Action to the Fixed Gear Sablefish Fishery Managed under the Pacific Coast Groundfish Fishery Management Plan, Including Measures to:

- Implement electronic fish tickets for sablefish landings;
- Modify the own/control limit

Including an Environmental Assessment and Regulatory Impact Review

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June 2014

This document has not been reviewed or cleared by General Counsel Northwest or by the National Marine Fisheries Service National Environmental Policy Act (NEPA) Coordinator.
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Chapter 1 Background, Proposed Action, Purpose and Need for the Action

1.1 Proposed Action
The proposed action is to: (a) implement an electronic fish ticket requirement for the sablefish fishery, (b) modify the control rules for the Limited Entry Fixed Gear Sablefish Permit Stacking Program (program), and (c) implement joint registration (allow limited entry fixed gear and trawl permits to be registered to the same vessel at the same time).

1.2 Purpose and Need
The purpose of the electronic fish ticket measure is to consider the implementation of a Federal requirement for an electronic fish ticket to capture essential fishery catch data for non-trawl groundfish fisheries. This measure is needed to improve catch accounting and to enforce sablefish tier limits in the primary fishery such that the integrity of the catch share program is maintained. In addition, there is a need to improve the timeliness of the data for management and enforcement of the fixed gear fisheries.

The purpose of the own/control limit measure is to modify the vessel ownership threshold used to evaluate the control limit on the number of limited entry fixed gear permits owned or held by a single entity. The need for this measure is to accommodate fishing enterprises that participate in both the Alaskan fixed gear sablefish and halibut IFQ program (Alaska IFQ program) and the West Coast primary sablefish fishery, as well as West Coast fishing enterprises in which a person’s minor financial interests in a vessel may disrupt its business unnecessarily by preventing full attainment of the tiers.

The purpose of the joint registration measure is to allow limited entry trawl permits and limited entry fixed gear permits to be registered to the same vessel at the same time. While joint registration is prohibited under existing regulations it may no longer be necessary given improved catch accounting and monitoring under the Pacific coast groundfish trawl rationalization program and considering the proposed improvements to catch accounting under the electronic fish ticket measure analyzed in this document. The need for this measure is to provide for increased flexibility for fishermen that participate in both the trawl and fixed gear fisheries.

1.3 Background

1.3.1 Summary of Past Management Actions
Sablefish (Anoplopoma fimbria) is one of the most valuable species in the groundfish fishery off Washington, Oregon, and California, and is managed under the Pacific Coast Groundfish Fishery Management Plan (FMP). Because of its high ex-vessel value per pound, sablefish is a desirable target species for many West Coast fisheries and gear groups. The Pacific Fishery Management Council (Council) made several sablefish allocation decisions over the 15 years prior to implementation of Amendment 14 in 2001 establishing the limited entry fixed gear sablefish permit stacking program, which is a type of individual fishing quota (IFQ). The limited entry fixed gear sablefish permit stacking program was structured to increase safety and efficiency, while maintaining the small, owner-operator character of the fleet.
In 1987, an allocation of sablefish was established between trawl and non-trawl gear groups. Industry representatives of vessels participating in the non-trawl sablefish fisheries expressed their desire that the fishery be managed on a seasonal basis (as opposed to the year-round policy the Council pursued for most sectors of the groundfish fishery). The pursuit of seasonal management for the non-trawl segment of the sablefish fishery was a key decision that, when combined with a decline in sablefish abundance, ultimately impacted safety, efficiency, and allocational issues that the permit stacking program was meant to address.

The vast majority of the trawl and non-trawl sablefish harvest was placed under a license limitation program in 1994 (Amendment 6). Of the non-tribal commercial optimum yield of sablefish, 90.6% was allocated to the limited entry fishery and 9.4% was allocated to the open access (OA) fishery. The limited entry sablefish allocation was then allocated 58% to the limited entry trawl sector and 42% to the limited entry non-trawl (fixed gear) sector.

Management for the fixed gear fleet was, and continues to be, divided at the 36° N. lat. line with separate annual catch limits (ACLs) for the northern and southern fisheries. While the coastwide trawl fishery took sablefish as part of its year-round cumulative trip limit fisheries, the northern fixed gear fleet landed 85% of its allocation in a directed sablefish season, and 15% of its allocation in daily trip limit fisheries. The southern fixed gear fleet landed all of its allowed harvest in daily trip limit fisheries. The directed season north of 36°N. lat. became increasingly tense over the years, as vessel capacity and competition for landings increased and amounts of fish available for harvest decreased. Through 1996, the directed (or “primary”) season for the limited entry fixed gear fleet was managed as an open competition derby (“derby”). Derby duration shortened each year, until the fishery was just five days long in 1996.

Concern for the safety of participants in the sablefish derby led the Council to develop Amendment 9 to the FMP. In 1997, NMFS implemented Amendment 9, the sablefish endorsement program. Limited entry permit holders were eligible for sablefish endorsements based on their permit history. Permits without sufficient sablefish landings history were not endorsed for future participation in the primary season, but they could still be used in the daily trip limit fisheries.

Even with the sablefish endorsement, the fishery season remained short (nine days in 1997). To lengthen the season and improve safety, equal limits were imposed on all qualified participants (sablefish endorsement holders). However, the season still had to be limited to keep the fishery from being classified as an IFQ program. A fishery with a limited class of participants each with an amount of fish they are allowed to harvest is an IQ. In its 1996 re-authorization of the Magnuson-Stevens Fishery Management and Conservation Act (MSA), Congress had included a moratorium on implementing new IFQ programs through October 1, 2000. The moratorium was interpreted to cover any program that would allow a vessel ample time and opportunity to catch a limit allocated specifically to that vessel. The moratorium forced the Council to manage the primary season to a short duration that prevented many participants from fully taking their vessel-specific limits (a “modified derby”). To further assure that the cumulative limits would not be categorized as an IFQ program, regulations were established to set a maximum season length of 10 days. Equal cumulative limits were viewed by the Council as being extraordinarily
reallocative in nature, but for 1997, equal limits were the only option available to lengthen the season and to begin to address safety issues.

The inequitable allocation system created by the equal cumulative limits was partially resolved with a “three-tier” system, which was established by regulatory amendment for 1998 and beyond. Under this “three-tier” system, sablefish endorsement holders were ranked into three different tiers based on their permit histories, with the lowest tier (Tier 3) having the lowest qualification requirements. Annual management of the three-tier cumulative limit system required that the allocation for this fishery be divided such that there were three different cumulative limits for the different tiers. While somewhat more equitable than the equal cumulative limit system, the three-tier system still required some fishermen to make large cutbacks in their harvest levels while allowing others to expand. The system provided little flexibility to operators to determine the manner in which their sablefish catch is harvested or to scale their harvest upward to match their pre-existing levels of capital investment. This lack of flexibility undoubtedly reduced efficiency, resulting in a lower net value for harvest.

