

FINAL

Regulatory Impact Review/Environmental Assessment

**For Amendment 109 to the Fishery Management Plan for Groundfish of the
Bering Sea and Aleutian Islands Management Area**

**Pacific Cod Community Development Quota
Fishery Development**

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Lead Agency: National Marine Fisheries Service, Alaska Region
National Oceanic and Atmospheric Administration

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Abstract: This Regulatory Impact Review/Environmental Assessment analyzes proposed management measures that would apply exclusively to Community Development Quota (CDQ) groups and their participants. The measures under consideration include easing or exempting certain regulatory requirements for hook-and-line catcher vessels that do not exceed 46 feet length overall, in order to promote harvest opportunities for groundfish CDQ, in particular, Pacific cod (*Gadus macrocephalus*) CDQ, by small vessels in a directed fishery and/or while fishing CDQ or Individual Fishing Quota Pacific halibut (*Hippoglossus stenolepis*). The preferred alternative removes the requirement for the operators of these small catcher vessels to obtain and carry a License Limitation Program license, requires registration of vessels fishing under these regulations, reduces observer coverage requirements, and implements new catch accounting requirements to properly account for the harvest of groundfish and halibut and the accrual of halibut prohibited species catch (PSC).

List of Acronyms and Abbreviations

ABC	acceptable biological catch
ADF&G	Alaska Department of Fish and Game
AFA	American Fisheries Act
AFSC	Alaska Fisheries Science Center
AI	Aleutian Islands
AIS	Automatic Identification System
AKFIN	Alaska Fisheries Information Network
APICDA	Aleutian Pribilof Island Community Development Association
BBEDC	Bristol Bay Economic Development Corporation
BiOp	biological opinion
BS	Bering Sea
BSAI	Bering Sea and Aleutian Islands
CBSFA	Central Bering Sea Fishermen's Association
CDQ	Community Development Quota
CEQ	Council on Environmental Quality
CFEC	Commercial Fisheries Entry Commission
CFR	Code of Federal Regulations
Council	North Pacific Fishery Management Council
C/P	catcher/processor
CPUE	catch per unit effort
CQE	community quota entity
CRP	comprehensive rationalization plan
CV	catcher vessel
CVRF	Coastal Villages Region Fund
CVS	Coastal Villages Seafoods
DMR	discard mortality rate
DPS	distinct population segment
EA	environmental assessment
EBS	Eastern Bering Sea
EDPS	eastern distinct population segment
EEZ	Exclusive Economic Zone
EFH	essential fish habitat
EIS	environmental impact statement
E.O.	Executive Order
ESA	Endangered Species Act
FFP	Federal fisheries permit
FLL	Freezer longliner
FMA	Fisheries Monitoring and Analysis Division
FMP	fishery management plan
FR	Federal Register
ft.	foot or feet
GHL	guideline harvest level
GOA	Gulf of Alaska
IFQ	individual fishing quota
IRFA	Initial Regulatory Flexibility Analysis

IPHC	International Pacific Halibut Commission
lb	pound(s)
LLP	license limitation program
LOA	length overall
MLOA	maximum length overall
MMPA	Marine Mammal Protection Act
MRA	maximum retainable amount
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MSST	minimum stock size threshold
mt	metric ton
NEPA	National Environmental Policy Act
NMFS	National Marine Fishery Service
NOAA	National Oceanographic and Atmospheric Administration
NPFMC	North Pacific Fishery Management Council
NSEDC	Norton Sound Economic Development Corporation
NSSP	Norton Sound Seafood Products
Observer Program	North Pacific Groundfish and Halibut Observer Program
OFL	overfishing level
OLE	Office of Law Enforcement
OMB	Office of Management and Budget
PBR	potential biological removal
PRA	Paperwork Reduction Act
PSC	prohibited species catch
PSEIS	Programmatic Supplemental Environmental Impact Statement
PSCQ	prohibited species catch quota
RAM	Restricted Access Management
RFA	Regulatory Flexibility Act
RFFA	reasonably foreseeable future action
RIR	regulatory impact review
SAFE	Stock Assessment and Fishery Evaluation
SAR	stock assessment report
SBA	Small Business Act
Secretary	Secretary of Commerce
SSC	Science and Statistical Committee
SSL	Steller sea lion
TAC	total allowable catch
U.S.	United States
USFWS	United States Fish and Wildlife Service
VMS	vessel monitoring system
W	west
WACDA	Western Alaska Community Development Association
WDPS	western distinct population segment
YDFDA	Yukon Delta Fisheries Development Association

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Executive Summary

This document analyzes proposed management measures that would apply exclusively to Community Development Quota (CDQ) groups and their participants. The document includes a Regulatory Impact Review, Initial Regulatory Flexibility Analysis, and Environmental Assessment (RIR/R/EA). The measures under consideration include easing or exempting certain regulatory requirements for hook-and-line catcher vessels¹ that do not exceed 46 feet, length overall (ft. LOA), in order to promote harvest opportunities for groundfish CDQ, in particular, Pacific cod (*Gadus macrocephalus*) CDQ, by small vessels in a directed fishery and/or while fishing CDQ or Individual Fishing Quota (IFQ) Pacific halibut (*Hippoglossus stenolepis*). Implementation of the management measures evaluated in this analysis requires an amendment to the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands (BSAI) Management Area, as well as amendments to implementing regulations.

Purpose and Need

The purpose of this action is to create a regulatory structure for the harvest of groundfish CDQ that promotes Pacific cod harvest opportunities for the small vessels that fish on behalf of a CDQ group, and effectively allows CDQ and IFQ halibut harvesters, operating vessels less than or equal to 46 ft. LOA, the ability to retain Pacific cod and/or other groundfish CDQ species in excess of the maximum retainable amount (MRA) provided for in the halibut fishery. Although the focus of this action is on developing additional opportunities for small boat Pacific cod CDQ fisheries, the proposed action would also allow development of other groundfish CDQ fisheries, should markets for these species develop in the future.

The difference between the requirements for halibut CDQ fishing and groundfish CDQ fishing means that any Pacific cod or other groundfish caught in the halibut fishery is generally not able to be retained by small vessels, for commercial use. Adjusting the regulations for these fisheries could reduce Pacific cod discards, and increase small vessel economic opportunities in the halibut CDQ fishery. Particularly in light of recent declines in halibut quota, small vessels that fish on behalf of a CDQ group would benefit from the ability to retain Pacific cod incidental catch for commercial sale, to supplement their income from halibut CDQ harvest. This action would be consistent with Magnuson-Stevens Act policy objectives of supporting employment and growth in these fishery-dependent communities.

Alternatives

The alternatives that are analyzed in this package were adopted by the Council in February 2014, and revised in June 2014, to include a Preliminary Preferred Alternative (PPA). In October 2014, Option 3 of the PPA became Sub-option 3.1, and Sub-option 3.2 was added for additional analysis. NMFS Alaska Regional Office proposed the addition of Sub-option 3.3, for Council consideration in this document for final action. In February 2015, the Council took final action by identifying Alternative 4, with Option 1 and Sub-option 3.3, as its Preferred Alternative (PA). Since Option 1 expands the provision in the PPA, to include CDQ groundfish fishery allocations, rather than just the Pacific cod CDQ fishery allocation (a fishery that is not defined on its own in regulations, but is included under the definition of groundfish CDQ fishery), purpose and need, alternatives and options of the PA, and analysis have been updated to reflect this adoption, where appropriate.

The alternatives propose management measures that would apply exclusively to the CDQ fisheries.

¹ This analysis refers to small vessels and in all cases this indicates catcher vessels and not catcher/processors.

Alternative 1. No action. Under this, the status quo alternative, vessels fishing CDQ halibut would continue to be allowed to retain incidentally caught Pacific cod, only up to 20 percent of their CDQ halibut landings, as stipulated under the existing maximum retainable amount (MRA).

Alternative 2. Increase the MRA of Pacific cod, up to 100 percent of the CDQ halibut landings for a hook-and-line catcher vessel less than or equal to 46 ft. LOA that is authorized to fish Pacific cod on behalf of a CDQ group. All Pacific cod caught within this threshold must be retained, and will accrue towards that CDQ group's Pacific cod allocations.

Alternative 3. Create a new CDQ LLP license for participating hook-and-line catcher vessels less than or equal to 46 ft. LOA. Vessels with the CDQ LLP license may participate in the CDQ directed Pacific cod fishery. Limit the number of LLP licenses each CDQ group would be provided. These LLP licenses would be non-transferable across CDQ groups. All Pacific cod caught by any such vessel must be retained and accrues towards the CDQ Pacific cod allocations. Vessels would be subject to the full coverage observer category, consistent with existing full coverage observer requirements.

Option 1: Place these vessels in the partial coverage observer category. Halibut caught would accrue against the PSQ allocation.

Option 2: Place these vessels in the partial coverage observer category. Require vessels to retain any incidentally caught halibut, which would accrue against the PSQ allocation.

Alternative 4. (PA)² The following provisions would apply to hook-and-line catcher vessels less than or equal to 46 ft. LOA while directed fishing for groundfish CDQ:

License Limitation Program: Vessels greater than 32 ft. LOA, but less than or equal to 46 ft. LOA, would be exempt from the LLP requirements.³ Each CDQ group would be required to register each vessel greater than 32 ft. LOA, but less than or equal to 46 ft. LOA⁴ that it authorizes to conduct directed fishing for groundfish CDQ on its behalf. The online registration program would generate a letter from NMFS documenting that the vessel is exempt from the LLP while directed fishing for groundfish CDQ. Operators of vessels greater than 32 ft. but less than or equal to 46 ft. LOA would be required to maintain a copy of this letter onboard the vessel at all times while directed fishing for groundfish CDQ. CDQ groups could remove a vessel from this list at any time during the year, by notifying NMFS of this decision.

Observer coverage requirements: These vessels would be in the partial observer coverage category and subject to observer coverage requirements described in the Annual Deployment Plan.

² In the Initial Review Draft of June 2014, Alternative 4 would "Exempt hook-and-line catcher vessels participating in the CDQ Pacific cod fishery with ≤46' LOA from groundfish LLP requirements. All Pacific cod caught must be retained and accrues towards the CDQ Pacific cod allocations. Vessels would be in the partial coverage observer category." The PA is a more detailed version of this alternative. It is based on continued analysis and largely shaped from NMFS Alaska Region recommendations presented in June 2014.

³ Vessels less than or equal to 32 ft. LOA currently are exempted from the LLP requirements while fishing in the BSAI.

⁴ In the Public Review Draft of February 2015, the LLP element stated, "Each CDQ group would be required to register each vessel less than or equal to 46 ft." The range of vessel LOA required to be registered in an online system with NMFS Alaska Region was amended following Council final action. Vessel registration, as well as the on-board vessel certificate of eligibility are intended to be an identification/ enforcement tool for vessels that would otherwise be subject to LLP requirements. As vessels less than or equal to 32 ft. LOA currently are exempted from the LLP requirements while fishing in the BSAI, NMFS Alaska Region concluded, after further deliberation, that it was not necessary for vessels less than or equal to 32 ft. LOA to be included in the online list of eligible vessels.

Retention requirements: All groundfish caught must be retained⁵ and accrued towards the CDQ groundfish allocations.

Option 1 (*Adopted under PA*): Apply the proposed management measures to all vessels less than or equal to 46 ft. LOA using hook-and-line gear while directed fishing for any groundfish species allocated to the CDQ Program, except sablefish.

Option 2 (*Not adopted under PA*): Expand the current prohibition against discarding legal sized halibut while IFQ fishing to people fishing for halibut CDQ while the CDQ group has remaining halibut CDQ.

Option 3: Allow for a small vessel groundfish CDQ fishery, supported by halibut PSC.

Sub-option 3.1 (*Not adopted under PA*): In a situation when there is no halibut harvesting quota available (either CDQ or IFQ) to fund the CDQ small boat Pacific cod fishery, another workable alternative would need to be developed, such as a mutually acceptable halibut PSC rate system.⁶

Sub-option 3.2 (*Not adopted under PA*): Each CDQ group participating in the small vessel Pacific cod CDQ fisheries shall annually determine the date upon which halibut catch accounting for the group's CDQ Pacific cod fishery switches from halibut PSC, to halibut CDQ (or participants' IFQ), and the date upon which the halibut catch accounting switches from halibut CDQ, back to halibut PSC. The switch dates shall be provided to NMFS, by each participating CDQ group by February 15, annually.

Sub-option 3.3 (*Adopted under PA*): Each CDQ group would be allowed the flexibility to decide, on a trip-by-trip basis, whether a small hook-and-line vessel fishing for groundfish CDQ would retain legal-sized halibut, under a halibut CDQ or IFQ allocation, or would discard all halibut and accrue halibut PSC associated with that fishing trip. The option to retain halibut CDQ and IFQ would be available only when the halibut fishery is open. When the halibut fishery is closed or if no halibut CDQ or IFQ is available, halibut must be discarded and PSC would accrue.⁷

Under all alternatives, the analysis considers substitutes to VMS, such as a GPS electronic monitoring option for monitoring compliance with Steller sea lion protection measures, EFH, and HAPC closure areas.

Regulatory Impact Review

The Regulatory Impact Review (RIR) examines the benefits and costs of the proposed action to promote Pacific cod CDQ harvesting opportunities, above the 20 percent MRA, in the halibut CDQ target fishery. The RIR includes a description of the current Pacific cod CDQ and halibut CDQ fisheries, an analysis of the potential effects of the proposed action on achieving increased retention opportunities, by adjusting the MRA, or by creating opportunities for a small vessel groundfish CDQ fishery that would allow for directed Pacific cod CDQ fishing, and identification of the individuals or groups that may be affected by the action.

Alternative 1, No Action

⁵ Unless it is a species for which retention is prohibited under separate provisions (e.g., TAC is reached).

⁶ In this sub-option, analysts interpreted, "when there is no halibut available" to mean outside of the IPHC-established halibut season for IFQ/CDQ fisheries and/or in the event that there was no halibut fishery in a season.

⁷ This sub-option was included by NMFS Alaska Region in order to cover the range of management flexibility possible in developing a Pacific cod CDQ fishery supported by halibut PSC.

Under Alternative 1, the regulations governing the CDQ fishery would remain consistent with the status quo. In other words, directed Pacific cod CDQ fishing aboard a CDQ vessel less than or equal to 46 ft. LOA, using hook-and-line gear, could only occur if they had a Federal fisheries permit (FFP) with a Pacific cod endorsement, held a license limitation program (LLP) license, carried VMS, and were subject to full observer coverage. Additionally, federally permitted vessels targeting halibut CDQ that do not meet all of the provisions to target Pacific cod are prohibited from retaining Pacific cod in excess of the 20 percent MRA on board at any time during a trip. CDQ vessels may also retain Pacific cod for personal bait.

Action Alternatives (Alternatives 2 through 4)

The action alternatives, Alternatives 2 through 4, result in several shared impacts for stakeholders, management, and enforcement. These shared impacts primarily relate to the required or inherent predisposition of a Pacific cod CDQ small vessel fishery to mimic many of the characteristics of the current halibut CDQ fishery, under each action alternative. Under the action alternatives, all increased Pacific cod (or other groundfish) CDQ retention opportunities for a small vessel fleet would:

- change regional and seasonal fishing patterns in a way that would mimic the halibut CDQ fishery (with more certainty under Alternative 2, but also likely under Alternatives 3 and 4);
- require participants to obtain a FFP;
- have the potential to increase reporting error in CDQ accounting;
- not be expected to increase safety concerns significantly;
- require participants to install and carry a VMS, if they do not already have one (except possibly under Alternative 2);
- redirect some small portion of Pacific cod CDQ away from the large CVs and FLL fleet;
- reduce CDQ groups' revenue received from leasing quota to FLL fleet;
- create diseconomies of scale, by moving harvest potential from vertically integrated FLL vessels, to small catcher vessels. Will require the existence or the development of Pacific cod processing potential near CDQ communities;
- have the potential to provide direct economic benefits to participants, and both direct and indirect economic benefits to communities from species diversification; and
- have variable economic impacts on CDQ groups.

Alternative 2, Change the Pacific Cod MRA for the Halibut CDQ fishery

Alternative 2 would increase the MRA of Pacific cod from 20 percent of the weight of the halibut CDQ harvest, up to 100 percent of the halibut CDQ harvest, for hook-and-line catcher vessels less than or equal to 46 ft. LOA. Consistent with current groundfish standards, all Pacific cod caught, up to this amount, on a federally permitted vessel must be retained and would accrue towards the Pacific cod CDQ.

This alternative would not change regulations for a directed Pacific cod fishery but, instead, exclusively modify provisions for vessels targeting halibut CDQ. Vessels taking advantage of these provisions would be operating in the halibut CDQ fishery and, therefore, vessels would not be required to possess an LLP license, they would be in the partial observer coverage category, and, following existing regulations, many of them would not be required to carry VMS. Exceptions to this VMS provision include federally permitted vessels operating in the AI, which are required to carry VMS under Steller sea lion protection measures and habitat closure areas.

This alternative requires the consideration of Steller sea lion protection measures before it can be determined if the current VMS regulation would still apply. Pacific cod is a prey species for Steller sea lions and, therefore, there are more restrictive regulations for directed fishing for this species than for halibut. The halibut CDQ fishery, with the limited Pacific cod MRA, is able to be prosecuted in some areas that are closed to Pacific cod hook-and-line fishing. Under Alternative 2, it is possible that a vessel could

have the identical Pacific cod/halibut catch composition as under the status quo, except that under the status quo that vessel would be required to carry VMS and adhere to Steller sea lion closures. Moreover, it is difficult to predict the magnitude of Pacific cod quota that would be redistributed to the small vessel fleet to account for this incidental catch. It would be necessary to enter into an Endangered Species Act (ESA) Section 7 consultation with the NMFS Office of Protected Resources Division, Alaska Region, if this was the preferred alternative.

There are several other important considerations under Alternative 2. One is the precedent-setting use of a 100 percent MRA, which may effectively remove the distinction between the MRA of an incidental catch species and directed fishing for that species. Additionally, this alternative would place the success of the ability to retain Pacific cod as conditional on the halibut CDQ fishery. If the halibut CDQ continues to decline, this complimentary source of income may not provide much benefit, as the MRA proportionally drops.

Alternative 3, Create a New LLP License for the Pacific Cod CDQ Participants

In Alternative 3, NMFS would create a new groundfish CDQ LLP license for participating hook-and-line catcher vessels less than or equal to 46 ft. LOA. Federally permitted vessels with a groundfish CDQ LLP license would be able to participate in the directed Pacific cod CDQ fishery. These LLP licenses would be non-transferable and be applicable only to the harvest of Pacific cod CDQ. If a vessel had a CDQ LLP license available, then that vessel's entire Pacific cod catch would have to be retained, and would accrue towards the Pacific cod CDQ allocations.

The purpose of an LLP is to restrict the number of vessels in a particular fishery. However, this management tool was initially implemented as a "first and interim" management step towards a more comprehensive transferable individual fishing quota (IFQ) program. As a consequence of being a catch share program, the CDQ Program already addresses most of the original fishery management objectives of the LLP. Therefore, despite the disparity between an LLP's restriction on vessel entry and Alternative 3's allocation of LLP licenses to allow new CDQ vessels to enter into the Pacific cod CDQ fishery, the Council could still consider the use of this management tool to address the purpose and need of this action.

The primary benefit of administering additional Federal licenses would be to provide enforcement a means to monitor and identify those vessels permitted to participate in the Pacific cod CDQ fishery. The Federal LLP license would serve an at-sea identification function, through use of an already established management tool. Creating a new type of permit for vessels to carry could require a new database and additional infrastructure for NMFS Restricted Access Management.

Under Alternative 3, the Council would need to determine the number and distribution of LLP licenses for the CDQ groups. The Council would need to determine a vessel cap, if any, for the annual allocation of CDQ LLP licenses. Because fishing effort is already capped by the quota that the CDQ groups has available, it may not be important from a sustainable harvest management perspective to restrict the number of CDQ LLP licenses available to each group.

Under both of the options for this alternative, a provision would be built into the CDQ LLP license that moves this groundfish CDQ fishery category into the partial observer coverage category. All groundfish CDQ fishing vessels were placed into the full observer coverage category, regardless of vessel size, because the CDQ groups have the privilege of a transferable PSC limit, or PSQ. Therefore, if this group of Pacific cod CDQ fishing vessels were placed into the partial observer coverage category, the Council would need to determine the most appropriate way to account for unobserved halibut incident catch in a Pacific cod CDQ fishery.

Option 1: Under Option 1 of Alternative 3, any halibut caught while a vessel is targeting CDQ Pacific cod accrues against the halibut PSQ. In the Pacific cod CDQ fishery, vessels would be required to discard halibut caught in a Pacific cod CDQ directed fishery, regardless of the availability of halibut CDQ or IFQ. This option would provide consistency in the accounting of PSC halibut with the status quo. However, it would create a harvest inefficiency.

Option 2: Under Option 2, any legal-sized halibut incidentally caught while a vessel is targeting CDQ Pacific cod would be required to be retained, and would accrue against the halibut CDQ or IFQ allocation. This opportunity would only be available under the assumption that halibut CDQ or IFQ was available to account for the incidentally caught halibut. Legal-size halibut would be required to be retained, and, therefore, landed weight would be subtracted from the CDQ group's halibut CDQ or IFQ. However, there could be reasons why a participant, prosecuting a Pacific cod CDQ fishery, would not be able to retain halibut (e.g., they do not possess a halibut CDQ hired master's permit, the halibut season is not open). Allowing for difference in retention requirements could complicate the process of catch accounting. The more the Pacific cod CDQ fishery aligned with the halibut CDQ fishery (by requirement or by internal structure), the fewer discards and the more accurate and straightforward the catch accounting process would be.

Alternative 4, LLP Exemption (PA)

In February 2015, the Council selected Alternative 4, with Option 1 and Sub-option 3.3 as its PA. This decision supported NMFS Alaska Region's recommendation of management measures that would fit the Council's purpose and need, while including important management, enforcement, and catch accounting elements.

Specifically, this alternative would create an exemption from the BSAI groundfish LLP for vessels greater than 32 ft. LOA but less than or equal to 46 ft. LOA, using hook-and-line to fish Pacific cod on a CDQ groups' behalf.⁸ It would move vessels less than or equal to 46 ft. LOA, Pacific cod CDQ fishing using hook-and-line gear, into the partial observer coverage category, subject to selection for observer coverage following procedures in the Annual Deployment Plan. These two provisions would apply if participants had Pacific halibut CDQ or IFQ available.

Alternative 4 mitigates some of the administrative burden for both NMFS and the CDQ groups that is present in other alternatives. For instance, Alternative 2 would require consultation with the NMFS Protected Resources Division under section 7 of the Endangered Species Act over the uncertain impacts on Steller sea lion critical habitat. This would likely add time to the final rulemaking. Additionally, Alternative 3 would create administrative burden of establishing a new set of BSAI groundfish licenses for CDQ participants, revised annually and established in a RAM database. While both Alternative 2 and 3 would use established management tools in an unprecedented way, the Council's PA would simply apply an exemption from an established management tool. Therefore, Alternative 4 is considered to be a more straightforward policy alternative.

Alternative 4 includes three options, which are not mutually exclusive. The third option has three sub-options.

Option 1: Uniform Application of Provisions for Groundfish CDQ Fishing

The CDQ groups requested analysis of alternatives to facilitate development of a small vessel CDQ fishery, specifically for Pacific cod. Halibut, sablefish, and Pacific cod are the primary target fisheries in the BSAI for catcher vessels using hook-and-line gear. It seems unlikely that hook-and-line target fisheries for other groundfish species will develop in the near future. However, limiting the allowances and requirements in the PA to vessels directed fishing for Pacific cod may inadvertently create a fishery violation if one of these

⁸ Vessels less than or equal to 32 ft. LOA are currently exempt from the BSAI ground LLP requirements.

vessels happens to have a catch composition at the time of landing that exceeds the MRAs for groundfish species other than Pacific cod or sablefish. In addition, developing regulations that apply only while directed fishing for Pacific cod requires continued maintenance of regulations that would apply for any vessel less than or equal to 46 ft. LOA using hook-and-line gear to fish for any other CDQ species, besides halibut, sablefish, and Pacific cod. Therefore, the PA applies to all catcher vessels less than or equal to 46 ft. LOA using hook-and-line gear to fish for any groundfish CDQ species, other than sablefish.

Option 2: Prohibition on Discarding Halibut CDQ with Available Quota

NMFS Alaska Region recommended consideration of Option 2 as a way to clarify that one halibut IFQ regulation was consistently applied in the halibut CDQ fishery. Option 2 would expand the current prohibition against discarding legally sized halibut while IFQ fishing, to operators of vessels fishing for halibut CDQ, while that CDQ group has remaining halibut CDQ.

Further review of the IFQ Program prohibition against the discard of legal-sized halibut, while an IFQ permit holder is aboard, indicates that it may not be practical to extend this particular prohibition to all CDQ halibut or all CDQ hired masters. As noted in the Council discussion in June 2014, it would be difficult to expect all CDQ hired masters to know the status of the CDQ group's halibut CDQ account balance when there could be many fishermen fishing off the same allocation at the same time. In addition, the CDQ groups establish limits on the harvest of halibut CDQ by individual vessels to manage the CDQ fisheries within the halibut CDQ limits. These CDQ halibut fishing plans could put a vessel operator in conflict with a requirement to retain all legal sized halibut.

Option 3: Allow a Small Vessel Pacific Cod CDQ Fishery, Supported by Halibut PSC

There are a number of circumstances under which no halibut CDQ or IFQ would be available to a participant of a Pacific cod CDQ/IFQ fishery with which to fund the halibut caught in a small vessel Pacific cod CDQ fishery. Even during a time of the year in which it is legal to retain halibut, an individual vessel operator may not have the quota available to allow for legal retention. CDQ group representatives requested an option that would allow them to support a small vessel Pacific cod CDQ fishery with their group's transferable allocation of PSC.

The three sub-options under Option 3 are more or less restrictive of the circumstances in which a small vessel Pacific cod CDQ fishery, supported by halibut PSC, can take place. Under all of these sub-options, participants can prosecute a hook-and-line small vessel Pacific cod CDQ fishery under the provisions of Alternative 4, provided that they have access to halibut CDQ or IFQ to fund any incidentally caught halibut. If they do not, the participant could directed fish for Pacific cod CDQ under the provisions in Alternative 4, and allow an estimated halibut PSC rate to account for any halibut PSC: under Sub-option 3.1- only when the halibut CDQ season is closed; under Sub-option 3.2- only outside of the halibut season dates specified by each CDQ group; under Sub-option 3.3- on a trip-by-trip basis. These Sub-options are mutually exclusive.

In general, the more participants taking advantage of the opportunity to fish Pacific cod CDQ, supported by a small vessel halibut PSC limit, the higher the administrative costs; the exception being one-time management changes, such as a change to the catch accounting system (CAS). As Sub-option 3.3 is predicted to provide the most opportunity (as explained later in this section), it is also expected to require the most joint management and communication. Additionally, the more individuals participating in a program the more likely there will be occurrences of non-compliance. This is particularly the case for a program, such as this, that relies on interaction between NMFS, managers of CDQ, and participants.

Estimating the benefits to each group, based on the different management sub-options, is difficult because most groups do not have a business plan ready to be implemented simultaneously with regulation changes. However, CDQ group representatives' have spent time considering how management changes might

promote small vessel fishing opportunities in their region, and be integrated into their group's management. This integration will depend on many group- and region-specific factors. It will depend on the existing fleet of small vessels currently equip to fish with hook-and-line. It will depend on weather and ocean conditions, present and future processing availability, and importantly, efforts made to plan around the opening of priority fisheries. The participation and integration of a small vessel Pacific cod CDQ fishery will also depend on the regulatory package accompanying this action.

Generally, it is not expected that Sub-option 3.1 will provide any group additional benefits over the baseline. It is unlikely that any participant will want to prosecute a directed Pacific cod CDQ fishery before or after the IPHC-established halibut CDQ season (generally mid-March to early November) due to weather and ocean conditions. Therefore, it is expected that Sub-option 3.1 will only provide additional opportunity in the event that there is no halibut CDQ season. Sub-option 3.2 is expected to provide additional benefits, particularly in the spring, before the start of the CDQ group-established halibut season. Depending on the group, Sub-option 3.2 will provide minimal opportunity for participants post-halibut CDQ season, as end dates will need to be established conservatively in an effort not to limit the season of a priority species (e.g., halibut, salmon, red king crab). For instance, in the case of the CDQ group Coastal Villages Regional Fund, with a more homogenous end date to their halibut fishery, there may be additional opportunities to fish Pacific cod CDQ, after the halibut CDQ season, under this sub-option. Sub-option 3.3 is expected to provide the widest range of opportunity, by allowing trip-by-trip determination of the reliance on a "small vessel halibut PSC" account, versus the use of halibut CDQ/IFQ. This sub-option essentially puts the control at the CDQ group management level, of whether a participant has access to Pacific cod CDQ and should discard halibut to be estimated and counted toward the group's "small vessel halibut PSC" account or whether they are expected to retain both halibut CDQ and Pacific cod CDQ. This sub-option would be expected to minimize time between the end of an individual's halibut CDQ fishery and their opportunity to directed Pacific cod CDQ fish, while relying on their group's small vessel halibut PSC limit.

Environmental Assessment

The Environmental Assessment (EA) (Section 5) evaluates the impacts of the alternatives and options on the relevant resource components. Out of the resources identified as potentially affected by the proposed action alternatives (Alternatives 2 through 4), components that warrant further discussion include impacts on the target groundfish stock (Pacific cod), Pacific halibut stock, and marine mammals. Socio-economic factors are discussed in the RIR and Initial Regulatory Flexibility Analysis and therefore, not addressed in the EA.⁹

In order to consider any impacts on environmental resource from the proposed action, it is necessary to understand what and how behavior may change in the fishery. Action alternatives would redistribute Pacific cod CDQ from Freezer Longliners (FLL) vessels to a CDQ small vessel fleet and,¹⁰ consequently, increase Pacific cod fishing in near-shore waters to some extent. While there is limited quantifiable basis to determine the precise magnitude of Pacific cod CDQ that would be harvested by these small vessels, harvest limits dictate that only 10.7 percent of the total allowable catch (TAC) is allocated to the CDQ groups. Of that allocation, a portion is set aside for bycatch reserves in other fisheries, and some groups are likely to not change their harvesting behavior in any way. Of the CDQ groups that do choose to aid their residents in participating, the fishery would likely develop around the vessels that currently participant in the halibut

⁹ The Initial Regulatory Flexibility Analysis (IRFA) was prepared with the draft analysis and is available on the NMFS Alaska Region Web site at <http://alaskafisheries.noaa.gov>. As required by the Regulatory Flexibility Act, a Final Regulatory Flexibility Analysis (FRFA) was prepared for the final rule for this action and is included in the Classification section of that final rule.

¹⁰ There is also a possibility of a small increase in overall harvest (rather than just a redistribution from the FLL fleet), as some CDQ groups have had unharvested Pacific cod quota. If this does occur, it is expected to be a small amount of increased harvest and as it is still within the groups' allocated catch limit, these effects are analyzed in the annual harvest specification process.

CDQ fishery. For most interested CDQ groups, this would be about two dozen small vessels. For one of the groups, Coast Villages Regional Fund (CVRF), this could be up to 180 small vessels. However, most of these vessels, particularly in the case of CVRF, are less than or equal to 22 ft. LOA, with a fairly limited harvesting capacity. Thus, while the precise amount of Pacific cod CDQ internally redistributed from large FLLs or catcher vessels to a CDQ small vessel fleet is unknown, it is safe to expect that it will be a relatively small amount. The CDQ group's quota managers will have control over the magnitude of this internal reallocation.

Furthermore, there could be a small seasonal change in the amount of Pacific cod CDQ that is harvested by this small vessel fleet, based around the participants' priority fishery seasons, such as halibut or red king crab. The redistributed fishery, under any alternative, is expected to operate with a similar geographic footprint to the halibut CDQ fishery. Finally, none of the proposed alternatives would alter gear type used to harvest Pacific cod.

Pacific cod

The BSAI Pacific cod resource has historically been managed as a single unit. In 2013, the assessment of the BSAI Pacific cod stock in the BSAI SAFE was first split into two separate assessments; one for the stock in the EBS and one for the stock in the AI (Thompson 2013; Thompson and Palsson 2013). This change allowed separate harvest specifications for the EBS and AI Pacific cod stocks beginning with the 2014 fishery. This Pacific cod TAC split and the Steller sea lion protective regulations, most recently revised in 2014, have both reduced and changed the distribution of the Pacific cod catch in the AI.

The Pacific cod stock in the BS or AI is neither overfished nor subject to overfishing. However, biomass fluctuation has persisted in both stocks. The highest biomass ever observed by the EBS shelf bottom trawl surveys was the 1994 estimate of 1,368,120 metric tons (mt). Following the high observation in 1994, the survey biomass estimate declined steadily through 1998. The survey biomass estimates remained in the 596,000 to 619,000 mt range from 2002 through 2005. However, the survey biomass estimates dropped after 2005, producing an all-time low in 2007 and again in 2008. Estimated biomass more than doubled between 2009 and 2010, and has remained within 10 percent of the 2010 value for the last three years (Thompson 2013; Thompson and Palsson 2013). In the AI, estimated biomass has declined 67 percent from levels in 1991 (Thompson 2013; Thompson and Palsson 2013).

The proposed action alternatives would not allow for an increase in overall Pacific cod CDQ harvest. The concrete harvest limits, paired with the narrow scope and magnitude of the proposed changes on the Pacific cod fishery as a whole, support the presumption of insignificant effects on the Pacific cod stock biomass. Additionally any action alternative that promotes increased retention would reduce discards and could reduce wastage from the mortality associated with discarded Pacific cod.

Changes in temporal or spatial distribution are expected to occur from an action alternative, yet at a level that is not significant. This potentially minimal change in near-shore harvest intensity is expected to occur by CDQ groups in the Aleutian and Pribilof Islands and some Western Alaska communities. While the precise magnitude of Pacific cod redistributed from the FLL fleet is unknown, it is expected that it would represent a relatively small percent of Pacific cod CDQ allocation.

Pacific halibut

Pacific halibut is relevant to this analysis due to its overlapping habitat with Pacific cod. Given that Pacific cod can be harvested in similar regions and with the same gear as halibut, the action alternatives propose complementing the current halibut CDQ fishery with opportunities to simultaneously retain Pacific cod.

The catch of halibut by the CDQ groups is categorized in one of two ways. If the CDQ participant is targeting halibut, legal-size halibut may be retained and catch will accrue to the halibut CDQ or IFQ

allocation and any halibut not of a legal size is discarded. If the CDQ participant is not targeting halibut, all halibut caught is prohibited species catch (PSC) and accounts towards the groups' PSC limit, or transferable prohibited species quota (PSQ). The alternatives would not change the way the halibut CDQ fishery is currently prosecuted. Whether the proposed action manifests in an increased Pacific cod MRA or a multi-target fishery, halibut CDQ would be expected to be harvested in the same areas, with the same gear type, by the same number of vessels, and consistent fishing effort.

If some Pacific cod CDQ is redistributed from the FLL fleet to the CDQ small vessel fleet, there may be proportional decrease in halibut PSC by the FLL fleet depending on the alternative considered. Regardless of the amount of halibut PSC avoided from redistributing a portion of Pacific cod CDQ to the small vessel fleet, halibut PSQ is transferable. Thus, it could be used to support other groundfish CDQ fisheries, or transferred to another CDQ group. Ultimately, it is expected that the proposed action will not significantly impact halibut PSC.

Marine Mammals

The marine mammal section of the EA (Section 4.3) specifically considers impacts to marine mammals from changes in Pacific cod fishing region and intensity. Of the pinnipeds that may be present in the area, only Steller sea lions and northern fur seals are likely to be in the regions where potential change in the groundfish fishing patterns may occur from the resulting action. Cetaceans, other than resident (fish eating) killer whales, are either not likely to be present in the near-shore areas where changes in fishing activities are likely to occur, or feed on species that are not likely to be affected by those changes in fishing activity. Therefore this section considers impacts on Steller sea lions, fur seals, and resident killer whales.

The effects of the proposed action under Alternatives 3 and 4 (the PA) on Steller sea lions are expected to be discountable and consistent with status quo fishing. Alternatives 3 and 4 (the PA) would continue to require vessels to comply with closures that apply to all vessels (i.e., no transit areas), and with area closures, season limits and critical habitat catch limits for directed fishing for Pacific cod within Steller sea lion areas (see Section 2.5).

The PA would result in a minimal change in fishing effort in some near-shore regions using current gear types. An insignificant impact is anticipated on Pacific cod stock biomass, fishing mortality, or spatial or temporal distribution. Pacific cod are an important Steller sea lion prey species. Because this action would have only insignificant impacts on the potential removals of Pacific cod and because all Steller sea lion protection measures would continue to apply to directed fishing for Pacific cod, the PA would not represent a change in the spatial or temporal distribution of the Pacific cod non-trawl fishery in a manner not addressed in previous ESA section 7 consultations.

Under Alternative 2, Pacific cod harvest would be specified as an MRA rather than directed fishing. As such, increased amounts of Pacific cod may be harvested in areas closed to directed fishing for Pacific cod under the Steller sea lion protection measures but otherwise open to halibut CDQ fishing. Therefore, Alternative 2 may increase potential competition for prey in Steller sea lion critical habitat relative to the status quo.

Fur seals and resident killer whale are not expected to be significantly impacted by the proposed action. Northern fur seals are primarily targeting pollock as a main food source; thus, impacts from the proposed action, which would provide additional opportunity for increase Pacific cod CDQ retention for a small vessel fleet, are expected to be insignificant. Consequently, it is also presumed there would be no significant disturbance or direct impacts toward Northern fur seals. It is possible that small vessels may experience greater depredation from killer whales, if killer whales in the areas where CDQ vessels are fishing begin to target Pacific cod from their lines, but the magnitude of any potential increase in depredation is expected to be small given the small increases in Pacific cod harvest by small hook-and-line vessels. Removals of

Pacific cod from inshore waters are not likely to affect the food resources available for Alaska resident killer whales, and any impacts are expected to not be significant.

Cumulative Effects

Based on the preceding analysis, the impacts of this proposed action under the PA on all resources are either non-existent or minimal; therefore there is no need to conduct an additional cumulative impact analysis.

1 Introduction

This document analyzes proposed management measures that would apply exclusively to Community Development Quota (CDQ) groups fishing in the Bering Sea and Aleutian Islands (BSAI). The measures under consideration include easing or exempting hook-and-line catcher vessels¹¹ that do not exceed 46 ft. length overall (LOA) from certain regulatory requirements in order to promote harvest opportunities for groundfish CDQ, in particular, Pacific cod (*Gadus macrocephalus*) CDQ by small vessels in a directed fishery and/or while fishing CDQ or Individual Fishing Quota (IFQ) halibut (*Hippoglossus stenolepis*). Implementation of the management measures evaluated in this analysis requires an amendment to the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area, as well as amendments to implementing regulations.

This document includes a Regulatory Impact Review, Initial Regulatory Flexibility Analysis, and Environmental Assessment (RIR/EA). An RIR/EA assesses the economic benefits and costs of the action alternatives (action Alternatives 2 through 4) and the environmental impacts of an action and its reasonable alternatives (the EA). This RIR/EA addresses the statutory requirements of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), the National Environmental Policy Act (NEPA), and Presidential Executive Order 12866. An RIR/EA 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.

1.1 Purpose and Need

The purpose of this action is to create a regulatory structure for the harvest of groundfish CDQ that promotes Pacific cod harvest opportunities for the small vessels that fish on behalf of a CDQ group, and effectively allows CDQ and IFQ halibut harvesters, operating vessels less than or equal to 46 ft. LOA, the ability to retain Pacific cod and/or other groundfish CDQ species in excess of the maximum retainable amount (MRA) provided for in the halibut fishery. Although the focus of this action is on developing additional opportunities for small boat Pacific cod CDQ fisheries, the proposed action would also allow development of other groundfish CDQ fisheries, should markets for these species develop in the future.

The difference between the requirements for halibut CDQ fishing and groundfish CDQ fishing means that any Pacific cod or other groundfish caught in the halibut fishery is generally not able to be retained by small vessels, for commercial use. Adjusting the regulations for these fisheries could reduce Pacific cod discards, and increase small vessel economic opportunities in the halibut CDQ fishery. Particularly in light of recent declines in halibut quota, small vessels that fish on behalf of a CDQ group would benefit from the ability to retain Pacific cod incidental catch for commercial sale, to supplement their income from halibut CDQ harvest. This action would be consistent with Magnuson-Stevens Act policy objectives of supporting employment and growth in these fishery-dependent communities.

1.2 Background

1.2.1 The Community Development Quota Program

The large-scale commercial fisheries of the BSAI developed in the eastern Bering Sea without participation from rural western Alaska communities. These fisheries are capital-intensive and require large investments in vessels, infrastructure, processing capacity, and specialized gear. The CDQ Program was developed to

¹¹ This analysis refers to small vessels and in all cases this indicates catcher vessels and not catcher/processors.

redistribute some of the BSAI fisheries' economic benefits to communities adjacent to the Bering Sea, by allocating a portion of commercially important BSAI species, including pollock, Pacific cod, crab, halibut, and various groundfish, to such communities.

The CDQ Program is an economic development program associated with federally managed fisheries in the BSAI. NMFS, the State of Alaska, and the Western Alaska Community Development Association (WACDA) administer the CDQ Program. Its purpose, as specified in the MSA, 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 MSA. Eligibility requirements for a community to participate in the western Alaska Community Development Program are identified in the MSA at section 305(i)(1)(D).

There are 65 coastal Alaska communities¹² currently eligible to participate in the CDQ Program, representing a population of 27,702 residents (U.S. Census 2010). The CDQ-qualifying communities have organized themselves into six non-profit groups, with between 1 and 20 communities in each group. The CDQ communities are geographically dispersed, extending from Atka, on the Aleutian chain, along the Bering Sea coast, to the village of Wales, near the Arctic Circle (See Appendix A.1). The current CDQ groups are listed below.

Aleutian Pribilof Island Community Development Association (APICDA): The communities represented by APICDA are relatively small and located adjacent to the fishing grounds. Population of the six communities is just under 1,300 residents.

Bristol Bay Economic Development Corporation (BBEDC): BBEDC represents 17 communities distributed around the circumference of Bristol Bay, including Dillingham, the second-largest CDQ community with approximately 2,330 residents and the location of BBEDC's home office. Total population is approximately 5,420.

Central Bering Sea Fisherman's Association (CBSFA): CBSFA is unusual among CDQ groups in that it represents a single community, St. Paul in the Pribilof Islands. In 2010, St. Paul had a population of 479.

Coastal Villages Region Fund (CVRF): CVRF manages the CDQ harvest for its member communities. The 20 communities are located along the coast between the southern end of Kuskokwim Bay and Scammon Bay, including Nunivak Island. CVRF represents a population of about 8,570 individuals.

Norton Sound Economic Development Corporation (NSED): NSED represents 15 communities. Approximately 8,730 residents make up the region represented by NSED, which ranges from St. Michael to Diomede.

¹² For a full list of the participating communities and the names of their associated group, see Table 7 in 50 CFR Part 679.

Yukon Delta Fisheries Development Association (YDFDA): YDFDA represents the communities, Alakanuk, Emmonak, Grayling, Kotlik, Mountain Village, and Sheldon Point, containing approximately 3,210 people.

CDQ groups use the revenue derived from the harvest of their fisheries allocations as a basis for funding economic development activities and for providing employment opportunities. Therefore, the successful harvest of CDQ Program allocations is integral to achieving the goals of the program. The 2013 CDQ allocations included approximately 197,000 metric tons of groundfish, about 1.19 million pounds of halibut, and approximately 6.9 million pounds of crab. Annual CDQ allocations provide a revenue stream for CDQ groups through various channels, including the direct catch and sale of some species, leasing quota to various harvesting partners, and income from a variety of investments. The six CDQ groups had total revenues in 2011 of approximately \$311.5 million, primarily from pollock royalties. Since 1992, the CDQ groups have accumulated net assets worth approximately \$803 million (as of 2011), including ownership of small local processing plants, catcher vessels, and catcher/processors that participate in the groundfish, crab, salmon, and halibut fisheries (WACDA 2011).

One of the most tangible direct benefits of the CDQ Program has been employment opportunities for western Alaska community residents. CDQ groups have had some success in securing career track employment for many residents of qualifying communities, and have opened opportunities for non-CDQ Alaskan residents, as well. Jobs generated by the CDQ Program included work aboard a wide range of fishing vessels, internships with the business partners or with government agencies, employment at processing plants, and administrative positions. In 2011, 2,410 wage and salary employees of the CDQ groups earned \$45.5 million in combined payroll. In addition, crew members and commercial fishing permit holders received ex-vessel payments of \$32.2 million from processors and fish buying stations (WADCA 2011). CDQ groups continue to explore the means to provide continuing and additional employment opportunities for local residents.

1.2.2 History of this Action

During the staff tasking agenda item at the October 2013 Council meeting, representatives from the CDQ groups introduced a proposal to make regulatory changes or exemptions that would encourage local development and participation in the harvest of Pacific cod CDQ allocations in both a directed Pacific cod CDQ fishery and while targeting CDQ and IFQ halibut (Appendix A.2). This proposed fishery would allow CDQ community residents with vessels ranging in size from 16 to 46 ft. LOA, mainly using hook-and-line gear, to develop and actively participate in a Pacific cod CDQ fishery in the BSAI.

The CDQ groups identified regulation changes that they felt were prohibitive to local development and participation in the targeted harvest of Pacific cod CDQ allocations. The changes requested in the proposal are:

1. exempting vessels between 32 and 46 ft. LOA from License Limitation Program (LLP) requirements while harvesting CDQ Pacific cod;
2. exempting vessels up to 46 ft. in length from vessel monitoring system (VMS) requirements while harvesting CDQ Pacific cod;
3. aligning observer requirements for hook-and-line catcher vessels targeting CDQ Pacific cod with observer requirements for hook-and-line catcher vessels targeting non-CDQ Pacific cod;

4. requiring 100 percent retention of CDQ Pacific cod, on vessels with the exemption in 1) and 2) above, while directed fishing for CDQ halibut and/or IFQ halibut, only if an allocation of CDQ Pacific cod is available to those vessels.

The CDQ groups' proposal additionally included a problem statement that detailed the constraints these four elements imposed on their small vessel fleet and justification for the Council's consideration of the corresponding exemptions. They included background material on how they envisioned the fishery to be prosecuted under the provisions requested.

After hearing the CDQ groups' proposal, the Council initiated a discussion paper, acknowledging the problem statement identified by stakeholders. This discussion paper was reviewed at the February 2014, at the Council meeting in Seattle, WA. The objective of the discussion paper was to outline the baseline for each of the four regulatory elements the CDQ groups considered a constraint on their small vessel fishery. In addition, the discussion paper provided a preliminary evaluation of any concerns with the four proposed elements, as well as opportunities for additional action that would meet the CDQ groups' and the Council's goals.

This first examination indicated that changes to all four elements could be possible; however, direct exemptions for VMS would produce large concerns, particularly for monitoring and enforcement of protected areas. Based on this background information, the Council approved a suite of alternatives in February 2014, which did not include analysis of direct exemptions from VMS requirements. Instead this analysis examines the baseline burden of current VMS options for small vessels, and contrasts this with monitoring alternatives, such as Global Positioning System (GPS) electronic monitoring.

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

Current regulations applicable to vessels targeting Pacific cod with hook-and-line gear are prohibitive for the CDQ village small boat fleets. Easing or revising certain regulations may make the development of a Pacific cod fishery more viable and provide additional harvest opportunities for the CDQ village small boat fleets, which may be particularly urgent in light of steep declines in halibut quotas as one measure to mitigate the resulting economic disruption.

The Council reviewed an initial draft of the analysis in June 2014. The Council chose to release the draft for public review after revising Alternative 4 to incorporate additional elements outlined in a "NMFS Recommendations" document (Appendix A.3). This document makes clear the extent of the LLP exemption and the requirements for documentation of eligibility for this exemption. It describes CDQ Pacific cod, halibut and other groundfish retention requirements and the catch accounting process that would take effect in a directed Pacific cod CDQ fishery under this alternative. The document also explains NMFS Alaska Region's recommendation that the directed Pacific cod CDQ fishery would be constrained to the halibut CDQ season and area closures as well as VMS requirements would remain consistent with the status quo. The Council determined that with the incorporation of these elements, Alternative 4 would constitute a Preliminary Preferred Alternative (PPA). In initial review, the Council also added three new options for future analysis under the PPA. These options are introduced in Section 2.4 and are not mutually exclusive. In October 2014, the Council redesigned Option 3 as Sub-option 3.1 and included at Sub-option 3.2 for additional analysis. Sub-option 3.2 examines one method of creating additional flexibility for a directed Pacific cod CDQ fishery for small hook-and-line vessels supported by halibut PSC. This Sub-option would allow CDQ groups to annually establish their own season dates for when their directed Pacific cod CDQ fishery would be supported by halibut CDQ or IFQ and when it would rely on the calculation of a halibut PSC rate.

After the October 2014 Council meeting, as NMFS Alaska Region analyzed the details of Sub-option 3.2, it became apparent that a third option for halibut PSC management was appropriate to consider. A third sub-option would complete the range of flexibility possible for the utilization of halibut PSC in a directed Pacific cod CDQ fishery. Therefore, NMFS Alaska Region recommended the inclusion of Sub-option 3.3 for Council consideration, which would allow the CDQ groups the flexibility to decide, on a trip-by-trip basis, whether a small hook-and-line vessel fishing for Pacific cod CDQ would retain legal-sized halibut under a halibut CDQ or IFQ allocation or would discard all halibut and accrue halibut PSC associated with that CDQ group during that fishing trip.

In February 2015, the Council took final action on the package establishing a Preferred Alternative (PA) of Alternative 4 with Option 1 and Sub-option 3.3.

