. These qualifications include only Alaska communities. However, those that have been excluded from participation in the program include both Alaskan and non-Alaskan communities, so this action is not predicated upon any effort to discriminate between residents of different states.

Moreover, the analysis demonstrates that distributional benefits may also manifest for Area 4B, 4C, and 4D halibut QS, in the form of a lease rate, both for Alaska residents and non-residents alike (Section 3.8.1). The Council's PA may allow QS holders the opportunity to lease in circumstances where they

might have otherwise not been able to lease or used a hired master. Distributional adverse impacts may be felt by both Alaska residents and non-residents from this action as well. Section 3.8.2 identifies the potential for captains and crew members, vessel owners, and some non-CDQ communities as well as the support sectors there to all possibly be impacted from the exacerbating effects of leased IFQ during a diminished halibut fishery.

The flexibility for CDQ groups to lease IFQ from halibut QS holders in Area 4B, 4C, and 4D is also consistent with limited entry criteria set forth in Section 1853(b)(6) of the Halibut Act. This action would not create a new limited access program, but would amend the current Halibut/ Sablefish IFQ Program. QS use caps and vessel IFQ caps in place in the Halibut and Sablefish IFQ Program would still apply to those holdings (QS use caps) or using IFQ (vessel IFQ caps) under the Council's PA, continuing to ensure no particular individual, corporation, or other entity acquires an excessive share of harvesting privileges.

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