Even under the three-tier system, the fishery still had to be managed as a modified derby to keep from being considered an IFQ, and the seasons were still too short (between 6-9 days) to allow fishermen to operate with care and safety. Short derby seasons are believed to result in accidents due to fatigue and financial pressure to fish and transit under unsafe conditions.

The MSA moratorium on new IFQ programs expired on October 1, 2000. On December 21, 2000, Public Law 106-553, an appropriations bill for NOAA, contained a continuation of the IFQ moratorium through October 1, 2002 and an exception to that moratorium for a permit stacking program in the West Coast fixed gear sablefish fishery. On August 2, 2001, Amendment 14 implemented a permit stacking program, in which up to three sablefish-endorsed permits could be registered for use with a single vessel and that vessel could then have access to the primary season sablefish cumulative limits associated with each of those permits. Most importantly, the exception to the IFQ moratorium for the fixed gear sablefish fishery as implemented through Amendment 14 allowed longer seasons (April through October), so that each vessel could fish against its limits at its own speed.

Portions of Amendment 14 were implemented for the 2001 primary sablefish season. The extended sablefish season was fully implemented in 2002. In 2006, NMFS implemented additional regulations for Amendment 14, many of which were intended to keep the fishery a small, owner-operator fleet. It was decided that, in the future, NMFS would implement a permit stacking program fee system (cost recovery program) as required by the MSA.

Beginning in 2001, NMFS implemented the initial permit stacking provisions (66 FR 41152, August 7, 2001). The following provisions were put in place in 2001:

1. up to 3 sablefish-endorsed permits may be registered for use with a single vessel;
2. the limited entry, primary sablefish season is from August 15 - October 31, 2001;
3. a vessel may fish for sablefish during the primary season with any of the gears specified on at least one of the limited entry sablefish-endorsed permits registered for use with that vessel;
(4) no person may own or hold more than 3 sablefish-endorsed limited entry permits unless that person owned more than 3 permits as of November 1, 2000;
(5) no partnership or corporation may own a sablefish-endorsed limited entry permit unless that partnership or corporation owned a permit as of November 1, 2000;
(6) cumulative limits for species other than sablefish and for the sablefish daily trip limit fishery remain per vessel limits and are not affected by permit stacking; and
(7) the limited entry daily trip limit fishery for sablefish is open during the primary season for vessels not participating in the primary season.

Beginning in 2002, NMFS extended the fishing season to April 1 - October 31 as part of the Pacific Coast groundfish final specifications and management measures (67 FR 10490; March 7, 2002).

Beginning in 2006, NMFS implemented further permit stacking regulations that include the following provisions (71 FR 10614, March 2, 2006):
(1) permit owners and permit holders are required to document their ownership interests in their permits to ensure that no person holds or has ownership interest in more than 3 permits;
(2) an owner-on-board requirement for permit owners who did not own sablefish-endorsed permits as of November 1, 2000;
(3) an opportunity for permit owners to add a spouse as co-owner;
(4) vessels that do not meet minimum frozen sablefish historic landing requirements are not allowed to process sablefish at sea;
(5) permit transferors are required to certify sablefish landings during mid-season transfers; and
(6) a definition of the term “base permit.”

1.3.2 Current State of the Program
The current permit stacking program applies to the sablefish primary fishery, which occurs north of 36° N. lat. Under this program, vessels registered to at least one limited entry permit, with either a gear endorsement for longline or trap (or pot) gear, and an endorsement for sablefish, fish a specified tier limit during a seven-month primary fishery season (April through October).

Under the permit stacking program, each fixed gear sablefish-endorsed, limited entry permit is assigned to one of three tiers. Tiers are permanently affixed to the sablefish endorsed permit and cannot be transferred separately from the permit. The permit’s tier level determines the poundage of sablefish which can be landed by that permit each season while participating in the primary sablefish fishery. For sablefish-endorsed, limited entry permits, the NMFS Regional Administrator biennially or annually announces the size of the cumulative trip limit for each of the three tiers associated with the sablefish endorsement such that the ratio of limits among the tiers is approximately 1:1.75:3.85 for Tier 3:Tier 2:Tier 1, respectively. Up to three permits can be stacked onto (registered to) a single vessel, allowing that vessel to land up to the sum of the three tier limits in aggregate. Because each vessel is assigned a proportion of catch based on its tier limit, the stacking program is considered an IFQ, or catch share program.
Vessels with sablefish-endorsed permits are also eligible to fish in the daily-trip limit (DTL) fishery before the primary season (i.e., January through March) and after their aggregate tier limit on the vessel has been harvested, or the primary season has ended, whichever comes first. All landings made starting on April 1 by a vessel registered to a sablefish-endorsed permit(s) are debited against the tier amount until the tier amount remaining is below the daily trip limit amount. Because each vessel has its own primary fishery limit, vessels often transition from the primary to DTL fisheries sometime during the sablefish primary season.

The program also includes other provisions, including a prohibition on the ownership of permits by corporations or other business entities, a permit owner-on-board requirement, a limit on the number of permits any individual or entity (individually and collectively) can own or hold, and a prohibition on at-sea processing. A grandfather clause was provided for each of these provisions, allowing the continuation of situations in place prior to Council action. For non-grandfathered permits, the permit owner must be on board the vessel during the primary season when that permit’s tier amount is being fished. If landings from a trip will be attributed to multiple tiers, then all permit owners of those tiered permits being fished must be onboard. However, there are limited medical and death exemptions from this requirement.

Currently, there are 164 sablefish-endorsed permits of which 131 are endorsed for longline only; 27 are trap/pot endorsed only, and 6 have two gear endorsements. The number of permits by tier levels is as follows: Tier 1 - 28 permits; Tier 2 – 42 permits, and Tier 3 – 94 permits. As of August 2013, approximately 40 vessels have stacked (multiple) permits (either 2 or 3 permits).

Electronic Fish Tickets

The first measure covered by this EA considers changing landing reporting requirements to implement a Federal requirement for an electronic fish ticket. Background on landing reporting requirements and reasons for considering modifications are provided in this section.

When a sablefish fixed gear tier delivery is made, the delivery is recorded on a state fish ticket. Landings recorded on this one fish ticket may count against multiple permits with varying tier endorsements. If the vessel operator does not specify which permit/tier the catch should be counted against, the delivery is apportioned to the individual tiers (up to 3) by an even split until the tiers are reduced to a point where they are equal to or less than the daily-trip limits (DTL). All of this tabulation is done by the state agency(s) and then sent to the Pacific States Marine Fisheries Commission (PSMFC) for entry into the Pacific Fishery Information Network (PacFIN).