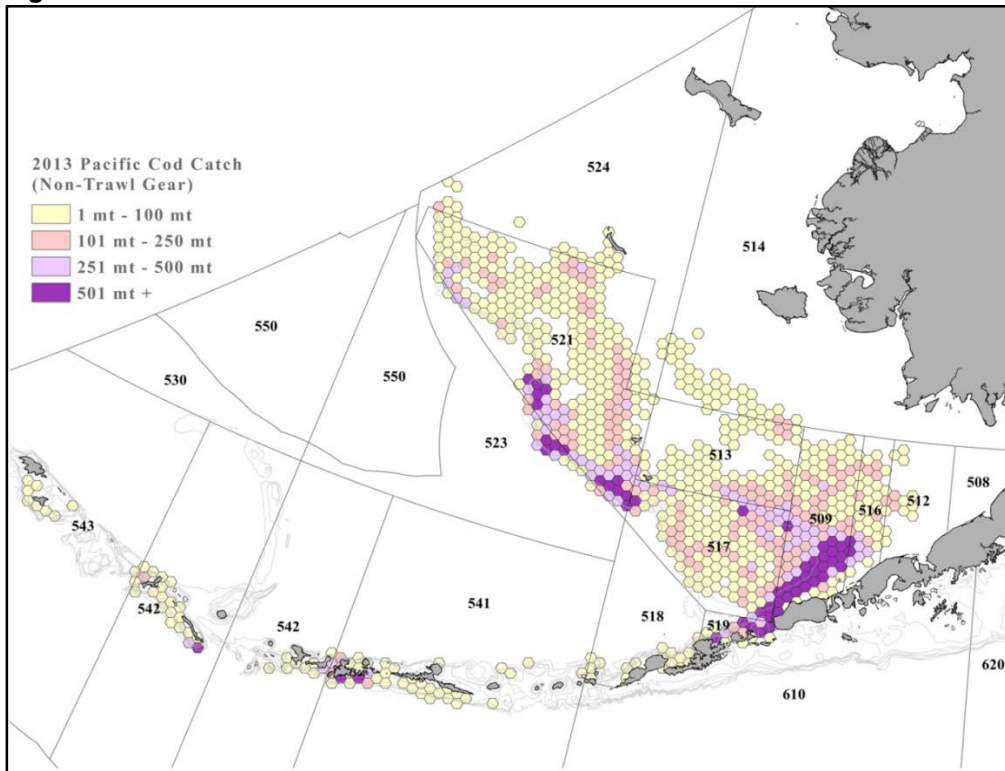
1.2.3 Description of Action Area

The actions considered in this analysis could impact fishing behavior in the BSAI management area. In recent years, the CDQ percentage of the Pacific cod stock has been harvested by catcher/processors greater than 46 ft. LOA, or in the case of one CDQ group, two catcher vessels greater than 46 ft. LOA. Alternatives 2 through 4 could result in a redistribution of a portion of the Pacific cod CDQ quota from catcher/processors greater than 46 ft. LOA to hook-and-line vessels less than or equal to 46 ft. LOA, if regional conditions made such a fishery viable. This change may impact where some of the Pacific cod is caught in the BSAI.

BSAI Pacific cod is primarily caught along much of the continental shelf in the BS, including in Statistical Areas 509, 513, 516, 517, 519, and 521. Historically, Pacific cod was caught throughout the AI. For the last five years prior to enactment of additional Steller sea lion protective regulations in 2011, the proportions of Pacific cod catch in NMFS Statistical Areas 541, 542, and 543 averaged 58 percent, 19 percent, and 23 percent, respectively (Figure 1-1). Similarly, the catcher vessels and catcher/processor greater than 46 ft. LOA that have targeted Pacific cod CDQ have prosecuted Areas 509, 513, 516, 517, and 521 with some additional harvest in Area 514 in the Kuskokwim Bay region and some in the 542 AI region (Figure 1-2).

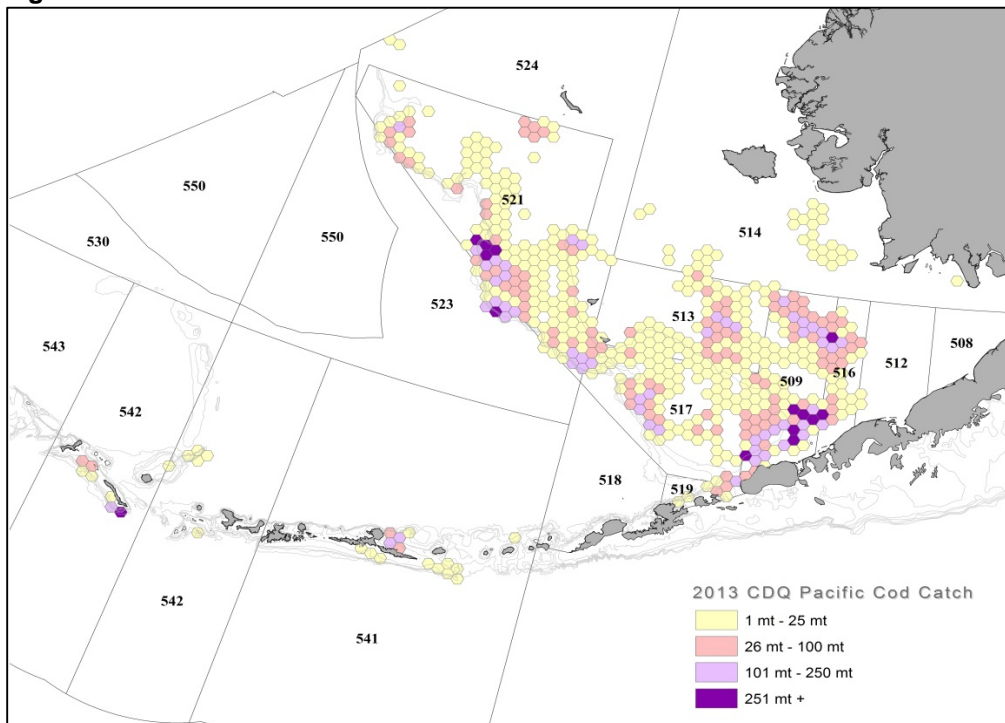
Under the proposed action, a portion of the directed Pacific cod directed fishery would likely shift to near-shore waters, closer to local communities. The regulatory changes and exemptions for Pacific cod CDQ fishing would primarily impact CDQ groups in the Aleutian and Pribilof Islands, and some Western Alaska communities.

Figure 1-1 All 2013 BSAI Pacific cod non-trawl catch



Source: Alaska Region NMFS BSAI In-season Management Report, Dec 2013

Figure 1-2 All 2013 BSAI Pacific cod CDQ catch



Source: Alaska Region NMFS In-season management, Catch-in-Areas Database

If this action is pursued, CDQ members would have more of an opportunity to retain Pacific cod CDQ while harvesting halibut CDQ or in a directed Pacific cod fishery that would likely follow the footprint of the halibut CDQ fishery. Since not all vessels that prosecute a halibut CDQ fishery are required to carry VMS, there are no full and precise records of the location of halibut CDQ harvest. Alaska Department of Fish and Game fish tickets and *eLandings* can provide a sense of where these harvests are occurring by statistical area. However, much of these data are confidential. A CDQ group is considered an entity for purposes of reporting, thus CDQ harvest would need to be pooled into at least groups of three. Because halibut CDQ is almost exclusively fished within the CDQ group's region near the processors of the community, these data become confidential.

However, because of this pattern, it is easy to illustrate the regional distribution of the fishery even without the ability to map the harvest. Broadly, halibut CDQ fishing takes place:

- in the Norton Sound region, particularly around Nome;
- all around Nunivak Island, down the Western coast towards Goodnews Bay;
- around the Pribilof Islands, particularly St. Paul;
- in the Bristol Bay region in moderate amounts;
- in the Western Aleutian Islands, especially around Atka.

The one CDQ region without a strong small vessel halibut CDQ representation is the Yukon Delta region. YDFDA is only allocated halibut quota in Area 4D, which is not immediately adjacent to its communities in the Bering Sea. YDFDA traditionally harvests their quota on larger vessels able to safely operate in the waters of Area 4D.

2 Description of Alternatives

The National Environmental Policy Act (NEPA) requires that an EA analyze a reasonable range of alternatives, consistent with the purpose and need for the proposed action. The alternatives in this chapter were designed to accomplish the stated purpose and need for the action. All of the alternatives were designed to create a regulatory structure for the harvest of Pacific cod CDQ that promotes harvest opportunities for the CDQ small vessel fleets, and effectively allows CDQ and IFQ halibut harvesters, operating vessels less than or equal to 46 ft. in length, the ability to retain Pacific cod CDQ in excess of the 20 percent MRA.

The alternatives that are analyzed in this package were adopted by the Council in February 2014, and revised in June 2014, to include a Preliminary Preferred Alternative (PPA). In October 2014, Option 3 of the PPA became Sub-option 3.1, and Sub-option 3.2 was added for additional analysis. NMFS Alaska Regional Office proposed the addition of Sub-option 3.3, for Council consideration in this document for final action. In February 2015, the Council took final action by identifying Alternative 4, with Option 1 and Sub-option 3.3, as its Preferred Alternative (PA). Since Option 1 expands the provision in the PPA, to include CDQ groundfish fishery allocations, rather than just the Pacific cod CDQ fishery allocation (a fishery that is not defined on its own in regulations, but is included under the definition of groundfish CDQ fishery), purpose and need, alternatives and options of the PA, and analysis have been updated to reflect this adoption, where appropriate.

The alternatives propose management measures that would apply exclusively to the CDQ fisheries.

Alternative 1. No action. Under this, the status quo alternative, vessels fishing CDQ halibut would continue to be allowed to retain incidentally caught Pacific cod, only up to 20 percent of their CDQ halibut landings, as stipulated under the existing maximum retainable amount (MRA).

Alternative 2. Increase the MRA of Pacific cod, up to 100 percent of the CDQ halibut landings for a hook-and-line catcher vessel less than or equal to 46 ft. LOA that is authorized to fish Pacific cod on behalf of a CDQ group. All Pacific cod caught within this threshold must be retained, and will accrue towards that CDQ group's Pacific cod allocations.

Alternative 3. Create a new CDQ LLP license for participating hook-and-line catcher vessels less than or equal to 46 ft. LOA. Vessels with the CDQ LLP license may participate in the CDQ directed Pacific cod fishery. Limit the number of LLP licenses each CDQ group would be provided. These LLP licenses would be non-transferable across CDQ groups. All Pacific cod caught by any such vessel must be retained and accrues towards the CDQ Pacific cod allocations. Vessels would be subject to the full coverage observer category, consistent with existing full coverage observer requirements.

Option 1: Place these vessels in the partial coverage observer category. Halibut caught would accrue against the PSQ allocation.

Option 2: Place these vessels in the partial coverage observer category. Require vessels to retain any incidentally caught halibut, which would accrue against the PSQ allocation.

Alternative 4. (PA)¹³ The following provisions would apply to hook-and-line catcher vessels less than or equal to 46 ft. LOA while directed fishing for groundfish CDQ:

¹³ In the Initial Review Draft of June 2014, Alternative 4 would "Exempt hook-and-line catcher vessels participating in the CDQ Pacific cod fishery with ≤46' LOA from groundfish LLP requirements. All Pacific cod caught

License Limitation Program: Vessels greater than 32 ft. LOA, but less than or equal to 46 ft. LOA, would be exempt from the LLP requirements.¹⁴ Each CDQ group would be required to register each vessel greater than 32 ft. LOA, but less than or equal to 46 ft. LOA¹⁵ that it authorizes to conduct directed fishing for groundfish CDQ on its behalf. The online registration program would generate a letter from NMFS documenting that the vessel is exempt from the LLP while directed fishing for groundfish CDQ. Operators of vessels greater than 32 ft. but less than or equal to 46 ft. LOA would be required to maintain a copy of this letter onboard the vessel at all times while directed fishing for groundfish CDQ. CDQ groups could remove a vessel from this list at any time during the year, by notifying NMFS of this decision.

Observer coverage requirements: These vessels would be in the partial observer coverage category and subject to observer coverage requirements described in the Annual Deployment Plan.

Retention requirements: All groundfish caught must be retained¹⁶ and accrued towards the CDQ groundfish allocations.

Option 1 (*Adopted under PA*): Apply the proposed management measures to all vessels less than or equal to 46 ft. LOA using hook-and-line gear while directed fishing for any groundfish species allocated to the CDQ Program, except sablefish.

Option 2 (*Not adopted under PA*): Expand the current prohibition against discarding legal sized halibut while IFQ fishing to people fishing for halibut CDQ while the CDQ group has remaining halibut CDQ.

Option 3: Allow for a small vessel groundfish CDQ fishery, supported by halibut PSC.

Sub-option 3.1 (*Not adopted under PA*): In a situation when there is no halibut harvesting quota available (either CDQ or IFQ) to fund the CDQ small boat Pacific cod fishery, another workable alternative would need to be developed, such as a mutually acceptable halibut PSC rate system.¹⁷

Sub-option 3.2 (*Not adopted under PA*): Each CDQ group participating in the small vessel Pacific cod CDQ fisheries shall annually determine the date upon which halibut catch accounting for the group's CDQ Pacific cod fishery switches from halibut PSC, to halibut CDQ (or participants' IFQ), and the date upon which the halibut catch accounting switches from halibut CDQ, back to halibut PSC. The switch dates shall be provided to NMFS, by each participating CDQ group by February 15, annually.

must be retained and accrues towards the CDQ Pacific cod allocations. Vessels would be in the partial coverage observer category." The PA is a more detailed version of this alternative. It is based on continued analysis and largely shaped from NMFS Alaska Region recommendations presented in June 2014.

¹⁴ Vessels less than or equal to 32 ft. LOA currently are exempted from the LLP requirements while fishing in the BSAI.

¹⁵ In the Public Review Draft of February 2015, the LLP element stated, "Each CDQ group would be required to register each vessel less than or equal to 46 ft." The range of vessel LOA required to be registered in an online system with NMFS Alaska Region was amended following Council final action. Vessel registration, as well as the on-board vessel certificate of eligibility are intended to be an identification/ enforcement tool for vessels that would otherwise be subject to LLP requirements. As vessels less than or equal to 32 ft. LOA currently are exempted from the LLP requirements while fishing in the BSAI, NMFS Alaska Region concluded, after further deliberation, that it was not necessary for vessels less than or equal to 32 ft. LOA to be included in the online list of eligible vessels.

¹⁶ Unless it is a species for retention is prohibited under separate provisions (e.g., TAC is reached).

¹⁷ In this sub-option, analysts interpreted, "when there is no halibut available" to mean outside of the IPHC-established halibut season for IFQ/CDQ fisheries and/or in the event that there was no halibut fishery in a season.

Sub-option 3.3 (*Adopted under PA*): Each CDQ group would be allowed the flexibility to decide, on a trip-by-trip basis, whether a small hook-and-line vessel fishing for groundfish CDQ would retain legal-sized halibut, under a halibut CDQ or IFQ allocation, or would discard all halibut and accrue halibut PSC associated with that fishing trip. The option to retain halibut CDQ and IFQ would be available only when the halibut fishery is open. When the halibut fishery is closed or if no halibut CDQ or IFQ is available, halibut must be discarded and PSC would accrue.¹⁸

Under all alternatives, the analysis considers substitutes to VMS, such as a GPS electronic monitoring option for monitoring compliance with Steller sea lion protection measures, EFH, and HAPC closure areas.

2.1 Alternative 1, No Action

Under Alternative 1, the no action alternative, the regulations of the CDQ fishery would remain consistent with the status quo. In other words, directed Pacific cod CDQ fishing could only occur for vessels of interest to the proposed action (i.e., CDQ vessels less than or equal to 46 ft. LOA using hook-and-line gear) if they held a Federal fisheries permit (FFP) with a Pacific cod endorsement, held an LLP license, carried VMS, and complied with full observer coverage. Additionally, if a federally permitted vessel targeting halibut CDQ retains Pacific cod over the 20 percent MRA, that vessel operator must comply with all regulations that apply while directed fishing for Pacific cod.¹⁹ CDQ vessels may also retain Pacific cod for personal bait.²⁰

No vessel in the GOA or BSAI may fish for groundfish, including groundfish bycatch, without obtaining an FFP.²¹ Any vessel halibut CDQ fishing in the EEZ, except a Coastal Villages Regional Fund (CVRF) vessel, is required to obtain an FFP, even if it is not retaining any groundfish, because they are required to retain any sablefish harvested as long as the CDQ group has remaining sablefish CDQ from the fixed gear sablefish CDQ reserve. CVRF is the only CDQ group with an allocation of halibut CDQ in an area in which they have no allocation of sablefish CDQ, therefore their participants may not be required to obtain an FFP.

The CDQ groups and vessels fishing on their behalf must be aware of the several different ways of categorizing the CDQ fisheries and the associated regulations and catch accounting procedures. The three primary ways of categorizing the CDQ fisheries are (1) the CDQ fishery categories developed to implement the regulation of harvest provisions of the MSA, (2) the application of MRAs to determine if a vessel is directed fishing for a particular species, and (3) the Catch Accounting System (CAS) method for assigning a single trip target to each catcher vessel landing for purposes of estimating prohibited species catch (PSC).

NMFS regulations define four different CDQ fishery categories.²² These fishery categories are needed because some aspects of the CDQ fishery management regulations and catch accounting provisions differ among these categories due to the “regulation of harvest” provisions of the MSA.²³

¹⁸ This sub-option was included by NMFS Alaska Region in order to cover the range of management flexibility possible in developing a Pacific cod CDQ fishery supported by halibut PSC.

¹⁹ However, 50 CFR 679.27(b) and (c), Improved Retention/Improved Utilization Program does not apply to these vessels because they are not groundfish CDQ fishing (i.e., directed fishing for a groundfish species), therefore halibut CDQ participants have the option to discard Pacific cod or to retain up the MRA.

²⁰ 50 CFR 679.27(g)

²¹ 50 CFR 679.4(b)(1) and (-2)

²² 50 CFR 679.2

²³ MSA section 305(i)(1)(B)(iv) states, “the harvest of allocation under the program for fisheries with individual quotas or fishing cooperatives shall be no more restrictive than for participants in the applicable sector, including with respect to the harvest of non-target species.”

- “Halibut CDQ fishing” is fishing using fixed gear, retaining halibut CDQ, and not retaining groundfish over the maximum retainable amounts specified Table 11 to CFR 679. Regulations governing halibut CDQ fishing are designed to be no more restrictive than regulations governing halibut IFQ fishing.
- “Sablefish CDQ fishing” is fishing using fixed gear, retaining sablefish CDQ, and retained catch of sablefish CDQ plus sablefish IFQ that is greater than the retained catch of any other groundfish species or species group. Regulations governing sablefish CDQ fishing are designed to be no more restrictive than regulations governing sablefish IFQ fishing.
- “Pollock CDQ fishing” is directed fishing for pollock under a pollock allocation to the CDQ Program and accruing pollock catch against a pollock CDQ allocation. Regulations governing pollock CDQ fishing are designed to be no more restrictive than regulations governing the AFA pollock fisheries.

“Groundfish CDQ fishing” is fishing that results in the retention of any groundfish CDQ species²⁴, but that does not meet the definition of pollock CDQ fishing, sablefish CDQ fishing, or halibut CDQ fishing. Regulations governing non-AFA catcher/processors using trawl are designed to be no more restrictive than regulations governing the Amendment 80 fisheries.

Catcher vessels directed fishing for Pacific cod CDQ using hook-and-line gear fall under the regulations for “groundfish CDQ fishing.” For catcher vessels, the non-CDQ Pacific cod fisheries are not managed under an IFQ Program or cooperatives, so the regulation of harvest provisions of the MSA do not apply to these fisheries.

The determination of whether a vessel operator is or was “directed fishing” for a particular species is based on the application of maximum retainable amounts. If retained catch exceeds the MRA for a particular species, a vessel operator is considered to be or to have been directed fishing for this species. MRAs are used in the CDQ fisheries primarily to determine how much of a species that is not allocated to the CDQ Program may be retained by vessels that are retaining allocated CDQ species and for the application of regulations that apply equally to the CDQ and non-CDQ fisheries, such as Steller sea lion protection measures and habitat protection measures.

As described above, MRAs also are used to distinguish among the CDQ fishery categories. When a vessel halibut CDQ fishing exceeds the MRA for a groundfish species, for instance retains Pacific cod in a weight greater than 20 percent of the halibut CDQ catch, they transition from “halibut CDQ fishing” to “groundfish CDQ fishing.” At that point, the vessel operator must comply with the provisions, catch accounting, and monitoring requirements for groundfish CDQ fishing. For example, the observer coverage requirements are one of the main differences between vessels halibut CDQ fishing (partial coverage) and vessel groundfish CDQ fishing (full coverage).

Groundfish CDQ fishing could be prosecuted with more than one target species. So, while a CDQ vessel may be retaining greater than the MRA of Pacific cod, if the vessel operator meets the provisions for halibut CDQ fishing, they may also be targeting halibut CDQ and/or IFQ in a multi-species fishery. This would still be regarded as “groundfish CDQ fishing.”

²⁴ A “CDQ species” is any species or species group that is allocated from a CDQ reserve to a CDQ group. The groundfish and prohibited species allocated to the CDQ Program are listed in the annual groundfish harvest specifications.

In the CAS, a landing by a catcher vessel is identified as a CDQ landing based on the CDQ group number or CDQ halibut permit number reported by the processor on the landing report (through *eLandings*). It is through this designation on the landing report that the decision by a CDQ group to authorize a vessel to fish on its behalf is transmitted to NMFS. The CAS assigns a single trip target to each catcher vessel landing based on the species composition of the landed catch. Most of the time the trip target assigned by the CAS will match the directed fishery based on the application of MRAs. However, as noted above it is possible for a vessel operator to be directed fishing for more than one species on a trip.

For catcher vessels in the partial observer coverage category, one of the primary uses of the trip target assigned in the CAS is to determine the appropriate estimate of PSC to associate with the landing. Under the status quo, this CAS process does not apply in the CDQ fisheries because the CDQ groups receive transferable PSC allocations. Therefore, all vessels participating in CDQ fisheries that accrue PSC to a PSQ allocation currently are required to be in full coverage. A brief explanation of how the CAS assigns estimates of halibut PSC for vessels in the partial coverage category is included below because this process would be applied to CDQ vessels under some of the action alternatives.

For vessels in the partial coverage category, it is possible that a fishing trip will be selected for observer coverage. However, in many cases, these vessels will be unobserved and the halibut PSC associated with the trip will be derived from halibut PSC rates from observed vessels. The halibut PSC rate applied to landings from unobserved catcher vessels are determined through the CAS based on the best available data, which is the data from observed vessels as close as possible in characteristics to the unobserved vessels. Sometimes halibut PSC rates are available for the same processing sector, gear, trip target, and management area. However, there are very few observed trips for small fisheries such as catcher vessels less than 60 ft LOA directed fishing for Pacific cod in the BSAI. Therefore, the halibut PSC rate most frequently applied to landings by these vessels is called a “precedence 20” rate. This rate is derived from all landings year-to-date by vessels in any processing sector using hook-and-line gear in a Pacific cod target in the BSAI. This rate is updated each day and any updates to the rate are applied to all landings to date in the year. Thus, the halibut PSC rate that will be applied to a landing can change throughout the year as new data are gathered until a final calculation is made. The annual average rate is then applied to all landings in that year for which the precedence 20 rate is the best available data. Catcher/processors contribute most of the observer data for the BSAI Pacific cod hook-and-line fishery. Therefore, the “precedence 20” rate is largely derived from catcher/processor activity.

Table 2-1 provides a reference for the regulatory requirements in halibut CDQ fishing and groundfish CDQ fishing. As can be seen in Table 2-1, a CDQ vessel less than or equal to 46 ft. LOA using hook-and-line gear may directed fish for Pacific cod CDQ in a state-waters parallel fishery, without an FFP or LLP license, if they are fishing exclusively in state waters. If the vessel does not have an FFP and is not retaining halibut in this parallel fishery, they are not subject to observer coverage. If the vessel is either retaining halibut or has an FFP (or both), the vessel is then subject to full observer coverage, despite prosecuting a state-water only parallel fishery. The vessel must also adhere to VMS coverage requirement if they are retaining any Pacific cod.

It is also possible that a CDQ vessel could prosecute the open access Pacific cod fishery in state waters when the parallel fishery is open by landing the Pacific cod unassociated with a CDQ group. Again this would not require an FFP, LLP license, or observer coverage if there was no retention of halibut and the vessel is exclusively fishing state waters.

Table 2-1 Current regulations as they apply to halibut CDQ fishing and groundfish CDQ fishing

	Halibut CDQ fishing Retaining less than the MRA of Pacific cod		Groundfish CDQ fishing Using hook-and-line gear and directed fishing for Pacific cod CDQ	
	If exclusively in state waters (parallel fishery)	EEZ	If exclusively in state waters (parallel fishery)	EEZ
PERMITS				
FFP	NO	YES, if representing a CDQ group with an available allocation of sablefish CDQ	NO	YES
FFP with Pacific cod endorsement	NO	NO	NO	YES
LLP	NO	NO	NO	YES, if > 32' LOA
LLP with Pacific cod endorsement	NO	NO	NO	YES, if ≥ 60' LOA
Halibut CDQ permit for CDQ group	YES	YES	If retaining halibut, then YES	If retaining halibut, then YES
Halibut hired masters card	YES	YES	If retaining halibut, then YES	If retaining halibut, then YES
OBSERVER COVERAGE CATEGORY				
	Partial	Partial	If holding FFP, or retaining CDQ halibut, then Full	Full

	Halibut CDQ fishing Retaining less than the MRA of Pacific cod		Groundfish CDQ fishing Using hook-and-line gear and directed fishing for Pacific cod CDQ	
	If exclusively in state waters (parallel fishery)	EEZ	If exclusively in state waters (parallel fishery)	EEZ
RETENTION REQUIREMENTS				
Halibut	<p>Must discard halibut below the legal size limit, except for qualified subsistence use.</p> <p>CDQ groups can choose who will fish halibut on their behalf. Therefore, there is no requirement to retain halibut CDQ, as there is in the halibut IFQ fishery.²⁵ If not retaining CDQ halibut on behalf of a group, the vessel operator reports catch as CDQ and NMFS estimates a halibut PSC. This is deducted from CDQ group's halibut PSQ.</p>	<p>Must discard halibut below the legal size limit, except for qualified subsistence use.</p> <p>CDQ groups can choose who will fish halibut on their behalf.</p> <p>If not retaining CDQ halibut on behalf of a group, the vessel operator reports catch as CDQ and NMFS estimates a halibut PSC. This is deducted from CDQ group's halibut PSQ.</p>	<p>Must discard halibut below the legal size limit, except for qualified subsistence use.</p> <p>Must discard if groundfish fishing and does not meet the requirements for halibut CDQ fishing (e.g., no halibut CDQ permit).</p> <p>CDQ groups can choose who will fish halibut on their behalf.</p> <p>If not retaining CDQ halibut on behalf of a group, the vessel operator reports catch as CDQ, and NMFS estimates a halibut PSC. This is deducted from CDQ group's halibut PSQ.</p>	<p>Must discard halibut below the legal size limit, except for qualified subsistence use.</p> <p>Must discard if groundfish fishing and does not meet the requirements for halibut CDQ fishing (e.g. no halibut CDQ permit).</p> <p>CDQ groups can choose who will fish halibut on their behalf.</p> <p>If not retaining CDQ halibut on behalf of a group, the vessel operator reports catch as CDQ, and NMFS estimates a halibut PSC. This is deducted from CDQ group's halibut PSQ.</p>
Pacific cod	<p>If they are also fishing IFQ halibut, required to retain all Pacific cod and rockfish, unless State regulations require discards.</p> <p>If they are not fishing IFQ halibut they can choose to retain up the MRA or discard Pacific cod.</p> <p>Can retain Pacific cod for personal bait</p>	<p>If they are also fishing IFQ halibut, required to retain all Pacific cod and rockfish, subject to fishery status of species.</p> <p>If they are not fishing IFQ halibut they can choose to retain up the MRA or discard Pacific cod.</p> <p>Can retain Pacific cod for personal bait</p>	<p>IR/IU applies to vessels with FFPs. State IR/IU regulations require full retention of cod if directed fishery is open, otherwise requires retention up to MRA.</p> <p>Can retain Pacific cod for personal bait</p>	<p>Must retain all Pacific cod. IR/IU applies and if they are directed Pacific cod CDQ fishing, then they would be meeting all of the provisions to be "groundfish CDQ fishing"</p> <p>Can retain Pacific cod for personal bait</p>

²⁵ Regulations at 50 CFR 679.7(f)(11) prohibit the "discard(ing of) halibut or sablefish caught with fixed gear from any catcher vessel when any IFQ permit holder holds unused halibut or sablefish IFQ for that vessel category and the IFQ regulatory area in which the vessel is operating," unless discard is required under some other provision. This same requirement does not apply to the halibut CDQ allocations. In other words, the operator of a vessel using fixed gear to fish on behalf of a CDQ group is not required to retain halibut CDQ if the CDQ group has unused halibut CDQ. Additionally (IR/IU, 50 CFR 679.27(b) and (c)) does not apply, because they are not "groundfish CDQ fishing".

	Halibut CDQ fishing Retaining less than the MRA of Pacific cod		Groundfish CDQ fishing Using hook-and-line gear and directed fishing for Pacific cod CDQ	
	If exclusively in state waters (parallel fishery)	EEZ	If exclusively in state waters (parallel fishery)	EEZ
SSL PROTECTION MEASURES				
Comply with closures for directed fishing for Pacific cod	NO	NO	YES, if required by state law	YES
Carry VMS	If retaining Pacific cod in a parallel fishery, then YES	YES, if in the AI	If retaining Pacific cod in a parallel fishery, then YES	YES

2.2 Alternative 2, Change the MRA for the Halibut CDQ Fishery

Alternative 2 would increase the Pacific cod MRA up to 100 percent of the halibut CDQ landings for hook-and-line catcher vessels less than or equal to 46 ft. LOA that harvest Pacific cod CDQ in conjunction with halibut CDQ. Consistent with current groundfish standards, all Pacific cod caught up to this amount must be retained, and accrues towards the Pacific cod CDQ quotas.

While this option aligns with the goal of allowing CDQ groups the opportunity to retain more Pacific cod while halibut fishing, this alternative does not facilitate a directed Pacific cod CDQ fishery. In other words, a participant's Pacific cod CDQ harvest would still be dependent on the amount of halibut CDQ harvested. This alternative does not necessarily allow 100 percent retention of Pacific cod, but instead the Pacific cod CDQ harvest could be retained for commercial sale only up to the proportional level of the halibut CDQ harvested.

The Council would need to determine whether the CDQ group's decision of who among their vessel operators will harvest their allocation of Pacific cod CDQ would be linked to the opportunity to harvest halibut CDQ, or if this decision would be able to be separate from their decision for who will harvest halibut CDQ on the group's behalf.

2.3 Alternative 3, Create a New LLP license for Pacific Cod CDQ Participants

Under Alternative 3, NMFS would create a new CDQ LLP license for participating hook-and-line catcher vessels less than or equal to 46 ft. LOA. Federally permitted vessels with the CDQ LLP licenses and VMS units would be able to participate in the directed Pacific cod CDQ fishery. NMFS would manage the number of LLP licenses each CDQ group would be provided, through an application process. These LLP licenses would be non-transferable and would be assigned to one vessel and one vessel operator. If the vessel had a CDQ LLP license, then all of its Pacific cod catch would need to be retained and would accrue towards the CDQ group's Pacific cod allocation. Vessels would continue to be subject to the full coverage observer category, consistent with existing full coverage observer requirements.²⁶

Alternative 3 also includes two options for modification of the observer coverage requirements. In both of these options, vessels that hold a CDQ LLP license for participating in a directed Pacific cod fishery would be placed in the partial coverage observer category. In Option 1, any halibut caught while a vessel was

²⁶ 50 CFR 679.51(a)(2)

targeting Pacific cod would accrue against the applicable CDQ group's halibut PSQ allocation. In Option 2, any halibut caught while a vessel was targeting Pacific cod would be retained and accrue against the applicable CDQ group's halibut CDQ allocation.

Each CDQ group and the vessels that fish on their behalf can chose to remain under the regulations that govern "halibut CDQ fishing" by discarding any amount of Pacific cod that would exceed the 20 percent MRA. This provision would continue.

2.4 Alternative 4, LLP Exemption (PA)

In February 2015, the Council selected Alternative 4, with Option 1 and Sub-option 3.3 as its PA. This decision supported NMFS Alaska Region's recommendation of management measures that would fit the Council's purpose and need, while including important management, enforcement, and catch accounting elements. Alternative 4 would include the following elements:

LLP exemption: Vessels greater than 32 ft. LOA and less than or equal to 46 ft. LOA that are authorized by a CDQ group to fish for groundfish CDQ would be exempt from the requirement to obtain and carry an LLP license.

CDQ list of eligible vessels: Each CDQ group would be required to register with NMFS each vessel greater than 32 ft. LOA, but less than or equal to 46 ft. LOA using hook-and-line gear that is authorized to fish for groundfish CDQ on its behalf.²⁷

- Adding and removing vessels from the list of eligible vessels would be done through a web-based system developed by NMFS.
- For vessels greater than 32 ft LOA, the online registration system would generate a letter from NMFS documenting that the vessel is exempt from the LLP requirements while (1) on the list of eligible vessels, and (2) directed fishing for groundfish CDQ.
- Operators of vessels eligible for the LLP exemption (i.e., greater than 32 ft. LOA and less than or equal to 46 ft. LOA) would be required to maintain a copy of the NMFS LLP exemption letter onboard the vessel at all times while the vessel is directed fishing for groundfish CDQ.
- The CDQ group would be responsible to provide a copy of the NMFS LLP exemption letter to vessels fishing on its behalf. NMFS would not provide this letter to vessel operators.
- The letter would be generated the first time each year that the vessel was placed on the list of eligible vessels by a CDQ group. NMFS would not require vessel operators to surrender the LLP exemption letter if a CDQ group removes a vessel from the list of eligible vessels.
- NMFS would post the list of eligible vessels on its website. Inclusion on this list is not a substitute for having the NMFS LLP exemption letter onboard the vessel.
- If a vessel is boarded, both the LLP exemption letter and inclusion on the list of eligible vessels would be necessary to demonstrate eligibility for the LLP exemption for vessels greater than 32 ft. LOA and less than or equal to 46 ft. LOA.
- A CDQ group could add or remove a vessel from the list of eligible vessels at any time during the year. NMFS would not notify vessel operators directly of their status on the list of eligible vessels, although this information would be available on NMFS's website.

Observer coverage: Any vessel less than or equal to 46 ft. LOA using hook-and-line gear would be in the partial observer coverage category while directed fishing for groundfish CDQ. Vessel operators would be

²⁷ Vessels less than or equal to 32 ft. LOA currently are exempted from the LLP requirements while fishing in the BSAI.

required to comply with all vessel responsibilities in 50 CFR 679.51(e)(1) and would be subject to selection for observer coverage following procedures in the Annual Deployment Plan (ADP). For example, in 2015, vessels less than 40 ft. LOA would be in the no selection pool and vessels greater than or equal to 40 ft. would be in the trip selection pool. Owners or operators of vessels in the trip selection pool are required to log each fishing trip into the Observer Declare and Deploy System. If selected for observer coverage, the vessel would be required to carry an observer.

Catch Accounting Procedures: In the CAS, a landing by a catcher vessel would continue to be identified as a CDQ landing based on the CDQ group number or CDQ halibut permit number reported by the processor on the landing report (through *eLandings*). The list of CDQ eligible vessels created to support the LLP exemption would not be directly tied into the CAS or used for catch accounting.

For all CDQ landings:

- *Retained CDQ species:* catch of any species allocated to the CDQ Program that is landed and reported through *eLandings* would accrue to the CDQ allocations for these species.
- *Retained non-CDQ species:* catch of any groundfish species not allocated to the CDQ Program that is landed and reported through *eLandings* would accrue to the non-CDQ allocations for these species.
- *At-sea discards of groundfish:* NMFS would estimate the at-sea discards of all groundfish by these vessels including those species allocated to the CDQ Program. These estimates would be based on applying discard rates from observed vessels to the landed catch weight of the Pacific cod CDQ trips. The estimates of at-sea discards would accrue to the non-CDQ allocation of the TACs.

If halibut is the predominant retained species and any halibut CDQ are reported in the landing: under current CAS procedures, this trip would be assigned to the halibut target and no halibut PSC would be associated with the trip.

If halibut is the predominant retained species, and some groundfish CDQ is reported in the landing: under current CAS procedures, this trip would be assigned to the halibut target and no halibut PSC would be associated with the trip. For this trip to qualify as “halibut CDQ fishing,” the vessel operator must retain less than the MRA for any groundfish species.

Pacific cod (or another groundfish species) is the predominant retained species and this groundfish species is identified as CDQ (by the entry of a CDQ group number on the landing report):

- If the groundfish CDQ fishing trip occurs *when the halibut fishing season is open*, the following requirements would apply:
 - The CDQ group would be required to provide adequate halibut CDQ or halibut IFQ to support the catch of legal-sized halibut by the small vessels.
 - Vessel operators would be required to retain all legal sized halibut caught while directed fishing for groundfish as either halibut CDQ or halibut IFQ.
 - Catch of halibut CDQ or halibut IFQ accrues to the account balance of the permit holder identified by the processor in the landing report based on the permits held by the vessel operator or persons onboard the vessel.
 - NMFS would assume that all legal sized halibut were retained and properly accounted for, so the only halibut released from the fishing gear would be sub-legal sized halibut. Sub-legal halibut are accounted for as “wastage” associated with the halibut fishery and are not accrued to any halibut PSC limit. Based on these assumptions, NMFS would not accrue any estimates of halibut PSC from the small vessel groundfish fishery to the CDQ group’s halibut PSQ or to any component of the BSAI halibut PSC limit.

- Without the inclusion one of the mutually exclusive sub-options under Option 3, the provisions specified under Alternative 4 do not apply for small hook-and-line vessel groundfish CDQ fishing when those vessels do not have available CDQ or IFQ to account for any incidentally caught halibut. Therefore, if a groundfish CDQ fishing trip occurs *when the halibut fishing season is closed*, this catcher vessel would not be eligible for the allowances and exemptions under Alternative 4. For example, this vessel would not be placed in the partial observer coverage category for this fishing activity and would continue to fall under the current requirements for full observer coverage to provide individual vessel estimates of halibut PSC during this trip.

SSL and habitat protection measures: All other regulations that apply to vessels using hook-and-line gear and directed fishing for Pacific cod and other groundfish would apply to these vessels. These requirements include closure areas and VMS requirements.

OPTIONS Under Alternative 4

Alternative 4 includes three options which are not mutually exclusive.

Option 1 (Adopted under the PA): Apply the proposed management measures to all vessels less than or equal to 46 ft. LOA using hook-and-line gear while directed fishing for any groundfish species allocated to the CDQ Program, except sablefish. (*Fixed gear sablefish CDQ already is managed under regulations similar to Alternative 4, i.e., exempt from LLP, in partial coverage, no halibut PSC accrues in fixed gear sablefish fisheries.*)

While the CDQ groups initial requested regulatory modifications to allow small hook-and-line vessels to directed fish specifically Pacific cod CDQ and Pacific cod is the primary groundfish species expected to be targeted by small vessels under the PA, NMFS Alaska Region recommends definition provisions in the PA as applying to all groundfish CDQ fishing. This option is intended to simplify regulations and administration of the CDQ Program, and avoid unnecessary enforcement actions for vessels that inadvertently retain more than the MRA of some other groundfish species.

Since the Council adopted Option 1 for the PA, the term “directed fishing for Pacific cod” has been replaced with “groundfish CDQ fishing” throughout the purpose and need, PA, and analysis of the PA where appropriate.

Option 2 (Not Adopted under the PA): Expand the current prohibition against discarding legal sized halibut while IFQ fishing to operators of vessels fishing for halibut CDQ while the CDQ group has remaining halibut CDQ.

Current regulations at §679.7(f)(11) prohibits the “Discard halibut or sablefish caught with fixed gear from any catcher vessel when any IFQ permit holder aboard holds unused halibut or sablefish IFQ for that vessel category and the IFQ regulatory area in which the vessel is operating ...”. Option 2 would expand this prohibition to operators of vessels fishing for halibut CDQ while the CDQ group has remaining CDQ.

After further investigation, NMFS did not recommend applying the IFQ prohibition against discarding halibut to all halibut CDQ fishing due to the practical challenges this would present (as explained in Section 3.12.2 of the analysis as well as NMFS Alaska Region recommendation in Appendix A.3). Nevertheless, it may be appropriate to include some halibut retention requirements in the PA, depending on the type of fishing trip identified.

Option 3: Allow a small vessel groundfish CDQ fishery supported by halibut PSC

In Alternative 4, the development of a small vessel Pacific cod CDQ hook-and-line fishery relies on the availability of CDQ or IFQ halibut to fund the landings of caught halibut. Option 3 considers three sub-options to allow additional flexibility for the CDQ groups to conduct directed fishing for groundfish CDQ with small hook-and-line vessels even when halibut CDQ or IFQ is not available or if the CDQ group does not wish to use its halibut CDQ to support the groundfish fishery. If the Council selects any of the three sub-options, NMFS Alaska Region recommends that a small vessel groundfish CDQ fishery supported by a CDQ group's halibut PSQ allocation should be managed with a separate component of a CDQ group's allocation and in-season fishery closures issued by NMFS. More detail on the management of each CDQ group's "small vessel halibut PSC limit" under Option 3 is included at the end of this section.

Option 3.1 (Not adopted under the PA): Allow halibut PSC to accrue only when the halibut season is closed

Due to the additional administrative complexity and cost of estimating and managing halibut PSC accrual by small, unobserved vessels, NMFS initially responded to the Council's request for halibut PSC management options with a single option for Council consideration. This option was identified as Option 3 in September 2014 and is now labeled Option 3.1. It would allow accrual of halibut PSC by small hook-and-line vessels fishing for groundfish CDQ only if no halibut CDQ or IFQ fishery is authorized in a particular year, or during times of the year when the halibut fishery is closed.

- (SAME AS UNDER ALT 4 WITHOUT OPTION 3) If the groundfish CDQ fishing trip occurs when the halibut fishing season is open, the following requirements would apply:
 - The CDQ group would be required to provide adequate halibut CDQ or halibut IFQ to support the catch of halibut by the small vessels.
 - Vessel operators would be required to retain all legal sized halibut caught while directed fishing for Pacific cod as either halibut CDQ or halibut IFQ.
 - Catch of halibut CDQ or halibut IFQ accrues to the account balance of the permit holder identified by the processor in the landing report based on the permits held by the vessel operator or persons onboard the vessel.
 - NMFS would assume that all legal sized halibut were retained and properly accounted for, so the only halibut released from the fishing gear would be sub-legal sized halibut. Sub-legal halibut are accounted for as wastage associated with the halibut fishery and are not accrued to any halibut PSC limit. Based on these assumptions, NMFS would not accrue any estimates of halibut PSC from the small vessel groundfish fisheries to the CDQ group's halibut PSQ or to any component of the BSAI halibut PSC limit.
- (THIS COMPONENT IS REVISED UNDER 3.1) If the groundfish CDQ fishing trip occurs when the halibut fishing season is closed, *NMFS would estimate the halibut PSC associated with the landing based on application of the halibut PSC rates generated by the CAS. The estimated halibut PSC would accrue to the CDQ group's small vessel halibut PSC limit described at the end of this section.*

Option 3.2 (Not adopted under the PA): Allow halibut PSC to accrue only outside of the halibut season dates specified by each CDQ group

This option was added by the Council at the October 2014 meeting. It would allow the CDQ groups to specify halibut fishing seasons each year that are appropriate for the CDQ group. Option 3.2 would require each CDQ group to submit to NMFS by February 15 of each year the start and end date for their halibut CDQ fisheries. At the recommendation of the U.S. Coast Guard, the season dates for each CDQ group

would be included on the NMFS LLP exemption letter, and the letter would be required to be maintained onboard all eligible vessels less than or equal to 46 ft. LOA.

- If the Pacific cod CDQ fishing trip occurs *during the halibut fishing season for a CDQ group*, the following requirements would apply (NO CHANGE IN THE ELEMENTS OF THIS LIST):
 - The CDQ group would be required to provide adequate halibut CDQ or halibut IFQ to support the catch of halibut by the small vessels.
 - Vessel operators would be required to retain all legal sized halibut caught while directed fishing for Pacific cod as either halibut CDQ or halibut IFQ.
 - Catch of halibut CDQ or halibut IFQ accrues to the account balance of the permit holder identified by the processor in the landing report based on the permits held by the vessel operator or persons onboard the vessel.
 - NMFS would assume that all legal sized halibut were retained and properly accounted for, so the only halibut released from the fishing gear would be sub-legal sized halibut. Sub-legal halibut are accounted for as wastage associated with the halibut fishery and are not accrued to any halibut PSC limit. Based on these assumptions, NMFS would not accrue any estimates of halibut PSC from the small vessel Pacific cod fisheries to the CDQ group's halibut PSQ or to any component of the BSAI halibut PSC limit.
- If the Pacific cod CDQ fishing trip occurs *before or after the halibut fishing season for a CDQ group*, NMFS would estimate the halibut PSC associated with the landing based on application of the halibut PSC rates generated by the CAS. The estimated halibut PSC would accrue to the CDQ group's small vessel halibut PSC limit described at the end of this section. (SAME AS OPTION 3.1, EXCEPT APPLIES OUTSIDE OF EACH CDQ GROUP'S SEASON)

Option 3.3 (Adopted under the PA): Allow halibut PSC to accrue on a trip-by-trip basis

After initial analysis of the potential administrative costs of Option 3.2, NMFS Alaska Region recommended consideration of a third sub-option to allow halibut to accrue as either halibut CDQ, halibut IFQ, or halibut PSC on a trip-by-trip basis. When the halibut fishery is open, this sub-option allows the CDQ groups and vessel operators to decide if halibut CDQ or IFQ will be retained in a groundfish CDQ landing. The determination of whether halibut PSC will accrue for the groundfish landing will depend on the presence or absence of halibut in the landing.

- If a groundfish CDQ fishing trip occurs when the halibut fishing season is open, *and some amount of halibut CDQ or IFQ is retained and reported on the landing report*, the following requirements would apply:
 - the CDQ groups would be required to provide adequate halibut CDQ or halibut IFQ to support the catch of halibut by the small vessels;
 - If a vessel operator *retains any halibut CDQ or IFQ during a groundfish CDQ fishing trip*, they would be required to retain all legal sized halibut caught *during that fishing trip*.
 - Catch of halibut CDQ or halibut IFQ accrues to the account balance of the permit holder identified by the processor in the landing report based on the permits held by the vessel operator or persons onboard the vessel;
 - NMFS would assume that all legal sized halibut were retained and properly accounted for, so the only halibut released from the fishing gear would be sub-legal sized halibut. Sub-legal halibut are accounted for as wastage associated with the halibut fishery and are not accrued to any halibut PSC limit.

- *As long as at least one halibut was included in the groundfish CDQ landing, NMFS would not accrue any estimates of halibut PSC from the small vessel groundfish fisheries to the CDQ group's halibut PSQ or to any component of the BSAI halibut PSC limit.*
- *Even if the operator of a vessel fishing on behalf of a CDQ group intended to retain all legal sized halibut, if no halibut are included in the landing, NMFS will accrue an estimate of halibut PSC to the CDQ group's small vessel halibut PSC limit.*
- *If no halibut is included in a groundfish CDQ landing, NMFS would estimate the halibut PSC associated with these groundfish fishing trips based on application of the halibut PSC rates generated by the CAS. The estimated halibut PSC would accrue to the CDQ group's small vessel halibut PSC limit described at the end of this section.*

If the Council selects any of these sub-options, NMFS Alaska Region recommends that a small vessel groundfish CDQ fishery supported by a CDQ group's halibut PSC should be managed with a separate component of a CDQ group's halibut PSQ and in-season fishery closures issued by NMFS.

The following describes how NMFS would manage the small vessel groundfish fishery supported by halibut PSC.

- Each year NMFS creates a halibut PSQ account balance for each CDQ group with the amount of halibut PSQ allocated to that group. This process would continue.
- NMFS would create a new quota category for each CDQ group called small vessel halibut PSC limit. Each group would be allowed to transfer halibut PSC from its primary halibut PSQ to its "small vessel halibut PSC limit" through a standard transfer action. CDQ groups that do not wish to have a small vessel Pacific cod fishery would not have to transfer any halibut PSQ into this account.
- Each CDQ group would decide the appropriate amount of halibut PSQ to transfer into the "small vessel halibut PSC limit" based on the amount of Pacific cod or other groundfish it wanted to allocate to a small vessel fishery and expected halibut PSC in those fisheries. NMFS managers would work with each CDQ group to estimate the amount of halibut PSC that may be needed for the amount of Pacific cod or other groundfish that the CDQ group wanted to harvest with small vessels.
- The halibut PSC that would accrue to the small vessel halibut PSC limit would be based on applying halibut PSC rates following the CAS methods to the landed catch weight for each target groundfish delivery.
- Once a CDQ group's small vessel halibut PSC limit is reached, NMFS would issue a notice of closure in the *Federal Register* to directed fishing for that groundfish species by catcher vessels less than or equal to 46 ft. LOA using hook-and-line gear fishing for that CDQ group.

Under this approach, NMFS would be responsible to close the small vessel groundfish CDQ fisheries to stay within the halibut PSC limit each CDQ group established for its fishery. NMFS would be conservative in managing these fisheries to stay within the halibut PSC amount to the best of its ability. However, it is challenging to manage fisheries with small quotas or PSC limits within established limits. In addition, if the "precedence 20" halibut PSC rate²⁸ is the best available information, this estimate is not finalized until the end of year when all observer data is available to calculate the annual average PSC rates. Therefore, estimates of halibut PSC could increase or decrease after NMFS closed the fishery. If the closure date selected by NMFS resulted in estimates of halibut PSC that exceeded the amount allocated to the fishery by the CDQ group, this would not be considered an "overage" and NMFS could not require the CDQ group

²⁸ This rate is derived from all landings year-to-date by vessels in any processing sector using hook-and-line gear in a Pacific cod target in the BSAI.

to transfer in more halibut PSQ to cover this amount. However, CDQ groups could choose to transfer from their primary halibut PSQ to voluntarily cover the halibut PSC attributed to the CDQ group.