At the September 2013 meeting of the Council, the Enforcement Consultants (EC) report outlined several concerns with the existing reporting requirements. Their primary concern was that the opportunity for underreporting is extremely great under the current regulations, which defer to the states to report catch data and permit numbers on State fish tickets (which are recorded on paper), and enforcement agents often have little access to data that is often times

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1 These exemptions can only be given for three years maximum (consecutive or cumulative) to a permit owner or to the surviving spouse of a permit owner.
outdated. This creates a situation where at-sea boarding or dockside inspection can do little besides checking the permit status, because no real-time information on the actual status of the tier(s) being fished is available. In addition, with current landing reports, enforcement of the owner-on-board requirement is difficult without having real-time permit and landing information. During an at-sea boarding or dockside inspection, enforcement must determine which owner, if any, is supposed to be onboard the vessel during that trip.

Since inception of the tier program, NMFS has requested that the state agencies list the Federal permit number on the state ticket (see 71 FR 10614, March 2, 2006, response to comment 1). Washington requires the tier permit number be listed on the State fish ticket, and Washington enforcement and management personnel have ready access to the Washington State landing data. In 2013, Oregon enacted state regulations that require documentation of the permit number on the state fish ticket. Unlike Washington and Oregon, in California there are no state regulatory requirements for the tier permit number to be listed on the state fish ticket.

Although Federal or state enforcement personnel may request information from their individual states or from PacFIN, the information process is laborious, time consuming, dated, and most importantly, does not lend itself to making information available to an agent or officer working in the field performing patrol-related activities.

The Department of Commerce, Office of the Inspector General recently released a report highlighting these issues and finding, in part, that the sablefish permit stacking program does not have adequate data and that NOAA is not monitoring to determine whether individual permits are exceeding their allowed landings (Final Report No. OIG-14-019-I, May 1, 2014). The OIG report recommends, in part, that NMFS (1) develop a process to ensure that accurate landings information is obtained by individual permit in a timely manner, and (2) develop controls to monitor landings on an individual permit basis to ensure overage violations are adequately addressed. This action seeks to address these catch accounting issues.

**Own/Control Limits**

The second measure covered by this EA considers changing the criteria used to determine the number of permits an entity controls, for purpose of assessing compliance with the three-permit own/control limit. Background on the control rule and criteria, and reasons for considering a modification, are provided in this section.

Control occurs when a person owns or holds a permit. Thus, a person can control a permit by directly owning the permit or by owning a vessel to which a permit is registered (i.e., “holding” a permit). In this latter situation, the permit registered to the vessel may be owned by someone else. The current own/control regulations limit participants (permit owners and/or vessel owners) in this program to owning or holding no more than three permits (a three-permit control limit). This limit was intended to prevent concentration of harvest privileges. For the purpose of determining the number of permits a person controls, ownership of any percentage of a permit counts as 1 permit. Additionally, persons who have any percentage ownership interest in a vessel are considered to hold any permit associated with that vessel, i.e. to control the permits associated with the vessel (see regulations at 660.25(b)(3)(iv)(C)(2)). The regulations were
implemented in this way, under Amendment 14, with the intention of moving the program towards an owner-operator fleet.

While the own/control limit has been in place since 2001 without any issues being raised by the majority of the fleet, two examples have come forward highlighting barriers the own/hold limit causes. The two examples brought to the Council’s attention pertain to (1) sablefish permit stacking participants that also harvest Alaska fixed gear halibut and sablefish IFQ program\(^2\) (Alaska IFQ) and (2) vessel/permit purchase transactions. These situations are described briefly here and in detail in the impacts section of Chapter 4.

The first example is for participants in the sablefish permit stacking program that also harvest Alaska IFQ. The way the West Coast sablefish permit stacking program counts permits registered to a vessel (for purposes of the three-permit control limit) constrains Alaska IFQ participants that are grandfathered. Grandfathered participants are exempt from Alaska owner-on-board requirements and Alaska limitations on individuals owning IFQ\(^3\). Unlike the West Coast sablefish permit stacking program, the Alaska IFQ program requires that, under certain circumstances, an entity acquire at least 20 percent ownership interest in the vessel that will fish its Alaska IFQ. If the vessel which is hired also participates in the West Coast sablefish permit stacking program (is a West Coast and Alaska vessel), there may be West Coast limited entry fixed gear (LEFG), sablefish-endorsed permits (i.e., LEFG permits) registered to the vessel. When an entity acquires an ownership interest to hire the vessel to participate in the Alaska IFQ program, any LEFG permits that happen to be registered to the vessel would also count against that entity’s West Coast LEFG 3-permit limit. If that entity already controls some LEFG permits (e.g. owns a different vessel which participates in the West Coast fishery) then its ability to hire another West Coast vessel to fish its permits may be limited.

There are two circumstances under which an entity is required to acquire a 20-percent ownership interest in the vessel which will be hired to fish its IFQ. Both involved grandfathered participants. The first involves those individuals grandfathered in with an exemption from the IFQ owner-on-board requirement. Regulations for the Alaska sablefish IFQ program require that individual owners of catcher vessel quota shares (QS) (Alaska QS, vessel categories B, C, or D) be onboard the vessel during all IFQ fishing. An exemption to the owner-on-board requirement allows an initial recipient of catcher vessel Alaska QS to employ a hired master to fish his or her IFQ, but only if the initial recipient owns a minimum of 20 percent interest of the vessel on which they hire a master to fish their IFQ. The second involves those entities (corporations, partnerships, etc.) grandfathered in with an exemption to provisions which limits IFQ ownership to individuals. To operationalize the owner-on-board provision, acquisition of Alaska IFQ by entities was prohibited, except for those entities that already existed and were eligible for an initial allocation. Over time and similar to the West Coast fishery, individuals and entities eligible for these two exemptions will leave the fishery, and there will no longer be any remaining grandfathered entities. Like the West Coast sablefish fishery, the regulations were

\(^2\) The North Pacific Fishery Management Council (NPFMC) managed IFQ Program for fixed-gear Pacific halibut and sablefish fisheries in and off of Alaska.

\(^3\) The West Coast sablefish permit stacking program also has owner-on-board requirements and a requirement that only individuals own LEFG, sablefish-endorsed permits, unless grandfathered. However, these West Coast provisions are not constraining participation in Alaska IFQ.
structured in this way to maintain a predominantly owner-operator fishery. Alaska regulations have recently been modified to further encourage more rapid movement toward a solely owner-operated fishery in Alaska.

The second example is for vessel or permit purchase transactions. The other barrier to fishermen cooperation created by the criteria used to determine ownership of West Coast LEFG permits comes into play as part of sale transactions. A typical business practice in West Coast fisheries is for the seller of a vessel to finance the buyer’s purchase of the vessel. When this is done, the seller will often retain at least partial ownership interest in the vessel until all payments have been made, at which time the seller will sign over entire interest in the vessel. If, for example, the seller of a West Coast fixed gear vessel is upgrading to a different fixed gear vessel and the buyer of the vessel wants to continue to use the vessel in the LEFG fishery, then by retaining partial ownership, the seller would be counted as controlling all the LEFG permits on the vessel he or she sells, plus any permits on the new vessel. Thus, the criteria for counting permit control may be interfering with this method of financing vessel transactions among West Coast fishermen.
Chapter 2 Description of Alternatives

2.1 Electronic Fish Ticket Alternatives
For the electronic fish ticket measure, there are the No Action alternative and three action alternatives, which are summarized here and described in more detail in the following sections.