2.5 Comparison of Alternatives

The action alternatives represent the range of viable opportunities to accomplish the stated purpose and need for the action. Alternative 1 would not accomplish the purpose and need for the action.

Specifically there are many shared impacts expected to result from the action alternatives (Alternatives 2, 3, and 4). All increased Pacific cod retention opportunities among a CDQ small vessel fleet would:

- change regional and seasonal fishing patterns in a way that could mimic the halibut CDQ fishery (with more certainty under Alternative 2, but still likely under Alternatives 3, 4);
- require participants to obtain a Federal Fisheries Permit (FFP);
- have the potential to increase reporting error in CDQ accounting;
- not be expected to increase safety concerns;
- require participants to install and carry a vessel monitoring system (VMS) (except possibly under Alternative 2);
- redirect some portion of Pacific cod CDQ away from the freezer longliner (FLL) fleet;
- reduce CDQ groups' revenue received from leasing quota to FLL fleet;
- create some diseconomies of scale by moving harvest potential from vertically integrated FLL vessels to small catcher vessels. Will require the existence or the development of Pacific cod processing potential near CDQ communities;
- provide direct economic benefits to participants, and both direct and indirect economic benefits to communities from species diversification; and
- have variable economic impacts on CDQ groups.

While each of the alternatives is viable, the primary difference is the management techniques of the alternatives. Alternative 2 is the only action alternative that does not facilitate a directed Pacific cod CDQ fishery; however, it would still contribute to the goal of allowing for an opportunity to harvest more commercially marketable Pacific cod, as specified in the Purpose and Need in Section 1.1. Alternatives 3 and 4 essentially accomplish the same result (creating an opportunity for a small vessel Pacific cod CDQ fishery to emerge). The primary difference between them is that Alternative 3 would rely on the LLP license to act as a mechanism for at-sea identification and enforcement. Alternative 4 would rely on a NMFS-generated form of identification and online list of eligible vessels to demonstrate a participant's eligibility to prosecute a groundfish CDQ fishery, while creating an exemption from the LLP.

2.5.1 Rationale for the Council's Preferred Alternative

The Council adopted Alternative 4 with Option 1 and sub-Option 3.3 as the preferred alternative. The full description of this alternative and option set is listed in Section 2.4. The Council supported this suite of alternatives and options; adopting the recommendations and rationale from NMFS Alaska Region laid out in the descriptions of alternatives (Section 2.4) and impacts sections throughout this analysis.

The Council's PA exempts vessels greater than 32 ft. LOA and less than or equal to 46 ft. LOA that are authorized by a CDQ group to fish for groundfish CDQ from LLP requirements and places any vessel less than or equal to the 46 ft. LOA that is also authorized by a CDQ group to fish for groundfish CDQ, in the partial observer coverage category.

The status quo LLP and observer coverage requirements (Section 2.1) were two elements identified by CDQ group representative to be prohibitive to any small vessel opportunities for directed fishing Pacific cod CDQ. The Council strongly supported the intent of these modifications under the PA. It understood the action proposed to remove these difficult barriers was a way to allow for clear harvest opportunities among a small vessel, community-based fleet. The Council acknowledged that these opportunities were particularly important in light of recent declines in the halibut resource. The increased harvest opportunity would generally be available to those small vessels that have historically participated in the halibut CDQ fishery, thus the PA is expected to lessen some of the adverse impacts of a diminished halibut fishing opportunity. Forty-six ft. LOA was chosen as a threshold because it was explained to the Council that this was the largest privately owned CDQ member vessel in the fleets of all of the groups (Jeff Kaufman, personal communication, 10/8/2013).

An LLP exemption was chosen over other alternatives because NMFS Alaska region identified, and the Council maintained, that this alternative was the most straightforward policy choice. As discussed in greater detail in Section 3.10, Alternative 2 (raising the MRA for Pacific cod in the halibut CDQ fishery) could be environmentally problematic. This alternative would create a fishing opportunity in what would still be considered the “halibut CDQ fishery”; thus, rules and regulations would be specific to that fishery. This could create issues if increased levels of Pacific cod were removed from Steller sea lion critical habitat. This result could not be monitored as the halibut CDQ fishery does not necessarily require the use of VMS (see Section 2.1). Similarly, Alternative 3 (issuing LLP licenses specific for the small vessel participants of a Pacific cod CDQ fishery) was not the Council’s preferred use of a policy tool. As explained in Section 3.11.1, the direct objective of the LLP is to *limit* vessel count in a fishery. The proposed action would not use this tool to achieve its forthright objective. Therefore, an LLP exemption is the simplest and most precedented way to achieve the goal of the purpose and need set up for this action. Unlike Alternative 2, the PA expects to maintain insignificant net impacts on marine mammals. Additionally, while all alternative would impose some increased administrative burden, NMFS Alaska Region highlighted that Alternative 4 would provide some important mitigation to this administrative burden that would be present in other alternatives, for both NMFS and the CDQ groups (see Section 3.12).

Other elements of the PA were chosen to balance the scope of benefits by small vessel CDQ participants with proper monitoring and enforcement needs. Relying on the details of management set up in Section 2.4, the Council believes monitoring and enforcement issues will be appropriately addressed. This includes identification of eligible vessels with a two-step process: 1) an online list of eligible vessels 2) a NMFS-issued certificate required to be carried on board. The purpose of the on-board certificate is to enable vessels to prove their license exemption, in the event they are boarded by enforcement official (thus it would not be required on vessels less than or equal to 32 ft. LOA that are already exempt). Since participants would not be required to surrender their certificates of eligibility, the purpose of the online list is to provide clear understanding of which vessels would be subject to the provision laid out in the PA at a given time. As there are more management considerations other than just an LLP exemption under the PA, this list would include all eligible vessels regardless of size. Further evaluation of this identification process and other options considered by NMFS and Office of Law Enforcement (OLE) is included in Section 3.12.

The Council accepted NMFS Alaska Region’s recommendation of including Option 1 and *not* including Option 2 in the PA. Option 1 essentially revises the alternative to apply any provision established in this package to the groundfish CDQ fishery rather than just a Pacific cod CDQ fishery. NMFS Alaska Region recommended adopting this option for purposes of management consistency and enforcement as explained in Section 3.12.1. While it is not expected that other small vessel groundfish CDQ fisheries would develop, the Pacific cod CDQ fishery is not defined in regulation on its own (it is a subset of the groundfish CDQ fishery). Adding this consistent application to an already defined fishery would also minimize non-compliance if an individual haul happened to contain a higher percentage of groundfish CDQ species than the MRA for that species. Conversely, while NMFS Alaska Region highlighted the potential resource

conservation impact of Option 2, application of this action would be prevented by significant management and enforcement issues.

The Council chose to include Sub-option 3.3 in their PA. Under the condition that quota is made available to a participant by the CDQ group, this sub-option allows eligible small vessels fishing with hook-and-line the opportunity to 1) dual fish for Pacific cod CDQ, while also retaining halibut CDQ, 2) exclusively fish for halibut CDQ, while discarding Pacific cod (as under the status quo), or 3) fish for Pacific cod CDQ, while discarding halibut PSC. Section 2.4 contains a description of the full set of sub-options and the detail for the PA. The Council chose this sub-option in order to allow the CDQ groups maximum flexibility in deciding how to integrate Pacific cod CDQ fishing opportunities into their management structure and around their priority fisheries. In providing opportunity for the largest scope of participants compared to any of the other sub-options, the Council highlighted that this flexibility will help the participants take advantage of the fishing opportunity when it is available. The Council noted that this action was a model of an integrated management plan. It provides opportunity for conservation of both the Pacific cod and halibut resource.

The Council acknowledges that with the benefits of the increased flexibility in Sub-option 3.3 comes increase cost in terms of management, monitoring and catch accounting (these elements are laid out in Section 2.4). Due to the variation in the types of fishing trips that could occur under the PA, the CAS will be making assumption about the target species of a trip based on the species landed. Halibut PSC estimates will accrue on a trip-by-trip basis depending on the presence of halibut in a landing. Section 3.12.3 details of the trade-offs of allowing for this flexibility. This sub-option has the potential to create more opportunity for more individuals. However, some of the administrative costs are directly and positively correlated with the number of individuals taking advantage of the opportunity to target Pacific cod CDQ. The Council has identified the increased administrative burden to be justified when paired with the potential benefits to the participants. It has identified NMFS Alaska Region's description of the management and catch accounting procedure listed in Section 2.4 the appropriate way to structure the management so that it continues to account for the use of the resource.

The Council believes that elements under the PA are consistent with the overall purpose of the CDQ program as well as consistent with the Regulation of Harvest provision in the Magnuson-Stevens Act. It expects that the components of the PA will address objectives in National Standard 1, 5, 8, and 9 in particular. The Council also highlighted that provisions established by this action do not appear to be in conflict with or contrary to the purposes of the Halibut Act.

2.6 Alternatives Considered but not Analyzed Further

The initial proposal submitted by CDQ representatives requested direct exemptions for vessels less than or equal to 46 ft. LOA from VMS requirements. The February 2014 discussion paper identified significant enforcement and monitoring concerns for these exemptions. Consequently, the Council passed a motion that did not include analysis of direct exemptions from VMS requirements. Instead this analysis was tasked with examining the baseline burden of current VMS options for small vessels, and contrasting this with monitoring alternatives, such as Global Positioning System (GPS) electronic monitoring (EM). These options are investigated in Section 3.9.6

Under Alternative 4, Option 3, NMFS Alaska Region considered and eliminated three options for accruing an estimate of the halibut PSC for vessels less than or equal to 46 ft. LOA using hook-and-line gear directed fishing for Pacific cod to a CDQ groups halibut PSQ. The first option was using an estimate of halibut PSC associated with each landing as determined by the current CAS. The second option was using a standard halibut PSC rate based on prior year's observer data. NMFS Office of Law Enforcement (OLE) and NOAA General Counsel (GC) advised against any option that accrues to a transferable CDQ or PSQ allocation

catch estimates for a vessel that are derived from observer data from other vessels. This would include both of these two options. Exceeding a halibut PSQ is a regulatory violation (50 CFR 679.7(d)(3)). Using halibut PSC rates from other observed vessels or a pre-determined standard PSC rate would use indirect evidence as proof that a violation occurred. This evidence may not be legally sufficient to prove a halibut PSQ overage by a CDQ group since the PSC rates are estimates based on fishing by vessels other than the vessel attributed with the halibut PSC. OLE and NOAA GC are concerned that it would be difficult to provide evidence, i.e. a halibut PSC rate that meets the legal burden of proof, for the government to show that a particular CDQ group exceeded its halibut PSQ.

PSC rates can change throughout the season as observer data is debriefed or revised thereby creating uncertainty in management of strict limits such as exist in the CDQ Program. The CDQ groups could manage their fishery based on an estimated halibut PSC amount only to have the estimate get adjusted upward or downward later in the year as new observer data is added to the averaging calculation. In addition, the CDQ groups and their partner vessels may not consider data from other observed vessels to be representative of the small vessel CDQ catch, and NMFS Alaska Region may agree with this assessment in some cases. Observer coverage rates for small hook-and-line vessels in the BSAI are relatively low. These coverage rates provide data adequate to managing a fleet-wide PSC limit, but do not provide data adequate for estimating PSC by individual unobserved vessels for accrual to a transferable PSC limit. NMFS Alaska Region also considered accruing the estimated halibut PSC associated with the small vessel Pacific cod fishery to the non-CDQ halibut PSC limit for catcher vessels using hook-and-line gear to target Pacific cod in the BSAI. This approach has a number of advantages. It would avoid the concerns described above related to accruing estimates of halibut PSC based on observer data for other vessels to a transferable PSC limit. NMFS Alaska Region expects the small vessel Pacific cod CDQ fisheries to be limited and the amount of halibut PSC that will accrue from these fisheries to be small. The halibut PSC categories for hook-and-line gear were revised in 2008 with Pacific cod sector splits. Since then, NMFS has not had to close catcher vessels fishing for Pacific cod with hook-and-line gear in the BSAI due to reaching the halibut PSC limit. Relatively small amounts of halibut PSC from the small vessel Pacific cod CDQ fishery probably would not change the PSC closure status for the non-CDQ fisheries. However, this approach of accruing halibut PSC from the CDQ fisheries to the non-CDQ halibut PSC limit may not be desired. The CDQ groups may want to be accountable for their halibut PSC under PSC allocations to the CDQ Program. Non-CDQ sectors may think it unfair to have any amount of halibut PSC from the CDQ fisheries accrue to the non-CDQ halibut PSC limit. In addition, it is possible that NMFS Alaska Region's expectations are wrong and that significant amounts of halibut PSC could be associated with future small vessel Pacific cod CDQ fisheries and could constrain the non-CDQ fisheries.

3 Regulatory Impact Review

This Regulatory Impact Review (RIR) examines the benefits and costs of a proposed regulatory amendment to promote Pacific cod Community Development Quota (CDQ) harvesting opportunities, specifically for hook-and-line vessels that do not exceed 46 ft. LOA, fishing on behalf of a CDQ group. This chapter includes a description of the current Pacific cod CDQ and halibut CDQ fisheries, an analysis of the potential effects of the proposed action on achieving increased retention opportunities by adjusting the MRA or by promoting a directed groundfish CDQ fishery, and identification of the individuals or groups that may be affected by the action.

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 Statutory Authority

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

The Pacific cod fisheries in the EEZ off Alaska are managed under the two Fishery Management Plans FMPs for Groundfish; one for the Gulf of the Alaska (GOA), and the other for the Bering Sea and Aleutian Islands (BSAI). The proposed actions under consideration would amend the BSAI Groundfish FMP and Federal regulations at 50 CFR 679. Actions taken to amend FMPs or implement other regulations governing these fisheries must meet the requirements of Federal law and applicable regulations.

3.2 Purpose and Need for Action

The purpose of this action is to create a regulatory structure for the harvest of groundfish CDQ that promotes Pacific cod harvest opportunities for the small vessels that fish on behalf of a CDQ group, and effectively allows CDQ and IFQ halibut harvesters, operating vessels less than or equal to 46 ft. LOA, the ability to retain Pacific cod and/or other groundfish CDQ species in excess of the maximum retainable amount (MRA) provided for in the halibut fishery. Although the focus of this action is on developing additional opportunities for small boat Pacific cod CDQ fisheries, the proposed action would also allow development of other groundfish CDQ fisheries, should markets for these species develop in the future.

The difference between the requirements for halibut CDQ fishing and groundfish CDQ fishing means that any Pacific cod or other groundfish caught in the halibut fishery is generally not able to be retained by small vessels, for commercial use. Adjusting the regulations for these fisheries could reduce Pacific cod discards, and increase small vessel economic opportunities in the halibut CDQ fishery. Particularly in light of recent declines in halibut quota, small vessels that fish on behalf of a CDQ group would benefit from the ability to retain Pacific cod incidental catch for commercial sale, to supplement their income from halibut CDQ harvest. This action would be consistent with Magnuson-Stevens Act policy objectives of supporting employment and growth in these fishery-dependent communities.

3.3 Description of Alternatives

The alternatives that are analyzed in this package were adopted by the Council in February 2014, and revised in June 2014, to include a Preliminary Preferred Alternative (PPA). In October 2014, Option 3 of the PPA became Sub-option 3.1, and Sub-option 3.2 was added for additional analysis. NMFS Alaska Regional Office proposed the addition of Sub-option 3.3, for Council consideration in this document for final action. In February 2015, the Council took final action by identifying Alternative 4, with Option 1 and Sub-option 3.3, as its Preferred Alternative (PA). Since Option 1 expands the provision in the PPA, to include CDQ groundfish fishery allocations, rather than just the Pacific cod CDQ fishery allocation (a fishery that is not defined on its own in regulations, but is included under the definition of groundfish CDQ fishery), purpose and need, alternatives and options of the PA, and analysis have been updated to reflect this adoption, where appropriate.

The alternatives propose management measures that would apply exclusively to the CDQ fisheries.

Alternative 1. No action. Under this, the status quo alternative, vessels fishing CDQ halibut would continue to be allowed to retain incidentally caught Pacific cod, only up to 20 percent of their CDQ halibut landings, as stipulated under the existing maximum retainable amount (MRA).

Alternative 2. Increase the MRA of Pacific cod, up to 100 percent of the CDQ halibut landings for a hook-and-line catcher vessel less than or equal to 46 ft. LOA that is authorized to fish Pacific cod on behalf of a CDQ group. All Pacific cod caught within this threshold must be retained, and will accrue towards that CDQ group's Pacific cod allocations.

Alternative 3. Create a new CDQ LLP license for participating hook-and-line catcher vessels less than or equal to 46 ft. LOA. Vessels with the CDQ LLP license may participate in the CDQ directed Pacific cod fishery. Limit the number of LLP licenses each CDQ group would be provided. These LLP licenses would be non-transferable across CDQ groups. All Pacific cod caught by any such vessel must be retained and accrues towards the CDQ Pacific cod allocations. Vessels would be subject to the full coverage observer category, consistent with existing full coverage observer requirements.

Option 1: Place these vessels in the partial coverage observer category. Halibut caught would accrue against the PSQ allocation.

Option 2: Place these vessels in the partial coverage observer category. Require vessels to retain any incidentally caught halibut, which would accrue against the PSQ allocation.

Alternative 4. (PA)²⁹ The following provisions would apply to hook-and-line catcher vessels less than or equal to 46 ft. LOA while directed fishing for groundfish CDQ:

License Limitation Program: Vessels greater than 32 ft. LOA, but less than or equal to 46 ft. LOA, would be exempt from the LLP requirements.³⁰ Each CDQ group would be required to register each vessel greater than 32 ft. LOA, but less than or equal to 46 ft. LOA³¹ that it authorizes to conduct directed fishing for groundfish CDQ on its behalf. The online registration program would generate a letter from NMFS documenting that the vessel is exempt from the LLP while directed fishing for groundfish CDQ. Operators of vessels greater than 32 ft. but less than or equal to 46 ft. LOA would be required to maintain a copy of this letter onboard the vessel at all times while directed fishing for groundfish CDQ. CDQ groups could remove a vessel from this list at any time during the year, by notifying NMFS of this decision.

Observer coverage requirements: These vessels would be in the partial observer coverage category and subject to observer coverage requirements described in the Annual Deployment Plan.

Retention requirements: All groundfish caught must be retained³² and accrued towards the CDQ groundfish allocations.

Option 1 (*Adopted under PA*): Apply the proposed management measures to all vessels less than or equal to 46 ft. LOA using hook-and-line gear while directed fishing for any groundfish species allocated to the CDQ Program, except sablefish.

²⁹ In the Initial Review Draft of June 2014, Alternative 4 would “Exempt hook-and-line catcher vessels participating in the CDQ Pacific cod fishery with ≤46’ LOA from groundfish LLP requirements. All Pacific cod caught must be retained and accrues towards the CDQ Pacific cod allocations. Vessels would be in the partial coverage observer category.” The PA is a more detailed version of this alternative. It is based on continued analysis and largely shaped from NMFS Alaska Region recommendations presented in June 2014.

³⁰ Vessels less than or equal to 32 ft. LOA currently are exempted from the LLP requirements while fishing in the BSAI.

³¹ In the Public Review Draft of February 2015, the LLP element stated, “Each CDQ group would be required to register each vessel less than or equal to 46 ft.” The range of vessel LOA required to be registered in an online system with NMFS Alaska Region was amended following Council final action. Vessel registration, as well as the on-board vessel certificate of eligibility are intended to be an identification/ enforcement tool for vessels that would otherwise be subject to LLP requirements. As vessels less than or equal to 32 ft. LOA currently are exempted from the LLP requirements while fishing in the BSAI, NMFS Alaska Region concluded, after further deliberation, that it was not necessary for vessels less than or equal to 32 ft. LOA to be included in the online list of eligible vessels.

³² Unless it is a species for retention is prohibited under separate provisions (e.g., TAC is reached).

Option 2 (*Not adopted under PA*): Expand the current prohibition against discarding legal sized halibut while IFQ fishing to people fishing for halibut CDQ while the CDQ group has remaining halibut CDQ.

Option 3: Allow for a small vessel groundfish CDQ fishery, supported by halibut PSC.

Sub-option 3.1 (*Not adopted under PA*): In a situation when there is no halibut harvesting quota available (either CDQ or IFQ) to fund the CDQ small boat Pacific cod fishery, another workable alternative would need to be developed, such as a mutually acceptable halibut PSC rate system.³³

Sub-option 3.2 (*Not adopted under PA*): Each CDQ group participating in the small vessel Pacific cod CDQ fisheries shall annually determine the date upon which halibut catch accounting for the group's CDQ Pacific cod fishery switches from halibut PSC, to halibut CDQ (or participants' IFQ), and the date upon which the halibut catch accounting switches from halibut CDQ, back to halibut PSC. The switch dates shall be provided to NMFS, by each participating CDQ group by February 15, annually.

Sub-option 3.3 (*Adopted under PA*): Each CDQ group would be allowed the flexibility to decide, on a trip-by-trip basis, whether a small hook-and-line vessel fishing for groundfish CDQ would retain legal-sized halibut, under a halibut CDQ or IFQ allocation, or would discard all halibut and accrue halibut PSC associated with that fishing trip. The option to retain halibut CDQ and IFQ would be available only when the halibut fishery is open. When the halibut fishery is closed or if no halibut CDQ or IFQ is available, halibut must be discarded and PSC would accrue.³⁴

Under all alternatives, the analysis considers substitutes to VMS, such as a GPS electronic monitoring option for monitoring compliance with Steller sea lion protection measures, EFH, and HAPC closure areas.

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 Alternative 1, the no action alternative, with each other alternative. The analysis then provides an assessment of the net benefit to the Nation from the proposed action.

The data for this analysis were prepared by Alaska Fishery Information Network (AKFIN), using data from NMFS Alaska Region, Alaska Department of Fish and Game (ADF&G)/Commercial Fisheries Entry Commission (CFEC) Fish Tickets. The Pacific cod landings data, as well as all prohibited species catch (PSC) estimates within that Pacific cod fishery, were sourced from the NMFS Alaska Region Catch Accounting System, compiled by AKFIN in Comprehensive BLEND CA and Comprehensive PSC. ADF&G ADFG/CFEC fish tickets compiled by AKFIN in Comprehensive FT were used to estimate the

³³ In this sub-option, analysts interpreted, “when there is no halibut available” to mean outside of the IPHC-established halibut season for IFQ/CDQ fisheries and/or in the event that there was no halibut fishery in a season.

³⁴ This sub-option was included by NMFS Alaska Region in order to cover the range of management flexibility possible in developing a Pacific cod CDQ fishery supported by halibut PSC.

halibut CDQ fishery landings, value, and participation. This analysis also relied on NMFS Alaska Region halibut individual fishing quota (IFQ) data; the data source is used by the NMFS Restricted Access Management (RAM) Program and used as a second reference for the activity in the halibut CDQ fishery. The Gross Revenue Procedure prepared by AKFIN was also used to estimate vessel revenue diversification. The Procedure was developed by AKFIN in collaboration with Alaska Fisheries Science Center (AFSC), NMFS, and Council staff. The Procedure compiles multiple sources to estimate a vessel's total gross revenue, as well as specific revenue sources that pertain to this analysis.

3.5 Participation and Management of CDQ Fisheries

The MSA currently establishes the western Alaska CDQ Program under which a percentage of the total allowable catch (TAC) of any BS fishery is allocated to the program. The CDQ Program was established in order:

- (i) to provide eligible western Alaska villages with the opportunity to participate and invest in fisheries in the Bering Sea and Aleutian Islands Management Area;
- (ii) to support economic development in western Alaska;
- (iii) to alleviate poverty and provide economic and social benefits for residents of western Alaska;
- (iv) to achieve sustainable and diversified local economies in western Alaska.

Currently, 65 communities participate in the CDQ Program. Approximately 27,000 people reside in CDQ communities. These communities have formed six non-profit corporations (CDQ groups) to manage and administer the CDQ allocations, investments, and economic development projects. The six CDQ groups are:

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

Regulations establishing the CDQ Program were first implemented in 1992. The CDQ Program was incorporated into the MSA in 1996, through the Sustainable Fisheries Act (Pub. L. 104–297). Since the inception of the program, CDQ fisheries management regulations have continued to be developed and amended. The regulations governing the CDQ fisheries are integrated into the regulations governing the concurrent commercial fisheries for groundfish, halibut, and crab. These are often termed the “non-CDQ” fisheries. These regulations are to ensure that catch of all species allocated to the CDQ Program should be limited to the amount of the allocations, with no catch from CDQ fisheries accruing against non-CDQ allocations. They also were developed to ensure that NMFS and the CDQ groups have timely, accurate catch information during the course of CDQ fishing activities.

Applicable CDQ fisheries regulations may subject CDQ fishery participants to additional costs, additional catch reporting requirements, or be designed to control some aspect of CDQ fishing activities. This is typical of the development of regulations that govern catch share programs in the Alaska groundfish, halibut, and crab fisheries. Federal catch share programs convey harvesting privileges (e.g., licenses, fishing quota, exclusive access) for specific fish species to individuals, cooperatives, communities, or other eligible entities. In turn, the beneficiaries of such privileges are subject to higher levels of catch accounting, catch monitoring, and fisheries enforcement than they may have been subject to before receiving these privileges.

The original fishery management objectives for the groundfish, halibut, and crab CDQ fisheries include, in general, limiting the catch of all species to the amount allocated to the program and not allowing catch made under the program to accrue against non-CDQ portions of TAC limits or PSC limits. These objectives also included managing target and non-target species allocations made to the CDQ groups with the same level of strict quota accountability, and holding each CDQ group responsible not to exceed any of its groundfish CDQ allocations.

Catch monitoring and accounting requirements in the halibut and groundfish CDQ fisheries were developed to ensure that all groundfish CDQ catch information (of target and non-target species) could be estimated on a timely basis. This is necessary to allow CDQ groups to have the information needed to manage the catch of all of their allocations, in order not to exceed any particular quota. Existing CDQ catch monitoring and reporting requirements are structured to ensure that CDQ groups actively monitor the harvest of their allocations, and that groups take action to constrain their fishing activities should they reach or approach a particular allocation.

While NMFS manages the CDQ fisheries so that overall catch is limited to the amounts allocated to the CDQ Program, individual CDQ groups are expected to manage their own allocations. Each CDQ group has numerous fishing partners and vessels fishing for different species. The various CDQ fisheries are conducted in different areas of the BSAI, and at different times during the course of a given year. CDQ fisheries often occur in conjunction with non-CDQ fisheries (as in the pollock and flatfish fisheries). They may also occur when some non-CDQ fisheries are closed. CDQ groups are in the best position to monitor and manage the harvest of their quotas; the existing catch monitoring and management structure was intended to facilitate this process.

3.6 Description of the Pacific Cod CDQ Fishery³⁵

3.6.1 Total Allowable Catch and CDQ Group Allocations

CDQ groups are allocated 10.7 percent of the TAC for Pacific cod in a given season to be prosecuted without gear restrictions.³⁶ Ten percent of this amount is allocated directly to the groups as established by language in the MSA. The other 0.7 percent is allocated to the CDQ groups by the CDQ Program Panel, the Western Alaska Community Development Association (WACDA). WACDA's authority was also established in section 305(i)(1)(G) under other MSA amendments made when the President signed the reauthorization of the Act (The Coast Guard and Maritime Transportation Act of 2006) into law on January 12, 2007 (Public Law 109-241; July 11, 2006). WACDA is governed by a six-member board of directors; one member from each CDQ group. Members agreed upon the distribution of the additional 0.7 percent allocation for groundfish species in a letter to NMFS in 2008.

The proportion of the CDQ allocation that each CDQ group receives has fluctuated slightly over the course of the program. Before the creation of WACDA, NMFS and ADF&G took on more of the responsibility for management of the groups. During that period, the distribution of the CDQ allocation that each group received was re-approved every three years. The allocations that were approved and put into effect in January 2003 were extended by NMFS past their December 2005 approval period and have subsequently been incorporated into the MSA language through the reauthorization of the Act. Eligible groups are free to pursue voluntary transfers of their allocation before or after the harvest of a species, but total CDQ

³⁵ While the adoption of Option 1 in the PA expands provisions in this analysis to all groundfish species for which CDQ groups hold an allocation, the primary focus of action is the potential harvest of Pacific cod CDQ by small hook-and-line vessels, therefore background information is also focused on this fishery.

³⁶ The percent of TAC allocated to the CDQ groups has changed over the course of the program. The allocation rose from 7.5% of the Pacific cod TAC to 10.7% with Amendment 85 in 2008 (72 FR 50788, September 2007).

allocation cannot be exceeded. In 2012, and every ten years after, the State of Alaska is tasked with performing a program review. During this review, the State of Alaska may recommend to the Secretary of Commerce whether it is appropriate to reduce the allocations in MSA section 305(i)(1)(H)(iii)., by up to 10 percent.

Since the percent of quota allocated to the CDQ groups has been consistently proportional to the TAC since 2008, Table 3-1, demonstrates an increase in harvest ability for all groups from 2011 through 2013, compared to 2008 through 2010, as TAC increased for the whole fishery.

Table 3-1 Pacific cod CDQ allocations by group (in metric tons)

Year	TAC	Program Allocation	CDQ Reserve	APICDA	BBEDC	CBSFA	CVRF	NSEDC	YDFDA
<i>Percentages as of 2010</i>				15.45%	20.94%	8.86%	17.93%	17.87%	18.96%
2008	170,720	10.7%	18,267	2,819	3,822	1,631	3,272	3,261	3,461
2009	176,540	10.7%	18,890	2,918	3,955	1,674	3,386	3,375	3,582
2010	168,780	10.7%	18,059	2,790	3,781	1,600	3,237	3,227	3,424
2011	227,950	10.7%	24,391	3,768	5,107	2,161	4,372	4,358	4,625
2012	261,000	10.7%	27,927	4,314	5,847	2,475	5,006	4,989	5,296
2013	260,000	10.7%	27,820	4,298	5,825	2,465	4,987	4,970	5,275

Source: NMFS, Annual CDQ Group Quota Allocations

3.6.2 Participation in the Fishery

A CDQ group internally determines the percentage of its allocation to be used and set in reserve for incidental catch in other fisheries, and the percentage of the quota that will remain for directed Pacific cod fishing. To an extent, the CDQ groups may adjust these apportionments throughout the season to avoid leaving quota unharvested or to compensate for a high incidental catch year. The decision as to where the Pacific cod quota will be used depends on factors like a group's historical quota use, recent market conditions for Pacific cod, and a vessel's reputation for bycatch and PSC rates (Anne Vanderhoeven, BBEDC, personal communication, March 5, 2014).

The alternatives pursued in this action will not likely influence the internal allocation of Pacific cod CDQ, set aside for incidental catch in other fisheries. A change in CDQ internal allocation is expected to occur from the pool of quota used to directed fish for Pacific cod CDQ. Currently, without small local vessels participating in a directed Pacific cod CDQ fishery, the CDQ groups chiefly consolidate and harvest their allocation using a small number of catcher/processor vessel; or more specifically, freezer longline vessels (FLL). Quota consolidated onto a larger vessel that is not privately owned by a resident of a CDQ community is charged a lease rate, by the CDQ group, against the vessel gross revenue. This lease rate generally occurs at a market rate, regardless of the percentage of ownership the CDQ group may have in that vessel. Some CDQ groups own, or own equity in, hook-and-line vessels that have the ability to prosecute this fishery; consequently, quota management strategies are unique to each group.

- 1) APICDA's directed fishery for Pacific cod CDQ has traditionally been prosecuted by three FLLs: the F/V *Prowler*, F/V *Bering Prowler*, and the F/V *Ocean Prowler*. APICDA has a 20 percent equity ownership of each vessel (APICDA 2012; Luci Roberts, APICDA, personal communications, March 5, 2014).
- 2) BBEDC contracts with the F/V *Alaskan Leader*, F/V *Bering Leader*, F/V *Bristol Leader* and the recently built F/V *Northern Leader* for the directed fishing Pacific cod portion of their quota. However, in a given season, only one or two of these vessels are typically used. BBEDC has a 50

percent equity ownership interest in all four vessels (Anne Vanderhoeven, BBEDC, personal communication, March 5, 2014).

- 3) CBSFA harvests their allocation of Pacific cod by directed Pacific cod CDQ fishing on two catcher vessels (CVs), the F/V *St. Peter* and the F/V *St. Paul*. CBSFA holds 100 percent ownership of these vessels (CBSFA 2012).
- 4) CVRF owns and operates the F/V *Lilli Ann*, F/V *North Cape*, and F/V *Deep-Sea Pacific*, which have been the primary vessels directed Pacific cod CDQ fishing. CVRF also has a contract with an outside company operating F/V *Glacier Bay* and will occasionally rely on this vessel for additional harvest opportunities (Troy Wilkinson, CVRF, personal communication, March 6, 2014).
- 5) NSEDC's CDQ for directed Pacific cod fishing has traditionally been prosecuted outside the region by a number of external fishing companies. Recently, Pacific cod quota has been leased to F/V *Alaskan Leader*, F/V *Bering Leader*, and F/V *Bristol Leader*; three vessels co-owned by BBEDC. The F/V *Alaskan Mist*, F/V *Pavlof*, and F/V *Aleutian Sable* are also owned by outside fishing companies that have received NSEDC Pacific cod CDQ in the past (NSEDC 2013a; NSEDC 2013b; Simon Kinneen, NSEDC, personal communications, March 5, 2014).
- 6) YDFDA owns 85 percent and 41 percent equity in the F/V *Courageous* and F/V *Baranof*, respectively. Both of these vessels have been used in the past to participate in a directed Pacific cod CDQ fishery. Additionally, YDFDA has relied on a number of vessels for which other CDQ groups hold ownership share (i.e., F/V *Alaskan Leader*, F/V *Bering Leader*, F/V *Bristol Leader*, F/V *Prowler*, and F/V *Bering Prowler*). They have also contracted with vessels owned by a number of external fishing companies (i.e., F/V *Alaskan Mist*, F/V *Beauty Bay*, F/V *U.S. Liberator*, F/V *Alaskan Lady*, and F/V *Siberian Sea*) (YDFDA 2013).

Qualitative evidence suggests that these vessel operations are not dependent on this Pacific cod CDQ fishing as a primary source of revenue. A diversification table is a useful way to quantitatively understand the status quo of this primarily catcher/processor (C/P) fleet (i.e., the FLL fleet). Table 3-2 demonstrates vessel reliance on Pacific cod CDQ as a proportion of total BSAI Pacific cod revenue, as well as a proportion of total revenue in federal and state fisheries. This table represents only vessels directed Pacific cod CDQ fishing and not those that derive revenue from landing it as incidental catch.

The Pacific cod that accrues to the CDQ groups consistently comprises less than an average of 30 percent of a vessel's total gross revenue in a year. Although there is no basis for estimating how much Pacific cod quota would be redistributed to the small vessel fleet in each CDQ group, it would likely be a portion of this percent of an allocation and vary across groups. How the FLL fleet may be affected by this internal reallocation of Pacific cod CDQ is discussed in Section 3.9.7.

Table 3-2 Diversification of gross revenue for vessels that participated in the Pacific cod CDQ fishery from 2008 through 2012

Year	Sector ^a	Count of unique vessels	Average gross revenue ^b (in USD) for:		Average % of Pacific cod revenue from CDQ	Average of total gross revenue ^b (in USD)	Average % of total gross revenue from CDQ Pacific cod
			CDQ Pacific cod	BSAI Pacific cod			
2008	CP	19	1,966,852	6,261,970	28%	9,228,012	24%
	CV	0	0	0	-	0	-
2009	CP	19	1,201,314	4,268,217	27%	7,044,039	21%
	CV	2	***	***	***	***	***
2010	CP	16	1,709,003	5,435,174	31%	6,910,090	26%
	CV	1	***	***	***	***	***
2011	CP	15	2,452,779	7,617,972	32%	9,840,848	28%
	CV	2	***	***	***	***	***
2012	CP	15	1,942,169	5,759,186	40%	8,033,551	26%
	CV	5	508,496	1,159,317	42%	2,612,865	22%

Source: Gross Revenue Procedure compiled by AKFIN

Asterisks denote confidential data.

^a Catcher Vessel (CV) or Catcher/Processor (C/P)

^b Gross revenue represents ex-vessel value for shore-side deliveries and wholesale values for at-sea processing.

In the non-CDQ Pacific cod fisheries, hook-and-line catcher vessels have demonstrated an ability to harvest Pacific cod in the BSAI. For example, in 2014, five hook-and-line catcher vessels less than 60 ft LOA harvested over 2,000 mt of Pacific cod in the non-CDQ Pacific cod fisheries in the BS. Through July of 2015, five hook-and-line catcher vessels less than 60 ft have non-CDQ Pacific cod landings in the Pacific cod target fishery in the BS (total landings of 720 mt). These smaller catcher vessels fish primarily in State waters in NMFS management areas 518 and 519. In 2014 and through July 2015, there are 1) no recording landings by hook-and-line catcher vessels greater than 60 ft LOA in the BS or AI, and 2) no landings by catcher vessels less than or equal to 60 ft LOA in the Pacific cod target fishery in the AI.

3.6.3 Harvests

In the recent past, between targeted and non-targeted Pacific cod landings, there has been a relatively efficient use of the overall Pacific cod CDQ allocation, with low percentages of unharvested fish (Table 3-3).

Table 3-3 Total catch of Pacific cod CDQ compared to CDQ allocations from 2008 through 2013

Year	Total Catch (mt)	Quota (mt)	Remaining Quota (mt)	% Harvested	Last Week Catch (mt)
2008	18,181	18,267	86	100%	1,238
2009	18,552	18,890	338	98%	975
2010	18,029	18,059	30	100%	209
2011	22,847	24,391	1,544	94%	431
2012	24,402	27,927	3,525	87%	494
2013	25,689	27,820	2,131	92%	266

Source: NMFS, Catch Accounting Reports

As previously discussed, the vast majority of the Pacific cod CDQ allocation is harvested with hook-and-line gear by C/Ps, specifically the FLL fleet. Table 3-4 demonstrates the magnitude of retained and discarded harvest prosecuted by hook-and-line gear, compared to the other gear types.³⁷ Both retained and

³⁷ Total catch for this fishery is different from that reported in Table 3-3, because Table 3-4 includes Pacific cod caught as incidental catch in other fisheries. Additionally, different data sources provide slightly different unique vessel counts by year, e.g., Table 3-2 and Table 3-4.

discarded Pacific cod that is reported accrues towards the group's Pacific cod CDQ. The most predominant non-target species *caught* while targeting Pacific cod CDQ include (in rank order): skates, pollock, "other species," yellowfin sole, and sculpins. The non-target species *retained* while targeting Pacific cod CDQ include (in rank order): pollock, skates, "other species," yellowfin sole, and rock sole.

Table 3-4 Retained and discarded catch of Pacific cod CDQ and non-target catch while directed fishing for Pacific cod CDQ by gear type from 2009 through 2013

Gear	Year	Count of unique vessels	Pacific Cod		Non-target catch	
			Sum of retained (mt)	Sum of discarded (mt)	Sum of retained (mt)	Sum of discarded (mt)
Hook-and-line	2009	18	16,702.1	410.8	1,242.4	1,983.1
	2010	17	15,734.3	356.2	1,108.2	2,047.6
	2011	21	19,293.7	316.9	1,373.3	2,814.6
	2012	20	16,269.7	183.0	1,703.9	1,889.7
	2013	23	16,367.7	321.6	1,433.7	1,828.7
Pot	2009	3	292.8	0.0	0.1	0.0
	2010	2	***	***	***	***
	2011	1	***	***	***	***
	2012	17	3,502.5	2.8	1.2	14.8
	2013	22	3,004.6	0.0	0.7	28.9
Trawl	2009	11	8.8	0.0	28.6	1.4
	2010	10	0.6	0.0	72.6	1.0
	2011	16	34.8	0.2	62.0	10.6
	2012	27	1,379.7	2.0	158.8	73.0
	2013	14	698.2	1.1	757.0	162.8

Source: NMFS, Catch Accounting

Asterisks denote confidential data.

A small amount of Pacific cod CDQ was also reportedly caught with jig gear.

In addition to groundfish quota, such as Pacific cod, the CDQ groups are annually allocated various amounts of transferable prohibited species quota (PSQ), to be used to account for PSC. The NMFS Alaska Region catch accounting system uses halibut discard mortality rates (DMRs) based on the region (i.e., BSAI, Gulf of Alaska [GOA], or CDQ BSAI), gear type, and targeted species.

The halibut DMRs are developed and recommended by the International Pacific Halibut Commission (IPHC) and the Council, and approved by NMFS, for use in monitoring halibut PSC allowances. For example, for CDQ BSAI Pacific cod prosecuted by longline vessels, the assumed discard mortality rate used between 2010 and 2012 was 10 percent. This means that for every 1,000 kilograms of halibut PSC, 100 kilograms is believed to be dead.

Table 3-5 displays PSC in the directed Pacific cod CDQ fishery. Along with halibut, PSC includes species of salmon, herring, and crab. However, this fishery only had reports of halibut and non-Chinook salmon PSC from 2009 through 2013.

Table 3-5 PSC from directed Pacific cod CDQ fishery from 2009 through 2013 by all gear types

Year	Count of unique vessels	PSC	
		Halibut mortality (mt)	Estimated count of non-Chinook salmon*
2009	5	67.3	38.0
2010	4	73.1	4.0
2011	3	72.5	4.3
2012	4	70.6	0.0
2013	7	66.8	8.5

Source: NMFS, Catch Accounting

*No Chinook salmon PSC was reported in the directed Pacific cod CDQ fishery in these years.

3.6.4 Seasonal Allowances

The BSAI Pacific cod seasonal allowances are allocated by gear type, with some specification of vessel length (Table 3-6). If the CDQ group chose to consolidate its quota onto a vessel greater than or equal to 60 ft. LOA, that vessel would be required to follow the seasonal allowance specified for its gear type. For instance, since the vast majority of directed Pacific cod fishing occurs on larger FLL vessels (i.e., CDQ hook-and-line CPs), the A season for these vessels is January 1 to June 10. This is followed by a B season of June 10 to November 1. There is no C season for this fishery. Vessels less than 60 ft. LOA are permitted to directed fish for Pacific cod without seasonal allowances.

Table 3-6 Seasonal allowances for CDQ and non-CDQ directed Pacific cod fishing

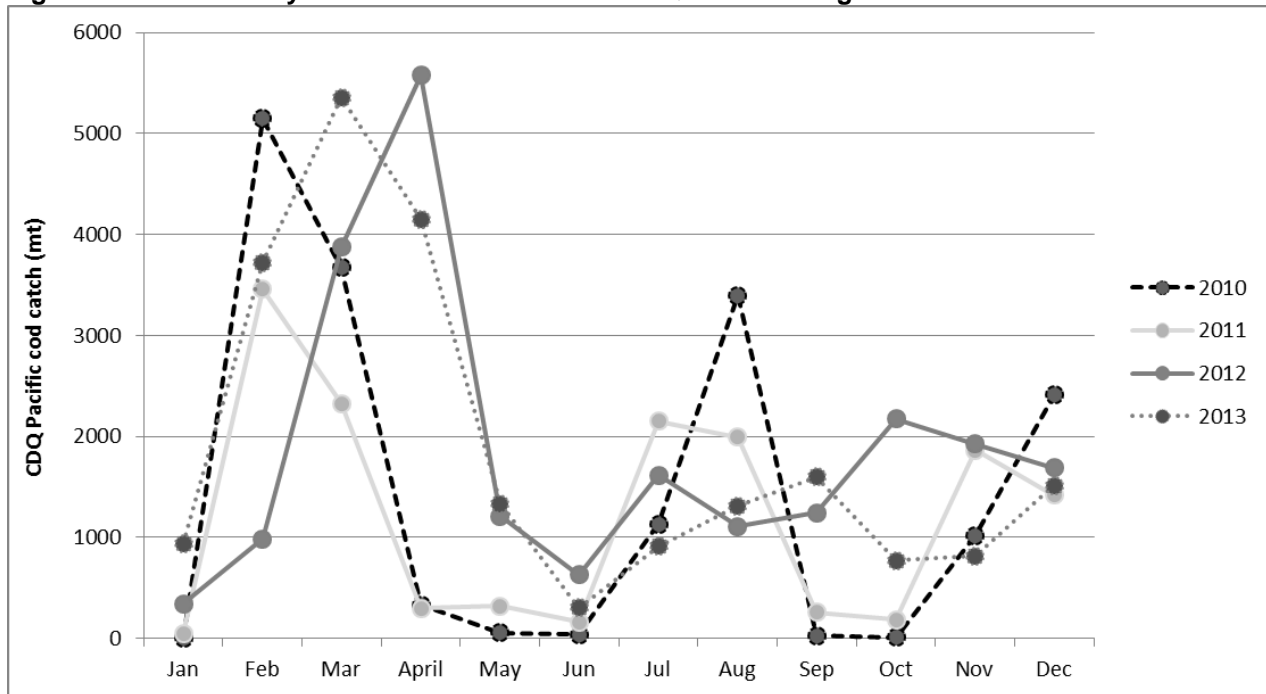
	Gear Type	A Season	B Season	C Season
CDQ	Trawl	Jan 20 - April 1	April 1 - June 10	June 10 - Nov 1
	Trawl CV	70%	10%	20%
	Trawl CP	50%	30%	20%
	Hook-and-line CP and hook-and-line CV ≥ 60' LOA	Jan 1 - June 10 (60%)	June 10 - Dec 31 (40%)	no C season
	Jig	Jan 1 - April 30 (40%)	April 30 - Aug 31 (20%)	Aug 31 - Dec 31 (40%)
Non-CDQ	Trawl	Jan 20 - April 1	April 1 - June 10	June 10 - Nov 1
	Trawl CV	74%	11%	15%
	Trawl CP	75%	25%	0%
	Hook-and-line CP and hook-and-line CV ≥ 60' LOA and pot vessel ≥ 60' LOA	Jan 1 - June 10 (51%)	June 10 - Dec 31 (49%)	no C season
	Jig	Jan 1 - April 30 (60%)	April 30 - Aug 31 (20%)	Aug 31 - Dec 31 (20%)

Source: 50 CFR 679.20(a)(7)(i)(B), 679.20(a)(7)(iv)(A), and 679.23(e)(5)

For both CDQ and non-CDQ, all other non-trawl sectors not represented here do not have seasonal allowances (e.g., hook-and-line CVs less than 60 ft. LOA).

Given that these seasonal allowances are required by the majority of the fleet prosecuting Pacific cod CDQ, it is not surprising to see spikes in the catch rate shortly after the A season opening in late February and then again in August for the B season (Figure 3-1). This is consistent with the harvest patterns of the non-CDQ Pacific cod fishery (NPFMC 2014a).

Figure 3-1 Monthly catch rate of Pacific cod CDQ in the Bering Sea



Source: NMFS, Catch Accounting

The harvest rate associated with Pacific cod CDQ in the AI is more irregular than for the BS. One source of this inter-temporal variation in the AI includes Steller sea lion protection measures. FR 70286 in 2014 established Pacific cod non-trawl fishery restrictions east of Atka Island covering Regulatory Areas 541, 518, and a small amount of 610.

In addition to area closures, monthly participation in the AI Pacific cod fishery demonstrates more variability than the BS fishery due to the small number of participants. In the past three years, an average of 19 vessels a year harvested Pacific cod CDQ in the AI. The monthly trends are not displayed here to protect confidentiality, given the limited number of vessels that prosecute the CDQ fishery in this area.

3.6.5 Pacific Cod Fishing in State Waters

Fishing for Pacific cod in state waters could occur in a “guideline harvest level” (GHL) fishery or a “parallel” fishery.³⁸ A vessel fishing for Pacific cod in a state GHL Pacific cod fishery is, by definition, not groundfish CDQ fishing, because any Pacific cod harvested in this fishery would accrue to the state GHL, rather than the federally managed Pacific cod CDQ fishery. Incidental catch of groundfish species managed under a Federal TAC during a GHL fishery accrues to the applicable TAC limit. There are two Pacific cod GHL fisheries relevant to participants of this analysis: one in the AI and one in the BS.

In the AI, CDQ vessels are able to fish Pacific cod CDQ in state waters only when the parallel AI Pacific cod fishery is open. Thus, a Pacific cod CDQ fishery cannot be prosecuted in most of the state waters in the AI sub-area during most of the year, because 1) when the state-waters cod fishery is open, the parallel fishery is closed to Pacific cod for all gear types, and 2) the state waters fishery is open most of the year. The GHL fishery is open in state waters for A season on January 1 from 175° W longitude to 178° W

³⁸ A parallel groundfish fishery occurs in waters of the State of Alaska (from 0 to 3 nm) adjacent to the BSAI or GOA management areas, under state regulations, and is open concurrently with a Federal groundfish fishery, and groundfish catch is deducted from the Federal TAC (50 CFR 679.2).

longitude to vessels 60 ft. or less using trawl, pot, and jig gear, and vessels 58 ft. or less using hook-and-line gear. Harvest occurring between 175° W longitude and 178° W longitude accrues toward the GHF, while harvest occurring in state waters outside of 175° W longitude to 178° W longitude is managed under parallel rules and accrues toward the Federal TAC. The GHF fishery opens to a larger area of state waters in March (outside of this small area), typically after the parallel trawl catcher vessel fishery closes, and usually stays open (with intermittent closures) until September.