Alternative 1: (No Action) There are currently no Federal regulations requiring electronic fish ticket documentation for sablefish landings in the primary (tier) sablefish fishery, within the larger limited entry fixed gear (LEFG) fishery or within the OA fishery, which are managed under daily, weekly, and bimonthly trip limits.

Alternative 2: A Federal requirement that all tier deliveries be recorded on an electronic fish ticket that documents the associated Federal groundfish permit number.

Alternative 3: A Federal requirement that all limited entry permit sablefish deliveries (primary/tier and DTL) be recorded on an electronic fish ticket that documents the associated Federal groundfish permit number.

Alternative 4: A Federal requirement that all sablefish deliveries (primary/tier, DTL, and OA) be recorded on an electronic fish ticket that documents the associated Federal groundfish permit number.

2.1.1 No Action Alternative
Alternative 1: (No Action) There are currently no Federal regulations requiring electronic fish ticket documentation for sablefish landings in the primary (tier) sablefish fishery, within the larger limited entry fixed gear (LEFG) fishery or within the OA fishery, which are managed under daily, weekly, and bimonthly trip limits.

Catch accounting in the LE and OA fisheries is based on landed catch derived from state landing receipts. Total catch is derived by combining landed catch values from state landing receipts with discard ratios derived from observer sample data. Current regulations at 50 CFR 660.3 and 50 CFR 660.13 require vessels to adhere to applicable state laws for recordkeeping and reporting. However, State landing receipts do not consistently include the Federal groundfish permit number associated with the landing, which can be problematic, particularly when multiple permits are registered to a single vessel. Electronic fish ticket regulations at 50 CFR 660.15 apply only to first receivers in the Shorebased Trawl IFQ program and not to the LE and OA fisheries first receivers. Landings data are available in the PacFIN database for management and enforcement purposes several months after the date of landing.

At the time of implementation of Amendment 14, no Federal regulations requiring fish ticket documentation of the groundfish permit number associated with sablefish landings in the primary (tier) sablefish fishery were enacted. Documentation of catch against tier limits and

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4 § 660.3 Reporting and recordkeeping. Any person who is required to do so by applicable state law or regulation must make and/or file all reports of management unit species landings containing all data and in the exact manner required by applicable state law or regulation.
documentation of permit numbers was left to the states to implement. In the Amendment 14b final rule (71 FR 10614, March 2, 2006), comment and response section, Washington Department of Fish and Wildlife (WDFW) and Oregon Department of Fish and Wildlife (ODFW) committed to requiring Federal permit numbers to be recorded on state fish tickets by 2007. At that time California Department of Fish and Game, now California Department of Fish and Wildlife (CDFW), had already added a line for a Federal permit number on their state ticket and entered that information into PacFIN. Washington requires the tier permit number be listed on the state fish ticket, and Washington enforcement and management personnel have ready access to the Washington State landing data. The State of Oregon has recently changed their regulations to require that the permit number be documented on the state landing receipt. As of 2014, Federal permit numbers are not being recorded consistently on state landing receipts associated with sablefish landings.

Under the current system, when a sablefish fixed gear tier delivery is made, the delivery is recorded on a state paper fish ticket in accordance with state law. One to three tiers may be delivered and recorded on this one trip ticket. If not specified by the operator, the delivery is apportioned to the individual tiers (up to three) by an even split until the tiers are reduced to a point where they are equal to or less than the DTL. All of this tabulation is done by the state agency(s) and then sent to PSMFC for entry into PacFIN. Under the No Action Alternative, the requirements for sending in paper landing receipts varies among states with Washington requiring the paper landing receipts to be received within six working days, Oregon requiring the landing receipts to be received within five working days, and California requiring the landing receipts to be received by the first and sixteenth of the month. It is a considerable time after the tickets are prepared and submitted that the data are entered into a state database, edited, and forwarded to the PacFIN database; depending on the state, it may take several months.

2.1.2 Action Alternatives

Each of the Alternatives 2-4 would implement a Federal requirement that nontrawl commercial sablefish landings to U.S. West Coast ports be recorded on an electronic fish ticket. The action alternatives differ from each other in the fleets that they address: Alternative 2 would affect participants in the primary, tiered limited entry fixed gear (LEFG) sablefish fishery; Alternative 3 would expand upon Alternative 2 to add participants in the LEFG DTL fishery; and Alternative 4 would expand upon Alternative 3 to add participants in the OA DTL sablefish fishery. Under each of the action alternatives, the electronic tickets already in use by the Shorebased IFQ Program would be used to record sablefish landings. The electronic ticket could easily accommodate nontrawl sablefish landings with little to no revision to the existing electronic ticket. Any dealer required to fill out an electronic ticket would need to request a free PSMFC dealer account, then fill out an electronic ticket online, and submit that electronic ticket to PSMFC within 24 hours of landing. The catch data recorded on the electronic ticket is then made available to state and Federal management and enforcement agencies, and later entered into PacFIN along with other catch data. Table 1 of this document, below, summarizes some of the potential differences between the No Action Alternative and Alternatives 2-4.

Electronic fish ticket means a software program or data files meeting data export specifications approved by NMFS that is used to send landing data to PSMFC. Electronic fish tickets are used to collect information similar to the information required in state fish receiving tickets or landing receipts, but they do not replace or change any state requirements. However, the State may use
the electronic fish ticket to satisfy their State requirements. The electronic fish ticket system was designed and is managed by the PSMFC, with funding from NMFS. The electronic fish ticket system has been used for the Pacific whiting shoreside fishery since 2007 (see 72 FR 50906, September 5, 2007). In 2011, the electronic fish ticket system was expanded to include not only the Pacific whiting shoreside fishery but all groundfish delivered shoreside by vessels participating in the Shorebased IFQ Program under Amendment 20 (the Trawl Rationalization Program). The current electronic fish ticket system is software-based; however, PSMFC is in the process of moving to a web-based electronic fish ticket system. This change would affect the requirements associated with using the electronic ticket. Electronic fish ticket regulations at 50 CFR 660.15 explain the current software and hardware requirements associated with using the electronic ticket. These regulations currently apply only to first receivers\(^5\) in the Shorebased Trawl IFQ program and not to the LEFG and OA fisheries. The existing electronic fish ticket varies slightly by state such that each form records the information necessary for compliance with state landings regulations. Although the form is currently used for the Shorebased IFQ Program, it could easily accommodate landings in the commercial nontrawl groundfish fleet, and also provides unique reporting functions, such as preparation of tax information, that may be beneficial to first receivers.