In the BS, these vessels fishing for CDQ are able to fish Pacific cod CDQ in state waters only when the parallel BS Pacific cod fishery is open. The new state GHF fishery near Dutch Harbor (Area O) is limited to pot vessels less than 58 ft. LOA, and the fishery management plan establishes that the fishery will open seven days after the Federal BSAI less than 60 ft. LOA hook-and-line or pot gear fishery closes. This is typically in early February, closing the parallel fishery only to pot vessels less than 58 ft.; therefore, hook-and-line vessels are still able to fish in the parallel Pacific cod fishery, even when the state GHF fishery is open.

Other state waters in the BS maintain year-round parallel fisheries, allowing vessels less than 60-ft. LOA, using hook-and-line to fish for Pacific cod CDQ without closures. This is particularly relevant to the CDQ groups located farther north along the coast, including BBEDC, CVRF, YDFDA, and NSEDC, since the small vessels from this region typically do not participate in the AI or BS Pacific cod GHF fisheries or corresponding parallel fisheries.

3.6.6 Relevant Management Elements

Preliminary reports have identified three³⁹ regulatory elements that could be altered to encourage opportunities for the harvest of Pacific cod CDQ by small hook-and-line catcher vessels. This section details the management of these three elements: LLP licenses, observer coverage requirements, and the Pacific cod MRA for the halibut CDQ fishery. Table 2-1 in Section 2.1 compares the current regulations for hook-and-line catcher vessels in Federal waters of the BSAI for the halibut CDQ fishery, and the groundfish CDQ fishery including Pacific cod.

3.6.6.1 License Limitation Program (LLP)

The overall purpose of the LLP is to help resolve the competing and oftentimes conflicting needs of the domestic fisheries that developed under open access, and to close the gap between fishing capacity and available fishery resource. The LLP limits the number, size, and specific operation of vessels fishing crab and groundfish in the BSAI and GOA, based on historical participation.

Beginning January 1, 2000, an LLP groundfish license has been required for vessels participating in directed fishing for LLP groundfish species in the GOA or the BSAI. LLP groundfish means “target species” and the “other species” category specified annually pursuant to 50 CFR 679.20(a)(2), except that demersal shelf rockfish east of 140° W longitude, and sablefish managed under the IFQ program and fixed gear sablefish CDQ reserve, are not considered license limitation groundfish. The LLP does not apply to Pacific halibut or ling cod, which are not considered groundfish under the Federal FMP. LLP groundfish licenses are issued with area endorsements, operation types, gear endorsements, and a maximum length overall designation. There are four exceptions to the LLP license requirement:

³⁹ The original CDQ proposal also identified VMS installation and operation as a regulatory challenge for small vessels. Due to large management and enforcement concerns the consideration of exempting small vessels from VMS requirements was not carried on in this analysis. See discussion paper (NPFMC 2014b) for a description of current VMS management for CDQ vessels.

- Vessels that do not exceed 26 ft. LOA in the GOA;
- Vessels that do not exceed 32 ft. LOA in the BSAI;
- Vessels that do not exceed 60 ft. LOA and that are using jig gear (but no more than 5 jig machines, one line per machine, and 15 hooks per line) in the BSAI; and
- Certain vessels constructed for, and used exclusively in CDQ fisheries.

Therefore, CDQ CVs in this proposed action that are less than or equal to 32 ft. LOA are not required to hold an LLP license in the BSAI.

Since January 2003, persons wishing to participate in the directed fishery for Pacific cod in the BS and/or AI with vessels greater than or equal to 60 ft., using pot or hook-and-line gear, must have a gear-and-operation-type specific Pacific cod endorsement on the LLP license that names their vessel. Pacific cod endorsements are not required for trawl gear or jig gear or fixed gear vessels less than 60 ft.; for these gear types, licenses only need a trawl or non-trawl gear endorsement, respectively; and the appropriate operation type, and area endorsement(s). It is important to note that even with endorsements, an LLP license holder may participate in the directed Pacific cod fishery only in the subareas (BS and/or AI) for which their LLP license is endorsed.

Exceptions to the BSAI Pacific cod endorsement requirement at 50 CFR 679.4(k)(9)(iv):

- Any vessel exempted from the LLP;
- Any catcher vessel less than 60 ft. LOA;
- Any catch of Pacific cod for personal use bait.

Therefore, CDQ CVs relevant to this proposed action that are required to hold an LLP license (i.e., vessel greater than 32 ft., but less than or equal to 46 ft. LOA) are not required to have a BSAI endorsement for Pacific cod.

There are approximately 148 LLP groundfish licenses endorsed for the AI groundfish fishery and 366 LLP groundfish licenses endorsed for the BS groundfish fishery authorizing the use of non-trawl gear for 2014. This represents 379 unique licenses available for use.

The actual pool of LLP groundfish licenses available for use by CDQ small vessels is likely to be smaller than these counts may indicate. Generally, LLP licenses become increasingly valuable the greater the MLOA and the greater the number and type of endorsements. MLOA is a maximum size limit, so an LLP groundfish licenses with a 60 ft. MLOA could be used on a vessel less than 60 ft. LOA. However, under traditional market transfers, it would be unlikely for a 46 ft. LOA vessel owner to obtain a 120 ft. MLOA LLP license with the intention of participating in a Pacific cod fishery, given the high demand for and expense of this type of license. Table 3-7 is truncated to represent a more appropriate pool of licenses that could be available for the vessels specific to this analysis (i.e., vessels less than or equal to 46 ft. LOA and without the need for a Pacific cod endorsement).

Table 3-7 Count of LLP groundfish licenses less than 60 ft. length overall authorized using non-trawl gear for 2014

MLOA	BS	AI	BS or AI
18' - 32'	5	0	5
33' - 46'	21	3	21
47' - 58'	27	3	28
59'	55	17	56
Total < 60' MLOA	108	23	110

Source: NOAA Restricted Access Management (RAM)

About 36 percent of the BSAI LLP groundfish licenses under 60 ft. MLOA have been inactive (i.e., not recorded a landing in the State of Alaska) since 2012. About 64 percent of the BSAI LLP groundfish licenses with greater than or equal to 60 ft. MLOA and without a Pacific cod endorsement have been inactive since 2012.

3.6.6.2 Observer Coverage and Prohibited Species Quota (PSQ) Accounting

The Fisheries Monitoring and Analysis Division (FMA) Observer Program monitors groundfish fishing activities in the U.S. EEZ off Alaska, and conducts research associated with sampling commercial fishery catches, estimation of catch, bycatch, and PSC mortality, and analysis of fishery-dependent data. The FMA is responsible for providing NMFS-certified observers to obtain information necessary for the conservation and management of BSAI and GOA groundfish and halibut fisheries. The information collected by observers provides scientific information for managing the groundfish fisheries, minimizing bycatch, and avoiding PSC. Observers collect biological samples and fishery-dependent information on total catch and interactions with protected species. Managers use data collected by observers to monitor quotas, manage groundfish and prohibited species catch, and document and reduce fishery interactions with protected resources. Vessel operators are required to comply with all vessel responsibilities in 50 CFR 679.51(e)(1) and are subject to selection for observer coverage following procedures in the Annual Deployment Plan (ADP).

In 2013, the restructured Observer Program went into effect and changed how observers are deployed in the groundfish and halibut fisheries. The restructured Observer Program defines a full coverage category for all C/Ps and catcher vessels participating in programs with PSC limits or transferable PSQ. The CDQ Program is a program with transferable PSQ limits. Catcher vessels using hook-and-line gear or trawl gear to fish for groundfish CDQ species, other than sablefish or pollock, are in the full coverage category because their PSC accrues against the CDQ group's transferable PSQ limit. This limit on halibut PSC creates a potentially expensive limitation on the full harvest of allocated groundfish CDQ species, thereby creating an incentive to misreport. Catcher vessels using pot or jig gear to fish for groundfish CDQ species are in the partial observer coverage category because halibut PSC by these vessels does not accrue against the CDQ group's transferable halibut PSQ allocation. Similarly, non-CDQ hook-and-line catcher vessels harvesting Pacific cod are in the partial observer coverage category, because they are not in a program with an allocation of a transferable PSQ limit.

Owners of vessels in the full observer coverage category must contract for an observer to be onboard their vessel each day that it is fishing in a fishery that requires full coverage. Vessel owners contract with established observer providers. Full observer coverage costs on average \$371 per day, which includes the daily rate per observer day plus all other costs for transportation and other expenses (NMFS, 2015). In contrast, vessels in the partial observer coverage category pay a fee of 1.25 percent of the estimated ex-vessel value of catch landed in fisheries under partial observer coverage. In general, for small catcher vessels, the observer fee represents a lower proportion of gross revenues from a fishing trip than does the per day fee for full coverage.

The accounting of halibut landed under IFQ is treated the same as halibut landed under CDQ. If the catcher vessel is retaining halibut under the IFQ or CDQ halibut fishery, then the retained halibut accrues to an IFQ or CDQ halibut allocation and not a PSC or PSQ halibut limit. Any halibut that is discarded (e.g., it is less than the minimum legal size) during halibut fishing is considered “wastage” and is not considered PSQ.

Prior to 2013, shore-side and stationary floating processors were required to have observer coverage if there was a catcher vessel CDQ groundfish delivery. In 2013, observer coverage requirements for shore-side or stationary floating processors not receiving or processing Bering Sea pollock changed under the restructured Observer Program. These non-pollock shore-side or stationary floating processors are in the partial coverage category. Shore-side or stationary floating processors in the partial coverage category are only required to have a plant observer when they are selected by NMFS for observer coverage. They no longer contract independently with an observer provider for plant observers.

3.6.6.3 Maximum Retainable Amounts (MRA)

A maximum retainable amount (MRA) both limits and allows for some retention of species closed to directed fishing, while a vessel operator is engaged in fishing for species or species groups that are open to directed fishing (basis species). Specifically, an MRA is the maximum round weight of a species or species group closed to directed fishing that is established as a percent of a basis species and may be retained on board a vessel.⁴⁰ The percent of a species or species group closed to directed fishing retained in relation to the basis species must not be exceeded; additional amounts must be discarded. For example, when Pacific cod is open to directed fishing, and arrowtooth flounder (with an MRA of 35 percent) is closed to directed fishing, a vessel operator may retain a round weight equivalent amount of arrowtooth flounder of up to 35 percent of the round weight equivalent of the Pacific cod retained on board the vessel. In this example, all catches of arrowtooth flounder in excess of the 35 percent MRA must be discarded.

Most MRAs apply at any point during a fishing trip;⁴¹ however, an exemption exists at 50 CFR 679.20(e)(3)(iii) that assesses the MRA at the end of a fishing trip. Under this exemption, for all vessels not listed in subpart F of this section (i.e., non-AFA trawl vessels), the MRA for pollock harvested in the BSAI is calculated at the end of each offload and is based on the basis species harvested since the previous offload.

Currently, MRA percentages serve as a management tool to slow harvest rates and reduce the incentive for targeting species closed to directed fishing; however, the progenitors of the current MRA have been invoked to meet various management objectives. As mentioned above, MRAs allow for some retention of species closed to directed fishing, instead of requiring regulatory discards of these species. MRA percentages reflect a balance between the recognized need to slow harvest rates and minimize the potential for discards, and, in some cases, provide an increased opportunity to harvest available TAC through limited retention. It is important to note that the MRA for Pacific cod has never been increased as a way to increase the retention of Pacific cod for a single gear and operational type sector.

3.6.7 Existing Processing Capacity for Pacific Cod

The small count of unique vessels making Pacific cod CDQ shore-side landings from 2003 through 2013, constrains the ability to report quantitative processing data in this specific fishery, due to confidentiality. The pool of vessels delivering Pacific cod CDQ to shore-based processors in the past ten years includes twelve vessels less than or equal to 46 ft. LOA and seven vessels greater than 46 ft. LOA vessels. This group all delivered a small amount of Pacific cod CDQ to shore-side processors, most of which was likely

⁴⁰ Regulations at 50 CFR 679.20(e) and (f), and Tables 10 and 11 to 50 CFR part 679 establish MRA percentages for groundfish species and species groups.

⁴¹ 50 CFR 679.2

to have been incidental catch. Additionally, this pool includes two catcher vessels that represent the Pacific cod harvesting interest of the CDQ group CBSFA.

Similar to the CDQ fishery, the majority of Pacific cod targeted in the non-CDQ fishery is also harvested on C/Ps. The non-CDQ BSAI hook-and-line C/P sector (i.e., FLL fleet), the pot C/P sector, and the Amendment 80 sector, all have the ability to process catch on board, and together account for 64 percent of the non-CDQ TAC. Consequently, many shore-side processing plants have not historically had capacity for processing Pacific cod. Those that have are generally concentrated in the Aleutian Islands. Together, processors in Akutan, Dutch Harbor, and Adak made up about 98 percent of all BSAI shore-based processing for Pacific cod in 2012.⁴²

3.6.7.1 Unalaska/ Dutch Harbor

Unalaska is not a CDQ community. It is located on Unalaska Island and is approximately 800 miles southwest of Anchorage. The community's port is called Dutch Harbor, located on Amaknak Island and connected to Unalaska by a bridge. More BSAI crab and groundfish are landed in Dutch Harbor than in any other port in Alaska, and the fishery processing and support sectors have developed accordingly. The community's economy is heavily reliant on the BSAI commercial fisheries in general, as well as certain specific fisheries (e.g., most of the vessels participating in the BSAI Crab Rationalization Program depart from Dutch Harbor). In 2010, there were seven shore-side processors located in Unalaska (AFSC 2010). Between 2003 and 2013, four of these processors accepted Pacific cod and three facilities in Dutch Harbor processed some Pacific cod CDQ.

3.6.7.2 Akutan

Akutan is a member of the CDQ group APICDA. It is located on Akutan Island, which is one of the Krenitzin Islands of the Fox Island group. Akutan is the site of the largest processing shoreplant in North America, Trident Seafoods, but it is also the site of a community that is geographically, demographically, social, and historically distinct from the shoreplant. This "duality" of structure has had consequences for the relationship of Akutan to the Bering Sea commercial fisheries, including establishment of Akutan's status as a CDQ community. Initially (in 1992), Akutan was deemed not eligible for participation in the CDQ Program (along with Aleutian East Borough communities, King Cove and Sand Point, as well as nearby Unalaska) since the community was home to "previously developed harvesting or processing capability sufficient to support substantial groundfish participation in the BSAI...", though they met other qualifying criteria. The Akutan Traditional Council initiated action to show that the community of Akutan was separate and distinct from the seafood processing plant some distance away from the residential concentration of the community site. They sought to show that interaction between the community and the plant was limited, and that the plant was not incorporated into the community in a way that created opportunity for Akutan residents to meaningfully participate in BSAI fisheries. It was argued that the plant was essentially an industrial enclave or worksite separate and distinct from the traditional community of Akutan; and that few, if any, Akutan residents worked at the plant. With the support of APICDA and others, Akutan was successful in a subsequent attempt to become a CDQ community and obtained that status in 1996, joining APICDA (NPRB/NPFMC 2005).

⁴² Full profiles of each of these communities can be found at <http://www.afsc.noaa.gov/maps/ESSR/commercial/default.htm>.

This description highlights that while deriving economic benefits from the presence of a large shoreplant near the community proper, the community has in many ways not integrated this large-scale commercial activity with village daily life (NPRB/NPFMC 2005). Trident Seafoods' shoreplant is one of the primary facilities processing Pacific cod in the BSAI. In the past ten years, this has included a small percentage of Pacific cod CDQ.

3.6.7.3 Adak

Adak also is not a CDQ community. It is located on Kuluk Bay on Adak Island in the Aleutian chain. The Aleut Corporation acquired the majority of Adak's former military facilities in 2004. Since that time, the Aleut Corporation has continued its efforts to develop Adak as a civilian community with a private sector economy focused heavily on commercial fishing. Adak Fisheries LLC was the only shore-based processing company on the island, and had historically specialized in Pacific cod, halibut, and sablefish. The Adak processing plant has experienced a number of changes in ownership, business restructures, and periods of financial uncertainty. In September 2013, the Aleut Corporation's subsidiary Aleut Fisheries signed a 20-year lease with Adak Cod Cooperative to operate the Adak seafood facility. Under the new ownership of the Adak Cod Cooperative, the facility has transitioned from a "headed and gutted" operation, to a fillet operation. Pacific cod will continue to be one of their primary species of production (NPFMC 2014a).

3.7 Description of the Halibut CDQ Fishery

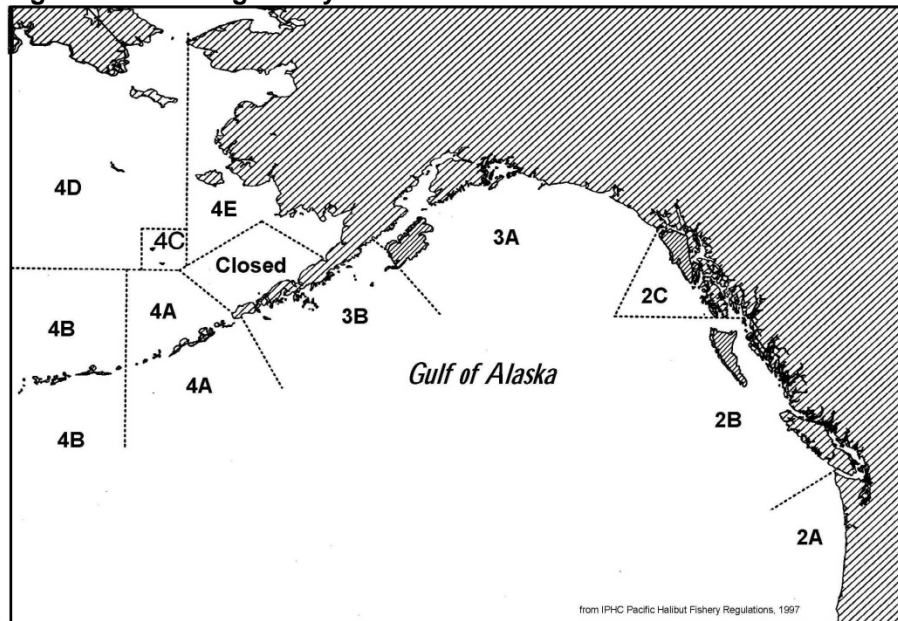
Under any of the three action alternatives (Alternatives 2, 3, or 4), it is difficult to predict the exact characteristics of the small CV fleet that may choose to target Pacific cod or other groundfish CDQ. The intention of the CDQ groups' initial proposal was to provide a complementary source of income for the small vessel halibut CDQ participants that have been affected by recent declines in the halibut stocks, without having to meet the existing LLP, observer, and VMS requirements. Whether an action directly pertains to the halibut fishery by increasing MRA levels for Pacific cod, or allows for additional small vessel opportunity to directed fish for Pacific cod, the pool of participants with the means and the motivation to take advantage of increased Pacific cod CDQ opportunity will likely be those currently participating in the halibut CDQ fishery. Therefore, it is appropriate to examine the characteristics of the CDQ small vessel halibut fishery in order to understand the behavior of a small vessel Pacific cod CDQ fishery in the future.

3.7.1 Management

Pacific halibut fisheries are regulated by the IPHC and NMFS, in consultation with the Council, as established under the terms of the Northern Pacific Halibut Act between the United States and Canada. In practice, the IPHC establishes TAC limits and other conservation measures, and the Council recommends regulations to govern the fishery, including limited access and allocation decisions. The Council also manages halibut PSC within other Federal fisheries.

The halibut regulatory areas were established with the formation of the IPHC in 1923, and initially included only four regulatory areas (numbered one through four). They have changed in their numbering and their geographic boundaries over the years to include ten different regions, but the current boundary lines have remained the same since 1990. The numbered areas begin in California and work their way northward (IPHC, 2013). While the CDQ Program first took effect in 1992, the allocations of halibut CDQ were established simultaneously with the implementation of the halibut/sablefish IFQ program in 1995. Halibut is allocated to CDQ groups in four regulatory areas: 4B, 4C, 4D, and 4E (Figure 3-2).

Figure 3-2 Regulatory areas for halibut in Alaska



Source: IPHC, 2013

The IPHC Annual Report describes the location of these regions (2012):

Area 4B— waters surrounding the Western Aleutian Islands. This includes “all waters in the Bering Sea and Gulf of Alaska west of Area 4A and south of 56°20’00” N. latitude.” In Area 4B, 20 percent of the halibut TAC is allocated to the CDQ groups.

Area 4C— a “square” of water surrounding the Pribilof Islands in the Bering Sea. It is measured as “all waters in the Bering Sea north of Area 4A and north of the closed area, which are east of 171°00’00” W. longitude, south of 58°00’00” N. latitude, and west of 168°00’00” W. longitude.” In Area 4C, 50 percent of the halibut TAC is allocated to the CDQ groups.

Area 4D— Northwestern Bering Sea. More specifically, it includes “all waters in the Bering Sea north of Areas 4A and 4B (56°20’00” N. latitude), north and west of Area 4C, and west of 168°00’00” W. longitude.” In Area 4D, 30 percent of the halibut TAC is allocated to the CDQ groups.

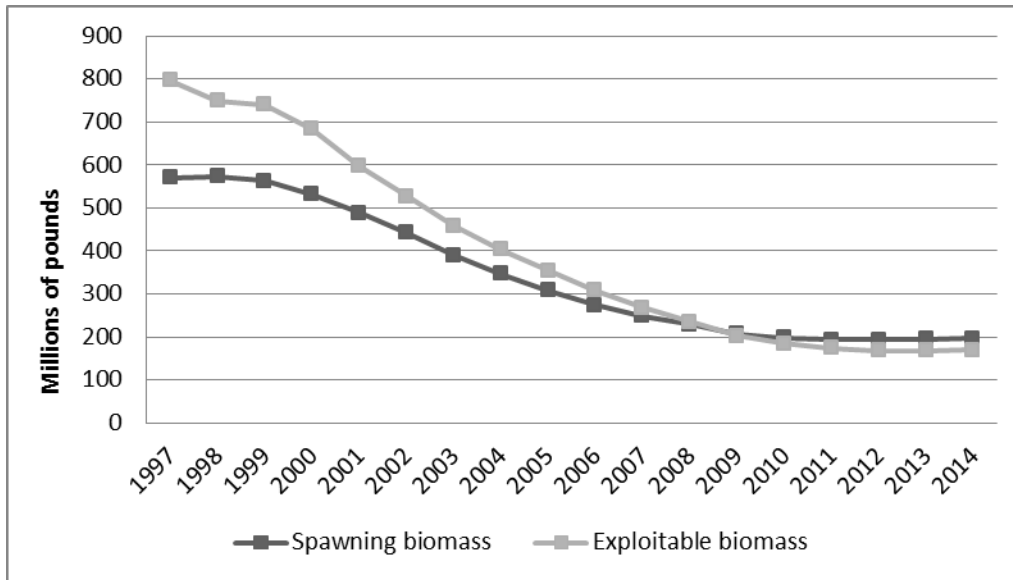
Area 4E— Northeastern Bering Sea, including “all waters in the Bering Sea north and east of the closed area, east of 168°00’00” W. longitude, and south of 65°34’00” N. latitude.” In Area 4E, 100 percent of the halibut TAC is allocated to the CDQ groups.

3.7.2 Annual Catch Limits

3.7.2.1 Total Allowable Catch

Pacific halibut has historically been a central species for many types of fishing operations in the North Pacific, including the small vessel fisherman in the communities that make up the CDQ groups, but also the commercial IFQ operations, subsistence users, charter fleets, individual sport fishing, and as a limiting agent in other directed fisheries. Therefore, the dramatic decline in biomass levels (as demonstrated in Figure 3-3) has greatly impacted users from all user groups.

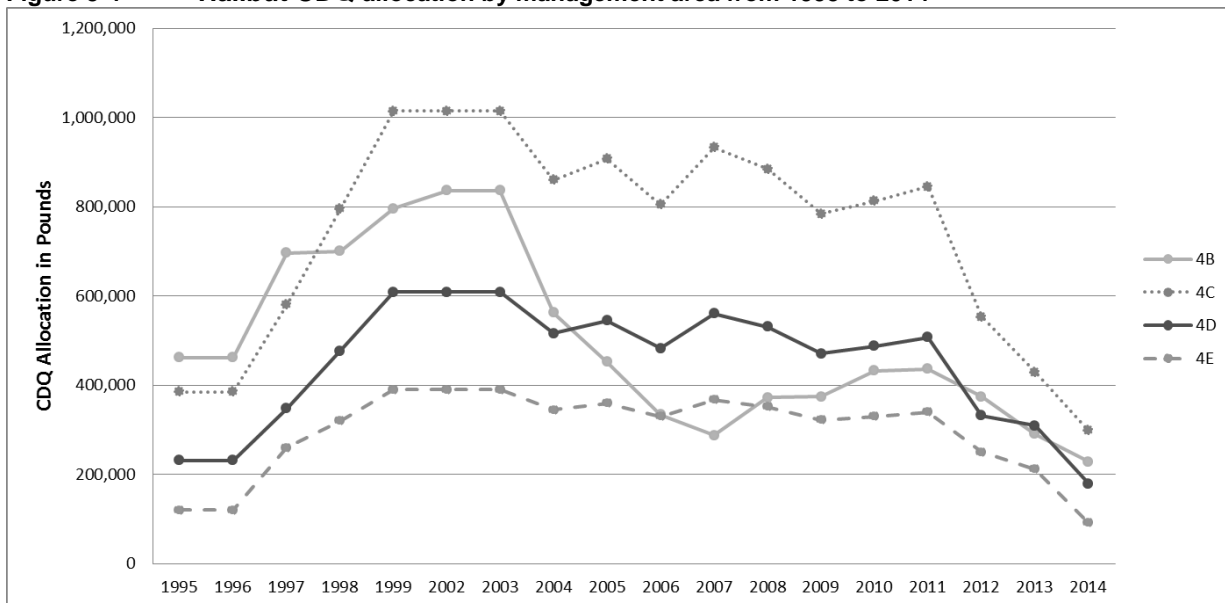
Figure 3-3 Median population estimates from the IPHC’s ensemble approach to evaluate stock assessment from 1997 to 2014



Source: IPHC Report of Assessment and Research Activities 2013

The declining stocks have led to lower TACs in all four regions for which CDQ is assigned. This trend has been particularly severe over the last three years (Figure 3-4).

Figure 3-4 Halibut CDQ allocation by management area from 1995 to 2014



Source: NOAA Restricted Access Management (RAM)

Note: Values for 2000 and 2001 were omitted because apportionments for Areas 4D and 4E were combined in RAM reports.

3.7.2.2 CDQ Group Allocations

Allocations of halibut quota were 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 (Table 3-8). For instance, Area 4B is located in the Aleutian Islands where the full CDQ allocation (30 percent of TAC) is held by APICDA. Area 4C surrounds the Pribilof Islands and the CDQ portion of the TAC is split 85 percent to St. Paul Island's CBSFA and 15 percent to APICDA, which includes St. George Island as a member. The large BS halibut area of 4D halibut CDQ is split 20 percent to YDFDA, 30 percent to NSEDC, 24 percent to CVRF, and 26 percent to BBEDC. Seventy percent of the final Area 4E halibut CDQ is allocated to CVRF and 30 percent to BBEDC. In addition to CDQ group transfers, there is some fishing flexibility within the halibut regulatory areas as well. The CDQ allocation of 4D may be fished in 4D or 4E and the allocation of 4C may be fished in 4C or 4D.

Table 3-8 Annual halibut CDQ allocation by regulatory area (all units in net headed and gutted pounds)

Area	Year	TAC	Program Allocations	CDQ Reserve	APICDA	BBEDC	CBSFA	CVRF	NSEDC	YDFDA
4B	2008	1,860,000	20%	372,000	372,000	0	0	0	0	0
	2009	1,870,000		374,000	374,000	0	0	0	0	0
	2010	2,164,000		432,000	432,000	0	0	0	0	0
	2011	2,180,000		436,000	436,000	0	0	0	0	0
	2012	1,869,000		373,800	373,800	0	0	0	0	0
	2013	1,450,000		290,000	290,000	0	0	0	0	0
	2014	1,140,000		228,000	228,000	0	0	0	0	0
4C	2008	1,769,000	50%	884,500	132,675	0	751,825	0	0	0
	2009	1,569,000		784,500	117,675	0	666,825	0	0	0
	2010	1,625,000		812,500	121,875	0	690,625	0	0	0
	2011	1,690,000		845,000	126,750	0	718,250	0	0	0
	2012	1,107,356		553,678	83,052	0	470,626	0	0	0
	2013	859,000		429,500	64,425	0	365,075	0	0	0
	2014	596,600		298,300	44,745	0	253,555	0	0	0
4D	2008	1,769,000	30%	530,700	0	137,982	0	127,368	159,210	106,140
	2009	1,569,000		470,700	0	122,382	0	112,968	141,210	94,140
	2010	1,625,000		487,500	0	126,750	0	117,000	146,250	97,500
	2011	1,690,000		507,000	0	131,820	0	121,680	152,100	101,400
	2012	1,107,356		332,207	0	86,374	0	79,730	99,662	66,441
	2013	859,000		257,700	0	67,002	0	61,848	77,310	51,540
	2014	596,600		178,980	0	46,535	0	42,955	53,694	35,796
4E	2008	352,000	100%	352,000	0	105,600	0	246,400	0	0
	2009	322,000		322,000	0	96,600	0	225,400	0	0
	2010	330,000		330,000	0	99,000	0	231,000	0	0
	2011	340,000		340,000	0	102,000	0	238,000	0	0
	2012	250,290		250,290	0	75,087	0	175,203	0	0
	2013	212,000		212,000	0	63,600	0	148,400	0	0
	2014	91,800		91,800	0	27,540	0	64,260	0	0
All Areas	2008	5,750,000		2,139,200	504,675	243,582	751,825	373,768	159,210	106,140
	2009	5,330,000		1,951,200	491,675	218,982	666,825	338,368	141,210	94,140
	2010	5,744,000		2,062,000	553,875	225,750	690,625	348,000	146,250	97,500
	2011	5,900,000		2,128,000	562,750	233,820	718,250	359,680	152,100	101,400
	2012	4,334,002		1,509,975	456,852	161,461	470,626	254,933	99,662	66,441
	2013	3,380,000		1,189,200	354,425	130,602	365,075	210,248	77,310	51,540
	2014	2,425,000		797,080	272,745	74,075	253,555	107,215	53,694	35,796

Source: NMFS, Annual CDQ group quota allocations 2008 through 2014

3.7.2.3 Seasons

The halibut CDQ season corresponds with the halibut IFQ season and is established by IPHC under the authority of the Northern Pacific Halibut Act. This is generally a 9-month season and does not include any A and B seasonal allocation restrictions.

Table 3-9 Season dates for fishing Pacific halibut under the IFQ and CDQ programs

Fishing Year	Season Begin Date	Season End Date
2008	8-Mar	15-Nov
2009	21-Mar	15-Nov
2010	6-Mar	15-Nov
2011	12-Mar	18-Nov
2012	17-Mar	7-Nov
2013	23-Mar	7-Nov
2014	8-Mar	7-Nov

Source: NOAA Restricted Access Management

3.7.3 Harvests

3.7.3.1 Target Catch in Halibut Fishery

Table 3-10 displays allocations and retained catch from targeted halibut fishing. As previously displayed in Table 3-8, Area 4B and Area 4C represent the fishing efforts of fewer than three CDQ entities. Since a CDQ group is considered an “entity” for purposes of confidentiality, much of this catch information is confidential. Table 3-10 is able to display allocations and retained catch from targeted halibut fishing in Regulatory Areas 4D and 4E. Since the 4D allocation may be fished in 4D or 4E and harvest is debited from the account for the reported harvest area, 4E landings usually appear over-harvested. However, 4D does not illustrate the under-harvest to balance this account since, similarly the 4C allocation may be fished in 4C or 4D, and, consequently, 4D landings still appear over-harvested, and while 4C (although blocked for purposes of confidentiality) is proportionately under-harvested.

Table 3-10 Halibut CDQ retained catch, and allocations (in headed and gutted pounds) by regulatory area for 2008 through 2014

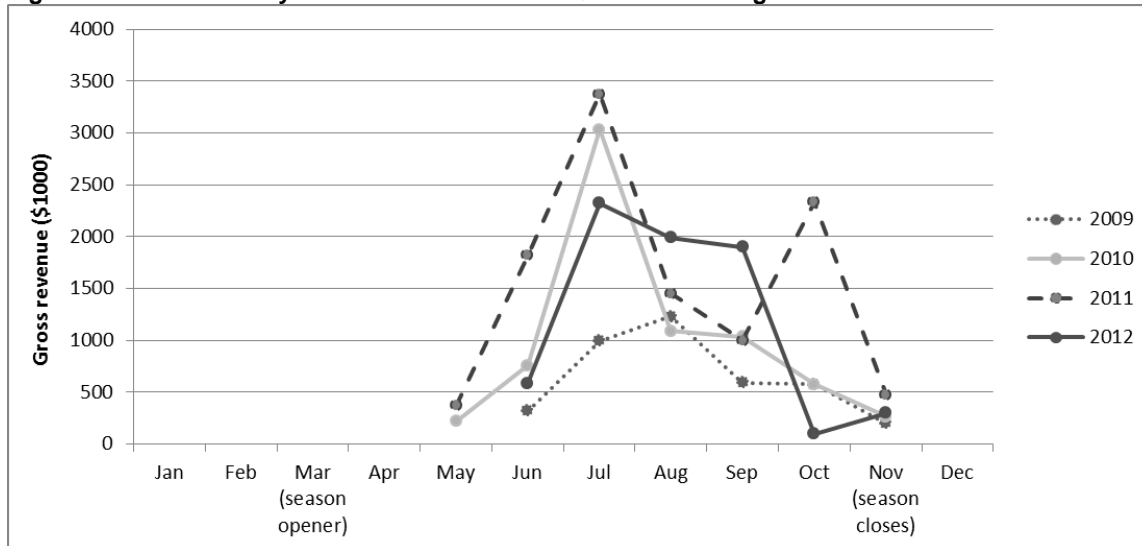
Year	Area	Allocation Pounds	Vessel Landings	Total Catch Pounds	Percent Landed
2008	4B	372,000	***	***	***
	4C	884,500	***	***	***
	4D	530,700	81	482,641	91%
	4E	352,000	1,664	587,958	167%
	Total	2,139,200	2,311	2,108,813	99%
2009	4B	374,000	***	***	***
	4C	784,500	***	***	***
	4D	470,700	124	535,918	114%
	4E	322,000	1,271	440,866	137%
	Total	1,951,200	1,808	1,855,979	95%
2010	4B	432,000	***	***	***
	4C	812,500	***	***	***
	4D	487,500	185	450,083	92%
	4E	330,000	1,281	411,502	125%
	Total	2,062,000	1,957	1,968,437	95%
2011	4B	436,000	***	***	***
	4C	845,000	***	***	***
	4D	507,000	134	449,329	89%
	4E	340,000	1,416	456,743	134%
	Total	2,128,000	2,094	2,023,154	95%
2012	4B	373,800	***	***	***
	4C	553,678	***	***	***
	4D	332,207	200	284,443	86%
	4E	250,290	939	330,378	132%
	Total	1,509,975	1,561	1,446,764	96%
2013	4B	290,000	***	***	***
	4C	429,500	***	***	***
	4D	309,240	165	160,877	52%
	4E	212,000	876	279,910	132%
	Total	1,240,740	1,462	1,066,864	86%
2014	4B	228,000	***	***	***
	4C	298,300	***	***	***
	4D	178,980	***	***	***
	4E	91,800	***	***	***
	Total	797,080	***	***	***

Source: NOAA Restricted Access Management Reports, 2008–2014

Note: Asterisks denote confidential data.

While the fishing season officially begins in late March (with some annual fluctuation), harvest typically does not occur until later in the spring and summer (Figure 3-5). This delay is a consequence of ice and weather conditions in the harvest areas, as well as harvestable stock availability.

Figure 3-5 Monthly catch rate of halibut CDQ for 2009 through 2012



Source: ADF&G Fish Tickets

3.7.3.2 Non-target Catch in CDQ Halibut Fishery

One of the primary motivations for the proposed action is that hook-and-line participants catch Pacific cod incidental to halibut. However, vessels less than 60 ft. LOA are not required to carry a Federal groundfish logbook during their fishing trips, unless they have been issued a Federal fisheries permit (FFP). Pacific cod that is not retained for commercial sale would be discarded or retained to be used as bait; although, given the minimal data on these activities, it is suspected that this information is not well reported and, thus, these removals not well accounted for.

Prior to 2013, observers were not placed on vessels fishing for halibut. Once the restructured Observer Program was implemented in 2013, vessels greater than or equal to 40 ft. LOA have been placed in a partial observer coverage category. Therefore, observer data can now be used to calculate at-sea discards for halibut catcher vessels. While it is known that some Pacific cod is caught as incidental catch in the halibut CDQ fishery, since observer coverage on small vessels only began in 2013, it is difficult to estimate their magnitude. This is relevant to all types of discards, including PSC.

The incidental Pacific cod caught while halibut CDQ fishing that is landed for commercial sale is minimal, as without a groundfish FFP, CDQ members are prohibited from retaining groundfish for commercial sale.⁴³ Moreover, there is a lack of groundfish processing capacity in most of the plants that process halibut CDQ. In most cases, retained Pacific cod would need to be hand cut or shipped elsewhere for further processing.

3.7.4 Participation in the Fishery

In contrast to the current operations of the Pacific cod CDQ fishery, the vast majority of halibut CDQ is prosecuted by fleets of catcher vessels less than or equal to 46 ft. LOA. From 2009 through 2013, the fishery was prosecuted by a fleet with an average of 95 percent of vessels not exceeding 46 ft. LOA, and an average of 91 percent of vessels not exceeding 32 ft. LOA (Table 3-11). Table 3-11 also demonstrates the different compositions of the halibut CDQ fleets within each CDQ group.

⁴³ All vessels that fish for CDQ from a group with an allocation of sablefish CDQ (all groups but CVRF) are required to retain sablefish CDQ. Therefore they must have an FFP.

Table 3-11 Count of unique vessels in each CDQ group landing halibut CDQ from 2009 through 2013

CDQ Group name	Vessel length	Year				
		2009	2010	2011	2012	2013
APICDA	≤22	1	3	2	4	3
	23- 32	4	4	5	8	7
	33-46	0	2	2	3	2
	>46	4	5	7	9	5
APICDA total		9	14	16	24	17
BBEDC	≤22	2	1	2	2	1
	23- 32	11	9	11	20	14
	33-46	0	0	0	0	0
	>46	2	2	1	2	1
BBEDC total		15	12	14	24	16
CBSFA	≤22	0	0	0	0	0
	23- 32	13	15	15	14	13
	33-46	3	3	3	3	3
	>46	1	1	2	1	1
CBSFA total		17	19	20	18	17
CVRF	≤22	94	85	101	79	100
	23- 32	76	73	80	73	79
	33-46	1	0	1	0	0
	>46	1	1	0	0	0
CVRF total		172	159	182	152	179
NSEDC	≤22	0	0	0	14	13
	23- 32	6	4	4	5	1
	33-46	4	3	3	3	2
	>46	3	2	3	2	1
NSEDC Total		13	9	10	24	17
YDFDA	≤22	0	0	0	0	0
	23- 32	0	1	0	0	0
	33-46	0	0	0	0	0
	>46	1	1	2	1	0
YDFDA Total		1	2	2	1	0
All CDQ Groups	≤22	97	89	105	99	117
	23- 32	110	106	115	120	114
	33-46	8	8	9	9	7
	>46	12	12	15	15	8
Grand Total		227	215	244	243	246

Source: ADF&G Fish Tickets

Table 3-12 uses vessel LOA to demonstrate the distribution of harvest among participants.⁴⁴ This table illustrates the targeted catch and average catch per vessel, by vessel length. For instance, in 2013, vessels greater than 46 ft. LOA harvested an average of 20 times more Pacific halibut, than vessels less than 30 ft. LOA. Consequently, the harvest of halibut CDQ by vessels greater than 46 ft. LOA has comprised about 35 percent of the harvest across all CDQ groups in the past five years.

⁴⁴ There are some differences across Table 3-10, Table 3-11, Table 3-12. Table 3-10 Halibut CDQ retained catch, and allocations (in headed and gutted pounds) by regulatory area for 2008 through 2014 and Table 3-12 both use RAM data; however, the reported pounds harvested are consistently larger in Table 3-10. It could be that the RAM reports are including halibut incidental catch from groundfish or other fishery that is accruing to the CDQ halibut allocation. Additionally, the vessel count between Table 3-11 and Table 3-12 is slightly different. This could be due to vessels reported fishing for more than one CDQ group in a given year. These discrepancies across tables are minor and common when comparing different data sources.

Table 3-12 Retained halibut CDQ by length of vessel in headed and gutted pounds from 2009 through 2013

Year	Length of vessel overall	Pounds landed	Distinct vessels	Mean pounds per vessel
2009	<30 ft	552,845	195	2,835
2010		656,785	183	3,589
2011		623,306	208	2,997
2012		497,309	189	2,631
2013		448,617	206	2,178
2009	31-36 ft	344,190	27	12,748
2010		417,998	25	16,720
2011		476,525	28	17,019
2012		327,929	30	10,931
2013		272,973	26	10,499
2009	37-46 ft	152,417	6	25,403
2010		113,799	4	28,450
2011		156,178	5	31,236
2012		103,044	6	17,174
2013		65,133	4	16,283
2009	>46 ft	777,176	7	111,025
2010		750,384	8	93,798
2011		749,178	10	74,918
2012		490,678	11	44,607
2013		263,397	6	43,900
2009	All LOA	1,826,628	235	7,773
2010		1,938,966	220	8,813
2011		2,005,187	251	7,989
2012		1,418,960	236	6,013
2013		1,050,120	242	4,339

Source: NOAA Restricted Access Management

The halibut CDQ fleet is not only inherently different from the Pacific cod CDQ participants; it is also different from the non-CDQ halibut participants, or IFQ fleet. The 2012 Addendum to the Fishing Fleet Profiles illustrates the IFQ fleet to be composed of primarily mid-size vessels; about 75 percent of the fleet is between 30 feet and 59 feet LOA⁴⁵ (Fey & Ames 2012).

A diversification table also can help create a more robust understanding of additional fleet fishing activity. For instance, Table 3-13 illustrates that small vessels fishing halibut CDQ are generally not also fishing halibut IFQ. In fact, of the 918 reported landings of halibut CDQ between 2009 and 2012, inclusively, only 47 additionally reported landing halibut IFQ. Table 3-13 demonstrates that users of both CDQ and IFQ for halibut are generally the few vessels that are greater than 46 ft. LOA. Table 3-13 demonstrates that halibut CDQ is the primary source of revenue from all fishing activity for vessels that do not exceed 32 ft. LOA.⁴⁶ As discussed in Section 3.7.3.2, there is a small amount of Pacific cod CDQ reportedly being landed by vessels in association with halibut CDQ.

⁴⁵ This represents vessels that land both halibut IFQ and CDQ, as well as those vessels that only land halibut IFQ.

⁴⁶ Count of vessels reported in Table 3-13 reports a slightly different number of vessels than in Table 3-11 and Table 3-12.

Table 3-13 Diversification of gross revenue for vessels that participate in the halibut CDQ fishery by LOA from 2009 to 2012

Year	Vessel length	Count of vessels:		Average gross revenue ¹ from (in USD):			Average % of gross revenue:	
		Total unique vessels	Landing CDQ Pacific cod	CDQ halibut	All halibut ²	All fishing activity	From halibut dependent on CDQ	Dependent on CDQ
2009	<=32' LOA	207	0	9,156	9,378	14,014	99%	90%
	33-46' LOA	7	2	70,414	74,661	111,483	97%	69%
	>46' LOA	9	4	168,691	761,341	579,316	33%	23%
2010	<=32' LOA	193	2	17,758	18,887	24,112	99%	92%
	33-46' LOA	8	0	118,497	127,602	183,543	91%	66%
	>46' LOA	10	2	258,779	1,059,735	760,156	46%	41%
2011	<=32' LOA	220	1	23,095	23,172	27,911	100%	94%
	33-46' LOA	8	1	201,446	250,603	296,266	88%	64%
	>46' LOA	11	3	375,322	1,814,627	1,058,898	32%	24%
2012	<=32' LOA	217	0	16,951	18,107	24,815	98%	88%
	33'-46' LOA	9	2	129,946	140,487	203,263	92%	63%
	>46' LOA	13	2	180,231	963,670	665,572	27%	19%

Source: ADF&G Fish Tickets

a. All vessels are catcher vessels; therefore, gross revenue represents ex vessel value.

b. Gross revenue includes CDQ and IFQ halibut.

3.7.5 Existing Processing Capacity for Halibut CDQ

Between 2000 and 2014, halibut CDQ landings took place in 27 ports (Table 3-14). St. Paul, Atka, and Dutch Harbor received the largest landings, by weight, of halibut CDQ, respectively. The only CDQ group that is not represented by one of the ports is YDFDA, which generally consolidates the small amount of 4D quota it has access to, and leases it to one or two vessels greater than 46 ft. LOA.

Table 3-14 Port of halibut CDQ landings from 2000 to 2014

Association*	Port	Count of unique landings
AK	Adak	7
APICDA	Akutan	16
APICDA	Atka	97
AK	Bristol Bay	6
CVRF	Chefornak	249
BBEDC	Dillingham	113
AK	Dutch/ Unalaska	62
BBEDC	Egegik	29
CVRF	Goodnews Bay	8
AK	Homer	3
CVRF	Hooper Bay	72
AK	King Cove	6
CVRF	Kipnuk	208
AK	Kodiak	2
CVRF	Mekoryuk	472
BBEDC	Naknek	32
NSEDC	Nome	125
AK	Nunivak Island	222
AK	Other AK	105
CVRF	Quinhagak	136
AK	Sand Point	5
NSEDC	Savoonga	80
APICDA	St George	68
CBSFA	St Paul	301
BBEDC	Togiak	233
CVRF	Toksook Bay	688
CVRF	Tununak	502
Grand Total		3847

Source: NOAA Restricted Access Management

* "Association" does not necessarily indicate that the shore-side processor(s) in that region is (are) affiliated with the CDQ group of the region, simply that it exists within a CDQ community. AK represents an Alaskan port not in a CDQ community.

3.8 Analysis of Impacts: Alternative 1, No Action

If no action is taken by the Council, the regulations governing the CDQ fishery would remain consistent with the status quo (See Section 2.1). In other words, directed Pacific cod CDQ fishing could only occur aboard a vessel that was federally permitted (FFP), with a Pacific cod endorsement, an LLP license, carrying VMS, and (if subject to it) full observer coverage. Additionally, federally permitted vessels targeting halibut CDQ that do not meet all of the provisions to target Pacific cod would be prohibited from retaining Pacific cod over the 20 percent MRA on board at any time during a trip⁴⁷ (CDQ vessels may also retain Pacific cod for personal bait).⁴⁸

⁴⁷ However, 50 CFR 679.27(b) and (c), Improved Retention/ Improved Utilization Program (IR/IU) does not apply to these vessels, because they are not groundfish CDQ fishing (i.e., directed fishing for a groundfish species); therefore, halibut CDQ participants have the option to discard Pacific cod or to retain it up to the MRA.

⁴⁸ 50 CFR 679.27(g).

No vessel in the GOA or BSAI may fish for groundfish, including incidentally caught groundfish, without obtaining an FFP.⁴⁹ Any vessel halibut CDQ fishing in the EEZ, except a CVRF operation, is required to obtain an FFP, even if it does not retaining any groundfish, because such a vessel is required to retain any sablefish harvested, as long as the CDQ group has remaining sablefish CDQ from the fixed gear sablefish CDQ reserve. CVRF is the only CDQ group with an allocation of halibut CDQ in an area in which it has no allocation of sablefish CDQ; therefore, its participants are not be required to obtain an FFP.

Under the regulatory status quo, a CDQ vessel less than or equal to 46 ft. LOA using hook-and-line gear may directed fish for Pacific cod CDQ in a state-waters parallel fishery, without an FFP or LLP license if it is fishing exclusively in state waters. If the vessel does not have an FFP and is not retaining halibut in this parallel fishery, it is not subject to observer coverage. If the vessel is either retaining halibut or has an FFP (or both), the vessel is then subject to full observer coverage, despite prosecuting a state-water only parallel fishery. The vessel must also adhere to VMS coverage requirements if it is retaining any Pacific cod.

It is also possible that a CDQ vessel could prosecute the open access Pacific cod fishery in state waters when the parallel fishery is open by landing the Pacific cod unassociated with a group. Again, this would not require an FFP, LLP license, or observer coverage if there was no retention of halibut and the vessel is exclusively fishing state waters.

While Alternative 1, the no action alternative, would keep existing regulations at status quo, there are several other elements to consider when comparing Alternative 1 to the baseline conditions. The purpose and need statement of this analysis highlights an economic disruption that has and may continue to occur due to declines the halibut resource. Therefore, economic and community stability that is currently dependent on a productive halibut market may result in Alternative 1 diverging from the baseline conditions. Without an opportunity for a diversification of fisheries, Alternative 1 may represent declining economic activity within those communities with a high reliance on the halibut resource. Moreover, with continued declines in halibut catch limits, total allowable MRA of Pacific cod caught incidental to CDQ or IFQ halibut would also decline proportionally. If this trend were to continue, Alternative 1 may be unlike the baseline conditions in that a smaller amount of incidentally caught Pacific cod would be able to be retained for commercial sale.

3.9 Analysis of Impacts: Action Alternatives (Alternatives 2 through 4)

The action alternatives, Alternatives 2, 3, and 4 would result in several shared impacts for stakeholders and enforcement. This section describes a suite of possible economic and management related impacts that are appropriate to consider, under all of these alternatives. Evidence used to support an understanding of these impacts is retrospective and, in many cases, drawn especially from the halibut CDQ fishery.

3.9.1 Impacts on Seasonal Fishing Patterns

As was demonstrated in Section 3.6, vessels that have historically participated in the Pacific cod CDQ fishery were generally hook-and-line greater than or equal to 60 ft. LOA, and, therefore, must adhere to an A and B seasonal allocation. The A and B seasons for these vessels have historically been continuous, open from January 1 to December 31. Thus, seasonal allocations have generally not been more restricted than for vessels less than 60 ft. LOA that do not have seasonal allocations.