**Alternative 2:** A Federal requirement that all tier deliveries be recorded on an electronic fish ticket that documents the associated Federal groundfish permit number.

Sablefish landings made against sablefish endorsed (tier) permits during the primary season for the limited entry fixed gear fishery north of 36°N (April 1 through October 31, or until the permit holder’s tier limit has been reached, whichever occurs first), would be required to be recorded on a Federal electronic fish ticket that documents the associated federal groundfish permit number. The existing electronic ticket already has the appropriate fields and drop down boxes necessary to accommodate this fishery and would be expanded to include sablefish landings. State landings receipts would still be required per state landings regulations; the electronic ticket would be separate from and in addition to state landing requirements. After a landing was made to a first receiver, all necessary landing and catch information would be recorded on the electronic ticket provided by the first receiver. This electronic ticket would then be uploaded to PSMFC within 24 hours of the landing, made available to all interested parties (i.e. the state agencies, enforcement, NMFS, and permit owners), and the data would be processed and entered into PacFIN.

**Alternative 3:** A Federal requirement that all limited entry permit sablefish deliveries (primary/tier and DTL) be recorded on an electronic fish ticket that documents the associated Federal groundfish permit number.

Sablefish landings made against sablefish-endorsed (tier) permits during the primary season and sablefish landings made by vessels registered to limited entry fixed gear permits, before and after the primary season, and subject to the restrictions and limits of the limited entry daily and/or weekly trip limit (DTL) fishery for sablefish, would be required to be recorded on a Federal electronic fish ticket that documents the associated Federal groundfish permit number. The existing PSMFC electronic ticket already has the appropriate fields and drop down boxes

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5 First Receiver means a person who receives, purchases, or takes custody, control, or possession of catch onshore directly from a vessel.
necessary to accommodate this fishery and would be expanded to include sablefish landings. State landings receipts would still be required per state landings regulations; the electronic ticket would be separate from and in addition to state landing requirements. After a landing was made to a first receiver, all necessary landing and catch information would be recorded on the electronic ticket provided by the first receiver. This electronic ticket would then be uploaded to PSMFC within 24 hours of the landing, made available to all interested parties (i.e. the state agencies, enforcement, NMFS, and permit owners), and the data would be processed and entered into PacFIN.

Alternative 4: A Federal requirement that all sablefish deliveries (primary/tier, DTL, and OA) be recorded on an electronic fish ticket that documents the associated Federal groundfish permit number.

Sablefish landings in the primary/tier and LEFG, and OA DTL fisheries that exceed a poundage threshold, would be required to be recorded on a Federal electronic fish ticket that documents the associated Federal groundfish permit number. The existing PSMFC electronic ticket already has the appropriate fields and drop down boxes necessary to accommodate this fishery and would be expanded to include sablefish landings. State landings receipts would still be required per state landings regulations; the electronic ticket would be separate from and in addition to state landing requirements. After a landing was made to a first receiver, all necessary landing and catch information would be recorded on the electronic ticket provided by the first receiver. This electronic ticket would then be uploaded to PSMFC within 24 hours of the landing, made available to all interested parties (i.e. the state agencies, enforcement, NMFS, and permit owners), and the data would be processed and entered into PacFIN.
Table 2.1 Benefits of the electronic fish ticket action alternatives over the no action alternative.

<table>
<thead>
<tr>
<th>Issues</th>
<th>No Action Alternative</th>
<th>Electronic Ticket Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Timely reporting of catch</strong></td>
<td>• Electronic ticket not required.</td>
<td>• Federal requirement for electronic fish tickets.</td>
</tr>
<tr>
<td></td>
<td>• Paper reports required by state of landing.</td>
<td>• Submission of electronic fish tickets within 24 hours of the date of landing.</td>
</tr>
<tr>
<td></td>
<td>• May take 2-4 months for NMFS to have access to landings by permit</td>
<td>• Paper reports required by state of landing.</td>
</tr>
<tr>
<td><strong>Accurate reporting of catch</strong></td>
<td>• In-season data available for monitoring is a combination of paper ticket data and estimates</td>
<td>• Data electronically entered into the system can be verified and validated at the time of entry by buyer personnel</td>
</tr>
<tr>
<td></td>
<td>• NMFS unable to obtain real-time, accurate landings data (permit number not consistently recorded on ticket)</td>
<td>• Provides a tool for processors and buyers to capture and track fish tickets, generate tax reports, and summary data</td>
</tr>
<tr>
<td></td>
<td>• Paper tickets are subject to compromise and error</td>
<td></td>
</tr>
<tr>
<td><strong>Enforce landing overage violations</strong></td>
<td>• In-season estimates are not sufficient for enforcement purposes</td>
<td>• Accurate, real-time tracking of landings against cumulative limits will allow enforcement to monitor and enforce tier limits and DTLs</td>
</tr>
<tr>
<td></td>
<td>• Data delays prevent real-time, in-season enforcement of tier overages and the owner on board requirement</td>
<td></td>
</tr>
</tbody>
</table>

2.1.3 Alternatives Considered But Rejected From Further Analysis

Action Alternatives 2-4 each included a suboption to require sablefish deliveries be recorded on state paper fish tickets, rather than on Federal electronic fish tickets. Under these suboptions, NMFS would implement a Federal requirement that sablefish landings and the Federal groundfish permit number associated with the landing(s) be recorded on the state paper fish tickets.

Although the paper fish ticket suboptions would cause the least disruption to the existing landings process, adding new requirements to the state paper fish ticket system would fail to address the Purpose and Need for this action because doing so would not improve the timeliness of catch accounting and enforcement capabilities in the fishery. Adding new requirements to the state paper fish ticket system would also cause several logistical challenges in managing the sablefish fishery: sablefish landings data would not be uploaded into the Pacific Fisheries Information Network (PacFIN) database at a faster than current rate, there would continue to be a lag time of several months between when the landings occur and when the data are available, and further augmenting paper fish ticket recording requirements would be disruptive to state data collection and management practices. Therefore, this suboption has been considered but rejected from further analysis.

The action alternatives originally included language that spoke to how the catch data recorded on the electronic tickets would be used on the back end (“That Tier Permits be loaded into the IFQ Vessel Account System with deductions made as appropriate when a tier delivery is made and recorded on the E Fish Ticket”). This language was premature and overly restrictive; how the
data are processed and made available to end users is largely an implementation issue and it may be premature to discuss such implementation issues this early in the process. Therefore, this portion of the action alternatives has been considered but rejected from further analysis.

2.2 Own/Control Limit Alternatives

For the permit counting criteria for the own/control limit, the alternatives are No Action and two action alternatives, which are summarized here and described in more detail in the following sections. For all alternatives, the own/control limit is 3 permits. The criteria for counting a permit toward that limit varies among the alternatives.

Alternative 1: (No Action) The control limit to own and hold is 3 permits. Any level of permit ownership would count as 1 permit towards the limit of 3 permits. Additionally, any permits registered to a vessel, wholly- or partially-owned by the entity, would count toward the three permit limit. Select permit owners are grandfathered in with more than 3 permits based on what they owned as of November 1, 2000. Any group ownership interest in the permit results in a permit count of 1 being attributed to each group member. Permits acquired after November 1, 2000, can only be owned by an individual.

Alternative 2a (Preliminary Preferred Alternative): No Action for permit ownership (any percentage ownership in a permit is a count of 1); however, holding a permit is counted only if the vessel owner has a greater than 20% share. Partial vessel ownership is capped at two vessels, i.e. the 20% or less ownership in a vessel exemption could only be used twice. After this two-permit exception is reached, then any permits registered to a vessel, wholly- or partially-owned by the entity, would count toward the three permit limit, as described under No Action.6

Alternative 2b: No Action for permit ownership (any percentage ownership in a permit is a count of 1); however, holding a permit is only counted if the vessel owner has a greater than 30% share. Partial vessel ownership is capped at two vessels, i.e. the 30% or less ownership in a vessel exemption could only be used twice. After this two-permit exception is reached, then any permits registered to a vessel, wholly- or partially-owned by the entity, would count toward the three permit limit, as described under No Action.6

6 Unless modified by the action alternative, all other provisions of No Action would continue, including the three-permit limit, grandfather provisions for permit owners with more than 3 permits as of November 1, 2000, and rules for attributing permit control to individuals who participate in group ownership of a permit.
own/control limit. The 20 percent threshold was chosen because this would allow vessels that also participate in the Alaska sablefish fishery to maintain 20 percent ownership in vessels that also participate in the West Coast primary fishery without triggering the control limit. The thirty percent threshold was chosen for comparison purposes. A percentage threshold above thirty percent was not added to the range of alternatives because the advisory bodies and Council felt that a higher threshold went beyond addressing the scope of the issue and could potentially result in unwanted consolidation within the West Coast fishery. A percent threshold lower than 20 percent was not considered because a lower threshold would not adequately address the need for this measure (to accommodate overlap between the Alaska sablefish fishery and the West Coast primary fishery). For Alternatives 2a and 2b, staff has provided some new strawman suboptions for Council consideration; a more detailed description of the alternatives follows.

2.2.1 No Action Alternative

Alternative 1: (No Action) The control limit to own and hold is 3 permits. Any level of permit ownership would count as 1 permit towards the limit of 3 permits. Additionally, any permits registered to a vessel, wholly- or partially-owned by the entity, would count toward the three permit limit. Select permit owners are grandfathered in with more than 3 permits based on what they owned as of November 1, 2000. Any group ownership interest in the permit results in a permit count of 1 being attributed to each group member.

Under No Action, the criteria for determining permit control are: (1) any share in the ownership of a permit and (2) any share in the ownership of a vessel to which a permit is registered. Any shares of ownership in these two situations cause the involved permits to count against an individual’s permit limit. Unless grandfathered, a permit must be owned by an individual. In contrast to permit ownership requirements, vessel ownership (i.e., permit holder) was not grandfathered and may be owned by an individual, partnership, or corporation. As an example: the partnership of Mary and Mike Smith own a tier permit (Permit 1 in Figure 2-1) and have registered it to the fishing vessel Fairweather which they also own. As a result, each of them would be considered to have individually incurred a count of one permit towards the 3 permit limit, and the partnership also has a count of one towards the limit. Similarly, Group Z (owned by John Doe and his partners) has 20% ownership of the fishing vessel Fairweather registered to the permit owned by Mary and Mike Smith. Group Z accrues a count of one permit held towards the three-permit limit AND John Doe and each of his partners accrue a count of one permit held towards the three permit limit. Note that if Group Z owned another permit and vessel (Permit 2 and the vessel Foulweather in Figure 2-2), that permit would not count against the Smith’s since the Smiths do not have an ownership interest in Group Z, Permit 2, or the vessel Foulweather.
2.2.2 Action Alternatives

Alternative 2a (Preliminary Preferred Alternative): No Action for permit ownership (any percentage ownership in a permit is a count of 1); however, holding a permit is counted only if the vessel owner has a greater than 20% share. Partial vessel ownership is capped.
at two vessels, i.e. the 20% or less ownership in a vessel exemption could only be used twice. **After this two-permit exception is reached, then any permits registered to a vessel, wholly- or partially-owned by the entity, would count toward the three permit limit, as described under No Action.**

Bolded text is a staff recommended addition to clarify the alternative, requiring Council approval before becoming part of the formal option.

At its April 2014 meeting, the Council selected Alternative 2a as its preliminary preferred alternative (PPA). The staff recommended addition was not provided at that time, nor were the suboptions provided below.

Under Action Alternative 2a, the criteria for determining permit control are: (1) any share in the ownership of a permit (i.e. same as No Action), and (2) more than a twenty percent share in the ownership of a vessel to which a permit is registered. Whereas under the No Action example in Figure 2-1, Group Z and all of the owners of Group Z would each accrue a count of one permit held toward the 3 permit limit, under Alternative 2a neither Group Z nor any of its owners would incur a count for Permit 1 because their ownership of the vessel Fairweather is only 20% (i.e. is less than the vessel ownership threshold at which the associated permit would count). If Group Z owned 21% of Fairweather, then the Group would incur a count of one. The count incurred by each individual would depend on the method for assessing individual and collective counts, i.e. the method used to count percent interest which accrues to an individual when that interest accrues through a legal entity such as a corporation. For example, if Group Z is a corporation in which three individuals equally share in ownership, would the interest that Group Z has in a vessel pass through in whole to the individuals, or would a pro rata rule apply under which the individuals’ share in ownership of the vessel would be determined by their share in ownership of Group Z. If it passes through in whole, then if Group Z owns 20 percent of a vessel, each individual would be considered to own 20 percent of the vessel. If the pro rata rule applies, then each individual would be considered to own 6.66 percent of the vessel (one third of 20 percent).\(^7\)

**Individual and Collective Suboptions**

As just described, there are at least two approaches for determining how the ownership interest held by an entity such as a corporation or partnership accrues to the individual owners of that entity. **Strawman suboptions for Council consideration** are as follows:

Strawman Suboption (1) Entire Ownership Interest Passes Through – If an entity owns a vessel, any individuals with a share in the ownership of that entity are counted as having the same share in ownership of the vessel as the entity has (e.g., if an entity owns 50 percent of a vessel, then for purposes of evaluating the three permit control limit all

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\(^7\) As with No Action, no permits owned by Group Z would be counted against the Smith partnership, collectively or individually, because Group Z has no ownership in the Smith partnership.
individuals who own that entity are counted as having 50 percent ownership in that vessel).