Action alternatives differ in their seasonal flexibility. Under Alternative 2, increased retention of Pacific cod would be conditional on the halibut CDQ seasons (i.e., generally mid-March to November). Similarly,

⁴⁹ 50 CFR 679.4(b)(1) and (2)

Alternative 3 Option 2 and Alternative 4, as specified in the PA, require halibut CDQ or IFQ to fund the incidental catch accounting of halibut in the Pacific cod fishery. Therefore, these alternative combinations would also be fully dependent on the halibut season.

In Alternative 3, Option 1, all halibut caught in the Pacific cod CDQ fishery would be required to be discarded and accrue as PSC. Therefore, the Pacific cod CDQ fishery would not be constrained by the halibut season. Similarly, Alternative 4, with the consideration of Option 3 would allow participants the opportunity to prosecute a Pacific cod CDQ fishery during the halibut season (and accrue incidentally caught halibut to CDQ or IFQ accounts) or prosecute a Pacific cod CDQ fishery outside of the halibut season (and charge estimates of halibut PSC off of a their transferable PSQ). Under these scenarios, with a mild winter, CDQ participants may choose to fish for Pacific cod CDQ in late spring. Under more typical winter conditions, CDQ participants would be expected to take advantage of a summer Pacific cod fishery, either before or at the same time as the halibut CDQ fishery.

3.9.2 Impacts on Regional Fishing Patterns

As explained in Section 4.1.3, regional fishing patterns may differ from the status quo under the alternatives. A change from Pacific cod harvest on FLL vessels to small halibut CDQ vessels means that some harvest could shift from the areas described in Figure 1-2 to near-shore waters closer to local communities and processors. Alternatives 2 through the revised Alternative 4 will only be effective in regions where the Pacific cod stock is already available; therefore, more near-shore fishing may occur by CDQ groups around the Aleutian and Pribilof Islands and some Western Alaska communities. The increased magnitude of Pacific cod fishing in these near-shore areas depends on the quantity of Pacific cod already being caught as incidental catch in the halibut CDQ fishery. The magnitude of this potential increase is difficult to quantify as much of these catch data are not currently reported. Furthermore, since halibut CDQ vessels are not currently required to carry VMS, there is no basis for predicting the precise areas where Pacific cod would be prosecuted by CDQ small vessels under an action alternative.

Under Alternatives 3, 4, and revised 4, vessels would still be required to carry VMS. Therefore, any change in regional fishing patterns would be documented using VMS after they occur. Under Alternative 2, vessels would still be considered “halibut CDQ fishing” and, therefore, they would not be required to carry VMS.⁵⁰ The amount of Pacific cod retained, under the proposed action, would be able to be gleaned from landings data; however, there would be some uncertainty around the precise regions in which the harvest occurred.

3.9.3 Permit Requirements

FFPs are required for all vessels used to fish for groundfish in the GOA or BSAI, that retain any incidental catch of groundfish while targeting non-groundfish in the 3 to 200 mile EEZ off Alaska, or that participate in fisheries in which they are required to retain groundfish.⁵¹

Currently, a small number of halibut CDQ participants hold an FFP. In 2013, there were only 17 federally permitted vessels that fished halibut CDQ and only seven of these were less than 46 ft. LOA. Therefore, all vessels that did not previously have an FFP and would be retaining Pacific cod under Alternatives 2, 3, or 4 would need to obtain an FFP. These permits are free and not restricted in number.⁵²

⁵⁰ There are some exceptions. For instance, federally permitted vessels fishing halibut in the AI are required to carry VMS.

⁵¹ 50 CFR 679.4(b)(1)

⁵² Applications are available at: <http://alaskafisheries.noaa.gov/ram/ffpapp.pdf>.

3.9.4 Impacts on Reporting

When a vessel landing Pacific cod reports harvest on an ADF&G fish ticket or *eLandings*, the CDQ group's number is also self-reported on the ticket, and this amount of harvest is then debited from that CDQ group's quota. Misreporting a landing that is not CDQ or reporting an incorrect CDQ group number are types of errors that can occur in the present NMFS CAS. These errors have occurred in the past. For instance, a FLL vessel might fish for Pacific cod under two CDQ groups' quotas and incorrectly specify the CDQ number for each harvest on the fish ticket. This is something that can be retroactively corrected if the agency or quota managers notice the error. All action Alternatives introduce a greater frequency of entities using Pacific cod CDQ. This creates an increased likelihood of misreporting.

3.9.5 Impacts on Safety

All action alternatives could have an impact on safety. Both the Pacific cod CDQ and halibut CDQ fisheries are well established, and these actions would generally just allow for the internal reallocation of quota from some larger vessels with previous experience catching Pacific cod to smaller vessels with previous experience catching (but not necessarily retaining) Pacific cod. Particularly under Alternative 2, in which additionally retained Pacific cod would be directly dependent on the halibut CDQ fishery, there would unlikely be increased probability of a safety-related incident onboard a vessel. Alternatives and options that do not explicitly link the Pacific cod and halibut CDQ fisheries may carry the possibility of incentivizing participants to prosecute a Pacific cod CDQ fishery earlier in the season than the traditional opener for the halibut season. Pacific cod CDQ fishing in late winter and early spring in small vessels could pose more safety concerns. There is no clear basis of measuring the extent of this increased risk. However, given the CDQ groups' certainty of their allocation at the beginning of the season, and their full calendar-year during which they may choose the appropriate time to participate, no significant increase in risk is anticipated.

3.9.6 Vessel Monitoring System (VMS) Requirements

Any vessel using hook-and-line, pot, or trawl gear, that has a species and gear endorsement on its FFP for directed fisheries for pollock, Pacific cod, or Atka mackerel are required to have an operating VMS when participating in these fisheries.⁵³ Therefore, under Alternative 1, the no action alternative, any vessel wishing to participate in a directed Pacific cod CDQ fishery must install and operate a VMS unit on board at all times.

VMS is a necessary tool for fisheries management and enforcement in Alaska. It is a tamperproof system, set to report a vessel identification and location to the NOAA Office of Law Enforcement (OLE) at fixed 30-minute intervals. The regulation for its requirement was put in place under the emergency interim rule to implement Steller sea lion protection measures in 2002 (67 FR 956, January 8, 2002). VMS was required to ensure that vessels comply with area restrictions and provide enforcement a tool to monitor compliance.

Any vessel that is required to be federally permitted and operating in the Aleutian Islands subarea, and adjacent state waters, is required to have VMS under 50 CFR 679.28(f)(6)(ii). This regulation was implemented under the final rule that identifies and describes essential fish habitat (EFH), designating habitat areas of particular concern (HAPC), and measures to minimize, to the extent practicable, adverse effects on EFH (71 FR 36694, June 28, 2006). VMS was required to efficiently enforce closure areas related to EFH and HAPC. During this action, an alternative to exempt vessels less than 32 ft. LOA in the Aleutian Islands was considered. However, the Council determined that the potential for small vessels to employ bottom contact gear in protected EFH and HAPC waters in the Aleutian Islands subarea made it necessary for all vessels to carry VMS to efficiently enforce closure areas.

⁵³ 50 CFR 679.28(f)(6)(i)

It is due to this potential interaction with Steller sea lions and other protected species and their habitat, that the Council is not considering direct exemptions from VMS under the action alternatives at this time. With Alternatives 3, 4, or the revised Alternative 4, small vessels interested in Pacific cod CDQ fishing would be required to install and operate VMS, regardless of the size of vessel.

However, under Alternative 2, small vessels regulated by this action would still be considered halibut CDQ fishing and not targeting groundfish. Therefore, they may not be required to carry VMS; however, there are some scenarios that do still require those vessels fishing halibut to carry VMS. As previously discussed, if the participant operates a vessel required to be federally permitted in reporting areas located in the AI subarea or operate a federally permitted vessel in adjacent State waters, then that vessel must install and operate a VMS. Additionally the vessel would be required to carry VMS if the CDQ vessel is also targeting sablefish in the Bering Sea or Aleutian Islands IFQ regulatory areas.⁵⁴ Section 4.3 raises the concerns and expectation with allowing the potential of increased retention of Pacific cod by the halibut fishing vessels that do not have VMS, as outlined in Alternative 2. Consultation with the NMFS Protected Resources Division would have likely needed to occur if this were the Council's preferred alternative.

3.9.6.1 Current Technology for VMS on Small Vessels

A practical hurdle to the VMS requirement is that no commercial fishing vessel less than 30 ft. LOA has installed and used VMS in the North Pacific region to date.⁵⁵ This is not to say it cannot be accomplished. It is the vessel owner's responsibility to obtain a NMFS-approved VMS transmitter and have it installed on board in accordance with instructions provided by NMFS.⁵⁶ Vessel operators must use VMS units supplied by vendors approved by NOAA OLE. Approval is required to ensure integration of privately supplied VMS units and NOAA OLE data processing capabilities. VMS transceiver units approved by NMFS are referred to as type-approved models. A list of approved VMS units is available from the NOAA OLE.⁵⁷ Participants are encouraged to communicate with providers of NMFS-approved units to find a system that would work for their size and type of vessel.

A representative from the NMFS-approved vendor, Faria WatchDog Inc., provided general clarification on the limitations and level of burden for these units for small vessels. Faria WatchDog has previously installed VMS units on vessels 18 ft. LOA to 600 ft. LOA throughout the country and internationally (Pete Harpin, Faria WatchDog Inc., personal communication, May 8, 2014). This company provides sophisticated additions for the basic system (e.g., touch screen terminals, which can provide the user real-time information and send emergency notifications). However, CDQ vessels are not required to augment the basic system. As an example of the unit, Appendix A.6 contains a manual and diagram.⁵⁸ These systems consist of:

- The VMS itself — a box about the size of a car radio containing a GPS and VHF radio — should be bolted into wood or metal. The system is “weather resistant,” but it can also be fitted in a waterproof box if it is likely to be submerged in water.
- A GPS antenna to pick up satellite signals
- A VHF antenna to transmit the report to a satellite

⁵⁴ 50 CFR 679.42(k)

⁵⁵ In the Alaska region, there is one vessel registered with VMS at 30 ft., two at 31 ft., and twelve at 32 ft. LOA.

⁵⁶ 50 CFR 679.28(f)(3) Copies of the VMS installation and operation instructions are available from the Regional Administrator.

⁵⁷ The list of NMFS type-approved VMS units is available at http://www.nmfs.noaa.gov/ole/docs/2014/051414_noaa_fisheries_service_type.pdf.

⁵⁸ For more information about this system see http://www.fariawatchdog.com/site/fwi_products_750_sb.php.

- A 12–24 volt DC battery or power source
- Cables that connect the unit to the two antennas

For small vessels that do not have any other power sources on board, the battery can run several days to a week before needing to be connected to a power source and recharged. With the appropriate connection, they also can charge off of an engine. Regulations generally do not require these units to be running when the vessel is in port.⁵⁹

The VMS transmitters should be installed by a NMFS-approved dealer. Many of the CDQ communities are difficult to reach and do not host a NMFS-approved vendor. In this case, a company like Faria WatchDog would work with marine dealers or someone in the community to be trained and certified to install the product. Burden of installation depends on the style of vessel and the process could range from ten minutes to two hours.⁶⁰

There are both fixed and variable costs associated with the installation and operation of a new VMS. Average fixed cost for installation and activation is about \$3,500 (NPFMC 2012). The NOAA funded, Pacific States Marine Fisheries Commission administered, reimbursement program will aid eligible users up to \$3,100 of that initial cost.⁶¹ Variable costs may include monthly transmission costs ranging from \$40 to \$55 depending on the unit installed and potential maintenance and repairs averaging to \$77 per year.⁶²

3.9.6.2 Alternatives to VMS

One of the primary benefits to VMS is its ability to provide real-time spatial location information for enforcement and fishery monitoring. Currently there are no operational VMS alternatives in Alaska. Alternatives to collect spatial information could include Automatic Identification System (AIS) units and GPS data loggers; however, both alternatives have limitations and are not immediately capable of being a viable alternative to VMS. Costs, feasibility, and effectiveness of these methods still need to be researched. Moreover, it is very difficult to compare the hypothetical user burden these alternative may have in contrast to a baseline cost, because VMS units have not been operational on a small vessel fleet in the North Pacific. Table 3-15 displays some elements of the monitoring alternatives that can be assessed at this time.

Table 3-15 Comparison of Monitoring Alternatives in the North Pacific Region

	Monitoring system		
	VMS Unit	AIS	GPS Data Loggers
Currently used	Yes	No	No
Currently used on vessel < 35 ft. LOA	No	No	No
Real time data collection	Yes	Yes	No
Consistent coverage	Yes	No	Yes

AIS units collect information that is similar to VMS in real time. However, there are limitations with AIS. Unlike VMS that collects information via satellite and can collect spatial information throughout the entire

⁵⁹ 50 CFR 679.28(f)(6)

⁶⁰ A Faria WatchDog representative suggested that larger vessels can have a more difficult installation process, since determining how to route the cables in an unobtrusive way across the vessel can be a challenge. For small vessels, placement of the antennas can be the largest challenge; however, they have accomplished it on even 18 ft. open skiffs without a center console. In this case, they attached a small piece of wood across the vessel and attached the two antennas to the wood (Pete Harpin, Faria WatchDog Inc personal communication, May 8, 2014).

⁶¹ For more information on the reimbursement program see <http://www.psmfc.org/program/vessel-monitoring-system-reimbursement-program-vms>.

⁶² For a more thorough discussion of VMS see NPFMC (2012).

North Pacific, AIS collects most information through stations located on shore (terrestrial AIS stations). There are approximately 100 terrestrial AIS receiving stations in Alaska. Terrestrial AIS receiving stations can only collect spatial information within 15 to 40 miles from a terrestrial receiving station depending on antenna height and location. This results in large areas of the BSAI and GOA that are not covered by AIS units.

Recent advances in AIS technology have enabled more powerful AIS units to transmit information via satellite. This resolves most of the spatial constraints on AIS data; however, unlike terrestrial receiving stations that collect information in near real-time, satellite AIS receiving stations only receive information when a satellite is within line of sight. AIS does not store information. Any time a satellite is not overhead receiving the transmissions, the information is not collected. This results in large gaps of time when data are not received.

GPS data loggers could be designed to collect information similar to VMS. GPS data loggers do not have spatial constraints like AIS units and can collect spatial information and other information at much higher frequency than VMS currently does. However, unlike VMS, this information is not collected real-time. A GPS data logger stores information throughout a trip and that information is transmitted when the fishing trip ends or when the vessel is in port, similar to electronic logbooks. Development of GPS data loggers as a viable alternative is currently being studied. Alaska Longline Fishermen's Association is currently testing the feasibility of these units in Alaska fisheries. However, whether these units meet the enforcement and fishery monitoring needs and the associated implementation costs still needs to be researched.

3.9.7 Indirect Impacts on FLL Fleet

Should the small vessels that fish on behalf of the CDQ groups have the opportunity to retain more Pacific cod in a targeted fishery, the CDQ group's quota manager would redistribute some of the group's Pacific cod quota to its small vessel fleet. Currently, this allocation is split between their incidental catch for other fisheries and their directed Pacific cod CDQ fishery. A CDQ group's internal reallocation of quota would derive exclusively from that pool of directed fishing quota. Therefore, this reallocation could indirectly impact its current user, the FLL fleet.

These vessels are relatively diversified into other fisheries. Table 3-2 demonstrates that an average of 75 percent of this fleet's gross revenue is derived from some source other than the Pacific cod CDQ they fish. While there is no basis for knowing how much of the Pacific cod CDQ will be redistributed away from the FLLs, it would be a portion of this percentage that varied by the groups' needs. Additionally, as demonstrated by the description of the current participants in Section 3.6.2, in many cases the CDQ group owns all or a percent of the vessels used to prosecute this quota. If the CDQ groups chose to move quota from their larger FLL vessel to allow small vessels to fish this quota on their behalf, they have already conducted their internal benefit/cost calculation and determined that this internal transfer is in the best interest of their group.

In all cases, it is the CDQ group's responsibility and privilege to determine how to apportion the allocation of Pacific cod assigned to the group; however, the action may have the potential to impose some indirect economic effects on the present FLL fleet.

3.9.8 Lease Rate Revenue

If one of the action alternatives described in Section 3.3 is pursued, fishery participants that comply with sector regulations and meet the CDQ groups' definition of "local" will have an opportunity to take advantage of the community's quota, without incurring the cost associated with a lease rate. The CDQ group will likely lose a percentage of revenue from this internal reallocation of its Pacific cod quota.

However, (at least some) quota managers describe this additional revenue as marginal and consider it a secondary priority to their goal of encouraging the development of their local small vessel fleet (Anne Vanderhoeven, BBEDC, personal communication, December 14, 2013).

3.9.9 Cost Recovery

A proposed rule to implement cost recovery for the CDQ Program was issued by NMFS on January 7, 2015 (80 FR 936). Under this proposed rule, NMFS would recover the costs associated with the management, data collection, and enforcement of the CDQ Program. If the CDQ cost recovery program is approved, NMFS can recover the administrative costs for the small vessel Pacific cod CDQ fisheries that are incurred after the effective date of a final rule.

3.9.10 Diseconomies of Scale and Potential Processing Capacity

Internally reallocating Pacific cod CDQ shifts some production capacity from large FLL vessel that currently have the economies of scale needed to vertically integrate the harvesting, processing, freezing and delivery activities of the fishery, to smaller community-based vessels that are unlikely to perform all of these functions. Economic efficiency is lost in this internal transfer. This may not be considered a loss for most parties, but still presents the community, CDQ group, and small-vessel participants the challenge of either having or developing the proper infrastructure capable of moving product in potentially small quantities.

These challenges will be different by community. If the community is already set up to process Pacific cod they are likely to already have the infrastructure and market availability to absorb an additional amount of Pacific cod from small vessels. If not, the small vessel participants would encounter the challenges involved in moving the product from landing to market place. The participants would need to identify avenues for processing, cold storage, shipping, distribution and finding the proper market for the product.

For example, if this opportunity for small CVs to harvest and deliver Pacific cod for commercial sale is to be economically viable (particularly without long-term CDQ subsidy), commercial processing capacity will need to both exist and be within reasonable proximity to the participating CDQ communities. This could include opportunities from an onshore or inshore floating processing plant, or small vessels may be able to deliver to C/Ps that are currently harvesting and processing Pacific cod in their region.

Depending on the action alternative the Council pursues, small vessel Pacific cod CDQ harvest will likely occur simultaneously with the CDQ/IFQ halibut fishery. Therefore, in the most ideal circumstance, Pacific cod processing would occur in the same plant as halibut processing.

If the PA results in a significant enough retention of Pacific cod by the CDQ small vessel fleet, shore-side processors that did not previously include Pacific cod in their production lines may have more of an opportunity to develop the economies of scale needed to process Pacific cod.⁶³ Within the past ten years, 3,884 mt of Pacific cod CDQ⁶⁴ was landed in eight ports, representing nine shore-side processors. Of that

⁶³ This is a “chicken-and-egg” dilemma, in which the small vessel participants need the available processing facilities in order to enter the fishery. However, under traditional market conditions, owners of these facilities would be unlikely to invest in the capital needed unless they are reasonably confident the nearby harvesting operations would create enough demand. CDQ groups have an advantage in that they may have the financial means to (and are designed to), encourage these types of economic opportunities for their residents. However, the CDQ group may need to decide if they are committed to subsidizing a processing operation in the long term, if processing the quantity of Pacific cod that small vessels harvest is not profitable enough to justify the out costs.

⁶⁴ This value omits Pacific cod CDQ harvested by one catcher/processor that delivered to a shore-side processor between 2003 and 2007.

amount, 3,328 mt was landed in the past three years. This alludes to the recent development in the processing ability of a number of shore-side processors.

Within APICDA's region:

If retention of Pacific cod is authorized for the small vessel fleet of APICDA, vessels in the AI could deliver 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. Their current primary species are halibut and sablefish. Atka Pride Seafoods recently completed a \$4 million expansion, and has begun another major round of improvement, to make the plant a year-round operation. Once these improvements are completed, the processing capacity of the shore-side processor will be up to, but no more than, 181 mt of Pacific cod per day (NPFMC 2014a; Luci Roberts, APICDA, personal communication, May 6, 2014).

Small vessels that fish halibut CDQ on behalf of APICDA in St. George (approximately four or five vessels), generally tender their halibut harvest to St. Paul Island, for processing at the Trident Seafoods plant. If there are increased opportunities to retain Pacific cod, these vessels may have the option of tendering their Pacific cod harvest to this processor.

Within BBEDC's region:

There currently are no Pacific cod processors in this region. BBEDC's Pacific cod allocation is ordinarily leased and landed outside the area, due to stock availability. If additional Pacific cod was retained in this region, it would need to be hand cut (Anne Vanderhoeven, BBEDC, personal communication, March 11, 2014).

Within CBSFA's region:

The City of St. Paul, the one location represented by CBSFA, is the site of one shore-side processor. 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 crab: king crab, snow crab, and hair crab (Tridentseafoods.com). The Trident plant is not affiliated with CBSFA, but it has custom processed the group's halibut CDQ in the past. Additionally, the plant has had some capacity for headed and gutted Pacific cod; the amount varies from year to year (Jeff Kaufman, CBSFA, personal communication, May 6, 2014).

Within CVRF's region:

Coastal Villages Seafoods (CVS), a subsidiary of CVRF, has six small halibut processors distributed throughout the 20 member communities and one larger regional seafood processing plant in Goodnews Bay. Halibut fishermen of CVRF either deliver to one of these six plants or to tenders. Once the fish is delivered it is put on ice in totes and collected by tenders, then taken to the Goodnews Bay processor.

This processing operation is subsidized by profits from CVRF's pollock, Pacific cod, and crab fishing operations in the BSAI. CVRF does not directly profit from buying fish in the region—the Yukon-Kuskokwim delta. The purpose of CVS is to provide seafood industry jobs and economic opportunities for its residents. The processors in the region employ local residents.

Due to the drastic decrease of the halibut quota, CVS anticipates the entire CVRF halibut quota may be caught in a few weeks, to a month. Therefore, if its small vessel fleet had increased opportunity to retain Pacific cod, it may be able to expand its processing operations to make up for the diminished halibut quota. Under Alternatives 2 through 4, small vessel halibut fishermen for CVRF would deliver their halibut and MRA or directed Pacific cod to one of their six halibut plants, a tender, or the main processing plant in Goodnews Bay. CVRF has the capacity to process all the Pacific cod that the estimated 200 small vessels can harvest (Troy Wilkinson, CVRF, personal communication, March 18, 2014).

Within NSEDC's region:

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. Along with halibut, crab, salmon, and bait fish, NSSP in Nome currently maintains the facilities for some Pacific cod fillet processing. Therefore, a CDQ small vessel fleet could deliver to Nome. Additionally, if enough Pacific cod is able to be retained by the NSEDC's small vessel fleet, Savoonga may be prepared to expand its operations for Pacific cod capacity to accommodate this diversification by its community members (Simon Kinneen, NSEDC, personal communication, May 12, 2014).

Within YDFDA's region:

Since YDFDA's 4D halibut allocation is far off shore in the BS, a small vessel halibut fishery has not developed by the YDFDA communities. Since a small vessel halibut CDQ fishery does not exist here, it would not be likely that residents of this region could take advantage of opportunities to retain Pacific cod CDQ. Because Pacific cod generally has a much lower ex vessel value than halibut, stakeholders have indicated that the complementary source of revenue from even a small amount of halibut will still be important in order to generate a profit in most small vessel fishing operations. Some stakeholders have indicated that for them, Pacific cod quota on its own would not be sufficient to sustain business. Moreover, having not previously participated in the halibut CDQ fishery, residents in YDFDA would incur more initial fixed costs in entering into a Pacific cod CDQ fishery than those with historical participation in a halibut fishery.

More importantly, this region does not have an abundant Pacific cod stock in the near-shore region. Costs to get to the grounds could be higher than the revenue a small vessel Pacific cod fishery would produce. Therefore, the processing capacity for Pacific cod has never developed (Eric Olson, YDFDA, personal communication, May 13, 2014).

3.9.11 Economic Benefits

3.9.11.1 Direct and Indirect

It is clear there are potential benefits to be had by individuals, by regions, and even possibly in catch accounting from any Council action that promotes increased opportunities for catch and retention of Pacific cod CDQ by a small vessel fleet.

This action would provide an opportunity for individuals to benefit from a complimentary source of income to that earned in the halibut CDQ fishery. On its own, some stakeholders have testified that revenues earned from the harvest of Pacific cod would not be enough to sustain their livelihood. However, in the face of declining halibut stocks, this augmented income from Pacific cod – and potentially other groundfish species - may be enough to sustain their livelihood as halibut income becomes less certain. The opportunity for species diversification could strengthen their operation.

Similarly, should the opportunity for small CV species diversification come to pass, it could strengthen processor operations. With declining halibut stocks, some processors may also face economic difficulties. Less halibut CDQ being landed not only means less revenue from the product, but it also may mean the quota will be harvested more quickly, giving the processors a shorter season of operation.⁶⁵ If, under

⁶⁵ Although it is possible that a lower TAC could lead to a decrease in catch per unit of effort expended, creating smaller more temporally dispersed deliveries, it is more likely that the CDQ group allocations will be a condensed harvested in a shorter season. This is due to the fact that many CDQ groups still employ their own derby-

Alternative 3 Option 1 or revised Alternative 4 Option 3, the small vessel participants fished Pacific cod before or after the halibut season, this could be an opportunity to extend processing operations. It may give processors an opportunity to diversify and distribute their fixed costs across a wider range of outputs.

These fishery participant and processor impacts will have multiplier effects throughout the region, indicating increased economic activity (although not necessarily indicating economic benefits to the community). Other sectors (e.g., fuel, lodging, food, retail, vessel equipment and maintenance services), may experience increased or sustained activity in their region. These alternatives may provide some stability to regions that could otherwise be adversely impacted by the declining halibut quotas.

Finally, there may be management benefits to consider under all Alternatives 2 through 4. Currently, non-target Pacific cod is caught in the halibut CDQ hook-and-line fishery. However, catch accounting is not capturing all of this removal. It is suspected that Pacific cod caught in this fishery is discarded or used as bait. A more efficient harvest of Pacific cod, under these alternatives, could allow for improved record-keeping of this catch, since much of this Pacific cod would, presumably, be retained, landed, and reported as harvest for commercial sale.

While the resources to quantify the net benefits of the Alternatives 2 through the revised Alternative 4 are not available, it is believed that the benefits derived from creating a regulatory environment that provides an opportunity for small vessel retention of Pacific cod CDQ occur at relatively minimal cost. If the costs are too great for a CDQ group or a CDQ fishery participant, they can choose not to participate in these opportunities.

3.9.11.2 Distributional Impacts

All action alternatives would directly impact some CDQ groups and some participants more than others. The individual and regional effects derived from the proposed action depend on factors such as the current participation in the halibut CDQ fishery, future halibut TAC and CDQ, availability of Pacific cod stock, the catch per unit of effort expended (CPUE), handling and transport, availability and accessibility to processing capacity. Focusing on these factors may provide an initial understanding of the likelihood that an individual in a CDQ group will successfully take advantage of increased opportunity to retain Pacific cod.

Due to the limited Pacific cod stocks, as well as challenges anticipated with small vessel operations (e.g., CPUE, catch handling and delivery, access to local processing capacity, market availability) in their regions, neither BBEDC nor YDFDA anticipate small vessel participants deriving net benefits under any of the action alternatives. Quota managers for the other CDQ groups express a more optimistic potential for net benefits to accrue to small vessel operators in their region, from the proposed action.

3.10 Analysis of Impacts: Alternative 2, Change the Pacific Cod MRA for the Halibut CDQ Fishery

Alternative 2 would increase the maximum retainable amount (MRA) of Pacific cod from 20 percent of the weight of the halibut CDQ harvest, up to 100 percent of the halibut CDQ harvest for hook-and-line catcher vessels less than or equal to 46 ft. LOA. Consistent with current groundfish standards, all Pacific cod caught, up to this MRA, on a federally permitted vessel must be retained and accrues towards the Pacific cod CDQ for that group. While this option aligns with the Council's problem statement by providing CDQ groups the opportunity to retain more Pacific cod while halibut fishing, this alternative does not facilitate a directed

style halibut fishery (with an individual cap) that creates an incentive for vessel operators to harvest their group's allocation quickly.

Pacific cod CDQ fishery. Rather, a change in the MRA only allows a participant's Pacific cod CDQ harvest to equal, but not exceed, the amount of halibut CDQ harvested. This alternative does not necessarily allow 100 percent retention of Pacific cod, but instead allows for a matching ratio of Pacific cod to halibut CDQ harvest.

Since this alternative does not operate under the directed Pacific cod fishery, vessels operating under this proposed action would not be required to possess an LLP license; they would be in the partial observer coverage category; and, following existing regulations, many of them might not be required to carry VMS. Exceptions to this VMS provision include federally permitted vessels operating in the AI, which are required to carry VMS due to Steller sea lion critical habitat and EFH.

As discussed in Section 4.3, this alternative still requires the consideration of Steller sea lion protected critical habitat, before it can be determined that the current VMS regulation would still apply. This is because Pacific cod is a prey species of Steller sea lions. The halibut CDQ fishery is able to operate in some areas that are closed to Pacific cod hook-and-line fishing, without the use of a VMS. Under Alternative 2, it is possible that a vessel could have the same Pacific cod and halibut catch composition as a vessel operating under the status quo, except that under the status quo that vessel would be required to carry VMS and adhere to Steller sea lion closures. Since many of the halibut CDQ vessels are not required to carry VMS, it cannot be determined if halibut CDQ fishery participants are or would be adhering to the area closures for Pacific cod fishing with hook-and-line gear. It is not possible to predict with confidence the size of a Pacific cod quota that would be redistributed to the small vessels fishing on behalf of CDQ groups to account for this incidental catch. At its limit, Alternative 2 could produce Pacific cod landings in the CDQ halibut fisheries equal to the weight of the full halibut CDQ harvest (which, for example, provided a CDQ reserve of almost 800,000 lbs. in 2014). Despite the expectation that Pacific cod would not be harvested intensively in one area of Steller sea lion critical habitat, there would be no regulations to prevent or monitor these operators. Therefore, while the impact on Steller sea lion critical habitat areas is likely to be minimal, the uncertainty is large. It would be necessary to initiate consultation with the NMFS Protected Resources Division under section 7 of the Endangered Species Act, if this was the Council's preferred alternative.

The language of this alternative stipulates that all Pacific cod caught, up to the MRA on a federally permitted vessel must be retained and accrues towards the Pacific cod CDQ quota. The MRA increase would be implemented consistent with the current practice of the MRA of groundfish in other CDQ fisheries. Increased retention would be required of all federally permitted vessels⁶⁶ prosecuting the halibut CDQ fishery. The decision of who has increased retention opportunities (requirements) to retain Pacific cod would be simultaneously decided with the determination of who will use it and how much halibut CDQ will be used by any individual.

This consistent application of the requirements across halibut CDQ participants, as with the status quo, means that there should be no greater burden on identification and enforcement than under the status quo. All participants would be required to carry a halibut CDQ permit, as well as a CDQ hired master's license. Therefore, enforcement would be able to identify the eligible vessels when boarded at sea.

Alternative 2 works within the framework of established management tools; however, there are also concerns around this precedent-setting use of a 100 percent MRA. Currently, the highest MRA is set at 35 percent.⁶⁷ Increasing the MRA from 20 percent to 100 percent could weaken the distinction between the MRA of an incidental catch species and directed fishing for that species.

⁶⁶ And as indicated in Section 2.1, all vessels participating in a CDQ fishery in which the CDQ group was granted a sablefish allocation, are expected to be federally permitted. This includes all of the CDQ groups except CVRF.

⁶⁷ 50 CFR 679 Table 11 BSAI Retainable Percentages

Additionally, the success in increasing Pacific cod retention opportunities for the CDQ small vessel fleet is directly conditionally on the halibut CDQ fishery in Alternative 2. If the halibut CDQ continues to drop, as has been the trend since 2011, this complimentary source of income may not provide much benefit as the MRA proportionally drops.

3.11 Analysis of Impacts: Alternative 3, Create a New LLP License for Pacific Cod CDQ Participants

In Alternative 3, NMFS would create a new groundfish CDQ LLP license for participating hook-and-line catcher vessels less than or equal to 46 ft. LOA. Federally permitted vessels with a groundfish CDQ LLP license would be able to participate in the directed Pacific cod CDQ fishery. These LLP licenses would be non-transferable and be applicable only to the harvest of Pacific cod CDQ. If a vessel had a CDQ LLP license available, then that vessel's entire Pacific cod catch would have to be retained, and would accrue towards the Pacific cod CDQ allocations.

In order to analyze the appropriateness of Alternative 3, it is necessary to first discuss the intent of the LLP. Its direct purpose is to restrict the number of vessels in a particular fishery. The expected result of this restriction is to prevent overcapitalization in fisheries at levels that could occur in the future if this constraint was not present.

This program also can provide the indirect results of other management tools. For instance, a byproduct of limiting the number of vessels sometimes includes decreasing total fishing effort. Fishing effort is indirectly regulated through the LLP. If there are a limited number of entries able to prosecute a fishery, there will also likely be a smaller number of total trips taken throughout the season. Less competition can mean longer seasons and may allow vessels to be more deliberate in targeting a single species, resulting in a potentially more efficient harvest.

Additionally, some management elements, such as area restrictions, vessel size restrictions, and species endorsement have been incorporated into groundfish LLP licensing conditions. These additional management measures are described in Section 3.6.6.1.

3.11.1 Use of LLP License in Alternative 3

The immediate incongruence between the purpose of the LLP and the purpose of the action in Alternative 3, is the LLP's purpose is to restrict the number of vessels in a particular fishery, while this action would potentially allow additional vessels, which had not previously held an LLP license, into the BSAI groundfish fishery.

The Council could have attempted to justify using this established tool for a different purpose. The purpose of the tool under this action would be to meet the monitoring and identification needs of this action with low marginal implementation costs. The intent of reducing fleet capacity in order to indirectly limit effort is generally not relevant here, as it was in the problem statement of the proposed Comprehensive Rationalization Plan, which implemented the LLP. The CDQ Program already addresses these concerns through the consequence of being a catch share program with specific set allocations of TAC.

The new CDQ groundfish LLP license would indicate that the participant was Pacific cod ("groundfish") CDQ fishing. In other words, it would not be necessary to adjust the MRA in the halibut CDQ fishery, because the increased opportunity to retain Pacific cod would be available through a directed fishery. The determination of whether the participant was able to operate in a multi-species fishery (i.e., directed fishing

for both groundfish CDQ at the same time they are targeting halibut CDQ) is highlighted in the options for this alternative.

The primary benefit of prescribing additional Federal licenses would be to provide enforcement a way to monitor and identify those vessels permitted to participate in the Pacific cod CDQ fishery. In the halibut CDQ fishery, participants are required to carry a halibut CDQ permit and a halibut CDQ hired master's permit, both of which accomplish this goal. The Federal LLP license would deliver this same at-sea function through an already established tool that requires some, but minimal, setup. Creating a new type of permit for vessels to carry could require a new database and additional RAM infrastructure. However, any option establishing a community license or permit will require some additional administrative effort on the part of the CDQ group or the application and reporting process.

The CDQ LLP license could have been designed to apply specifically to CDQ, but not to allow participation in the existing limited access fishery for the BSAI Pacific cod. LLP licenses have been added to meet specific Council objectives in the recent past. The CQE LLP implemented in the GOA is an example of this kind of program. However, the difference between the CQE LLP and what is proposed here is that the former was preceded by a fixed gear recency action that first limited the number of LLP licenses in circulation in the GOA. These CQE LLP licenses were then used in the limited access fishery and not were within a pre-established catch-share program.

In 2011, the LLP regulations were amended to authorize some of the GOA CQE eligible communities to request non-trawl groundfish LLP licenses endorsed for Pacific cod, to be used in the Central or Western GOA limited access Pacific cod fisheries. Under these regulations, the CQE must annually, in an authorization letter, assign each community LLP license to a user and a vessel, and must provide a copy of the authorization letter, and any subsequent amendment to that authorization letter to both NMFS and the vessel operator. There are additional requirements for the community LLP license users. The CQEs are expected to produce an annual report on licenses use. These licenses are non-transferable and have a specified MLOA of less than 60 ft.

Similar to the CQE LLP, regulations could have established guidelines for CDQ eligible communities to request non-trawl groundfish LLP licenses endorsed for Pacific cod in the BSAI. The difference is that they would only apply to Pacific cod CDQ fishing. The CDQ communities would need to submit an application to the Regional Administrator, outlining the number of LLP licenses requested, the criteria used for establishing residency and eligibility for their participants, and procedures used to solicit requests from residents to be assigned an LLP license. LLP licenses would be issued annually and the vessel operator would be required to maintain a copy of the annual CDQ LLP license on board when that vessel is directed fishing for Pacific cod CDQ under the authority of that groundfish license. This would include vessels 32 ft. LOA and under, that are currently exempt from holding a Federal license. These LLP licenses would be non-transferable and registered to only one vessel and one individual during a given year. They would only be issued for non-trawl gear, have a catcher vessel designation, and have a 46 ft. MLOA.

A necessary issue of consideration under Alternative 3 would be the number and distribution of LLP licenses throughout the CDQ communities. Unlike the CQE LLP, where license caps were able to be established from past participation, CDQ vessels that would benefit from a directed Pacific cod harvest would not have a historical harvest from which to establish control dates. It is clear that this action would be introducing new vessels to the Pacific cod CDQ fishery. A system to allocate CDQ LLP licenses would need to be determined. Because fishing effort is already capped by the quota that the CDQ group has available, it may not be important from a sustainable harvest management perspective to restrict the number of CDQ LLP licenses available to each group. The Council could have established a license cap to be set

in regulation, as is the case with the CQE LLP,⁶⁸ or the Council could have employed an unlimited license distribution, to be applied for annually without a cap under this alternative.

There are several methods the Council considered under this alternative. Due to the implied connection between the halibut CDQ fishery and the potential Pacific cod CDQ fishery, some of the options depend on past participation in the halibut fleet.

- 1) Using the control years of 2009 to 2013, each CDQ group would be allocated LLP licenses for the number of unique vessels less than or equal to 46 ft. LOA participating in the halibut CDQ fishery representing their group (Table 3-16).
- 2) Using the control years of 2009 to 2013, each CDQ group would be allocated LLP licenses for the number of unique vessels less than or equal to 46 ft. LOA participating in the halibut CDQ fishery representing their group. A ceiling would be set at 50 individual licenses for each group (Table 3-16).
- 3) Using the control years of 2009 to 2013, each CDQ group would be allocated LLP licenses for the average number of vessels less than or equal to 46 ft. LOA participating in the halibut CDQ fishery representing their group (Table 3-16).
- 4) The Council could allocate an even number of CDQ LLP licenses annually to each CDQ community.

Table 3-16 Three example criteria for determining the number of LLP licenses allocated to CDQ groups

	LLP License Cap					
	APICDA	BBEDC	CBSFA	CVRF	NSEDC	YDFDA
Criteria 1: Unique vessels between 2009 and 2013	21	40	19	296	32	1
Criteria 2: Unique vessels between 2009 and 2013, with a ceiling at 50	21	40	19	50	32	1
Criteria 3: Average vessels between 2009 and 2012 (rounded to the nearest integer)	10	15	17	168	12	0

Source: ADF&G fish tickets

Note: Over the course of these five years, eight vessels participated in the halibut CDQ fishery on behalf of more than one CDQ group. These were recorded as separate vessels.

3.11.2 Observer Coverage Options

Under both of the options for this alternative, the Council considered building in a provision to the CDQ LLP license that would allow vessels less than or equal to 46 ft. LOA to be moved into the partial observer coverage category. Vessel operators would be required to comply with all vessel responsibilities in 50 CFR 679.51(e)(1) and would be subject to selection for observer coverage following procedures in the Annual Deployment Plan (ADP).

As outlined in Section 3.6.6.2, all vessels CDQ groundfish fishing were placed into the full observer coverage category, regardless of vessel size, because the CDQ groups' have the privilege of an exclusive transferable PSQ that cannot be debited against by the non-CDQ fishery. Under the current Observer Program, the halibut PSC that accrues to the CDQ groups' halibut PSQ is based on estimates derived from data collected by observers on that trip. Exceeding a halibut PSQ is a regulatory violation,⁶⁹ and trip-level

⁶⁸ 50 CFR 679.4(k)(10)(vi)

⁶⁹ 50 CFR 679.7(d)(3)

observer data would provide evidence of such violations. Without an observer on board, evidence of violation would be indirect; PSC would be estimated from observer data collected on vessels of the most similar sample available. Therefore, it is unprecedented for a catch share program with its own transferable PSQ to be in the partial observer coverage category.

If this group of vessels had been moved to the partial observer coverage category, the Council would have still needed to determine the most appropriate way to account for halibut catch in a Pacific cod CDQ fishery.

3.11.2.1 Option 1: Halibut caught while Pacific cod CDQ fishing is PSC

Under Option 1, any halibut caught while the vessel was targeting Pacific cod CDQ would be considered PSC, and would accrue against the halibut PSQ. This alternative would create harvest inefficiency in the opposite direction of the status quo. That is, CDQ vessels would be required to discard halibut in the Pacific cod CDQ fishery, regardless of the availability of halibut CDQ or IFQ. Moreover, since these vessels would be in the partial observer coverage category, data on actual halibut PSC would be sparse for small vessels. PSC would instead be estimated from the next closest data source, which typically would be from larger vessels that can accommodate an observer on board. This would likely be an imprecise estimate of PSC. This estimated amount of PSC would be debited from the CDQ group's halibut PSQ.

3.11.2.2 Option 2: Halibut caught while Pacific cod CDQ fishing accrues to CDQ or IFQ

Under Option 2, any halibut caught while the vessel was targeting Pacific cod would be required to be retained and accrue against the halibut CDQ allocation. In some ways, accounting would be more accurate and straightforward under this option. Legal-size halibut would be required to be retained and, therefore, landed weight would be subtracted from the CDQ group's halibut CDQ.

However, there are several important points to consider under this option. Unlike the sablefish CDQ fishery, where all sablefish caught by a CDQ vessel is required to be retained, CDQ groups have more control over who will harvest and land halibut CDQ on their behalf. Most groups organize individual contracts with their participant that indicates the amount or percent of the group's quota that that individual has the opportunity to harvest. Moreover, in order to retain halibut CDQ, the vessel operator needs to possess a halibut CDQ permit and a halibut CDQ hired master's permit.⁷⁰

If the quota manager for a group is careful to align those receiving a CDQ LLP license with those that would otherwise receive an allocation of halibut CDQ, halibut catch in the Pacific cod CDQ fishery may be able to be retained and accrue to the halibut CDQ when landed. If eligibility to directed fish for Pacific cod CDQ extends to those individuals that do not meet the regulatory provisions to harvest halibut CDQ or have exhausted their group's internal contract, the participant may not have the opportunity to retain halibut CDQ. Therefore, this option could inherently create retention regulations and accounting methods that differ by participant, depending on availability of quota to target halibut CDQ or IFQ.

Additionally, there may be seasonal concerns under this option. The Pacific cod CDQ fishery for hook-and-line vessels lasts the full calendar year; whereas the halibut CDQ fishery generally runs from mid-March to November. Ice conditions may naturally delay Pacific cod fishing until late spring or early summer; however, if halibut is caught in the Pacific cod fishery outside of the halibut season it would not be able to be retained. Therefore, this option would inherently create retention regulations that differ throughout the calendar year. When the Pacific cod season is open and the halibut CDQ season is not open, halibut catch would be PSC. Similar to Option 1, under the circumstances of partial observer coverage, a halibut PSC rate would be estimated and applied to the groundfish CDQ weight. This, in turn, would provide a basis for deducting some amount of halibut PSC from the group's halibut PSQ account. When seasons are

⁷⁰ 50 CFR 679.4(e)

simultaneously open, halibut would be required to be retained, and landed weight would be deducted from the group's CDQ halibut allocation.

Under Option 2, it was not established if eligibility of a small vessel Pacific cod CDQ hook-and-line fishery would be dependent on the seasons and availability of halibut CDQ to fund the unintended catch of halibut. If the Council had selected this option in the PA, it would have needed to establish some kind of system within the CAS to account for halibut CDQ that is landing at the same time that it accounts for halibut PSC that is discarded, particularly when the vessels are in the partial observer coverage category.

3.12 Analysis of Impacts: Alternative 4, LLP Exemption (PA)

In February 2015, the Council took final action by identifying Alternative 4, with Option 1 and Sub-option 3.3 as a Preferred Alternative (PA). Since Option 1 expands the provision in the PA to include the groundfish CDQ fisheries, rather than just the Pacific cod CDQ fishery (a fishery that is undefined in regulations, but is included under the definition of groundfish CDQ fishery), purpose and need, alternatives and options of the PA, and analysis have been updated to reflect this selection, where appropriate.

Specifically, this alternative would create an exemption from the BSAI groundfish LLP for vessels greater than 32 ft. LOA and less than or equal to 46 ft. LOA using hook-and-line to fish Pacific cod and other groundfish on the CDQ groups' behalf.⁷¹ It would move vessels less than or equal to 46 ft. LOA groundfish CDQ fishing, using hook-and-line gear, into the partial observer coverage category, subject to selection for observer coverage following procedures in the Annual Deployment Plan. These two provisions would apply if participants had CDQ or IFQ available; in which case, halibut caught would be required to be retained and accrue to one of these quotas.⁷²

These two primary management changes proposed in Alternative 4 represent a scenario that most closely matches the original proposal the CDQ groups presented to the Council (Appendix A.2). In initial discussions, this framework was intended to be a straw-man, allowing for the NMFS Alaska Region to provide input on how these changes may or may not impact management, enforcement, and the CAS. These two broad changes required a more detailed discussions of considerations; incorporating the complex finer points of application into the alternative. This section provides additional rationale for NMFS Alaska Region's recommendations under the details of Alternative 4 and discusses the three mutually exclusive options under this alternative.

Alternative 4 is recommended by NMFS Alaska Region, in part, because it mitigates some of the administrative burden for both NMFS and the CDQ groups that is present in other alternatives. For instance, Alternative 2 would require consultation with the NMFS Protected Resources Division under section 7 of the Endangered Species Act over the uncertain impacts on Steller sea lion critical habitat. This would likely add time to the final ruling. Additionally, Alternative 3 would create administrative burden of establishing a new set of BSAI groundfish licenses for CDQ participants, revised annually, and established in a RAM database.

Additionally, Alternative 2 and Alternative 3 each represent substitute uses of pre-established management measures. Particularly in light of Alternative 4, the Council did not consider these alternatives to warrant further consideration. There may be unintended consequences of using a management tool in an unprecedented way. For instance, it may create a standard that is inappropriate for future actions.

⁷¹ Vessels less than or equal to 32 ft. LOA are currently exempt from the BSAI ground LLP requirements.

⁷² Option 3 loosens this constraint to consider allowing halibut to accrue to a small vessel PSC limit when CDQ or IFQ is not available, or the CDQ group chooses to support the small vessel Pacific cod fishery with halibut PSC rather than halibut CDQ.

NMFS Alaska Region recommends Alternative 4 because the expansion of the BSAI groundfish LLP exemption, as outlined in the alternative, is considered to be justifiable under these specific conditions. From a management perspective, LLP licenses may not be necessary to limit the number of small vessels participating in the CDQ fisheries. The LLP was established as an interim step in the development of a Comprehensive Rationalization Plan, or catch share program. This upper limit on the number of vessels in the groundfish and crab fisheries was intended to provide stability and limit further over-capitalization in what formerly were “open access” fisheries. The allocation of a specific percentage of Pacific cod TAC to a CDQ group, as well as the internal deliberation of eligibility to harvest these allocated shares, would likely already take on the responsibility of preventing over-capitalization among the small vessels that fish on behalf of their group.

Under Alternative 4, no other options were considered for changes in observer coverage. Partial coverage for this category of small vessel and gear type is consistent with non-CDQ fisheries. However, if these vessels are moved to partial coverage, the primary decision point is how to account for PSC on a small CDQ hook-and-line vessel. CDQ groups are issued transferable PSQ. Exceeding a PSQ is considered a regulatory violation.⁷³ By requiring the availability of halibut CDQ or IFQ for small vessels fishing groundfish CDQ, the need to determine a legally defensible way to estimate halibut PSC that accrues to a transferable PSQ no longer exists. From a management and CAS perspective, this would be the most straight-forward way to allow for the proposed provisions of Alternative 4.⁷⁴

Operators of any small catcher vessel fishing for groundfish under the proposed action would be placed in the partial observer coverage category. Vessels subject to observer coverage are determined annually through the Observer Annual Deployment Plan (ADP). Since inception of the ADP process in 2013, vessels less than 40 ft. LOA have been placed in the “no selection pool” and have no additional reporting or recordkeeping requirements. Vessels 40 ft LOA or greater are in the “trip selection pool” and must log all of their fishing trips in the Observer Declare and Deploy System (ODDS). This is an online system for registering fishing trips and receiving information about whether a particular trip is selected for observer coverage.

The three vessels between 40 ft and 46 ft already log their halibut CDQ and halibut IFQ fishing trips in ODDS. Therefore, if these vessels are combining groundfish CDQ fishing with halibut CDQ or halibut IFQ fishing, they would not incur any additional reporting requirements associated with placement in the partial coverage category (because the halibut trips already are in partial coverage). However, if any of these vessels start fishing for groundfish CDQ separate from their halibut CDQ or IFQ fishing trips, then those additional fishing trips would need to be logged in ODDS. The cost of logging trips in ODDS would represent an additional cost associated with the new groundfish CDQ fisheries.