Strawman Suboption (2) Pro-Rata Ownership Interest Passes Through – If an entity owns a vessel, any individuals with a share in the ownership of that entity are counted as having a share in ownership of the vessel proportional to their actual share in ownership of the entity (e.g., if a corporation owns 50 percent of a vessel, and two individuals each own 50 percent of the corporation then for purpose of evaluating the three permit control limit those two individuals are each counted as having 25 percent ownership in that vessel). [This approach is the same as that used in the Trawl Rationalization Program.]

Coordinated Ownership

Under Action Alternative 2a, the three owners of Group Z could each individually own up to 20% of the Fairweather (60% in total) without incurring a count for controlling Permit 1, so long as Group Z itself did not have any ownership. This situation is illustrated in Figure 2-3. The Council may wish to consider a suboption to limit this means of control.

**Strawman Suboption on Coordinated Ownership:** If individuals participating in the ownership of an LEFG entity (an entity which controls an LEFG permit) collectively own more than 40% of a particular vessel (i.e. their individual shares of ownership in a vessel sum to more than 40%), then any LEFG permits registered to that vessel will count against their three-permit control limits, regardless of the provision that exempts from the permit count ownership amounts of less than 20 percent for up to two vessels.

Other versions of this suboption could replace the 40% limit with some other limit.

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**Figure 2-3 Permit counting under No Action and Alternative 2a when vessel owners participate in ownership of a business entity but hold vessel ownership outside that business entity.**
Alternative 2b: No Action for permit ownership (any percentage ownership in a permit is a count of 1); however, holding a permit is only counted if the vessel owner has a greater than 30% share. Partial vessel ownership is capped at two vessels, i.e. the 30% or less ownership in a vessel exemption could only be used twice. **After this two-permit exception is reached then any permits registered to a vessel, wholly- or partially-owned by the entity, would count toward the three permit limit, as described under No Action.**

Bolded text is a staff recommended addition to clarify the alternative, requiring Council approval before becoming part of the formal option.

Alternative 2b would perform the same as Alternative 2a but with a 30% threshold. Similar suboptions could be considered.

### 2.2.3 Alternatives Considered But Rejected From Further Analysis

The following alternatives were considered but have been rejected from further analysis because they are administratively burdensome to implement and track (Alternative 3), or because they weaken the control limits beyond what is needed to address the purpose and need for this action (Alternatives 4, 5, and 6). If the control limits were revised to the extent that Alternatives 4 through 6 would allow, this could undermine the purpose of having control limits in place, namely to maintain the owner-operator nature of the fleet.

**Alternative 3:** Maintain a three permit limit but calculate control based on percentage ownership of permits and vessels. Total ownership (permit ownership and holdership) is capped at 300%. 1st and 2nd generation owners would be limited to a total of 300 percent. (The intent being to limit total ownership to 3 permits which is status quo.)

For example, John Doe wholly owns GF0001 and 20% of the vessel Fairweather. Fairweather is registered to GF0001 and GF0002. John Doe has a count of 120%. Another possible example: The partnership of Mike and Mary Smith own 3 permits. As such, Mike and Mary Smith, as a partnership, have 300% of total ownership, which is the limit. However, Mike as an individual has 150%, as does Mary.

**Alternative 4:** Increase the own and hold limit to 6 permits. Partial or any percent ownership or holdership is a count of 1 towards the limit of 6. (Permit counts are determined as under No Action.)

For example, John Doe owns GF0001, GF0003, and 20% of the vessel Fairweather. Fairweather is registered to GF0001, GF0002, and GF0004. John Doe owns 2 permits and holds 2 additional permits due to partial ownership of Fairweather for a total count of 4.

**Alternative 5:** No Action on permit owner (no one may own more than 3 permits unless grandfathered in). Cap the number of tier permits an entity may register to a vessel at 3 permits. Cap the number of limited entry fixed gear tier vessels an entity can own at
three. The maximum own and hold limit is effectively increased to 12 permits (an entity could own 3 permits and have partial or total ownership of three vessels each of which are registered to three different permits owned by others).

For example, John Doe owns GF0001, GF0002, and GF0003. Mr. Doe also owns 20% of the vessel Alpha, 10% of the vessel Beta, and 30% of the vessel Gamma. Alpha is registered to GF0004, GF0005, and GF0006; Beta is registered to GF0007, GF0008, and GF0009; and Gamma is registered to GF00010, GF00011, and GF00012. John Doe owns 3 permits and has partial ownership of 3 vessels that each hold 3 permits; his total count is 12. In this example, Doe could not register his own permits to any other vessels he owns beyond Alpha, Beta, and Gamma, but he could lease the additional permits out to other vessels. He has maxed out on the number of vessels he has an ownership interest in and they are in the primary fishery. Also, Alpha, Beta, and Gamma are at the limit of 3 permits registered to them during the primary season; they cannot remove a permit mid-season and add a 4th permit.

**Alternative 6: No Action on 3-permit limit, but the calculation is based only on ownership of permits; holding or leasing a permit/ ownership in the vessel would not count towards the 3 permit limit.** A person could own 3 permits and hold any number of additional permits by registering the vessel(s) they own to permits owned or leased by other persons.

For example, John Doe owns GF0001, GF0002, and GF0003, and 20% of the vessel Fairweather. Fairweather is registered to GF0004, GF0005, and GF0006. John Doe owns 3 permits and his partial ownership of a vessel registered to other permits does not affect his own and hold limit; his total count is 3.

**Chapter 3 Affected Environment**

**3.1 Physical Environment**

This section describes the current condition of the physical environment that may be affected by this action. The effects of implementation of the action alternatives on the physical environment are presented in Chapter 4.

Sablefish (*Anoplopoma fimbria*) is a component of the groundfish fishery managed under the FMP that occurs in the United States Exclusive Economic Zone (US EEZ) from three to 200 nautical miles off the coasts of Washington, Oregon, and California. The offshore ocean is comprised of many diverse habitats, including rocky and non-rocky shelf regions, deep submarine canyons, and continental slopes and basins. Sablefish are primarily caught in commercial fisheries with trawl, longline, and pot gear. Longline gear in the groundfish fisheries has been shown to have little impact on habitat, and the primary sablefish fishery is shorter in duration and in geographic scope than the groundfish fishery. The longline and pot gear used by this fishery may come in contact with the bottom habitat.

Physical topography off the U.S. West Coast is characterized by a relatively narrow continental shelf. The 200 m depth contour shows a shelf break closest to the shoreline off Cape Mendocino,
Point Sur, and in the Southern California Bight, and widest from central Oregon north to the Canadian border as well as off Monterey Bay. Deep submarine canyons pocket the EEZ, with depths greater than 4,000 m common south of Cape Mendocino.