One difference between Alternative 3 and Alternative 4 is that Alternative 3 inherently includes a mechanism for identification and at-sea enforcement for small hook-and-line vessels participating in a groundfish CDQ fishery. NOAA OLE attested that some method for identification of LLP-exempt vessels was important for at-seas enforcement. While the previous requirements to report vessels prosecuting CDQ fisheries were removed to provide consistency with the less restrictive requirements of non-CDQ fisheries, the provisions proposed under Alternative 4 make this CDQ fishery dissimilar from the non-CDQ sector.

⁷³ 50 CFR 679.7(d)(3)

⁷⁴ However, it also requires the small vessel Pacific cod CDQ fishery to be fully conditional on the CDQ/ IFQ fishery. Since the problem statement articulates that this action is seeking a way to migrate the negative economic impacts of a declining halibut stock on the CDQ communities, the Council chose to consider the CDQ groups' request to create alternate ways to account for halibut PSC in the absence of CDQ or IFQ availability (Option 3).

Therefore, reinstating a reporting requirement is still consistent with the CDQ regulation of harvest provisions in the MSA.⁷⁵

Several options were considered in order to allow for identification and at-sea enforcement of vessels exempt from the LLP. OLE recommended against an informal CDQ group-produced document as certification to the license exemption because Enforcement Officers would need to be familiar with at least six different versions of this certification from six different CDQ groups. RAM recommended against modifying a pre-established permit system to allow for a new endorsement because it would require a significant amount of agency resources and time to adapt a database. Ultimately, NMFS recommended: (1) a NMFS-issued letter to be kept onboard vessels greater than 32 ft. LOA and less than or equal to 46 ft. LOA, eligible for the LLP exemption, and (2) an active list of all vessels greater than 32 ft. LOA and less than or equal to 46 ft. LOA eligible to participate in a small vessel hook-and-line groundfish CDQ fishery to be used as confirmation.

This option still requires additional time and resources from agency staff to establish an online list and to send out initial letters. It also requires some time and resources from CDQ managers to update the list and coordinate necessary documents with their participants. However, the NOAA agencies deemed this method to apply the necessary level of formality, while mitigating agency and CDQ group administrative burden to the extent practicable. This additional request for information (i.e., list of eligible vessels), will require an Information Collection Request be submitted to the Office of Management and Budget (OMB) in order to satisfy the Paperwork Reduction Act (PRA).

Additional evaluation of the proposed changes from Alternative 4 revealed that other regulations would remain consistent with the status quo. VMS regulations, Steller sea lion area closures, as well as specific requirements for Essential Fish Habitat, and habitat areas of particular concern (HAPC) would all remain consistent with current regulations. Since Alternative 4 expands opportunities in a directed groundfish CDQ fishery, no changes to the MRA for Pacific cod would be made. Retention requirements of CDQ species and non-CDQ species and accounting methods for at-sea discard would also fit the responsibilities and methods currently established for directed groundfish CDQ fishing.⁷⁶

3.12.1 Option 1 Uniform Application of Provisions for Groundfish CDQ Fishing

The CDQ groups requested analysis of alternatives to facilitate development of a small vessel CDQ fishery specifically for Pacific cod. Halibut, sablefish, and Pacific cod are the primary target fisheries in the BSAI for catcher vessels using hook-and-line gear. It seems unlikely that hook-and-line target fisheries for other groundfish species will develop in the future. However, limiting the allowances and requirements in Alternative 4 (the PA) to vessels directed fishing for Pacific cod may inadvertently create a fishery violation if one of these vessels happens to have a catch composition at the time of landing that exceeds the maximum retainable amounts for groundfish species other than Pacific cod or sablefish. In addition, developing regulations that apply only while directed fishing for Pacific cod requires continued maintenance of regulations that would apply for any vessel less than or equal to 46 ft. LOA using hook-and-line gear to fish for any other CDQ species besides halibut, sablefish, or Pacific cod. For these reasons, NMFS Alaska Region recommended and the Council concurred, that the allowances and requirements described in the PPA be applied to all catcher vessels less than or equal to 46 ft. LOA using hook-and-line gear to fish for any groundfish CDQ species, other than sablefish.

⁷⁵ MSA section 305(i)(1)(B)(iv) states, "the harvest of allocation under the program for fisheries with individual quotas or fishing cooperatives shall be no more restrictive than for participants in the applicable sector, including with respect to the harvest of non-target species."

⁷⁶ See Section 2.4 for a description of what these requirements are currently.

Under Option 1, each CDQ group would continue to control which vessels fish on its behalf, and the fisheries in which that vessel participates, through private contracts and agreements. Option 1 would not require a CDQ group to authorize small hook-and-line vessels to fish for groundfish species other than Pacific cod. However, it would reduce the administrative and enforcement difficulties should a vessel operator operate in a manner that did not meet the definition of directed fishing for Pacific cod. This would simplify regulations and administration of the CDQ Program, and avoid unnecessary enforcement actions for vessels that inadvertently retain more than the MRA of some other groundfish species. In addition, should markets develop for other groundfish CDQ species in the future, generalized regulations would allow the CDQ groups to conduct these fisheries with small hook-and-line vessels without requiring a follow-up regulatory amendment.

3.12.2 Option 2 Prohibition on Discarding Halibut CDQ with Available Quota

The halibut and fixed gear sablefish CDQ allocations were established as part of the IFQ Program, which was implemented in 1993 (58 FR 59375; November 9, 1993). In this final rule, NMFS stated that “control of the halibut and sablefish CDQ programs would be exercised through the issuance of CDQ permits and CDQ cards. This control mechanism is designed to work with the IFQ permit and card system.” The following prohibition from (50 CFR 679.7(f)(11)) was included in the IFQ regulations to prevent discard of legal sized halibut that were lower in value to other halibut or groundfish.

It is unlawful for any person to do any of the following:

...

(11) Discard halibut or sablefish caught with fixed gear from any catcher vessel when any IFQ permit holder aboard holds unused halibut or sablefish IFQ for that vessel category and the IFQ regulatory area in which the vessel is operating, unless:

(i) Discard of halibut is required as prescribed in the annual management measures published in the Federal Register pursuant to § 300.62 of chapter III of this title;

(ii) Discard of sablefish is required under § 679.20 or, in waters within the State of Alaska, discard of sablefish is required under laws of the State of Alaska; or

(iii) Discard of halibut or sablefish is required under other provisions.

The IFQ Program final rule did not always identify the requirements that applied while CDQ fishing, and those that did not. Many of the IFQ regulations do not apply to halibut CDQ fishing (issuance of quota share, transfer provisions, vessel categories, vessel and quota share use limitations, etc.). Other requirements of the IFQ Program do apply while halibut CDQ fishing (permitting, prior notice of landing, documenting a landing, etc.). Many IPHC regulations governing halibut apply equally to IFQ and CDQ without specifically mentioning either program.

During the preparation of the present analysis, it was identified that this regulation governing retention of legal sized halibut while IFQ fishing does not apply while fishing for halibut CDQ. The concern is that if halibut CDQ participants are able to discard legally-sized halibut for which they hold unused quota (i.e., legally able to high-grade halibut), this could impact assumptions about halibut discard rates in the CAS that would be necessary for the implementation of any of the sub-options under Option 3. Therefore, NMFS Alaska Region recommended additional analysis and Council consideration of expanding the prohibition established in the IFQ fishery from discarding legal-sized halibut when quota is available.

Further investigation was requested to identify the intent of this regulation and deem its relationship to the PPA.

The intention of this regulation for the IFQ fishery is to promote efficient utilization the halibut resource for which a participant holds available quota. While this purpose may still be considered meritorious under the CDQ program, additional investigation highlighted that it may not be practical to extend this particular prohibition to all CDQ halibut or all CDQ hired masters. As noted in the Council discussion in June 2014, it would be difficult to expect all CDQ hired masters to know the status of the CDQ group’s halibut CDQ account balance when there could be many fishermen fishing off the same allocation at the same time. In addition, the CDQ groups establish limits on the harvest of halibut CDQ by individual vessels to manage the CDQ fisheries within the halibut CDQ limits. These CDQ halibut fishing plans could put a vessel operator in conflict with a requirement to retain all legal sized halibut. Therefore, the NMFS Alaska Region did not recommend applying the IFQ prohibition against discarding halibut broadly to all halibut CDQ fishing due to the practical implementation challenges.

However, the Council still considers it necessary to include some halibut retention requirements for vessels less than or equal to 46 ft. LOA using hook-and-line gear to fish for groundfish CDQ. Retention requirements for halibut under the PA depend on the type of fishing being conducted (i.e., whether the vessel is targeting groundfish CDQ, halibut CDQ/ IFQ, or both), which is detailed under the description of the Sub-option 3.3 of the PA (see Section 2.4).

3.12.3 Option 3 Allow a Small Vessel Pacific Cod CDQ Fishery Supported by Halibut PSC

In Alternative 4, the development of a small vessel Pacific cod CDQ hook-and-line fishery relies on the availability of CDQ or IFQ halibut to fund the landings of incidentally caught halibut. The sub-options under Option 3 would allow CDQ group participants flexibility to conduct directed fishing for groundfish CDQ with small hook-and-line vessels even when halibut CDQ or IFQ is not available to a participant.

There are a number of circumstances under which no halibut CDQ or IFQ would be available to a participant to fund the halibut caught in a small vessel groundfish CDQ fishery. The Pacific cod fishery for small hook-and-line vessels would generally not be restricted by the halibut season; however, vessel operators would legally be required to discard halibut of all sizes before and after the IPHC-established IFQ/CDQ season. There may also be a circumstance in which a halibut season does not open for a region due to low stock abundance. Additionally, there are differences in the way the CDQ groups manage their halibut CDQ fisheries, as well as the timeline that they make the group’s quota available to participants. Therefore, even during a time of the year in which it is legal to retain halibut, an individual vessel operator may not have the quota available to allow for legal retention. CDQ group representatives requested an option that would allow them to support a small vessel Pacific cod CDQ fishery with their group’s halibut PSQ.

Under any of the sub-options for Option 3, NMFS Alaska Region recommends that a small vessel groundfish CDQ fishery supported by a CDQ group’s halibut PSC should be managed by a separate component of a CDQ group’s halibut PSC allocation and in-season closure issued by NMFS. A detailed description of this management scheme is in Section 2.4. Other alternatives were considered by NMFS Alaska Region and the Council, but did not justify further analysis. These are summarized in Section 2.5.1.

As mentioned in Section 3.12, the regulation of harvest provisions of the MSA⁷⁷ requires that the harvest of allocations under the CDQ Program for fisheries with individual quotas or fishing cooperatives shall be no more restrictive than for participants in the applicable sector, including with respect to the harvest of non-target species. This requirement is known as the “regulation of harvest” provision of the MSA.

⁷⁷ 305(i)(1)(B)(iv)

None of the elements of Alternative 4 or its options and sub-options are considered to be inconsistent with this provision of the MSA. Alternative 4 would not change any significant aspect of managing the halibut CDQ fisheries.

Sub-option 3.2 does include an additional information collection that would likely require OMB approval under the PRA;⁷⁸ however, the submission of group-specific halibut season dates would be a component of the small vessel directed Pacific cod CDQ fishery. The non-CDQ small vessel Pacific cod hook-and-line fisheries in the BSAI are not managed under individual quotas or cooperatives, so the regulation of harvest provision of the MSA does not apply to the elements of any of the alternatives that would apply to the small vessel Pacific cod CDQ fishery or to any other groundfish CDQ fishing by these vessels under Option 1. The three sub-options of Option 3 are more to less restrictive on these circumstances in which a small vessel groundfish CDQ fishery supported by halibut PSC could exist. Under all of these sub-options, participants can prosecute a hook-and-line small vessel groundfish CDQ fishery under the provisions of Alternative 4, provided that they have access to halibut CDQ or IFQ to fund any incidentally caught halibut. If they do not, the participant could directed fish for Pacific cod (or other groundfish) CDQ under the provisions in Alternative 4 and allow an estimated halibut PSC rate to account for any halibut mortality: under Sub-option 3.1) only when the halibut CDQ season is closed; under Sub-option 3.2) only outside of the halibut season dates specified by each CDQ group; under Sub-option 3.3) on a trip-by-trip basis. These sub-options are mutually exclusive. A comprehensive account of how these sub-options would function is presented in Section 2.4.

Table 3-17 shows a qualitative comparison of the marginal expected costs for administration of each management scheme. In this table, the baseline is Alternative 4. For example, under the baseline NMFS would develop, maintain, and provide user support for the online registration system for vessels eligible for LLP exemption, regardless of which, if any, sub-options are chosen. Therefore, these administrative costs are excluded from the table.

It is difficult to evaluate the relative administrative costs between Sub-option 3.2 and 3.3. In general, the more participants taking advantage of the opportunity to Pacific cod CDQ fish supported by a small vessel halibut PSC limit, the higher the administrative costs; the exception being one time management changes, such as a change to the CAS. As Sub-option 3.3 is predicted to provide the most opportunity (as explained later in this section), it is also expected to require the most joint management and communication. Additionally, the more individuals participating in a program, the more likely there will be occurrences of non-compliance. This is particularly the case for a program, such as this, that relies on interaction between NMFS, managers of CDQ, and participants.

⁷⁸ An information collection request under the PRA is required even when the collection of information is voluntary.

Table 3-17 Qualitative costs of sub-options using Alternative 4 as a baseline

	Sub-option 3.1: Allow halibut PSC to accrue only when the halibut season is closed	Sub-option 3.2: Allow halibut PSC to accrue only outside of the halibut season dates specified by each CDQ group	Sub-option 3.3: Allow halibut PSC to accrue on a trip-by-trip basis
Additional Catch Accounting costs	<ul style="list-style-type: none"> • Modify CAS to create "small vessel halibut PSC limit" • Modify CAS to estimate and accrue halibut PSC rate outside of halibut CDQ/ IFQ season 	<ul style="list-style-type: none"> • Modify CAS to create "small vessel halibut PSC limit" • Modify CAS to estimate and accrue halibut PSC outside of CDQ group-established halibut seasons • Modify CAS to include formal start and end date to group-established halibut CDQ seasons 	<ul style="list-style-type: none"> • Modify CAS to create "small vessel halibut PSC limit" • Modify CAS to estimate and accrue halibut PSC on a trip-by-trip basis
Additional In-season Management costs	<ul style="list-style-type: none"> • Manage the small vessel PSC limit and issue closure as necessary. Lowest potential for additional administrative costs because least potential for participants to fish under NMFS-managed small vessel halibut PSC limit. 	<ul style="list-style-type: none"> • Manage the small vessel PSC limit and issue closure as necessary. Medium potential for additional administrative costs because more potential fishing under NMFS-managed small vessel halibut PSC limit. • Prepare Federal Register of formal start and end dates for halibut CDQ season each year. 	<ul style="list-style-type: none"> • Manage the small vessel PSC limit and issue closure as necessary. Highest potential for additional administrative costs because more potential fishing under NMFS-managed small vessel halibut PSC limit.
Additional CDQ management costs	<ul style="list-style-type: none"> • In the unlikely event that a participant fishes Pacific cod CDQ outside of the halibut CDQ/IFQ season, more communication with participants and with NMFS will be necessary to manage the group's small vessel halibut PSC limit. 	<ul style="list-style-type: none"> • Establish (if they do not currently have) a formal start and end date to their group's halibut CDQ season annually and provide to NMFS annually • Distribute new eligibility certificates each year that include halibut season dates. All participating vessel would need an eligibility certificate in this Sub-option. • Communicate with In-season management to maintain small vessel halibut PSC account 	<ul style="list-style-type: none"> • This sub-option would require the most communication with In-season management to maintain small vessel halibut PSC account • More communication with their participants to inform them of the CDQ halibut and Pacific cod available for harvested versus what would be required to be discarded
Additional vessel operator costs	<ul style="list-style-type: none"> • In the unlikely event that a participant fishes Pacific cod CDQ outside of the CDQ/IFQ season, more communication with manger of quota will be necessary to use small vessel halibut PSC limit. 	<ul style="list-style-type: none"> • Must be aware of the season dates the fishery switches from a directed Pacific cod CDQ fishery to a dual fishery and back to a Pacific cod CDQ only fishery 	<ul style="list-style-type: none"> • More regulations to understand in terms of when they are required to retain halibut and when they must discard halibut • More communication with their managers
Additional monitoring and enforcement costs	<ul style="list-style-type: none"> • No additional monitoring and enforcement issues compared to Alternative 4. 	<ul style="list-style-type: none"> • Coast Guard would need to know the halibut season dates for the vessel they were boarding. This could be detailed on the NMFS LLP exemption letter. 	<ul style="list-style-type: none"> • Neither OLE nor Coast Guard would be responsible for verifying the type of trip; this would be done in the CAS • There may be non-compliance with high-grading halibut CDQ when Pacific cod CDQ fishing. Once a vessel begins retaining halibut CDQ on a Pacific cod CDQ trip, they are required to continue to retain halibut CDQ. This would be difficult to monitor and enforce.

The costs associated with setting up and maintaining a management system can be compared to the additional benefits CDQ group participants may receive from the additional opportunity to fish directed Pacific cod CDQ without the availability of halibut CDQ or IFQ.

Estimating the benefits to each group based of the different management sub-options is difficult because most groups do not have a business plan ready to be implemented simultaneously with regulation changes. Many participants will be waiting to see what regulation will allow them to participate in before they invest in any additional capital directed fishing Pacific cod may require to obtain. For the majority of the participants, it is expected that benefits will not be felt immediately after implementation of a regulatory package. Participants that have solely prosecuted a small vessel halibut CDQ fishery in the past will still need to be outfitted with a VMS, acquire a certificate of eligibility to be LLP exempt (if greater than 32 ft. LOA), be listed on the NMFS online database, and be educated on the responsibilities of being in partial observer coverage category.

However, CDQ group representatives' have spent time considering how management changes might promote small vessel fishing opportunities in their region and be integrated into their group's management. This integration will depend on many group- and region-specific factors. It will depend on the existing fleet of small vessels currently equipped to harvest with hook-and-line. It will depend on weather and ocean conditions, current and potential processing availability as describe in Section 3.7.5, and importantly, efforts made to plan around the opening of priority fisheries. The participation in, and integration of, a small vessel Pacific cod CDQ fishery will also depend on the regulation package accompanying this action. The possibility of benefits for each group under each Sub-option is summarized in a qualitative way in Table 3-18. Similar to Table 3-17, the benefits are considered using Alternative 4 as the baseline.

Generally, it is not expected that Sub-option 3.1 will provide any group additional benefits over the baseline. It is unlikely that any participant will want to prosecute a directed Pacific cod CDQ fishery before or after the IPHC-established halibut CDQ season (generally mid-March to early November) due to weather and ocean conditions. Therefore, it is expected that Sub-option 3.1 will only provide additional opportunity in the event that there is no halibut CDQ season. Sub-option 3.2 is expected to provide additional benefits, particularly in the spring before the start of the CDQ group-established halibut season.

Depending on the group, Sub-option 3.2 may provide some minimal opportunity for participants post-halibut CDQ season as end dates will need to be established conservatively in an effort not to limit the season of a priority species (i.e., halibut, salmon, or red king crab). In the case of CVRF, with a more homogenous end date to their halibut fishery, there may be additional opportunities to fish Pacific cod CDQ after the halibut CDQ season, under this sub-option.

Sub-option 3.3 is expected to provide the widest range of opportunity, by allowing trip-by-trip determination of the reliance on a small vessel halibut PSC limit versus the use of halibut CDQ/IFQ. This sub-option essentially puts the control at the CDQ group management level of whether a participant should discard halibut to be estimated toward the group's small vessel halibut PSC limit or whether they have access to Pacific cod CDQ and are expected to retain both halibut CDQ and Pacific cod CDQ. This sub-option would delay the expected lag time between the end of an individual's halibut CDQ fishery and their opportunity to directed Pacific cod CDQ fish, while relying on their group's small vessel halibut PSC limit.

Table 3-18 Qualitative benefits of the Sub-options using Alternative 4 as a baseline

	Sub-option 3.1: Allow halibut PSC to accrue only when the halibut season is closed	Sub-option 3.2: Allow halibut PSC to accrue only outside of the halibut season dates specified by each CDQ group	Sub-option 3.3: Allow halibut PSC to accrue on a trip-by-trip basis
APICDA	<ul style="list-style-type: none"> Unlikely to provide additional benefits, except under the possibility of no halibut CDQ season 	<ul style="list-style-type: none"> Expected to provide some Pacific cod CDQ fishing opportunities for St. George participants before the APICDA halibut season. Unlikely to provide additional benefits for Atka participants. 	<ul style="list-style-type: none"> Expected to provide some Pacific cod CDQ fishing opportunities before the APICDA halibut season for St. George participants. Unlikely to provide additional benefits for Atka participants.
BBEDC	<ul style="list-style-type: none"> Unlikely to provide additional benefits 	<ul style="list-style-type: none"> Unlikely to provide additional benefits 	<ul style="list-style-type: none"> Unlikely to provide additional benefits
CBSFA	<ul style="list-style-type: none"> Unlikely to provide additional benefits, except under the possibility of no halibut CDQ season 	<ul style="list-style-type: none"> Expected to provide Pacific cod CDQ fishing opportunities before the CBSFA halibut season 	<ul style="list-style-type: none"> Expected to provide Pacific cod CDQ fishing opportunities before the CBSFA halibut season Due to vessel caps, CBSFA participants complete their individual halibut CDQ seasons at different times. Individuals reaching their full halibut CDQ harvest more quickly than others will benefit from the opportunity to immediately transition into a Pacific cod CDQ fishery.
CVRF	<ul style="list-style-type: none"> Unlikely to provide additional benefits, except under the possibility of no halibut CDQ season 	<ul style="list-style-type: none"> Expected to provide some Pacific cod CDQ fishing opportunities before the CVRF halibut season Because CVRF's program does not use vessel caps, participants can fish until the group's halibut quota is harvested. This creates a more homogenous end date to fishery. Participants would benefit from opportunity to transition to a Pacific cod CDQ fishery after the halibut CDQ season. 	<ul style="list-style-type: none"> Expected to provide some Pacific cod CDQ fishing opportunities before the CVRF halibut season Participants would benefit from opportunity to transition to a Pacific cod CDQ fishery after the halibut CDQ season. Since CDQ halibut season dates would need to be established by Feb, under Sub-option 3.2, seasons would need to be established conservatively around the halibut CDQ fishery to avoid truncating the season. Therefore, Sub-option 3.3 would alleviate potential lag time between seasons.
NSEDC	<ul style="list-style-type: none"> Unlikely to provide additional benefits, except under the possibility of no halibut CDQ season 	<ul style="list-style-type: none"> Expected to provide Pacific cod CDQ fishing opportunities before the NSEDC halibut season. 	<ul style="list-style-type: none"> Expected to provide Pacific cod CDQ fishing opportunities before the NSEDC halibut season. Based on the difference between the Nome halibut fishery, which is structured around the red king crab fishery, and Savoonga halibut fishery, additional benefits may be experienced in both fisheries from trip-by-trip flexibility. Individuals in both Nome and Savoonga reaching their halibut CDQ harvest at different points in the summer may benefit from the opportunity to seamlessly transition into Pacific cod CDQ fishing.
YDFDA	<ul style="list-style-type: none"> Unlikely to provide additional benefits 	<ul style="list-style-type: none"> Unlikely to provide additional benefits 	<ul style="list-style-type: none"> Unlikely to provide additional benefits

3.13 Summation of the Alternative with Respect to Net Benefit to the Nation

The proposed action will create changes in the regulatory environment that could offer additional fishing opportunities to small fixed-gear CVs fishing IFQ and CDQ. Assuming this action results in expanded small boat effort, regulatory and management changes attributable to this action may have distributional effects on individuals belonging to a CDQ group and those able to participate in a Pacific cod CDQ fishery. Given that these new opportunities are voluntary, it can be expected that those choosing to participate will experience individual positive net benefits.

However, as overall fishing activity is generally expected to represent a small amount of redistributed effort from FLL vessels, and as a consequence any increased opportunity is unlikely to have significant effects on production from the fisheries; this action is likely to have no discernable net benefits to the Nation as a whole.

4 Environmental Assessment

An Environmental Assessment (EA) is prepared to determine whether an action will result in significant effects on the human environment. If the environmental effects of the action are determined not to be significant based on an analysis of relevant considerations, the EA and resulting finding of no significant impact are the final environmental documents required by National Environmental Policy Act (NEPA). If significant impacts are likely to occur, preparation of an environmental impact statement (EIS) is required.

There are four required components for an EA. The need for the proposed action is described in Section 1.1 and the alternatives in Chapter 2. This chapter addresses the probable environmental impacts of the proposed action and alternatives. The socio-economic impacts of this action are described in detail in the Regulatory Impact Review and Initial Regulatory Flexibility Analysis portions of this analysis (Chapters 3 and 4, respectively). A list of agencies and persons consulted is included in Chapter 8.

NEPA also requires an analysis of the potential cumulative effects of a proposed action and its alternatives. An EA or EIS must consider cumulative effects when determining whether an action significantly affects environmental quality. The Council on Environmental Quality regulations for implementing NEPA define cumulative effects as:

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

The discussion of past and present cumulative effects is addressed with the analysis of direct and indirect impacts for each resource component below. The cumulative impact of reasonably foreseeable future actions is addressed in Section 4.4.

Analytical method

The environmental impacts generally associated with fishery management actions are effects resulting from interactions of the fishery with the following resource components: the target species of the fishery or fisheries, non-target species including prohibited species that are caught while fishing, marine mammals, seabirds, benthic habitat and essential fish habitat, the ecosystem in general, and economic and social conditions. The proposed action under each alternative would modify regulations governing the groundfish and halibut CDQ fisheries, but these fisheries would continue to be managed under the annual allocations of the target species and prohibited species authorized through the groundfish harvest specifications process. The impact of the annual groundfish harvest specifications on the human environment was analyzed in the Alaska Groundfish Harvest Specifications EIS (NMFS, 2007), which is described in more detail below in the section titled “Documents Incorporated by Reference in this Analysis.” In addition, each year since 2007 NMFS has prepared a Supplementary Information Report to evaluate new information and circumstances to determine whether preparation of a Supplemental EIS is warranted.

The action alternatives (Alternatives 2 through 4) propose different mechanisms to increase opportunities for small hook-and-line catcher vessels participating in the Bering Sea Aleutian Island (BSAI) Community Development Quota (CDQ) Program to harvest Pacific cod, either in a directed fishery for groundfish CDQ or as increased retention in the halibut CDQ fisheries.

In order to consider any impacts on environmental resource from the proposed action, it is necessary to understand what and how behavior may change in the fishery. Action alternatives would redistribute Pacific

cod CDQ from Freezer Longliners (FLL) to a CDQ small vessel fleet and,⁷⁹ consequently, increase Pacific cod fishing in near-shore waters to some extent. While there is limited quantifiable basis to determine the precise magnitude of Pacific cod CDQ that would be harvested by these small vessels, harvest limits dictate that only 10.7 percent of the total allowable catch (TAC) is allocated to the CDQ groups. Of that allocation, a portion is set aside for bycatch reserves in other fisheries, and some groups are likely to not change their harvesting behavior in any way (see Section 3.12.3). Of the CDQ groups that do choose to aid their residents in participating, the fishery would likely develop around the vessels that currently participate in the halibut CDQ fishery. For most interested CDQ groups, this would be about two dozen small vessels. For one of the groups, Coast Villages Regional Fund (CVRF), this could be up to 180 small vessels. However, most of these vessels, particularly in the case of CVRF, are less than or equal to 22 ft. LOA, with a fairly limited harvesting capacity. Thus, while the precise amount of Pacific cod CDQ internally redistributed from large FLLs or catcher vessels to a CDQ small vessel fleet is unknown, it is safe to expect that it will be a relatively small amount. The CDQ group's quota managers will have control over the magnitude of this internal reallocation.

Furthermore, there could be a small seasonal change in the amount of Pacific cod CDQ that is harvested by this small vessel fleet, based around the participants' priority fishery seasons, such halibut or red king crab. The redistributed fishery, under any alternative, is expected to operate with a similar geographic footprint to the halibut CDQ fishery.⁸⁰ Finally, none of the proposed alternatives would alter gear type used to harvest Pacific cod.

Based on these excepted changes, Table 4-1 identifies the resource components that may be affected by the alternatives ("Y") and those that analysts have determined will not be affected by the alternatives ("N").

Table 4-1 Resource components potentially affected by the proposed action and alternatives

Alternatives	Component							
	Pacific cod	Halibut	Other target and non-target species	Marine Mammals	Seabirds	Benthic and Essential Fish Habitat	Ecosystem	Socio-economic
Alt 1	N	N	N	N	N	N	N	N
Alt 2	Y	Y	N	Y	N	N	N	Y
Alt 3 Option 1	Y	Y	N	N	N	N	N	Y
Alt 3 Option 2	Y	Y	N	N	N	N	N	Y
Alt 4 (PA)	Y	Y	N	N	N	N	N	Y

N = no impact beyond the status quo anticipated by alternative or option

Y = an impact beyond the status quo is possible if the alternative or option is implemented

The EA provides more detailed information about the impact of the alternatives on the resource components from Table 4-1, if an impact could be expected. Based on Table 4-1, this EA considers impacts to Pacific cod, halibut, and selected marine mammals. Socio-economic impacts are analyzed in detail in the RIR in Chapter 3. Extensive analysis on all resource components is not needed in this document because the proposed action is not anticipated to have environmental impacts on all components.

⁷⁹ There is also a possibility of a small increase in overall harvest (rather than just a redistribution from the FLL fleet), as some CDQ groups have had unharvested Pacific cod quota. If this does occur, it is expected to be a small amount of increased harvest and as it is still within the groups' allocated catch limit, these effects are analyzed in the annual harvest specification process.

⁸⁰ Expect for Alternative 2, the additional retention of Pacific cod CDQ would be prohibited from Stellar Sea Lion critical habitat area. Thus the location of fishing could not represent the precise footprint of the halibut CDQ fishery. However, it is expected that they would be in similar nearshore areas.

No effects are expected on other target and non-target species including other groundfish species managed under TACs. Although the PA applies the proposed management measures to fishing for any groundfish species by the small catcher vessels, broadening the allowances beyond Pacific cod was done primarily to reduce the administrative and enforcement difficulties that may occur if a vessel operator retained some another groundfish species in an amount that would meet the regulatory definition of directed fishing for a species other than Pacific cod. If the regulations apply only while these vessels are directed fishing for Pacific cod, catch that qualifies as directed fishing for any other groundfish species would trigger the existing higher level of licensing and observer coverage requirements.

Applying the proposed regulations to groundfish in general rather than just Pacific cod is not expected to result in directed fishing for any groundfish species other than Pacific cod. The CDQ groups requested action focused only on Pacific cod. Halibut, sablefish, and Pacific cod are the only target fisheries in the BSAI for catcher vessels using hook-and-line gear. It seems unlikely that hook-and-line target fisheries for other groundfish species will develop in the near future. Therefore, the EA does not further examine the potential impacts on any groundfish target species other than Pacific cod.

No effects are expected on prohibited species other than halibut because these prohibited species are not caught in large numbers in hook-and-line fisheries. Prohibited species catch (PSC) limits for salmon, crab, and herring are not established for any of the groundfish hook-and-line fisheries in the Gulf of Alaska (GOA) or Bering Sea Aleutian Islands (BSAI).

No effects are expected on seabirds from any of the proposed action alternatives. Vessel greater than 26 ft. LOA are required to comply with seabird avoidance devices requirements (§679.24(e)(1)), therefore there is no expected change in impact from this portion of vessels. Those vessels less than or equal to 26 ft. LOA that increase effort to Pacific cod CDQ fish may create a small amount of increase interaction between seabirds and fishing operations. However, given the presumed scope of behavior change, this incremental change is not expected to have a significant impact on seabirds. Additionally vessels fishing for Pacific cod do not pose a threat for competition for seabird prey, as they general would not be feeding on Pacific cod.

No proposed action in this package is expected to affect benthic and essential fish habitat, or any ecosystem components of the environment beyond those anticipated for the BSAI groundfish fisheries as a whole. Those impacts are analyzed in the groundfish harvest specifications EIS and reviewed annually as part of that process. No effect is presumed for these components because none of the proposed alternatives will alter the gear types used or the total harvest amounts of Pacific cod, halibut, or other allocated species because total harvests are limited through the annual groundfish harvest specifications and the halibut allocations. Any change in the harvesting intensity of Pacific cod is expected to be redistributed effort of low magnitude. The impacts to the ecosystem are not expected to be significant also primarily due to the small scope and magnitude of the proposed change under any action alternative.

Recent and relevant information, necessary to understand the affected environment for each resource component that may be affected by the alternatives, is summarized below in the relevant sections. For each component, the analysis identifies the potential impacts of each alternative, and uses criteria to evaluate the significance of these impacts.

Documents incorporated by reference in this analysis

The action area is the BSAI, which also is described in Section 1.2.3. This EA relies heavily on the information and evaluations contained in previous environmental analyses, and these documents are incorporated by reference. The documents listed below contain information about the fishery management areas, fisheries, marine resources, ecosystem, social, and economic elements of the groundfish fisheries in

the BSAI. They also include comprehensive analysis of the effects of the fisheries on the human environment, and are referenced in the analysis of impacts throughout this chapter.

Alaska Groundfish Harvest Specifications Final Environmental Impact Statement (NMFS 2007).

This EIS provides decision makers and the public an evaluation of the environmental, social, and economic effects of alternative harvest strategies for the federally managed groundfish fisheries in the GOA and the BSAI management areas and is referenced here for an understanding of the groundfish fishery. The EIS examines alternative harvest strategies that comply with Federal regulations, the Fishery Management Plan for Groundfish of the Gulf of Alaska, the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area, and the Magnuson-Stevens Fishery Conservation and Management Act. These strategies are applied using the best available scientific information to derive the TAC estimates for the groundfish fisheries. The EIS evaluates the effects of different alternatives on target species, non-specified species, forage species, prohibited species, marine mammals, seabirds, essential fish habitat, ecosystem relationships, and economic aspects of the groundfish fisheries. This document is available from: <http://alaskafisheries.noaa.gov/analyses/specs/eis/default.htm>.

Stock Assessment and Fishery Evaluation (SAFE) Report for the Groundfish Resources of the BSAI (NPFMC 2013).

Annual SAFE reports review recent research and provide estimates of the biomass of each species and other biological parameters. The SAFE report includes the acceptable biological catch (ABC) specifications used by NMFS in the annual harvest specifications. The SAFE report also summarizes available information on the ecosystems and the economic condition of the groundfish fisheries off Alaska. This document is available from: <http://www.afsc.noaa.gov/refm/stocks/assessments.htm>.

Final Programmatic Supplemental Environmental Impact Statement (PSEIS) on the Alaska Groundfish Fisheries (NMFS 2004).

The PSEIS evaluates the Alaska groundfish fisheries management program as a whole, and includes analysis of alternative management strategies for the GOA and BSAI groundfish fisheries. The EIS is a comprehensive evaluation of the status of the resource components and the effects of these components on target species, non-specified species, forage species, prohibited species, marine mammals, seabirds, essential fish habitat, ecosystem relationships, and economic aspects of the groundfish fisheries. This document is available from: <http://alaskafisheries.noaa.gov/sustainablefisheries/seis/intro.htm>.

4.1 Pacific cod

4.1.1 Stock Status

Pacific cod (*Gadus macrocephalus*) is a transoceanic species, occurring at depths from shoreline to 500 m. The southern limit of the species' distribution is about 34° N latitude, with a northern limit of about 65° N latitude (Lauth 2011). Pacific cod is distributed widely over the Eastern Bering Sea (EBS) as well as in the AI area. Tagging studies (e.g., Shimada and Kimura 1994) have demonstrated significant migration within and between the EBS, AI, and GOA. However, recent research indicates the existence of discrete stocks in the EBS and AI (Canino et al. 2005; Cunningham et al. 2009; Canino et al. 2010; Spies 2012).

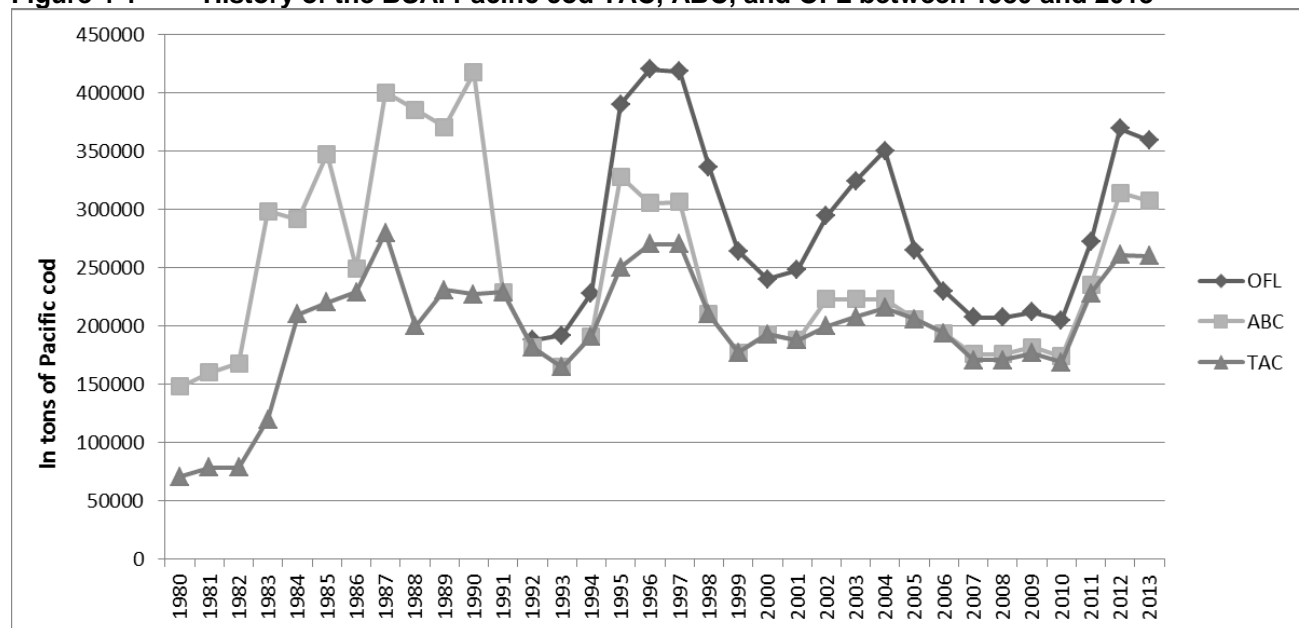
The BSAI Pacific cod resource has historically been managed as a single unit. In 2013, the assessment of the BSAI Pacific cod stock in the BSAI SAFE was first split into two separate assessments; one for the stock in the EBS and one for the stock in the AI (Thompson 2013; Thompson and Palsson 2013). This change allowed separate harvest specifications for the EBS and AI Pacific cod stocks beginning with the 2014 fishery.

Estimates of total abundance for the EBS are obtained from the shelf bottom trawl surveys.⁸¹ Survey results indicate that biomass remained relatively constant from 1982 through 1988. The highest biomass ever observed by the survey was the 1994 estimate of 1,368,120 metric tons (mt). Following the high observation in 1994, the survey biomass estimate declined steadily through 1998. The survey biomass estimates remained in the 596,000 to 619,000 mt range from 2002 through 2005. However, the survey biomass estimates dropped after 2005, producing an all-time low in 2007 and again in 2008. Estimated biomass more than doubled between 2009 and 2010, and has remained within 10 percent of the 2010 value for the last three years (Thompson 2013; Thompson and Palsson 2013).

For the AI, both the biomass and numerical abundance data indicate very consistent declines throughout the time series, particularly in the Western Aleutians.⁸² Between 1991 and 2012 estimates on biomass have dropped from about 75,500 to 13,500 mt. Estimated abundance in the Western Aleutians dropped from about 18.5 million fish to 4.1 million. Overall in the AI, estimated biomass has declined 67 percent from levels in 1991 (Thompson 2013; Thompson and Palsson 2013).

With the increase in Pacific cod stock in the EBS outweighing declines in the AI, the ABC for Pacific cod has increased for the combined BSAI from 174,000 mt in 2010 to 314,000 mt in 2012, dropping off slightly to 307,000 mt in 2013. Figure 4-1 demonstrates these trends for the combined BSAI for all Pacific cod commercial fisheries since 1980. Harvest levels of Pacific cod are discussed in Section 3.6.3. BSAI catch has been lower than the OFL since 1993.

Figure 4-1 History of the BSAI Pacific cod TAC, ABC, and OFL between 1980 and 2013



Source: BSAI Groundfish SAFE, (NPFMC 2013)

Note: ABC was not specified prior to 1980

⁸¹ For more data on biomass and abundance of Pacific cod in the EBS see Table 2.7 in Chapter 2: Assessment of the Pacific Cod Stock in the Eastern Bering Sea in the 2013 BSAI groundfish SAFE (NPFMC 2013).

⁸² For more data on biomass and abundance estimates of Pacific cod in the AI management area, see Table 2A.6 in Chapter 2A: Assessment of the Pacific Cod Stock in the Aleutian Islands in the 2013 BSAI groundfish SAFE (NPFMC 2013).

4.1.2 Current Fisheries

Presently, the Pacific cod stock is exploited by a multiple-gear fishery, including trawl, longline, pot, and jig components (although catches by jig gear are very small in comparison to the other three main gear types, with an average annual catch of less than 200 mt in the EBS and 30 mt in AI since 1992).

Table 4-2 demonstrates this average breakdown by gear type over a five year period.

Table 4-2 Average percent of directed Pacific cod catch harvested between 2008 and 2012 by gear type

	Eastern Bering Sea	Aleutian Islands
Longline gear	59%	20%
Trawl gear	29%	71%
Pot gear	12%	9%

Source: BSAI groundfish SAFE, (NPFMC 2013)

In the EBS, Pacific cod are caught throughout much of the continental shelf,⁸³ with NMFS statistical areas 509, 513, 517, 519, and 521 each accounting for at least 5 percent of the average catch between 2008 and 2012 (Thompson 2013; Thompson and Palsson 2013).

Historically, Pacific cod were caught throughout the AI. For the last five years prior to enactment of additional Steller sea lion (*Eumetopias jubatus*) protective regulations in 2011, the proportions of Pacific cod catch in NMFS Statistical Areas 541, 542, and 543 averaged 58 percent, 19 percent, and 23 percent, respectively. For the period 2011 through 2013, the average distribution has been 82 percent, 18 percent, and 0 percent, respectively.⁸⁴

The Pacific cod CDQ fishery is discussed in Section 3.6. CDQ groups are allocated 10.7 percent of the TAC for Pacific cod in a given season to be prosecuted without gear restrictions. However, it is primarily prosecuted on FLL vessels with a similar seasonal pattern as the non-CDQ fleet and in similar regional patterns as the non-CDQ fleet (see Figure 1-1 and Figure 1-2).

4.1.3 Effects of the Alternatives on Pacific Cod

For Alternative 1, the effects of the BSAI Pacific cod fishery on the EBS and AI Pacific cod stock are assessed annually in the BSAI SAFE report (Thompson 2013; Thompson and Palsson 2013), and are also evaluated in the Alaska Groundfish Harvest Specifications EIS (NMFS 2007). The Pacific cod stock in the BS or AI is neither overfished nor subject to overfishing, and the biomass levels are projected to increase for 2015 for the Pacific cod stock in the EBS.⁸⁵ It is estimated that the BSAI Pacific cod fisheries under the status quo are sustainable for Pacific cod stocks. Therefore, Alternative 1 has an insignificant effect on Pacific cod.

Table 4-3 describes the criteria used to determine whether the impacts on Pacific cod stocks from the proposed action are likely to be significant.

⁸³ For figures illustrating Pacific cod harvest region by gear type in the EBS see Figures 2.1a–2.1c in Chapter 2: Assessment of the Pacific Cod Stock in the Eastern Bering Sea in the 2013 BSAI groundfish SAFE (NPFMC 2013).

⁸⁴ The data for 2013 was not fully available at the time these percentages were calculated.

⁸⁵ A projection was not estimated for the AI stock of Pacific cod in 2013.

Table 4-3 Criteria used to determine significance of effects on target groundfish stocks

Effect	Criteria			
	Significantly Negative	Insignificant	Significantly Positive	Unknown
Stock Biomass: potential for increasing and reducing stock size	Reasonably expected to jeopardize the capacity of the stock to yield sustainable biomass on a continuing basis.	Reasonably expected not to jeopardize the capacity of the stock to yield sustainable biomass on a continuing basis.	Action allows the stock to return to its unfished biomass.	Magnitude and/or direction of effects are unknown
Fishing mortality	Changes in fishing mortality are expected to jeopardize the ability of the stock to sustain itself at or above its MSST (minimum stock size threshold)	Changes in fishing mortality are expected to maintain the stock's ability to sustain itself above MSST	Changes in fishing mortality are expected to enhance the stock's ability to sustain itself at or above its MSST	Magnitude and/or direction of effects are unknown
Spatial or temporal distribution	Reasonably expected to adversely affect the distribution of harvested stocks either spatially or temporally such that it jeopardizes the ability of the stock to sustain itself.	Unlikely to affect the distribution of harvested stocks either spatially or temporally such that it has an effect on the ability of the stock to sustain itself.	Reasonably expected to positively affect the harvested stocks through spatial or temporal increases in abundance such that it enhances the ability of the stock to sustain itself.	Magnitude and/or direction of effects are unknown

The proposed action will not allow for an increase in overall Pacific cod CDQ harvest. These concrete harvest limits, paired with the narrow scope and magnitude of the proposed changes on the Pacific cod fishery as a whole, rationalize the presumption of insignificant effects on the Pacific cod stock biomass. There is very low risk of jeopardizing the capacity of the stock due to the fishery changes proposed in any alternative.

Changes in temporal or spatial distribution are expected to occur from an action alternative, yet at a level that is not significant. This potentially minimal change in near-shore harvest intensity is expected to occur by CDQ groups in the Aleutian and Pribilof Islands and some Western Alaska communities. While the precise magnitude of Pacific cod redistributed from the FLL fleet is unknown, it is expected that it would represent a relatively small percent of Pacific cod CDQ allocation.

However, any increased intensity of Pacific cod fishing in near-shore regions depends on the quantity of Pacific cod already being caught as incidental catch in the halibut CDQ fishery. One of the primary motivations for to the proposed action is that hook-and-line participants currently catch some Pacific cod incidental to halibut. Historically, vessels harvesting halibut CDQ or IFQ have discarded Pacific cod or retained it to use as bait; although, given the minimal data on these activities, it is suspected that this information is not well reported and, thus, these removals not well accounted for. Despite limited data on this issue, it is understood that Pacific cod caught incidentally is currently being discarded at-sea or retained for bait.

Prior to 2013, observers were not placed on vessels fishing for halibut CDQ or IFQ. Once the restructured Observer Program was implemented in 2013, vessels greater than or equal to 40 ft. LOA have been placed in a partial observer coverage category. Therefore, observer data can now be used to calculate at-sea discards for halibut catcher vessels. While it is known that some Pacific cod is caught as incidental catch in the halibut CDQ fishery, since observer coverage on small vessels only began in 2013, it is difficult to estimate their magnitude. Under the action alternatives, Pacific cod discards would be reduced because Pacific cod could be retained for sale. A more efficient harvest of Pacific cod could allow for improved

record-keeping of this catch, since much of this Pacific cod would, presumably, be retained, landed, and reported as harvest for commercial sale. Therefore NMFS would have a better estimate of Pacific cod catch in the halibut CDQ fishery.

Therefore, any action alternative that promotes increased retention could reduce discards and could reduce the wastage from the mortality associated with discarded Pacific cod. This is particularly applicable under Alternative 2, which requires Pacific cod to be retained but only when halibut CDQ fishing. Still, any of the alternatives would allow more retention of Pacific cod CDQ while the participant was fishing halibut CDQ, if they had an allocation of halibut available to them. Allowing increased retention in the CDQ small vessel fishery would allow for more efficient fishing practices. However, given the predicted size of quota redistribution, any change is still expected to not be significant on overall Pacific cod mortality.

Seasonal patterns for a Pacific cod CDQ fishery may adjust to mimic or precede the halibut season. Halibut CDQ harvest through 2012 is illustrated in Figure 3-5. Currently the FLL vessels are able to harvest Pacific cod CDQ all year, displaying peaks of harvest just after the opening of the A and the B seasons (i.e., February through April and again in August, see Figure 3-1). The action alternatives have differences in their flexibility of seasonal allocations. Under Alternative 2, increased retention of Pacific cod would be conditional on the halibut CDQ seasons (i.e., generally mid-March to November). Under either Alternative 3 or 4 (Option 3), the Pacific cod CDQ fishery could emerge before, during, and after halibut CDQ fishing. Under harsh winter conditions, CDQ participants would be expected to take advantage of a summer Pacific cod fishery; either before or at the same time as the halibut CDQ fishery.

Given the understanding of a minimal change in fishing effort in some near-shore regions using current gear types, an insignificant impact is anticipated on Pacific cod stock biomass, fishing mortality, or spatial or temporal distribution.

4.2 Pacific Halibut

Pacific halibut is relevant to this analysis due to its overlapping habitat with Pacific cod. Given that Pacific cod can be harvested in similar regions and with the same gear as halibut, the action alternatives (Alternatives 2 through 4) propose complementing the current halibut CDQ fishery with opportunities to simultaneously retain more Pacific cod. This section considers whether the halibut stock would be impacted by the proposed action.

4.2.1 Targeted Halibut and Prohibited Species Catch

The catch of halibut by the CDQ groups is categorized in one of two ways. If the CDQ participant is targeting halibut, legal-size halibut may be retained and catch will accrue to the halibut CDQ allocation. CDQ groups are allocated certain portions of the TAC for targeting halibut depending on region. The Regulatory Areas 4B, 4C, 4D, and 4E CDQ allocation accounts for 20 percent, 50 percent, 30 percent, and 100 percent of the TAC, respectively. If the CDQ participant is not targeting halibut, halibut prohibited species catch (PSC) will count towards the group's PSC limit, or transferable prohibited species quota (PSQ). Since 2010, CDQ groups have received an annual allocation of 393 mt of halibut for PSC in the groundfish fisheries that they participate in. Unlike a directed fishery, where fishing effort is expected to approach the TAC, PSC is expected to be minimized as much as practicable.

As demonstrated in Figure 3-3 by the International Pacific Halibut Commission and Table 3-8 the exploitable biomass of halibut, and ultimately the halibut CDQ allocation, have declined fairly consistently, particularly in the last four years. The 2013 Pacific halibut stock assessment cites this as a result of recruitment strengths that are much smaller than those observed through the 1980s and 1990s (Stewart and Martell 2014).

4.2.2 Effect of the Alternatives on Halibut

The alternatives would not change the way the halibut CDQ fishery is currently prosecuted. Any of the action alternatives would create a Pacific cod complement to the halibut fishery. Whether the proposed action manifests in an increased MRA or a multi-species fishery, halibut CDQ would be expected to be targeted in the same areas, with the same gear type, by the same number of vessels, and consistent fishing effort.

Therefore, this section focuses on the effects the alternatives may have on halibut PSC, while vessels are targeting Pacific cod. Table 4-4 describes the criteria used to determine whether the impacts on halibut PSC are likely to be significant.

Table 4-4 Criteria used to estimate the significance of impacts on incidental catch of halibut

No impact	No change in the incidental catch of halibut.
Adverse impact	There is an increase in incidental catch of halibut.
Beneficial impact	Natural at-sea mortality of halibut would be reduced – perhaps by the harvest of a predator or by the harvest of a species that competes for prey.
Significantly adverse impact	An action that diminishes protections afforded to halibut in the groundfish fisheries.
Significantly beneficial impact	No benchmarks are available for significantly beneficial impact of the groundfish fishery on halibut, and significantly beneficial impacts are not defined.
Unknown impact	Not applicable.

Under Alternative 1, the effects on halibut as a result of the halibut PSC in the groundfish CDQ fisheries were analyzed in the EA for Amendment 111, which revised the halibut PSC limits for the BSAI groundfish fisheries (NMFS 2016). That EA concluded that the halibut PSC limits do not have the potential to significantly impact halibut. Table 3-5 describes halibut PSC from current Pacific cod CDQ fishing that accrued to the CDQ groups' transferable PSQ between 2009 and 2013. This halibut PSC averages about 70 mt annually under current fishing operations. The IPHC takes into account the halibut mortality in the groundfish fisheries when setting the commercial halibut quotas to prevent adverse impacts on the halibut stocks. Since 2008 an average of 57 percent of the CDQ groups' halibut PSC limit has been taken (NPFMC 2015).

Under the action alternatives, if some Pacific cod CDQ is redistributed from the FLL fleet to the CDQ small vessels that are retaining halibut catch, there may be a small decrease in halibut PSC by the FLL fleet. It is necessary to consider the alternatives separately in order to understand potential halibut PSC impacts from catching Pacific cod CDQ on small vessels. A small reduction in PSC may occur under Alternative 2, in which legal-sized halibut catch would be expected to be retained and attributed to the halibut CDQ allocation. In Alternative 3, Options 1 and 2 dictate whether halibut catch would automatically accrue towards the PSQ allocation or the halibut CDQ allocation, respectively. In Option 1, the CDQ participants would be required to target one species at a time, in which case they would be discarding halibut when prosecuting a Pacific cod CDQ fishery. In this case PSC rates would be expected to be approximately equal to PSC rates derived from FLL fleet.⁸⁶ In Option 2, they could prosecute a multi-species fishery, targeting both Pacific cod and halibut as long as the allocation was available to them; therefore there may a small reduction in halibut PSC. Under Alternative 4, the amount of halibut allowed to be discarded would depend on which, if any sub-option of Option 3 the Council chooses. By not choosing any sub-option, the Council may promote a small amount of PSC reduction as legal-sized halibut caught incidentally to Pacific cod CDQ would be required to be retained. The 3 sub-options allow for disparate levels of discarded halibut that would be calculated by a PSC rate. If the Council chooses a sub-option for Option 3, there is unlikely to be a reduction in PSC attributed to redistributed Pacific cod CDQ.

⁸⁶ In essence these numbers would be the same, as the PSC rate calculated in the CAS would be generated from Observer data gathered from the most similar source; primarily the observed FLL vessels.

If catcher vessels less than or equal to 46 ft. LOA using hook-and-line gear to fish for Pacific cod CDQ are assigned to the partial observer coverage category, it is possible that a fishing trip will be selected for observer coverage. However, in most cases, these vessels will be unobserved and the halibut PSC associated with the trip will be derived from halibut PSC rates from observed vessels. The halibut PSC rate applied to landings from unobserved catcher vessels are determined through the CAS based on the best available data, which is the data from observed vessels as close as possible in characteristics to the unobserved vessels.

Sometimes halibut PSC rates are available for the same processing sector, gear, trip target, and management area. However, because there are very few observed trips for catcher vessels less than 60 ft LOA directed fishing for Pacific cod in the BSAI, the halibut PSC rate most frequently applied to landings by these vessel is called a “precedence 20” rate. This rate is derived from all landings year-to-date by vessels in any processing sector using hook-and-line gear in a Pacific cod target in the BSAI. This rate is updated each day and any updates to the rate are applied to all landings to date in the year. Thus, the halibut PSC rate that will be applied to a landing can change throughout the year as new data are gathered until a final calculation is made. The annual average rate is then applied to all landings in that year for which the precedence 20 rate is the best available data. Catcher/processors contribute most of the observer data for the BSAI Pacific cod hook-and-line fishery. Therefore, the “precedence 20” rate is largely derived from catcher/processor activity.

Regardless of the amount of halibut PSC avoided from redistributing a portion of Pacific cod CDQ to the small vessel fleet, halibut PSQ is transferable. Thus, it could be used to support other groundfish CDQ directed fisheries, or transferred to another CDQ group. Ultimately, it is expected that the proposed action will not significantly impact the catch of halibut.

4.3 Marine Mammals

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

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

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

Marine mammals have been given various levels of protection under the Council’s current fishery management plans. Research and monitoring continues to further define the nature and extent of fishery impacts on these species.

The PSEIS (NMFS 2004) provides descriptions of the range, habitat, diet, abundance, and population status for marine mammals. The most recent marine mammal stock assessments were updated in the 2013 stock assessment reports (SARs) (Allen and Angliss 2013). The Pacific walrus was assessed in 2010. The information from NMFS (2004) and Allen and Angliss (2013) are incorporated by reference. The SARs provide population estimates, population trends, and estimates of the potential biological removal (PBR)

levels for each stock.⁸⁷ The SARs also identify potential causes of mortality and whether the stock is considered a strategic stock under the MMPA.

The Alaska Groundfish Harvest Specifications EIS provides information on the effects of the groundfish fisheries on marine mammals (NMFS 2007). Direct and indirect interactions between marine mammals and groundfish fishing vessels may occur due to overlap in the size and species of groundfish harvested in the fisheries that are also important prey species for marine mammals, and due to temporal and spatial overlap in marine mammal occurrence and commercial fishing activities. This discussion focuses on those marine mammals in the BSAI that may be affected by the proposed action.

Marine mammals, including those currently listed as endangered or threatened under the ESA, that may be present in the action area are listed in Table 4-5. All of these species are managed by NMFS, with the exception of the northern sea otter and Pacific walrus, which are managed by the U.S. Fish and Wildlife Service (USFWS). ESA section 7 consultations with respect to the actions of the Federal groundfish fisheries have been completed for all of the ESA-listed species, either individually or in groups. Of the species listed under the ESA and present in the action area, only the western distinct population segment of Steller sea lions may be adversely impacted by one of the alternatives—Alternative 2.

⁸⁷ The SARs are available on the NMFS website at <http://www.nmfs.noaa.gov/pr/sars/region.htm>.

Table 4-5 Marine mammals that may occur in the action area

	Species	Stocks
NMFS Managed Species		
Pinnipedia	Steller sea lion*	Western U.S. ¹
	Northern fur seal**	Eastern Pacific
	Bearded seal*	Beringia
	Ringed seal*	Arctic
	Spotted seal	Southern
	Harbor seal	Bristol Bay
	Ribbon seal	Alaska
Cetacea	Beluga Whale	Eastern Bering Sea, Bristol Bay ²
	Killer whale	Eastern North Pacific Alaska Resident, Aleutian Islands, and Bering Sea transient
	Harbor porpoise	Southeast Alaska, Gulf of Alaska, and Bering Sea
	Dall's porpoise	Alaska
	Sperm whale*	North Pacific
	Gray whale	Eastern North Pacific
	Humpback whale*	Western North Pacific, Central North Pacific
	Minke whale	Alaska
	Fin whale*	Northeast Pacific
	North Pacific right whale*	North Pacific ³
USFWS Managed Species		
Carnivora	Northern sea otter	Aleutian Islands
Pinnipedia	Pacific Walrus	Pacific

*ESA-listed species

**Depleted under MMPA

¹ Steller sea lions are listed as endangered west of Cape Suckling and threatened east of Cape Suckling.

² Cook Inlet beluga whales are listed as endangered; none of the stocks in the action area are listed.

³ NMFS designated critical habitat for the northern right whale on July 6, 2006 (71 FR 38277).

Source: Allen and Angliss 2013.

Of the pinnipeds that may be present in the area, only Steller sea lions and northern fur seals are likely to be affected by potential changes in the groundfish fishing patterns that may result from this action. Bearded seals, ringed seals, spotted seals, harbor seals, ribbon seals, and Pacific walrus are either not likely to be present in the near-shore areas where changes in fishing activities are likely to occur, or feed on species that are not likely to be affected by those changes in fishing activity. Therefore, only Steller sea lions and northern fur seals are considered further.

Cetaceans, other than resident (fish-eating) killer whales, are also either not likely to be present in the near-shore areas where changes in fishing activities are likely to occur, or feed on species that are not likely to be affected by those changes in fishing activity. Therefore, only resident killer whales are considered further.

Northern sea otters are present in the action area, but generally much closer to shore than where fishing activities occur, and feed on benthic species that are not likely to be affected by changes in fishing activity. Therefore, northern sea otters are not expected to be impacted by proposed activities.

Table 4-6 Status of Pinnipedia, Carnivora, and Cetacea stocks potentially affected by the action

Pinnipedia species and stock	Status under the ESA	Status under the MMPA	Population trends	Distribution in action area
Steller sea lion – Western (W) and Eastern (E) Distinct Population Segment (DPS)	Endangered (W)	Depleted & a strategic stock	For the WDPS, regional increases in counts in trend sites of some areas have been offset by decreased counts in other areas so that the overall population of the WDPS appears to have stabilized (NMFS 2010a). The EDPS is steadily increasing and is delisted.	WDPS inhabits Alaska waters from Prince William Sound westward to the end of the Aleutian Island chain and into Russian waters. EDPS inhabit waters east of Prince William Sound to Dixon Entrance. Occur throughout AK waters, terrestrial haulouts and rookeries on Pribilof Islands, Aleutian Islands, St. Lawrence Island, and off the mainland. Use marine areas for foraging. Critical habitat designated around major rookeries, haulouts, and foraging areas.
Northern fur seal Eastern Pacific	None	Depleted & a strategic stock	Recent pup counts show a continuing decline in the number of pups surviving in the Pribilof Islands. NMFS researchers found an approximately 9% decrease in the number of pups born between 2004 and 2006. The pup estimate decreased most sharply on St. Paul Island.	Fur seals occur throughout Alaska waters, but their main rookeries are located in the Bering Sea on Bogoslof Island and the Pribilof Islands. Approximately 55% of the worldwide abundance of fur seals is found on the Pribilof Islands (NMFS 2007b). Forages in the pelagic area of the Bering Sea during summer breeding season, but most leave the Bering Sea in the fall to spend winter and spring in the N. Pacific.
Cetacea species and stock	Status under the ESA	Status under the MMPA	Population trends	Distribution in action area
Killer whale – AT1 Transient, E N Pacific transient, W Coast transient, Alaska resident, Southern resident	Southern resident endangered; remaining stocks none	AT1 depleted and a strategic stock, Southern Resident depleted. The rest of the stocks: None	Southern residents have declined by more than half since 1960s and 1970s. Unknown abundance for the Alaska resident; and Eastern North Pacific GOA, Aleutian Islands, and Bering Sea transient stocks. The minimum abundance estimate for the Eastern North Pacific Alaska Resident stock is likely underestimated because researchers continue to encounter new whales in the Alaskan waters.	Southern resident do not occur in GOA. Transient-type killer whales from the GOA, Aleutian Islands, and Bering Sea are considered to be part of a single population.

Sources: Allen and Angliss 2013; List of Fisheries for 2013 (78 FR 53336, August 29, 2013). AT1 Killer Whales information based on (69 FR 31321, June 3, 2004).

4.3.1 Steller Sea Lions

A detailed discussion of the status of Steller sea lions and their habitat can be found in Chapter 3 of the 2014 Steller sea lion protection measures biological opinion (BiOp) (NMFS 2014), and is incorporated by reference. The Steller sea lion inhabits many of the shoreline areas of the BSAI, using those habitats as seasonal rookeries and seasonal or year-round haulouts. The Steller sea lion has been listed as threatened under the ESA since 1990. In 1997, two distinct population segments (DPS) were recognized based on genetic and demographic dissimilarities, the western DPS (WDPS), and eastern DPS (EDPS). Because of a pattern of continued decline in the WDPS Steller sea lions, that DPS was listed as endangered on June 5, 1997 (62 FR 30772), while the EDPS remained under threatened status. NMFS issued a final rule to remove the EDPS Steller sea lions from the List of Endangered and Threatened Wildlife (78 FR 66140), on November 4, 2013. Steller sea lions occurring in the BSAI are assumed to be primarily from the WDPS.

The WDPS inhabits an area of Alaska from Prince William Sound (144° W longitude) westward to the end of the Aleutian Island chain and into Russian waters. Critical habitat for Steller sea lions was designated on August 27, 1993 (58 FR 45269), based on the location of terrestrial rookery and haulout sites, spatial extent of foraging trips, and availability of prey items. Critical habitat for Steller sea lions includes terrestrial, air, and aquatic areas, and those physical and biological features within this habitat that support reproduction, foraging, rest, and refuge areas essential to the conservation of the species. A full description of critical habitat areas for Steller sea lions is provided in Section 3.12 of the Steller sea lion protection measures BiOp (NMFS 2014).

Since the early 1990s, NMFS has implemented extensive protection measures in the Alaska groundfish fisheries, including the BSAI Pacific cod fisheries, to conserve prey for the WDPS. Beginning in 1990, vessel transit was prohibited within 3 nm of major sea lion rookeries. Trawling for groundfish was prohibited within 10 nm of major sea lion rookeries beginning in 1992. In 2002, NMFS implemented Steller sea lion protection measures in the BSAI Pacific cod fisheries according to gear type as well as a harvest control rule to limit harvest of principal sea lion prey species at levels of low biomass and time and area harvest restrictions (67 FR 956; 68 FR 204). As well, NMFS implemented VMS requirements for vessels harvesting principal sea lion prey species. These protection measures were intended to conserve prey for Steller sea lions in near-shore habitats around major rookeries and haulouts and ensure that vessels did not fish in closed areas. NMFS implemented additional protection measures for Steller sea lions in the western and central Aleutian Islands in 2011 (75 FR 77535, corrected 75 FR 81921) and further refined these measures in 2014 (79 FR 70286) to ensure the groundfish fisheries are not likely to jeopardize the continued existence of the WDPS or destroy or adversely modify designated critical habitat.

The WDPS decreased from an estimated 220,000 to 265,000 animals in the late 1970s to fewer than 50,000 in 2000 (Loughlin et al. 1984, Loughlin and York 2000, Burkanov and Loughlin 2005). The decline began in the 1970s in the eastern AI, western Bering Sea/Kamchatka and the Kuril Islands (Braham et al. 1980, Burkanov and Loughlin 2005, Waite et al. 2005). In Alaska, the decline spread and intensified east and west of the eastern Aleutians in the 1980s. Beginning 1990, the rate of overall decline in Alaska abated, and regional differences in trend appeared; populations near the center of the Alaskan WDPS range (eastern Aleutians and western GOA) were relatively stable, while those to the east and west continued to decline (Fritz et al. 2008). Between 2000 and 2012, the overall counts of non-pups increased in the WDPS in Alaska; however there are large difference in abundance and trends among subregions across Alaska (NMFS 2014). The population in the far western Aleutian Islands continues to decline at approximately 7 percent per year, while the western and eastern GOA populations are increasing at just more than 4 percent per year, and the central Aleutians and central GOA populations are stable (Johnson and Fritz in review in NMFS 2014). An estimate of the abundance of the entire (U.S. and Russian) WDPS is made by adding the most recent pup counts from the U.S. (11,603) to the Russian (6,021), and multiplying by a correction factor (4.5) to account for the ratio of pups to non-pups; this results in an estimate of 79,300 sea lions.

4.3.2 Northern Fur Seals

In Alaska northern fur seals breed on the Pribilof Islands (St. Paul, St. George, and associated smaller islands) and Bogoslof Island. Since 1998 annual pup production on the Pribilof Islands has declined at 4.9 percent per year (Towell et al. 2012). In contrast, pup production on Bogoslof Island was 30.7 percent greater in 2011 than in 2007, and has increased at an annual rate of 11.7 percent since the first pup was observed in 1980 (Towell and Ream 2012). Fur seals breeding in the Bering Sea undertake seasonal pelagic migrations through the Aleutian Islands beginning in late October and spend the winter in the North Pacific Ocean and southern Bering Sea (Ream et al. 2005; Lea et al. 2009). During the summer adult female (Robson et al. 2004; Kuhn et al. 2010) and juvenile male fur seals (Sterling and Ream 2004) forage at sea and return to St. Paul, St. George, and Bogoslof Islands intermittently throughout the summer and autumn. These foraging trips may include Aleutian Island waters, but they occur primarily in the Bering Sea. Diet

composition of adult females breeding on the Pribilof Islands is dominated by walleye pollock (Gudmundson et al. 2006; Call and Ream 2012). Fur seal foraging locations and durations during the summer vary significantly by both island and rookery (Robson et al. 2004; Sterling and Ream 2004; Call et al. 2008). The variability in foraging locations result in significant differences in diet (Zeppelin and Ream 2006; Zeppelin and Orr 2010), whereas at Bogoslof Island the diet has large occurrence of off-shelf prey, such as Gonatid squid and northern smoothtongue, but included Atka mackerel, pollock, capelin, eulachon, and herring (Zeppelin and Orr 2010; Sinclair et al. 1994; Sinclair et al. 2008).

4.3.3 Resident (Fish-eating) Killer Whales

The Eastern North Pacific, Alaska resident stock of fish-eating killer whales occurs in the action area along the Aleutian Islands and southwestern Alaska. The Alaska resident stock includes killer whales from Southeastern Alaska to the Aleutian Islands and Bering Sea. Beginning in 2001, dedicated killer whale studies were conducted by the National Marine Mammal Laboratory in Alaska waters west of Kodiak Island, including the BSAI (Allen and Angliss 2013). Counts of individually recognizable whales, association data, and genetic analysis have resulted in an estimate of 1,300 resident killer whales west of Kodiak Island. Recent data from Matkin et al. (2008) indicate that the Alaska resident stock in Prince William Sound and Kenai Fjords increased at 3.2 percent per year from 1990 to 2005. At present, reliable data on trends in population for the entire Alaska Resident stock is unavailable.

Resident killer whales feed on a variety of fish species, including Pacific cod, but their main prey species are salmonids. They are known to predate on longline catch in the Bering Sea (Dahlheim 1988, Yano and Dahlheim 1995, Perez 2003, Sigler et al. 2002, Perez 2006). There are also reports of killer whales feeding on the processing waste of Bering Sea groundfish trawl fishing vessels (Perez 2006). Recently, several fisheries observers have noted that large groups of killer whales in the Bering Sea have followed vessels, actively consuming the processing waste (Allen and Angliss 2013).

4.3.4 Effects of the Alternatives on Marine Mammals

Criteria to assess the impacts of the action on marine mammals are listed in Table4-7. Because impacts from fishing activities are already taking place in the action area, alternatives are evaluated on their potential impacts as a change from the baseline of the status quo. These changes are considered in terms of their direct impacts on marine mammals, disturbance of marine mammals, and competition for prey compared to the baseline.

The effects of Alternative 1, the status quo Pacific cod fishery, on marine mammals has been analyzed in the Alaska Groundfish Harvest Specifications EIS (NMFS 2007) and in the 2010 Biological Opinion (https://alaskafisheries.noaa.gov/sites/default/files/biop1210_all.pdf). Based on these documents, Alternative 1 has an insignificant impact on marine mammals.

Table4-7 Criteria for determining significance of impacts to marine mammals compared to the status quo

	Direct Impacts	Disturbance	Competition for Prey
Adverse impact	Mammals are struck by fishing vessels, taken by or entangled in gear	Fishing operations disturb marine mammals	Fisheries reduce the availability of marine mammal prey
Beneficial impact	Decreased fishery interactions with fishing gear can be identified	Decreased fishery interactions with fishing operations can be identified	Availability of prey from fishing operations may provide additional, readily accessible, sources of food
Insignificant impact	No substantial change in vessel strikes, or direct interactions by fishing vessels	No substantial change in disturbance of mammals	No substantial change in availability of marine mammal prey species
Significantly adverse impact	Mortality from vessel strikes or incidental take increases to more than PBR or is considered major in relation to estimated population when PBR is undefined	Disturbance of mammals increases such that population is likely to decrease	Competition for key prey species likely to constrain foraging success of marine mammal species causing population decline
Significantly beneficial impact	No threshold can be identified	Not applicable	Not applicable
Unknown impact	Insufficient information available on take rates	Insufficient information as to what constitutes disturbance	Insufficient information as to what constitutes a key area or important time of year

4.3.4.1 Steller Sea Lions

The effects of the proposed action under Alternatives 3 and 4 (the PA) on Steller sea lions are expected to be discountable and consistent with status quo fishing. Alternatives 3 and 4 (the PA) would continue to require vessels to comply with closures that apply to all vessels (i.e., no transit areas), and with area closures, season limits and critical habitat catch limits for directed fishing for Pacific cod within Steller sea lion areas (see Section 2.5).

The PA would result in a minimal change in fishing effort in some near-shore regions using current gear types. An insignificant impact is anticipated on Pacific cod stock biomass, fishing mortality, or spatial or temporal distribution. Pacific cod are an important Steller sea lion prey species. Because this action would have only insignificant impacts on the potential removals of Pacific cod and because all Steller sea lion protection measures would continue to apply to directed fishing for Pacific cod, the PA would not represent a change in the spatial or temporal distribution of the Pacific cod non-trawl fishery in a manner not addressed in previous ESA section 7 consultations.

Under Alternative 2, Pacific cod harvest would be specified as an MRA rather than directed fishing. As such, increased amounts of Pacific cod may be harvested in areas closed to directed fishing for Pacific cod under the Steller sea lion protection measures but otherwise open to halibut CDQ fishing. Therefore, Alternative 2 may increase potential competition for prey in Steller sea lion critical habitat relative to the status quo.

4.3.4.2 Northern Fur Seals

Based on the fact that increased effort is expected to represent small redistributed effort, gear types would not change, and small vessel halibut CDQ operations have been historically occurring within a similar footprint of the proposed small vessel hook-and-line fishery, any changes to the direct impacts or disturbance to fur seals are expected to be incremental and not significant overall.

Northern fur seals are primarily targeting pollock as a main food source; thus, impacts from the proposed action, which would provide additional opportunity for increase Pacific cod CDQ retention for a small vessel fleet, are expected to be insignificant. Consequently, it is also presumed there would be no significant disturbance or direct impacts toward Northern fur seals.

4.3.4.3 Resident (Fish-eating) Killer Whales

It is possible that as small hook-and-line vessels begin to target more Pacific cod CDQ (under any action alternative) participants may experience greater depredation on their lines from resident killer whales, if killer whales in the areas where CDQ vessels are fishing. This could create direct impacts as killer whales are drawn to the vessel. It may also indicate competition for a food source. However, whale depredation of Pacific cod currently occurs within the hook-and-line operations of the vessels that have historically harvested the Pacific cod CDQ. As this increased catch by the small vessel fleet is expected to be primarily a small internal reallocation of Pacific cod quota, there is no evidence to indicate levels of overall levels of depredation, direct impact and competition for a food source would be any different than current fishing operations. Thus it is expected that there will be no substantial net change from the status quo on based on these criteria. The distributional impact is expected to be insignificant.

Along a similar line of reasoning, based on the fact that increased effort is expected to represent small redistributed effort, gear types would not change, and small vessel halibut CDQ operations have been historically occurring within a similar footprint of the proposed small vessel hook-and-line fishery, there are not expected to be substantial changes in disturbance of resident killer whales.

4.4 Cumulative Effects

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

5 Magnuson-Stevens Act and FMP Considerations

5.1 Magnuson-Stevens Act National Standards

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

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

As can be seen in Sections 3.6.3 and 3.7.3 of the analysis, both the allocation of Pacific cod CDQ and halibut CDQ have historically been prosecuted at or near the full allocation. This action is more focused on how that allocation is internally distributed within the CDQ groups and increasing the resource efficiency by allowing these species to be harvested simultaneously. Neither stock is subject to overfishing, overfished, or approaching an overfished condition. None of the action alternatives are expected to impact the ability to achieve optimal yield or promote overfishing.

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

Information in this analysis represents the most current and comprehensive information available to the Council, recognizing that some information (such as operating costs) is unavailable. It represents the best scientific information available.

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

All the alternatives considered in this analysis are consistent with this standard. The groundfish stocks in the BSAI would continue to be managed as single stocks, based on NMFS and the Council's harvest specifications process.

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

Although the CDQ Program as a whole receives discrete allocations of BSAI species, the alternatives considered by this action propose changes that could modify existing fisheries management regulations, and do not further allocate or assign fishing privileges to individuals, nor are discriminations made among fishermen based on residency or other criteria

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

If integrated with care, provisions laid out for the small vessel hook-and-line Pacific cod CDQ fishery based on any of the action alternatives, will allow for increased efficiency by minimizing both Pacific cod bycatch in the halibut CDQ fishery and halibut bycatch in the Pacific cod CDQ fishery.

The more likely vessel operators take advantage of increased opportunities to retain Pacific cod CDQ, the more likely these fisheries will be efficiently integrated. Therefore the PA with sub-option 3.3, containing the highest likelihood of utilization, also contains the highest potential to increase efficiency within these fisheries.

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

None of the alternatives considered would reduce the flexibility of fishery managers or fishermen.

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

The PA is expected to increase some management and administrative costs for catch accounting, In-season management, internal CDQ management, as well as for individual vessel operators (See Table 3-17). However, based on the impact analysis (Section 3.12), these costs are expected to be offset by the benefits associated with increased opportunity for small vessels to take advantage of Pacific cod CDQ. Moreover, the PA mitigates and prevents certain management costs that the other alternatives would impose. For example under Alternative 4 with Sub-option 3.2, CDQ groups interested in taking advantage of provisions laid out for a small vessel hook-and-line Pacific cod CDQ fishery, would be required to annual establish start and end dates for their halibut CDQ fishery to NMFS. This would in turn, require enforcement officials to know these dates in order to enforce these seasons. Under the PA, the type of target fishery an individual CDQ vessel was participating in, would be determined at the time of off-load by the catch composition of the vessel, mitigating the management and enforcement intensity in this part of the process.

Each of the provision outlined in the PA would be designed with a specific function in allowing for a small hook-and-line Pacific cod CDQ opportunity; none of the measures introduced in this alternative are considered to be duplicative.

National Standard 8 — *Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities by utilizing economic and social data that meet the requirements of paragraph (2), in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities.*

This action most directly seeks to address National Standard 8. As stated in the purpose and need, the Council understands the import role that the Pacific cod CDQ fishery resource could have to the communities, if this fishery is able to augment the harvest of the halibut CDQ resource. All of the action alternatives suggested strive to make this CDQ resource more available to residents of the CDQ communities, and to encourage sustained participation in the local fisheries despite the diminishing halibut CDQ. Action alternatives are intended to both promote an additional source of revenue for Pacific cod CDQ

fishery participants using small hook-and-line vessels, as well as mitigating the negative economic impact that many of these participants have felt from the diminishing halibut CDQ stock.

More specifically, the PA, especially by including the Sub-option 3.3, is expected to achieve this objective best out of all the alternatives by being most flexible to the integration of a Pacific cod CDQ fishery to a vessel operator's participation in other fisheries. It additionally provides flexibility based on region-specific factors like ocean and weather conditions. Compared to the other alternatives, this package of regulatory and FMP modifications, providing increased flexibility and opportunity for fishery participants of the CDQ communities, is expected to most efficiently minimize the adverse economic impact of a declining halibut CDQ stock based on available options.

Alternative 2 and 3 make progress towards this goal; however, they are unlikely to provide the same level of opportunity to residents. Alternative 2 would limit the increased opportunity to retain Pacific cod CDQ for commercial sale exclusively to instances when vessels are already halibut CDQ fishing. Moreover it would limit the amount of Pacific cod CDQ that could be harvested base on a MRA percent of the halibut basis species. Alternative 3 is under-developed in its precise method of Pacific cod- halibut fishery integration. Option 1 would create distinct target fisheries; requiring the discard of Pacific cod when halibut CDQ fishing, and requiring the discard of halibut when Pacific cod CDQ fishing. This would not be ideal from a harvest efficiency perspective, nor would it be ideal for encouraging participation. Under Option 2 under Alternative 3 increased opportunity to retain Pacific cod CDQ for commercial sale would again be exclusively to instances when vessel operators had an available quota to account for the incidental catch of halibut. This would lower likelihood of participation and the subsequent economic benefits to communities that could result from this participation.

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

All action alternatives all have the potential to decrease halibut PSC, and therefore the expected halibut mortality associated with the discard of halibut, when the vessel operator has quota of halibut (CDQ or IFQ) available to account for this catch.

Depending on the behavior of the participants, there are some scenarios where PA regulatory changes might not result in minimized bycatch. Sub-option 3.3 of the PA has the potential to allow for the discard of more halibut PSC than may occur without adopting this sub-option. However, if more discarding of halibut PSC does occur, the magnitude of this discard and its associated mortality is not expected to be significantly different from the status quo. Moreover, changes in behavior under the new regulatory regime can be monitored, as halibut PSC will be continuously estimated and accounted for using the methods detailed in Section 2.4 of the analysis. Therefore, the Council has indicated that the potential risk for an increase in halibut PSC due to the freedom of Sub-option 3.3, is outweighed by the increased opportunity and economic benefits that could be achieved for community fishery participants through the increased flexibility of this Sub-option.

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

As described in Section 3.9.5, alternatives and options that link the prosecution of a small vessel hook-and-line Pacific cod CDQ fishery with the halibut CDQ fishery (Alternative 2, Alternative 3 Option 2, or Alternative 4 without the inclusion of Option 3) are not likely to result in any changes to the status quo of safety. The small vessel hook-and-line halibut CDQ fishery is already well established for many groups, and the primary change to participants would generally just be the increased retention of Pacific cod these vessels were already catching.

For all other alternative combinations, it is possible there could be an impact on vessel safety. Vessels that generally prosecute a small vessel hook-and-line halibut CDQ fishery could go out at other times of the year to target Pacific cod CDQ using the same gear type. However, given the CDQ groups' certainty of their allocation at the beginning of the season, and their full calendar-year during which they may choose the appropriate time to participate, this increased risk is likely to be small.

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

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

The RIR/EA prepared for this plan amendment constitutes the fishery impact statement. The likely effects of the proposed action are analyzed and described throughout the RIR/EA. The effects on participants in the fisheries and fishing communities are analyzed in the RIR. The effects of the proposed action on safety of human life at sea are evaluated in Section 3, and above under National Standard 10, in Section 5.1. Based on the information reported in this section, there is no need to update the Fishery Impact Statement included in the FMP.

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

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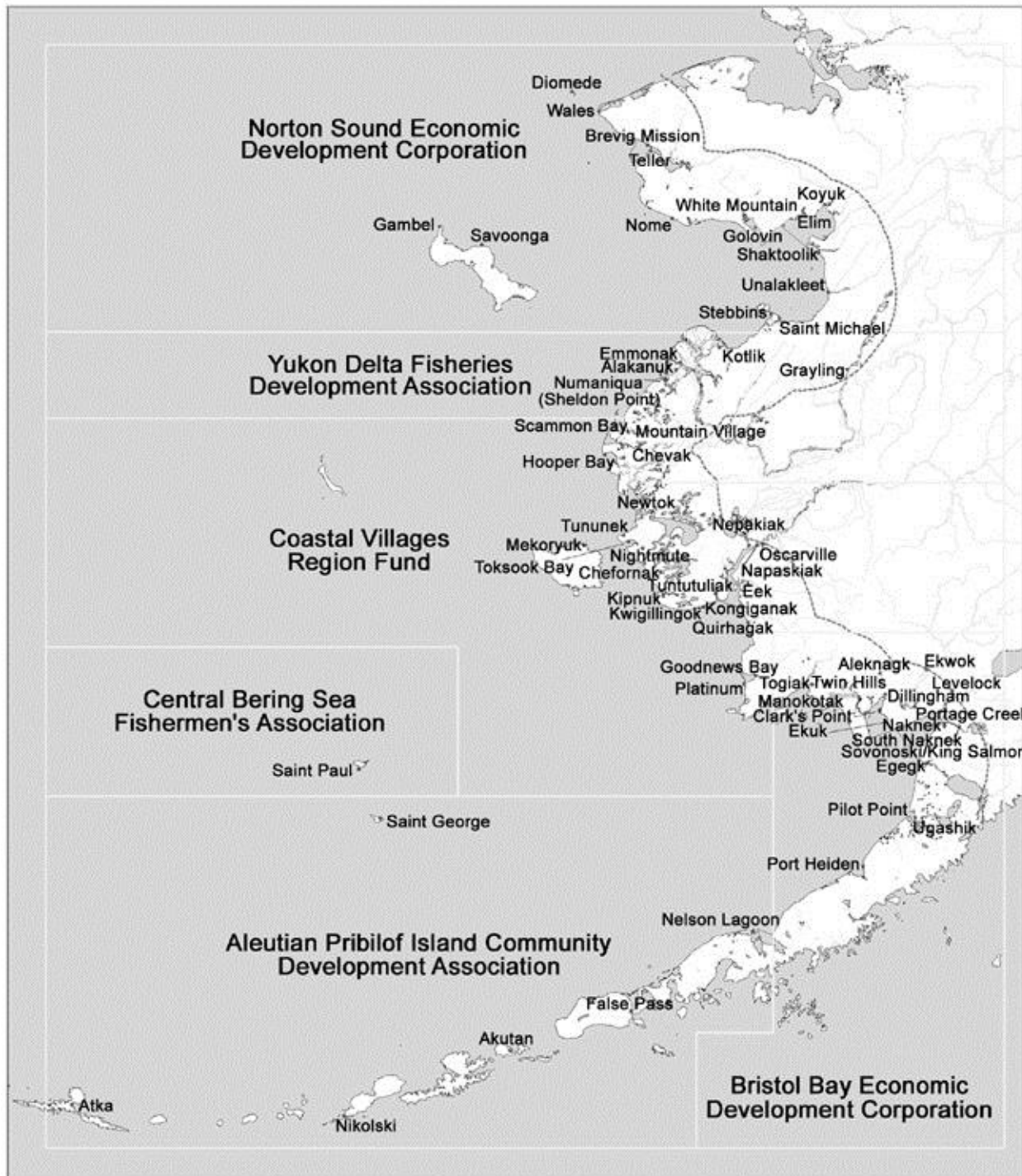
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Appendices

Western Alaska Community Development Quota Program Eligible Communities and CDQ Groups



CDQ Village Pacific Cod Fishery

Introduction

The six CDQ organizations: Aleutian Pribilof Island Community Development Association, Bristol Bay Economic Development Corporation, Central Bering Sea Fishermen's Association, Coastal Villages Region Fund, Norton Sound Economic Development Corporation and Yukon Delta Fisheries Development Association, are seeking regulatory changes or exemptions that would encourage local development and participation in the harvest of CDQ Pacific cod (Pcod) allocations, both in a directed cod fishery and when targeting CDQ and IFQ halibut. This proposed fishery would allow CDQ village residents with vessels ranging in size from 16' to 46' in length, mainly using hook-and-line gear, to develop and participate in a CDQ village Pacific cod fishery.

The proposal is consistent with the National Standards (NS) established in the Magnuson-Stevens Fishery Conservation and Management Act (MSA) (16 U.S.C. 1851 et seq.) regarding fisheries management measures. These standards where practicable include: preventing overfishing while achieving optimum yield (NS 1); managing interrelated stocks as a unit or in close coordination (NS 3); promoting efficiency, minimizing costs, and avoiding duplications (NS 5 & 7); taking into account the importance of fishery resources to fishing communities (NS 8); minimizing bycatch or mortality from bycatch (NS 9); and promoting the safety of human life at sea (NS 10). The CDQ Village Pcod Fishery Proposal meets all of the above standards.

In addition, the proposal fulfills the objectives of 16 U.S.C. 1855(i)(1)(A)(i)(ii)(iii) and (iv) of the MSA, which establishes the Community Development Quota (CDQ) program in order to: provide eligible western Alaska villages with the opportunity to participate and invest in fisheries in the Bering Sea and Aleutian Islands Management Area; and support economic development, alleviate poverty and provide economic and social benefits, and achieve sustainable and diversified economies for the residents of western Alaska.

Problem Statement

Current federal regulations for the direct harvest of CDQ Pacific cod allocations are restrictive and discourage village fleets from participating in a directed CDQ Pcod fishery. The regulations of concern are:

- 1) License Limitation Program permit (LLP) – Vessels over 32' in length are required to have an LLP to harvest CDQ Pcod with hook-and-line gear. There are only eighty-seven (87) <60' hook-and-line/pot LLP's endorsed to fish Pcod in the Bering Sea. The supply of permits for sale on the major brokerage websites is very limited and the price per Bering Sea endorsed LLP is often in excess of \$100,000 – prohibitively expensive for small vessel operators in CDQ villages. The CDQ village fleets of 105-116 small vessels, for the most part, do not possess Pcod endorsed LLP's. As there is no LLP category specific to the smaller vessels in the Bering Sea, they must compete with the larger vessels for the available LLP's and there are not nearly enough available to accommodate the CDQ village small boat fleets. It is important to note that the jig

fishery is exempted from the Pcod LLP requirement, and the CDQ village fleets are very similar in size and vessel type to those participating in the jig fishery.

2) Vessel Monitoring System (VMS) – All vessels, regardless of size, are required to have VMS while targeting CDQ Pcod with hook-and-line gear. The CDQ village fleets are more similar to vessels that participate in the Pcod jig fishery than larger catcher vessels or catcher processors utilizing hook-and-line gear. There is no regulation requiring VMS for the small vessels participating in the Bering Sea Pcod jig fishery. In addition, VMS systems are not currently designed for the many open boats in the CDQ small boat fleets. Although the systems are weatherproof they have AC power requirements and electronic components that are not conducive to successful installation in small open vessels. The range of the CDQ small boat fleets is very limited and their participation will be in close proximity to CDQ villages. There may need to be VMS coverage for vessels fishing near SSL restricted areas, however.

3) Observer Coverage – The current observer coverage regulation for hook-and-line catcher vessels harvesting CDQ Pcod is more restrictive than for non-CDQ state and federal Pcod fisheries, and requires full (100%) observer coverage regardless of vessel size. The CDQ village fleets, with vessels up to 46' in length, range from small open skiffs to gillnet style vessels. Having 100% observer coverage for fifty or more small vessels seems problematic. A better solution would be to adopt observer coverage regulations currently utilized in non-CDQ CV Pcod fisheries, which require only partial coverage. This would put CDQ village boats over 40' in length in the Vessel Selection pool.

4) Maximum Retainable Amount (MRA) – The MRA of Pcod while targeting halibut is 20% of the target weight. Any additional Pcod harvested must be discarded and returned to sea. This constitutes an unnecessary waste of the Pcod resource. Pcod in excess of the 20% MRA could be retained and used as a source of income for the CDQ village fishermen, if the CDQ organizations allocate Pcod to their small boat halibut fleets, and these vessels comply with or are exempt from the regulations to be in the Pacific cod directed fishery.

Proposal

The CDQ groups request the Council to initiate a discussion paper, considering the problem statement, and the adoption of proposed regulation changes or exemptions that will: 1) promote the development of a CDQ village directed Pacific cod fishery; and 2) allow village CDQ and IFQ halibut harvesters to retain CDQ Pacific cod in excess of the 20% MRA.

Proposed regulation changes:

- 1) Exempt vessels between 32' and 46' in length from LLP requirements while harvesting CDQ Pacific cod.
- 2) Exempt vessels up to 46' in length from VMS requirements while harvesting CDQ Pacific cod.

3) Align observer requirements for hook-and-line catcher vessels targeting CDQ Pacific cod with observer requirements for hook-and-line catcher vessels targeting non-CDQ Pacific cod. As part of a discussion paper, it would be useful to identify and address options for determining discard mortality rates, particularly for halibut in a directed CDQ Pcod fishery.

4) Require 100% retention of CDQ Pacific cod, on vessels with the exemption in 1) and 2) above, while directed fishing for CDQ and/or IFQ halibut, only if an allocation of CDQ Pcod is available to those vessels.

Discussion

The CDQ organizations would like to develop a directed CDQ Pcod fishery that would take place before, during and/or after directed halibut fishing. Currently, regulations applicable to vessels targeting CDQ Pcod with hook and line gear are prohibitive for the CDQ village fleets, but easing the regulations identified above would make the development of these local fisheries more viable. The proposed changes would also require the CDQ groups to set aside an adequate amount of Prohibited Species Quota (PSQ) and other allocated species to adequately cover bycatch.

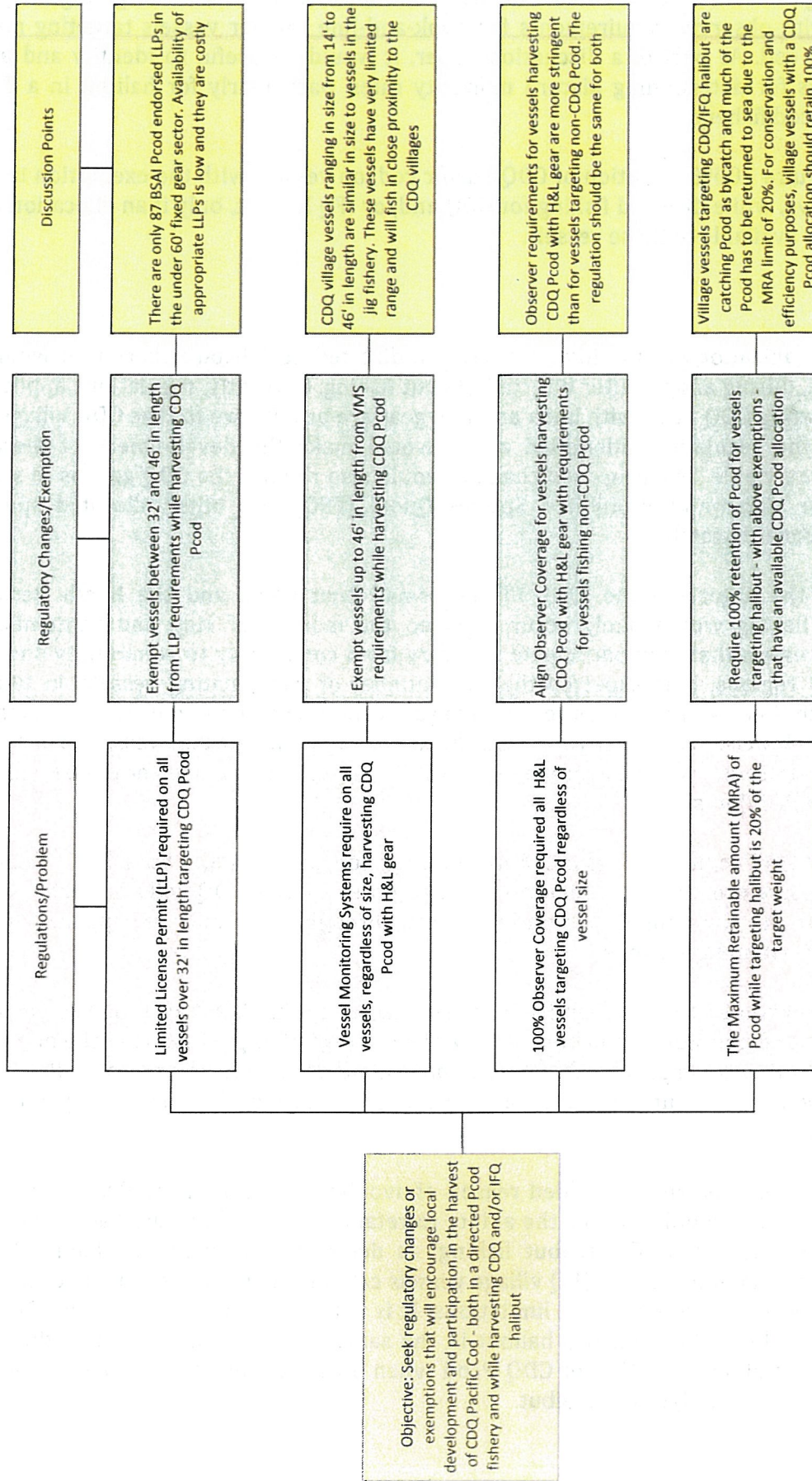
Because of the nature of the CDQ villages' small boat fleets and the harsh Bering Sea conditions, fishing would likely occur between the months of May and September. The number of vessels that may participate will vary from community to community and within the six CDQ regions. It is expected that the number of participating vessels, in total, will increase with time as CDQ groups continue to gain expertise and equip processing plants and platforms with necessary processing equipment. It is anticipated that vessels will fish both state and federal waters in close proximity to CDQ villages along the western Alaska coast and Aleutian and Pribilof Islands.

There is no CDQ Pacific cod Seasonal Allowance for non-trawl catcher vessels (CV) under 60' in length. Therefore the CDQ allocations committed to the CDQ village fleets could be harvested during the proposed months of May through September as opposed to being broken up into A and B seasons.

Considering current and future anticipated declines in the halibut TAC's in Western Alaska, the CDQ village fishermen would benefit from the removal of impediments to the opportunity to harvest Pcod with small vessels. In addition, the development of a regional Pcod fishery would supplement halibut production and increase processing efficiencies for plants in and near the villages.

For the same reasons, and the added reason of avoiding wastage of the Pcod resource, the CDQ organizations would also like the ability to retain up to 100% of the Pacific cod caught while directed CDQ and IFQ halibut fishing, as described in proposed change 4 above. Throughout the halibut season, CDQ village vessels catch Pcod as bycatch, much of which has to be returned to sea due to MRA limitations. It is common practice for some CDQ village fleets to target both CDQ and IFQ halibut in the same trip. It would be most efficient and conservative to allow retention of CDQ Pcod when an allocation is available to the village fleets targeting CDQ and/or IFQ halibut.

CDQ Village Pacific Cod Fishery Proposal



NMFS Alaska Region Recommendations on CDQ Pacific Cod Alternatives and Options

1. We recommend an expansion of Alternative 4, which would include elements of Alternative 3, Option 2 and several new components and clarifications.

The alternative would apply to vessels $\leq 46'$ length overall (LOA) using hook-and-line gear to conduct directed fishing for Pacific cod for CDQ groups that also have halibut CDQ allocations in the area being fished or for vessels with adequate amounts of halibut IFQ to support the incidental catch of halibut while Pacific cod fishing. The recommendations described below are not designed to support directed fishing for Pacific cod CDQ if all halibut caught must accrue to a transferable prohibited species catch limit or “prohibited species quota.”

Note recommendation #2 on page 3 to analyze expanding these requirements beyond directed fishing for Pacific cod CDQ.

Under existing regulations, any vessel retaining more than the 20% maximum retainable amount (MRA) of Pacific cod would be considered directed fishing for Pacific cod. Each CDQ group and the vessels fishing on its behalf can choose to remain under the regulations that govern “halibut CDQ fishing” by discarding any amount of Pacific cod that would exceed the 20% MRA. This provision would continue.

The following regulations would apply to vessels $\leq 46'$ LOA that the CDQ group chose to allow to conduct directed fishing for Pacific cod CDQ. In all cases below, reference to “the vessel” means a catcher vessel $\leq 46'$ LOA while directed fishing for Pacific cod CDQ.

- i. **LLP exemption:** If the Council wishes to remove the barrier created by the limited number of LLP licenses available for vessels fishing for Pacific cod on behalf of a CDQ group, NMFS recommends exempting vessels between 32' and 46' LOA from the LLP requirements rather than creating a separate CDQ LLP. The purpose of the LLP was to place an upper limit on the number of vessels in the groundfish and crab fisheries to provide stability and limit further over capitalization in what formerly were “open access” fisheries. However, even at the time of implementation of the LLP in 2000, the CDQ allocations were not part of the “open access” portion of the groundfish and crab fisheries. Therefore, LLP licenses may not be necessary to limit the number of vessels participating in the CDQ fisheries. An exemption from the LLP requirements also would require lower administrative costs for both NMFS and the CDQ groups than special CDQ LLP license (because it wouldn't require establishing and issuing a new “permit”).
- ii. **Documentation of eligibility for LLP exemption:** If an LLP exemption is selected, NMFS recommends that each CDQ group be required to submit a list of vessels between 32' and 46' LOA that it is authorizing to conduct directed fishing for Pacific cod CDQ on its behalf. This submission could be done online. Upon registration, the CDQ group could print out a letter of authorization issued by NMFS for each vessel. The vessel operators would be required to maintain this NMFS authorization letter onboard the vessel at all times while directed fishing for Pacific cod CDQ (while they wish to be exempted from the LLP requirements). This documentation is necessary to demonstrate eligibility for the LLP exemption to the U.S. Coast

Guard, NMFS Office of Law Enforcement, or any other authorized officer. NMFS also would post a list of the vessels registered to fish on behalf of each CDQ group on NMFS's website as an additional piece of information to document the vessels eligible for the LLP exemption.

iii. Partial observer coverage: Any vessel on the CDQ group's list of eligible vessels would be placed in the partial observer coverage category while CDQ fishing. They would be required to comply with all vessel responsibilities in 50 CFR 679.51(e)(1) and would be subject to selection for observer coverage following procedures in the annual deployment plan. For example, in 2014, vessels less than 40' LOA would be in the no coverage pool and vessels between 40' and 46' LOA would be in the vessel selection pool.

iv. Halibut retention requirements: Vessel operators would be required to retain all legal sized halibut caught as either halibut CDQ or halibut IFQ. We would assume that all legal sized halibut would be retained and properly accounted for, so the only halibut released from the fishing gear would be sub-legal sized halibut. Based on this assumption, NMFS would not accrue any estimates of halibut discards to the CDQ group's halibut PSQ or any component of the BSAI halibut PSC limit. This would prevent the need to apply a PSC rate of halibut derived from other observed vessels to accrue catch to a transferable PSC limit. NMFS does not believe that the application of PSC rates from other observed vessels provides an appropriate basis for accruing halibut to a transferable PSC limit. PSC rates can change throughout the season as observer data is debriefed or revised thereby creating instability and uncertainty in management of strict limits such as exist in the CDQ Program. In addition, the CDQ groups and their partner vessels may not feel that the data from other observed vessels is representative of the small vessel CDQ catch, and NMFS may agree with this assessment in some cases. Observer coverage rates for small hook-and-line vessels in the BSAI are relatively low. These coverage rates provide data adequate to managing a fleetwide PSC limit, but may not provide data adequate to estimating PSC by individual unobserved vessels for accrual to a transferable PSC limit. Any need to debate the appropriate basis for accruing halibut to a transferable PSC limit creates administrative costs for NMFS, takes time from other tasks, and undermines the enforceability of the strict responsibility to not exceed CDQ and PSQ allocations.

v. Pacific cod retention requirements: Current IR/IU regulations require operators of vessels directed fishing for groundfish CDQ to retain all Pacific cod as long as the CDQ group has available Pacific cod allocation. This requirement does not apply to vessels "halibut CDQ fishing." No additional regulatory amendments are needed to maintain this provision.

vi. Retained Pacific cod: Any Pacific cod retained, landed, and reported as CDQ will accrue to the CDQ group's Pacific cod CDQ allocation.

vii. At-sea discards of groundfish: NMFS would estimate the at-sea discards of all groundfish, by these vessels, including those species allocated to the CDQ Program, based on applying discard rates from observed vessels to the landed catch weight of the CDQ trips. The estimates of at-sea discards, including Pacific cod, while these vessels are directed fishing for Pacific cod on behalf of a CDQ group, would accrue to the non-CDQ allocation of the TACs. Estimates of at-sea discards of Pacific cod would accrue to the non-CDQ allocation of Pacific cod to the hook-and-line and pot vessels less than 60 ft. This approach would provide proper accounting of

the catch of all groundfish species against the TAC limits and prevent the need to apply an at-sea discard rate derived from observed vessels to accrue catch to a transferable allocation. In addition, this provision is consistent with how estimates of at-sea discards of groundfish are accrued to non-CDQ allocations of the TACs for vessels halibut CDQ fishing under the “regulation of harvest” provision of the MSA.

viii. Seasonal limitations: The provisions described in (i) – (vii) would be provided only while the halibut fishery is open because retention of halibut must be allowed to implement the exemption from halibut PSC accounting by these vessels.

ix. SSL and habitat protection measures: All other regulations that apply to vessels using hook-and-line gear and directed fishing for Pacific cod would apply to these vessels. These requirements include closure areas and VMS requirements.

2. Apply these provisions to all groundfish CDQ fishing by these vessels: NMFS recommends further analysis of applying these provisions to vessels $\leq 46'$ LOA using hook-and-line gear while directed fishing for ANY allocated groundfish CDQ species, except sablefish.¹ Practically speaking, we expect that these provisions will be used primarily to develop additional fishing opportunities for Pacific cod. However, it would be administratively less complicated to apply the LLP exemption, CDQ authorization letter, eligible vessel list, observer coverage requirements, and catch accounting provisions for all groundfish CDQ fishing during the year for a particular vessel rather than have different measures apply for directed fishing for Pacific cod CDQ fishing versus other groundfish CDQ directed fisheries that may develop in the future.

¹ The elements of this proposal either already apply while “sablefish CDQ fishing” or are not applicable under the “regulation of harvest” provisions of the MSA. For example, sablefish managed under the IFQ program and sablefish managed under the fixed gear sablefish CDQ reserve are not LLP groundfish species. An LLP permit is not required to conduct directed fishing for these sablefish allocations, and halibut caught while sablefish CDQ or IFQ fishing does not accrue against the halibut PSC limit, so there is no need to address halibut PSC accounting while sablefish CDQ fishing.

3. NMFS does not recommend Alternative 2 (increase MRA for Pacific cod while halibut CDQ fishing) because it would create a situation where vessels with the same catch composition would be subject to different regulations, most notably Steller sea lion (SSL) protection measures. Vessels fishing for halibut CDQ would be allowed to retain more Pacific cod than the same vessel fishing for halibut IFQ or any other groundfish species before triggering regulations that apply when directed fishing for Pacific cod. Although the amount of Pacific cod in question may be small, we do not support setting this precedent for implementing high MRAs to avoid regulations designed to apply to a particular directed fishing activity. In addition, we are concerned with the time and staff resources needed to undertake the ESA consultation that would be necessary to further explore whether this is a viable alternative.

(revised 5/26/14)

TABLE 1—FINAL 2014 AND 2015 OVERFISHING LEVEL (OFL), ACCEPTABLE BIOLOGICAL CATCH (ABC), TOTAL ALLOWABLE CATCH (TAC), INITIAL TAC (ITAC), AND CDQ RESERVE ALLOCATION OF GROUNDFISH IN THE BSAI¹
[Amounts are in metric tons]

Species	Area	2014					2015				
		OFL	ABC	TAC	ITAC ²	CDQ ³	OFL	ABC	TAC	ITAC ²	CDQ ³
Pollock ⁴	BS	2,795,000	1,369,000	1,267,000	1,140,300	126,700	2,693,000	1,258,000	1,258,000	1,132,200	125,800
	AI	42,811	35,048	19,000	17,100	1,900	47,713	39,412	19,000	17,100	1,900
	Bogoslof	13,413	10,059	75	75	0	13,413	10,059	75	75	0
Pacific cod ⁵	BS	299,000	255,000	246,897	220,479	26,418	319,000	272,000	251,712	224,779	26,933
	AI	20,100	15,100	6,997	6,248	749	20,100	15,100	6,487	5,793	694
Sablefish	BS	1,584	1,339	1,339	1,105	184	1,432	1,210	1,210	514	45
	AI	2,141	1,811	1,811	1,471	306	1,936	1,636	1,636	348	31
Yellowfin sole	BSAI	259,700	239,800	184,000	164,312	19,688	268,900	248,300	187,000	166,991	20,009
Greenland turbot	BSAI	2,647	2,124	2,124	1,805	n/a	3,864	3,173	3,173	2,697	n/a
	BS	n/a	1,659	1,659	1,410	178	n/a	2,478	2,478	2,106	265
Arrowtooth flounder	AI	n/a	465	465	395	0	n/a	695	695	591	0
	BSAI	125,642	106,599	25,000	21,250	2,675	125,025	106,089	25,000	21,250	2,675
Kamchatka flounder	BSAI	8,270	7,100	7,100	6,035	0	8,500	7,300	7,300	6,205	0
Rock sole	BSAI	228,700	203,800	85,000	75,905	9,095	213,310	190,100	85,000	75,905	9,095
Flathead sole ⁶	BSAI	79,633	66,293	24,500	21,879	2,622	77,023	64,127	25,129	22,440	2,689
Alaska plaice	BSAI	66,800	55,100	24,500	20,825	0	66,300	54,700	25,000	21,250	0
Other flatfish ⁷	BSAI	16,700	12,400	2,650	2,253	0	16,700	12,400	3,000	2,550	0
Pacific ocean perch	BSAI	39,585	33,122	33,122	29,248	n/a	37,817	31,641	31,641	27,940	n/a
	BS	n/a	7,684	7,684	6,531	0	n/a	7,340	7,340	6,239	0
	EAI	n/a	9,246	9,246	8,257	989	n/a	8,833	8,833	7,888	945
	CAI	n/a	6,594	6,594	5,888	706	n/a	6,299	6,299	5,625	674
	WAI	n/a	9,598	9,598	8,571	1,027	n/a	9,169	9,169	8,188	981
	BSAI	12,077	9,761	2,594	2,205	0	11,943	9,652	3,000	2,550	0
Northern rockfish	BSAI	505	416	416	354	0	580	478	478	406	0
Rougheye rockfish ⁸	EBS/EAI	n/a	177	177	150	0	n/a	201	201	171	0
	CAI/WAI	n/a	239	239	203	0	n/a	277	277	235	0
	BSAI	493	370	370	315	0	493	370	370	315	0
Shortraker rockfish	BSAI	1,550	1,163	773	657	0	1,550	1,163	873	742	0
	BS	n/a	690	300	255	0	n/a	690	400	340	0
	AI	n/a	473	473	402	0	n/a	473	473	402	0
Atka mackerel	BSAI	74,492	64,131	32,322	27,971	3,458	74,898	64,477	32,491	29,014	3,477
	EAI/BS	n/a	21,652	21,652	19,335	2,317	n/a	21,769	21,769	19,440	2,329
	CAI	n/a	20,574	9,670	8,635	1,035	n/a	20,685	9,722	8,682	1,040
	WAI	n/a	21,905	1,000	893	107	n/a	22,023	1,000	893	107
Skates	BSAI	41,849	35,383	26,000	22,100	0	39,746	33,545	26,000	22,100	0
Sculpins	BSAI	56,424	42,318	5,750	4,888	0	56,424	42,318	5,750	4,888	0
Sharks	BSAI	1,363	1,022	125	106	0	1,363	1,022	125	106	0
Squids	BSAI	2,624	1,970	310	264	0	2,624	1,970	325	276	0
Octopuses	BSAI	3,450	2,590	225	191	0	3,450	2,590	225	191	0
Total		4,196,553	2,572,819	2,000,000	1,789,338	196,694	4,107,104	2,472,832	2,000,000	1,788,625	196,213

¹ These amounts apply to the entire BSAI management area unless otherwise specified. With the exception of pollock, and for the purpose of these harvest specifications, the Bering Sea (BS) subarea includes the Bogoslof District.

² Except for pollock, the portion of the sablefish TAC allocated to hook-and-line and pot gear, and Amendment 80 species, 15 percent of each TAC is put into a reserve. The ITAC for these species is the remainder of the TAC after the subtraction of these reserves. For pollock and Amendment 80 species, ITAC is the non-CDQ allocation of TAC (see footnotes 3 and 5).

³ For the Amendment 80 species (Atka mackerel, flathead sole, rock sole, yellowfin sole, Pacific cod, and Aleutian Islands Pacific ocean perch), 10.7 percent of the TAC is reserved for use by CDQ participants (see §§ 679.20(b)(1)(ii)(C) and 679.31). Twenty percent of the sablefish TAC allocated to hook-and-line gear or pot gear, 7.5 percent of the sablefish TAC allocated to trawl gear, and 10.7 percent of the TACs for Bering Sea Greenland turbot and arrowtooth flounder are reserved for use by CDQ participants (see § 679.20(b)(1)(ii)(B) and (D)). Aleutian Islands Greenland turbot, "other flatfish," Alaska plaice, Bering Sea Pacific ocean perch, northern rockfish, shortraker rockfish, rougheye rockfish, "other rockfish," skates, sculpins, and octopuses are not allocated to the CDQ program.

⁴ Under § 679.20(a)(5)(i)(A)(1), the annual BS subarea pollock TAC after subtracting first for the CDQ directed fishing allowance (10 percent) and second for the incidental catch allowance (3.4 percent), is further allocated by sector for a pollock directed fishery as follows: inshore—50 percent; catcher/processor—40 percent; and motherships—10 percent. Under § 679.20(a)(5)(iii)(B)(2)(i) and (ii), the annual Aleutian Islands subarea pollock TAC, after subtracting first for the CDQ directed fishing allowance (10 percent) and second for the incidental catch allowance (2,000 mt) is allocated to the Aleut Corporation for a pollock directed fishery.

⁵ The BS Pacific cod TAC is reduced by 3 percent from the combined BSAI ABC to account for the State of Alaska's (State) guideline harvest level in State waters of the Bering Sea subarea. The AI Pacific cod TAC is reduced by 3 percent from the combined BSAI ABC to account for the State guideline harvest level in State waters of the Aleutian Islands subarea.

⁶ "Flathead sole" includes *Hippoglossoides elassodon* (flathead sole) and *Hippoglossoides robustus* (Bering flounder).

⁷ "Other flatfish" includes all flatfish species, except for halibut (a prohibited species), flathead sole, Greenland turbot, rock sole, yellowfin sole, arrowtooth flounder, Kamchatka flounder, and Alaska plaice.

⁸ "Rougheye rockfish" includes *Sebastes aleutianus* (rougheye) and *Sebastes melanostictus* (blackspotted).

⁹ "Other rockfish" includes all Sebastes and Sebastolobus species except for Pacific ocean perch, northern rockfish, dark rockfish, shortraker rockfish, and rougheye rockfish.

Note: Regulatory areas and districts are defined at § 679.2 (BS=Bering Sea subarea, AI=Aleutian Islands subarea, EAI=Eastern Aleutian district, CAI=Central Aleutian district, WAI=Western Aleutian district.)

2014 CDQ Program quota categories, target and non-target CDQ reserves, allocation percentages, and group quotas

prepared: 6-May-14

Groundfish CDQ Species			CDQ Group Allocations										CDQ Group Amounts						
Species or Species Group	Units	2014 TAC	Program Allocation %	CDQ Reserve	APICDA	BBEDC	CBSFA	CVRF	NSEDC	YDFDA	Total	APICDA	BBEDC	CBSFA	CVRF	NSEDC	YDFDA	Total	
BS Pollock	A season	mt	514,400	10.0%	51,440	14.00%	21.00%	5.00%	24.00%	22.00%	14.00%	100%	7,201.6	10,802.4	2,572.0	12,345.6	11,316.8	7,201.6	51,440
	B season	mt	771,600	10.0%	77,160	14.00%	21.00%	5.00%	24.00%	22.00%	14.00%	100%	10,802.4	16,203.6	3,858.0	18,518.4	16,975.2	10,802.4	77,160
	total	mt	1,286,000	10.0%	128,600	14.00%	21.00%	5.00%	24.00%	22.00%	14.00%	100%	18,004.0	27,006.0	6,430.0	30,864.0	28,292.0	18,004.0	128,600
AI Pollock*	mt	0	10.0%	0	14.00%	21.00%	5.00%	24.00%	22.00%	14.00%	100%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BS FG Sablefish	mt	670	20.0%	134	15.00%	20.00%	16.00%	0.00%	18.00%	31.00%	100%	20.1	26.8	21.4	0.0	24.1	41.5	134	
AI FG Sablefish	mt	1,358	20.0%	272	14.00%	19.00%	3.00%	27.00%	23.00%	14.00%	100%	38.0	51.6	8.1	73.3	62.5	38.0	272	
BS Sablefish	mt	670	7.5%	50	21.00%	22.00%	9.00%	13.00%	13.00%	22.00%	100%	10.6	11.1	4.5	6.5	6.5	11.1	50	
AI Sablefish	mt	453	7.5%	34	26.00%	20.00%	8.00%	13.00%	12.00%	21.00%	100%	8.8	6.8	2.7	4.4	4.1	7.1	34	
BS Pacific cod	initial CDQ	mt	246,897	10.0%	24,690	15.00%	21.00%	9.00%	18.00%	18.00%	19.00%	100%	3,703.5	5,184.8	2,222.1	4,444.1	4,444.1	4,691.0	24,690
	WACDA	mt		0.7%	1,728	21.85%	20.05%	6.87%	16.86%	15.95%	18.42%	100%	377.6	346.5	118.7	291.4	275.7	318.3	1,728
	total	mt			26,418	15.45%	20.94%	8.86%	17.93%	17.87%	18.96%	100%	4,081.1	5,531.4	2,340.8	4,735.5	4,719.8	5,009.4	26,418
AI Pacific cod	initial CDQ	mt	6,997	10.0%	700	15.00%	21.00%	9.00%	18.00%	18.00%	19.00%	100%	105.0	146.9	63.0	125.9	125.9	132.9	700
	WACDA	mt		0.7%	49	21.85%	20.05%	6.87%	16.86%	15.95%	18.42%	100%	10.7	9.8	3.4	8.3	7.8	9.0	49
	total	mt			749	15.45%	20.94%	8.86%	17.93%	17.87%	18.96%	100%	115.7	156.8	66.3	134.2	133.8	142.0	749
WAI Atka Mackerel**	initial CDQ	mt	1,000	10.0%	100	30.00%	15.00%	8.00%	15.00%	14.00%	18.00%	100%	30.0	15.0	8.0	15.0	14.0	18.0	100
	WACDA	mt		0.7%	7	29.93%	15.03%	8.02%	15.00%	14.03%	17.99%	100%	2.1	1.1	0.6	1.1	1.0	1.3	7
	total	mt			107	30.00%	15.00%	8.00%	15.00%	14.00%	18.00%	100%	32.1	16.1	8.6	16.1	15.0	19.3	107
CAI Atka Mackerel**	initial CDQ	mt	9,670	10.0%	967	30.00%	15.00%	8.00%	15.00%	14.00%	18.00%	100%	290.1	145.1	77.4	145.1	135.4	174.1	967
	WACDA	mt		0.7%	68	29.93%	15.03%	8.02%	15.00%	14.03%	17.99%	100%	20.3	10.2	5.4	10.2	9.5	12.2	68
	total	mt			1,035	30.00%	15.00%	8.00%	15.00%	14.00%	18.00%	100%	310.4	155.2	82.8	155.2	144.9	186.2	1,035
EAI/BS Atka Mackerel**	initial CDQ	mt	21,652	10.0%	2,165	30.00%	15.00%	8.00%	15.00%	14.00%	18.00%	100%	649.6	324.8	173.2	324.8	303.1	389.7	2,165
	WACDA	mt		0.7%	152	29.93%	15.03%	8.02%	15.00%	14.03%	17.99%	100%	45.4	22.8	12.2	22.7	21.3	27.3	152
	total	mt			2,317	30.00%	15.00%	8.00%	15.00%	14.00%	18.00%	100%	694.9	347.6	185.4	347.5	324.4	417.0	2,317
Yellowfin Sole	initial CDQ	mt	184,000	10.0%	18,400	28.00%	24.00%	8.00%	6.00%	7.00%	27.00%	100%	5,152.0	4,416.0	1,472.0	1,104.0	1,288.0	4,968.0	18,400
	WACDA	mt		0.7%	1,288	23.59%	22.85%	8.04%	11.41%	11.39%	22.72%	100%	303.8	294.3	103.6	147.0	146.7	292.6	1,288
	total	mt			19,688	27.71%	23.92%	8.00%	6.35%	7.29%	26.72%	100%	5,455.8	4,710.3	1,575.6	1,251.0	1,434.7	5,260.6	19,688
Rock Sole	initial CDQ	mt	85,000	10.0%	8,500	24.00%	23.00%	8.00%	11.00%	11.00%	23.00%	100%	2,040.0	1,955.0	680.0	935.0	935.0	1,955.0	8,500
	WACDA	mt		0.7%	595	25.04%	23.06%	7.46%	10.06%	10.39%	23.99%	100%	149.0	137.2	44.4	59.9	61.8	142.7	595
	total	mt			9,095	24.07%	23.00%	7.96%	10.94%	10.96%	23.06%	100%	2,189.0	2,092.2	724.4	994.9	996.8	2,097.7	9,095
BS Greenland Turbot	initial CDQ	mt	1,659	10.0%	166	16.00%	20.00%	8.00%	17.00%	19.00%	20.00%	100%	26.5	33.2	13.3	28.2	31.5	33.2	166
	WACDA	mt		0.7%	12	16.00%	20.00%	8.00%	17.00%	19.00%	20.00%	100%	1.9	2.3	0.9	2.0	2.2	2.3	12
	total	mt			178	16.00%	20.00%	8.00%	17.00%	19.00%	20.00%	100%	28.4	35.5	14.2	30.2	33.7	35.5	178
Arrowtooth Flounder	initial CDQ	mt	25,000	10.0%	2,500	22.00%	22.00%	9.00%	13.00%	12.00%	22.00%	100%	550.0	550.0	225.0	325.0	300.0	550.0	2,500
	WACDA	mt		0.7%	175	22.00%	22.00%	9.00%	13.00%	12.00%	22.00%	100%	38.5	38.5	15.8	22.8	21.0	38.5	175
	total	mt			2,675	22.00%	22.00%	9.00%	13.00%	12.00%	22.00%	100%	588.5	588.5	240.8	347.8	321.0	588.5	2,675
Flathead Sole	initial CDQ	mt	24,500	10.0%	2,450	20.00%	21.00%	9.00%	15.00%	15.00%	20.00%	100%	490.0	514.5	220.5	367.5	367.5	490.0	2,450
	WACDA	mt		0.7%	172	20.77%	21.37%	7.02%	14.66%	14.36%	20.82%	100%	35.6	38.4	12.0	25.1	24.6	35.7	172
	total	mt			2,622	20.05%	21.09%	8.87%	14.98%	14.96%	20.05%	100%	525.6	552.9	232.5	392.6	392.1	525.7	2,622
WAI Pacific Ocean Perch	initial CDQ	mt	9,598	10.0%	960	30.00%	15.00%	8.00%	15.00%	14.00%	18.00%	100%	287.9	144.0	76.8	144.0	134.4	172.8	960
	WACDA	mt		0.7%	67	30.00%	15.00%	8.00%	15.00%	14.00%	18.00%	100%	20.2	10.1	5.4	10.1	9.4	12.1	67
	total	mt			1,027	30.00%	15.00%	8.00%	15.00%	14.00%	18.00%	100%	308.1	154.0	82.2	154.0	143.8	184.9	1,027
CAI Pacific Ocean Perch	initial CDQ	mt	6,594	10.0%	659	30.00%	15.00%	8.00%	15.00%	14.00%	18.00%	100%	197.8	98.9	52.8	98.9	92.3	118.7	659
	WACDA	mt		0.7%	46	30.00%	15.00%	8.00%	15.00%	14.00%	18.00%	100%	13.8	6.9	3.7	6.9	6.5	8.3	46
	total	mt			706	30.00%	15.00%	8.00%	15.00%	14.00%	18.00%	100%	211.7	105.8	56.4	105.8	98.8	127.0	706
EAI Pacific Ocean Perch	initial CDQ	mt	9,246	10.0%	925	30.00%	15.00%	8.00%	15.00%	14.00%	18.00%	100%	277.4	138.7	74.0	138.7	129.4	166.4	925
	WACDA	mt		0.7%	65	30.00%	15.00%	8.00%	15.00%	14.00%	18.00%	100%	19.4	9.7	5.2	9.7	9.1	11.6	65
	total	mt			989	30.00%	15.00%	8.00%	15.00%	14.00%	18.00%	100%	296.8	148.4	79.1	148.4	138.5	178.1	989
Total	mt	1,920,964		170,276								28,838	36,166	9,815	35,026	32,567	27,864	170,276	
Prohibited Species in Groundfish Fisheries																			
Zone 1 Red King Crab	numbers	97,000	10.7%	10,379	24%	21%	8%	12%	12%	23%	100%	2,491	2,180	830	1,245	1,245	2,387	10,379	
Zone 1 Bairdi Tanner Crab	numbers	980,000	10.7%	104,860	26%	24%	8%	8%	8%	26%	100%	27,264	25,166	8,389	8,389	8,389	27,264	104,860	
Zone 2 Bairdi Tanner Crab	numbers	2,970,000	10.7%	317,790	24%	23%	8%	11%	10%	24%	100%	76,270	73,092	25,423	34,957	31,779	76,270	317,790	
COBLZ Opilio Tanner Crab	numbers	11,185,892	10.7%	1,196,890	25%	24%	8%	10%	8%	25%	100%	299,223	287,254	95,751	119,689	95,751	299,223	1,196,890	
Pacific Halibut	mt mort.	3,675	varies	393	22%	22%	9%	12%	12%	23%	100%	86	86	35	47	47	90	393	
BS Chinook Salmon	A season	numbers	42,000	9.3%	3,906	14%	21%	5%	24%	22%	14%	100%	547	820	195	937	859	547	3,906
	B Season	numbers	18,000	5.5%	990	14%	21%	5%	24%	22%	14%	100%	139	208	50	238	218	139	990
	total	numbers	60,000	8.2%	4,896	14%	21%	5%	24%	22%	14%	100%	685	1,028	245	1,175	1,077	685	4,896
AI Chinook Salmon	numbers	700	7.5%	53	14%	21%	5%	24%	22%	14%	100%	7	11	3	13	12	7	53	
Non-Chinook Salmon	numbers	42,000	10.7%	4,494	14%	21%	5%	24%	22%	14%	100%	629	944	225	1,079	989	629	4,494	
Halibut CDQ																			
Halibut 4B	lbs	1,140,000	20%	228,000	100%	0%	0%	0%	0%	0%	100%	228,000	0	0	0	0	0	228,000	
Halibut 4C	lbs	596,600	50%	298,300	15%	0%	85%	0%	0%	0%	100%	44,745	0	253,555	0	0	0	298,300	
Halibut 4D	lbs	596,600	30%	178,980	0%	26%	0%	24%	30%	20%	100%	0	46,535	0	42,955				



Faria WatchDog™
VMS Tracking
(Single Band - Satellite E-MTU)

Installation Manual

wdim-0008 rev A 8/2010

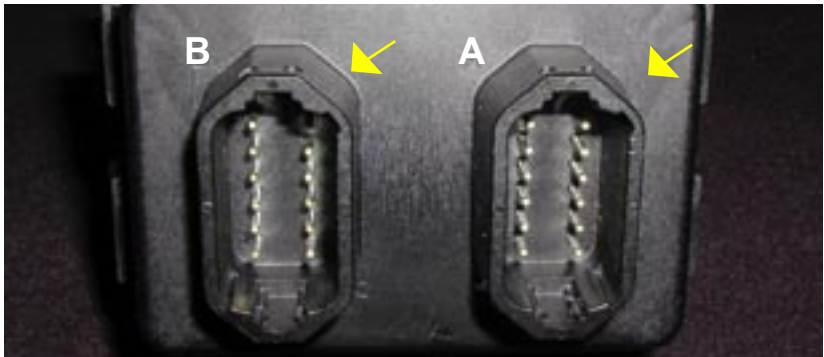
Notice - The Faria WatchDog VMS system is only an aid to operation of a boat. The performance of the system and the system performance specifications can be affected by many factors including but not limited to equipment failure, environmental conditions, improper installation, handling and/or use. This device should not be used for any navigational or safety purpose. The Faria WatchDog is used at your sole risk and in no event shall Faria WatchDog, Inc. be liable for any costs, losses, liabilities, damages, expense or claims of any nature incurred or sustained in respect of this device or its use. You further indemnify and hold harmless Faria WatchDog, Inc. from any liability or loss resulting from use of the device.

PARTS LIST		
PART #	DESCRIPTION	QTY.
AN0007	GPS Antenna	1
AN0009	Iridium Antenna (Satellite)	1
BK0126	Antenna Bracket	2
DM0100	2" Operator Interface	1
GWD013	Faria WatchDog™ 750VMS System	1
HN0606	Power Harness	1
HN0609	GPS Antenna Cable	1
HN0610	Iridium Antenna (Satellite) Cable	1
SC0140	Screw, #12 X 4 SS	2
SC0141	Screw, #1/4 X 1, SS	9
SC0142	Screw, #12 X 3/4, SS	3
CN0023	Watertight In Line Fuse Holder	2

Installation:

- 1) Locate area to mount the two antennas (keep in mind cable length is only 28 feet long (8.5m))
- 2) Connect antenna cables to the antennas, through the mounting bracket.
- 3) Drill hole(s) for the antennas to run to and connect to the Faria WatchDog box.
- 4) Run cables to mounting location of the Faria WatchDog box.
- 5) Connect HN0606 power harness to the Faria WatchDog box (GWD013) at receptacle "A". (See Figure 1 for installation diagram.)

"Note: The connector and receptacle are keyed so that they can only go together one way. Please be sure to line up the guides on the connector with the slots in the receptacle when connecting the harness to the transceiver box."



- 6) Mount box, using the mounting holes and screws, in an area where there is easy access to antenna cables and the battery.



- 7) Connect the GPS antenna cable to connector GPS (J1) with cable labeled GPS on each end.



- 8) Connect the Iridium (SAT) antenna cable to connector SAT (J3) with cable labeled SAT on each end.



- 9) Mount 2" interface so that the LCD screen is visible. (See Figure 1 for installation diagram.)

HN0606

- 10) Connect four-pin connector from the 2" User Interface to the four-pin connector from the power harness.



- 11) Connect the purple and the red wire directly to the positive battery* terminal. For back-up battery connections see step 13.

Important: If there is no back-up battery connected, connect the red/white wire directly to the battery as well.

*If run of wire to battery terminal is greater than 72" you must install a 5A in line fuse provided in your kit.

12) Connect the black wire to a good vessel ground (battery negative)

Important: If there is no back-up battery connected connect both black wires to a good vessel ground (battery negative).

13) If you have a back-up battery, connect the red/white wire to the positive battery terminal on the back-up battery. Connect the second black wire to a good vessel ground (battery negative). If no back-up battery installed see step 11.

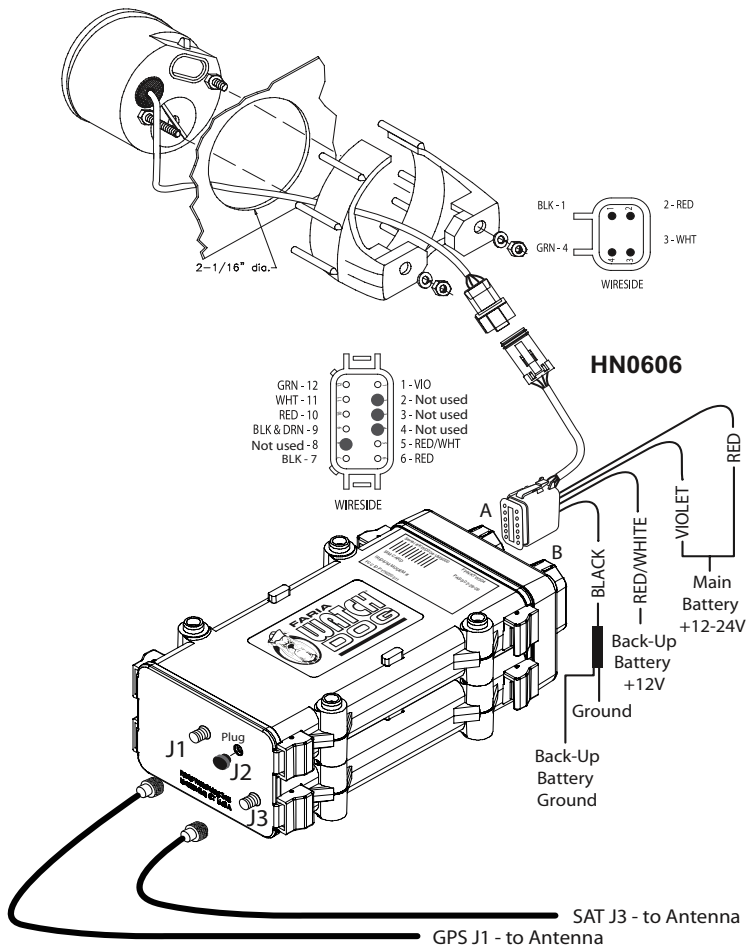


Figure 1

User Interface

Check the 2" interface, the screen should go from "WAIT" to "COMM".



Press and hold the "S" button to enter the STATUS MODE. Pressing the "MODE" button will cycle through five status displays.

The LCD display explanations are as follows:

GSM Signal strength, should read "0".



Sat Availability, 0 - 5 (best signal)



GPS PDOP x 100 (a PDOP of 1.23 will read 0123), 9999 (no GPS), lower numbers represent a better connection.



Main battery voltage x100 (a main battery voltage of 12.34 will read 1234)



Backup Battery voltage x 100 (a voltage of 10.0 will read 1000)



Press the "S" button to exit the "Status Mode" and return to "Normal Mode"

If you have any questions or need technical support call 877.888.5569, 860.848.6600 or e-mail us at information@fariawatchdog.com.

www.fariawatchdog.com

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rir_ea final.docx

APPENDICES are in a separate file named

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final RIR_EA.pdf

3/10/16 sbibb

Incorporates PPI and G Harrington comments

**Finding of No Significant Impact for Amendment 109 to the Fishery Management Plan
for Groundfish of the Bering Sea and Aleutian Islands Management Area, Pacific Cod
Community Development Quota Fishery Development, RIN 0648-BF05**

National Marine Fisheries Service

This action would amend the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area (FMP) and regulations at 50 CFR part 679 governing the groundfish and halibut fisheries managed under the Western Alaska Community Development Quota (CDQ) Program. The proposed action would support increased participation in the groundfish CDQ fisheries (primarily Pacific cod) by catcher vessels less than or equal to 46 feet length overall (LOA) using hook-and-line gear by 1) removing the requirement for operators of catcher vessels greater than 32 ft LOA and less than or equal to 46 ft LOA using hook-and-line gear to obtain and carry a License Limitation Program (LLP) license¹ and requiring registration of these vessels with NMFS; 2) reducing observer coverage requirements, and 3) implementing new catch accounting procedures to properly account for the harvest of groundfish and halibut and the accrual of halibut prohibited species catch by these small vessels. The proposed action would benefit the six CDQ groups and the owners of small catcher vessels by reducing the costs of participating in the groundfish and halibut CDQ fisheries while continuing to provide the information needed to manage the CDQ fisheries.

One of the purposes of an environmental assessment (EA) is to provide the evidence and analysis necessary to decide whether an agency must prepare an environmental impact statement (EIS). This Finding of No Significant Impact (FONSI) is the decision maker's determination that this action will not result in significant impacts to the human environment, and therefore, further analysis in an EIS is not needed. The EA prepared for Amendment 109 analyzed the impacts of the proposed action on the human environment. A summary of the conclusions of the EA are described below.

National Oceanic and Atmospheric Administration Administrative Order 216-6 (NAO 216-6) (May 20, 1999) contains criteria for determining the significance of the impacts of a proposed action. In addition, the Council on Environmental Quality (CEQ) regulations at 40 CFR 1508.27 state that the significance of an action should be analyzed both in terms of "context" and "intensity." Each criterion listed below is relevant in making a finding of no significant impact and has been considered individually, as well as in combination with the others. The significance of this action is analyzed based on the NAO 216-6 criteria and CEQ's context and intensity criteria. These include:

Context: For this action, the setting is the Bering Sea and Aleutian Islands Management Area (BSAI). The effects of this action are limited to this area and to the entities and individuals directly and indirectly participating in the commercial fisheries in the BSAI and to others who use the ocean resources of the BSAI. Although the proposed action concerns the use of a present and future resource, the expected impacts on the human environment (described below) are

¹ Vessels less than or equal to 32 ft LOA already are exempt from the LLP requirements in the BSAI.

relatively small and localized. Therefore, it is unlikely that the action will have an impact on society as a whole or regionally.

Intensity: Listings of considerations to determine intensity of the impacts are in 40 CFR 1508.27(b) and in the NAO 216-6, section 6. Each consideration is addressed below in the order it appears in the NMFS Instruction 30-124-1 dated July 22, 2005, Guidelines for Preparation of a FONSI.

1) *Can the proposed action reasonably be expected to jeopardize the sustainability of any target species that may be affected by the action?*

Response: No. The two primary target species that may be affected by this action are Pacific cod (*Gadus macrocephalus*) and Pacific halibut (*Hippoglossus stenolepis*). The proposed action includes a number of management measures to decrease the cost to small hook-and-line catcher vessels of harvesting Pacific cod and other groundfish in the CDQ Program, either as increased retention in their existing halibut CDQ fisheries or as a separate directed fishery for Pacific cod.

The Pacific cod CDQ fisheries would continue to be managed under the annual groundfish harvest specifications process, which authorizes a maximum total allowable catch (TAC) of Pacific cod in the groundfish fisheries and allocates 10.7% of this Pacific cod to the CDQ Program. The proposed action would not change this process, the annual allocations of Pacific cod, or the requirements that catch of Pacific cod in the CDQ fisheries is maintained at or below allocated amounts. The effects of the harvest of the annual TACs on the sustainability of Pacific cod are evaluated each year in the stock assessment and National Environmental Policy Act (NEPA) documents supporting the annual groundfish harvest specifications process.

Under the proposed action, a relatively small number of vessels with limited harvesting capacity may increase retention of Pacific cod by relatively small amounts. The CDQ groups are likely to reallocate Pacific cod currently harvested by catcher/processors using hook-and-line gear (“freezer longliners”) to the small catcher vessels. This reallocation means that the total amount of Pacific cod harvested in the CDQ Program is unlikely to increase as a result of the action, although slightly more may be harvested in nearshore areas around CDQ communities and harvests may occur at different times of the year than current harvests by the freezer longliners. Because these changes in the Pacific cod CDQ fisheries would occur under the limitations of existing TACs, the proposed action would not jeopardize the sustainability of Pacific cod. (EA Section 4.1)

The proposed action would not impact the harvest of halibut in the directed halibut CDQ fisheries or change any aspect of the halibut fishery other than to allow increased retention of Pacific cod or other groundfish in these fisheries. Therefore, the proposed action would not jeopardize the sustainability of halibut. (EA Section 4.2)

Because the proposed action applies the management measures to the catch of any groundfish species by operators of small catcher vessels using hook-and-line gear, there is a slight chance that some vessel operators may develop fisheries for groundfish species other than Pacific cod. The target species that could be affected in the future are arrowtooth flounder, Atka mackerel, Pacific ocean perch, flathead sole, Pacific cod, rock sole, and yellowfin sole. However, currently,

halibut, sablefish, and Pacific cod are the only target fisheries in the BSAI for catcher vessels using hook-and-line gear. It seems unlikely that hook-and-line target fisheries for other groundfish species will develop in the near future. Therefore, the EA concluded that there will be no effects on any groundfish target species other than Pacific cod. (EA Section 4 “Analytical method”)

2) *Can the proposed action reasonably be expected to jeopardize the sustainability of any non-target species?*

Response: No. The non-target species that could be impacted by this action include 1) groundfish species that are managed under TAC limits but that are not target species for this particular action, 2) other non-target species that are not managed under TACs, and 3) prohibited species.

Although the CDQ groups would be authorized to develop fisheries for groundfish species other than Pacific cod under this action, the analysis concluded that this would be unlikely. See response to question 1 above. These groundfish species may be incidentally caught in the Pacific cod or halibut target fisheries by small hook-and-line vessels. However, this catch is expected to be small and any amount reported or identified by observers would accrue against the CDQ allocations or TACs for these species. Existing regulations prevent harvests from exceeding annual allocations of these species to the CDQ Program. The effects of the annual harvest of TACs on the sustainability of the groundfish stocks are evaluated each year in the stock assessment and NEPA documents supporting the annual groundfish harvest specifications process. (EA Section 4 “Analytical method”)

Relatively small amounts of other living marine resources that are not managed with TACs may inadvertently be caught on hook-and-line gear while the small catcher vessels are fishing for Pacific cod or halibut CDQ. However, because the additional fishing for Pacific cod CDQ under this action is expected to be small, the incidental catch of other non-target species also is expected to be small and not in sufficient amounts to jeopardize the sustainability of these species. (EA Section 4 “Analytical method”)

Halibut prohibited species catch (PSC) is assumed to be associated with any directed fishery for Pacific cod. The proposed action provides the CDQ groups the flexibility to decide whether to support their small vessel Pacific cod fisheries by retaining legal size halibut CDQ or halibut individual fishing quota (IFQ) or supporting this fishery with halibut PSC. Providing this flexibility could decrease the total amount of halibut PSC associated with the Pacific cod CDQ fisheries because some CDQ groups likely will support their Pacific cod fishery with retained halibut CDQ or halibut IFQ. If halibut is retained in the small vessel Pacific cod CDQ fisheries, then no halibut PSC accrues for these landings. This would reduce the overall estimated amount of halibut PSC associated with the Pacific cod CDQ fisheries, albeit by a relatively small amount due to the expected size of these fisheries. (EA Section 4.2.2)

No effects are expected on prohibited species other than halibut because these prohibited species are not caught in large numbers in hook-and-line fisheries. PSC limits for salmon, crab, and herring are not established for any of the groundfish hook-and-line fisheries in the Gulf of Alaska or BSAI. (EA Section 4 “Analytical method”)

3) *Can the proposed action reasonably be expected to cause substantial damage to the ocean and coastal habitats and/or essential fish habitat (EFH) as defined under the Magnuson-Stevens Act and identified in FMPs?*

Response: No. The proposed action is not expected to affect ocean and coastal habitats, EFH, or any ecosystem component of the environment beyond those anticipated for the BSAI groundfish fisheries as a whole. The proposed action will not increase overall harvests of groundfish or halibut, although there may be a small shift in the timing or location of fishing effort if additional small hook-and-line catcher vessels harvest more Pacific cod or other groundfish species in nearshore areas around the CDQ communities in western Alaska. However, this increase in effort is expected to be small and would not significantly change the overall pattern of when, where, and how groundfish are harvested in the BSAI fisheries. (EA Section 4 “Analytical Method”)

4) *Can the proposed action be reasonably expected to have a substantial adverse impact on public health or safety?*

Response: No. The proposed action would not adversely affect public health or safety in a manner different from the level of risk already associated with commercial fishing in the BSAI. Commercial fishing is one of the most dangerous occupations in the United States (NIOSH website at <http://www.cdc.gov/niosh/topics/fishing/>). However, both the Pacific cod CDQ and halibut CDQ fisheries in the BSAI are well established, and the proposed action would generally just allow for the internal reallocation of quota from some larger vessels with previous experience catching Pacific cod to smaller vessels with previous experience catching, but not necessarily retaining, Pacific cod. The proposed action provides options and choices for operators of small vessels to increase their participation in nearshore fisheries, which they may do if they decide that the economic benefits of participation outweigh the risks.

The reduction in observer coverage required for these small vessels could result in a net increase in the number of observers placed on small vessels in the BSAI. An increase could occur because currently there are no small vessel Pacific cod CDQ fisheries, so no observers are deployed in these fisheries. The proposed action could increase the number of observers deployed if small vessels start participating in the small vessel Pacific cod CDQ fisheries and if one or more of these vessels are selected to carry an observer. However, any change in the safety aspects of observer deployment in the BSAI associated with the proposed action would be small due to the limited number of expected additional participants and fishing trips. In addition, any impacts on safety related to observer coverage are similar in nature to those associated with the deployment of observers in general and analyzed under previous actions (e.g., Amendment 86 to the FMP). (RIR/EA Section 3.9.5)

5) *Can the proposed action reasonably be expected to adversely affect endangered or threatened species, marine mammals, or critical habitat of these species?*

Response: No. The EA prepared for this action concluded that it would not adversely affect endangered or threatened species, marine mammals, or critical habitat of these species. Because the proposed action may increase fishing effort in nearshore areas of the BSAI, it has the

potential to increase interactions with marine mammals found in these areas. The EA identified the potential for increased interactions with Steller sea lions, northern fur seals, and resident killer whales.

The proposed action would result in a minimal change in fishing effort in some near-shore regions using current gear types. An insignificant impact is anticipated on Pacific cod stock biomass, fishing mortality, or spatial or temporal distribution. Pacific cod are an important Steller sea lion prey species. Because this action would have only insignificant impacts on the potential removals of Pacific cod and because all Steller sea lion protection measures would continue to apply to directed fishing for Pacific cod, the proposed action would not represent a change in the spatial or temporal distribution of the Pacific cod non-trawl fishery in a manner not addressed in previous ESA section 7 consultations.

Because the increase in fishing effort is expected to be small and to take place in the same areas as the existing small vessel halibut CDQ fisheries, the EA also concluded that the proposed action would not adversely affect the northern fur seals or the resident killer whales. (EA Section 4.3)

6) *Can the proposed action be expected to have a substantial impact on biodiversity and/or ecosystem function within the affected area (e.g., benthic productivity, predator-prey relationships, etc.)?*

Response: No. The proposed action will make relatively minor changes to permitting, observer coverage, and catch accounting procedures for a small proportion of the groundfish fisheries off Alaska. No significant changes in total harvests or when, where, and how fishing occurs are expected. Therefore, the proposed action is not expected to have a substantial impact on biodiversity and/or ecosystem function within the affected area.

7) *Are significant social or economic impacts interrelated with natural or physical environmental effects?*

Response: No. Under this action, the CDQ groups are expected to shift relatively small amounts of Pacific cod CDQ from a few large freezer longliners to smaller hook-and-line catcher vessels fishing near, and delivering to, CDQ communities. This shift in allocations is not expected to significantly impact the freezer longliners because the amounts involved will be relatively small. The action is expected to benefit the small catcher vessels by reducing the cost of participation in the CDQ fisheries and increasing economic opportunities. No significant natural or environmental effects are anticipated from the action.

8) *Are the effects on the quality of the human environment likely to be highly controversial?*

Response: No. The proposed action is not controversial and no controversy was noted in public comments to the Council or NMFS about the data and information used to evaluate the impacts of the action on the human environment. The proposed action is anticipated to benefit the CDQ groups and small vessels participating in the CDQ fisheries. The action is proposed in response to requests from these stakeholders for relief from permitting, observer coverage, and catch

accounting requirements that may have impeded participation in the CDQ fisheries by the small vessels.

9) *Can the proposed action reasonably be expected to result in substantial impacts to unique areas, such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers or ecologically critical areas?*

Response: No. Because this action affects commercial fishing in the offshore waters of the BSAI, it will not impact any historic or cultural resources, park land, prime farmlands, wetlands, or wild and scenic rivers.

10) *Are the effects on the human environment likely to be highly uncertain or involve unique or unknown risks?*

Response: No. The proposed action will make relatively minor changes to permitting, observer coverage, and catch accounting procedures for a small proportion of the groundfish fisheries off Alaska. No significant changes in total harvests or when, where, and how fishing occurs are expected. The effects of the BSAI groundfish fisheries on the human environment are evaluated each year in the stock assessment and NEPA documents supporting the annual groundfish harvest specifications process. (EA Section 4)

11) *Is the proposed action related to other actions with individually insignificant, but cumulatively significant impacts?*

Response: No past, present, or reasonably foreseeable future actions were identified that would combine with the effects of this action to result in cumulatively significant impacts. (EA Section 4.4)

12) *Is the proposed action likely to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural or historical resources?*

Response: No. Because this action affects commercial fishing in the offshore waters of the BSAI, it will not impact any districts, sites, highways, structures, or objects listed or eligible for listing in the National Register of Historic Places. In addition, the EA did not identify any potential for the proposed action to cause loss or destruction of significant scientific, cultural, or historical resources.

13) *Can the proposed action reasonably be expected to result in the introduction or spread of a nonindigenous species?*

Response: No. This action will not affect the introduction or spread of non-indigenous species, because it does not change fishing practices that may introduce such organisms into the marine environment.

14) *Is the proposed action likely to establish a precedent for future actions with significant effects or represent a decision in principle about a future consideration?*

Response: No. The most important precedent addressed by this action are the changes in catch accounting procedures that are proposed to accommodate moving the small hook-and-line catcher vessels from the full observer coverage category to the partial coverage category. Currently, all catcher vessels participating in catch share programs with transferable PSC allocations are in the full observer coverage category. The proposed action would move the small hook-and-line catcher vessels in the groundfish CDQ fisheries into the partial observer coverage category, which means that NMFS would no longer have observer data about halibut PSC from each of these catcher vessels. Observer data would be obtained only from those vessels randomly selected by NMFS to carry an observer. This could set a precedent of allowing participation in catch share programs with transferable PSC allocations without requiring full observer coverage (an observer on each participating vessel). This action addresses the concern about monitoring transferable PSC limits by creating a separate “small vessel halibut PSC limit” for the small catcher vessels in partial coverage. This halibut PSC limit will be managed more actively by NMFS, thereby eliminating the concern about setting a precedent about observer coverage that NMFS could not support for larger vessels or other catch share programs. While this approach is appropriate for the small catcher vessel groundfish CDQ fisheries, it may not be the appropriate approach to accomplish the management objectives and monitoring needs in other catch share programs.

15) Can the proposed action reasonably be expected to threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment?

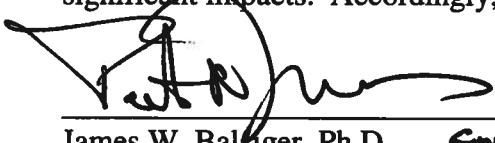
Response: No. This action does not create any known violation of Federal, State, or local laws or requirements imposed for the protection of the environment.

16) Can the proposed action reasonably be expected to result in cumulative adverse effects that could have a substantial effect on the target species or non-target species?

Response: No additional cumulative adverse effects were identified that would result in a significant adverse effect on the human environment. (EA Section 4.4)

DETERMINATION

In view of the information presented in this document and the analysis contained in the supporting Environmental Assessment prepared for Amendment 109 to the FMP, it is hereby determined that this action will not significantly impact the quality of the human environment as described above and in the supporting Environmental Assessment. In addition, all beneficial and adverse impacts of the proposed action have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an EIS for this action is not necessary.



James W. Balsiger, Ph.D.
Administrator, Alaska Region

for J/B

1/12/16

Date