Sablefish are abundant in the North Pacific, from Honshu Island, Japan, north to the Bering Sea, and southeast to Cedros Island, Baja California. Large adults are uncommon south of Point Conception. In the North Pacific, sablefish is considered an inner-continental shelf-bathybenthal species. Adults are found as deep as 1,900 m, but are most abundant between 200 and 1,000 m. Survey data for the North Pacific indicate that almost all sablefish were taken at depths <700 m. However, off southern California, sablefish were abundant to depths of 1,500 m.

### 3.2 Biological Environment

This section describes the current condition of biological resources that may be affected by these actions. The effects of implementation of the action alternatives on the biological resources are presented in Chapter 4.

#### 3.2.1 Groundfish Stocks

The current status of the groundfish stocks managed under the FMP was most recently analyzed in the Proposed Harvest Specifications and Management Measures for the 2013-2014 Pacific Coast Groundfish Fishery (2013-14 Specifications EIS); that document is incorporated by reference here. For the purposes of this document, this section will be limited to information regarding sablefish and co-occurring groundfish species.

Sablefish was last assessed in 2011 and is described as a precautionary zone stock in the 2013-14 Specifications. The estimated spawning biomass in 2011 is 60,957 mt (95 percent interval ranges broadly from 16,418 mt to 105,495 mt). The relative spawning biomass is estimated to be at 33 percent of unfished biomass levels in 2011 (~95 percent intervals range from 18-49 percent). It seems that large 1999 and 2000 year classes briefly slowed the rate of stock decline between 2002 and 2005. An above-average 2008 cohort is currently moving through the population; however, it has yet to mature, and therefore is not currently contributing to the trend in spawning biomass.

The available data for sablefish are largely uninformative about the absolute size and productivity of the stock. Uncertainty in the properties of current ageing methods (both potential bias and imprecision), as well as relatively sparse fishery sampling, affect the reliability of age data. Because sablefish grow very rapidly and reach near asymptotic length in their first decade of life, length-frequency data are not particularly informative about historical patterns in recruitment. The patterns observed in historical sablefish recruitment suggest that stock trajectory (via shifts in recruitment strength) is closely linked to productivity regimes in the California Current. Uncertainty in future environmental conditions should be considered a large source of uncertainty in all projections of stock status. More detailed information on the stock status can be found in the stock assessment document (Stewart et al. 2011b).

Based on the 2012 groundfish mortality reports, darkblotched rockfish was the most frequently discarded bycatch (that is also an overfished stock/ rebuilding species) in the coastwide limited entry fishery at 8.23 mt of bycatch. In the limited entry trawl fishery, sablefish are targeted as part of a deepwater complex with Dover sole and thornyheads (also called DTS for Dover-
Thornyheads-Sablefish). The following description of the status of the stock is taken from the 2013-14 Specifications.

**Darkblotched Rockfish, Dover Sole, and Thornyheads**

Stephens et al. (2011) prepared a stock assessment update for darkblotched rockfish in the U.S., Vancouver, Columbia, Eureka, and Monterey areas using the Stock Synthesis model version 3.21d. The darkblotched rockfish population in these areas was modeled as a single stock. The information presented in this section was summarized from the 2011 stock assessment update.

The biomass (1+ age fish) in 2011 was estimated to be 13,926 mt. The recruitment pattern for darkblotched rockfish is highly variable among years. With the exception of the 1999, 2000, and 2008 year classes, recruitment levels (age-0 recruits) between the 1980s and 1990s were generally poor when compared with historical average recruitment levels. Darkblotched rockfish continues to show an increasing trend with the point estimate for the depletion of the spawning output at the start of 2011 at 30.2 percent of its unfished biomass. The assessment suggests that the west coast darkblotched stock is above the overfished threshold, but below the management target of B40%. The spawning output seems to have increased steadily over the past 10 years. Since 2003, overfishing is estimated to have occurred once, with estimated catch exceeding the acceptable biological catch (ABC) (now referred to as the overfishing limit (OFL)) by 1 mt in 2004.

The major sources of uncertainty in the updated darkblotched assessment are the estimated natural mortality and the assumed steepness of the stock-recruitment relationship. Sources of uncertainty not addressed in the model include the degree of connection between the populations of darkblotched rockfish off British Columbia and the U.S. West Coast; the effect of climatic variables on recruitment, growth, and survival of darkblotched rockfish; and gender-based differences in survival. More detailed information on the stock status can be found in the stock assessment update (Stephens, et al. 2011).

Figure 3-1 Darkblotched Depletion.
Dover sole, as well as longspine and shortspine thornyhead, were listed as healthy stocks in the 2013-14 Specifications EIS.

### 3.2.2 Non-groundfish Species
A thorough description of non-groundfish species including Pacific and California halibut, coastal pelagic species, Dungeness crab, highly migratory species, pink shrimp, and other species may be found in the 2013-14 Specifications EIS.

### 3.2.3 Protected Species
Protected species are species listed under the ESA, the Marine Mammal Protection Act (MMPA), the Migratory Bird Treaty Act (MBTA), and EO 13186. A thorough description of protected species including ESA-listed salmon and steelhead, green sturgeon, eulachon, marine mammals, seabirds, and other species may be found in the 2013-14 Specifications EIS.

### 3.2.4 The Marine Ecosystem and Essential Fish Habitat
In the North Pacific Ocean, the large, clockwise-moving North Pacific Gyre circulates cold, subarctic surface water eastward across the North Pacific, splitting at the North American continent into the northward-moving Alaska Current and the southward-moving California Current. Along the U.S. West Coast, the surface California Current flows southward through the U.S. West Coast EEZ. The California Current is known as an eastern boundary current, meaning that it draws ocean water along the eastern edge of an oceanic current gyre. Along the continental margin and beneath the California Current flows the northward-moving California Undercurrent. Influenced by the California Current system and coastal winds, waters off the U.S. West Coast are subject to major nutrient upwelling, particularly off Cape Mendocino (Bakun, 1996). Shoreline topographic features such as Cape Blanco, Point Conception and bathymetric features such as banks, canyons, and other submerged features, often create large-scale current patterns like eddies, jets, and squirts. Currents off Cape Blanco, for example, are known for a current “jet” that drives surface water offshore to be replaced by upwelling sub-surface water (Barth, et al., 2000). One of the better-known current eddies off the West Coast occurs in the Southern California Bight, between Point Conception and Baja California (Longhurst, 1998), wherein the current circles back on itself by moving in a northward and counterclockwise direction just within the Bight. The influence of these lesser current patterns and of the California Current on the physical and biological environment varies seasonally (Lynn and Simpson, 1987) and through larger-scale climate variation, such as El Nino-La Nina or Pacific Decadal Oscillation (Longhurst, 1998).

The effects of climate on the biota of the California Current ecosystem have been recognized for some time. Climate change and ocean acidification pose major additional stresses to managed fisheries on top of fishing mortality (IPCC 2007; IPPC 1995; WBGU 2006). Heat stress from warming waters and changes in the timing and magnitude of upwelling and associated nutrients and prey are just two examples. As climate change proceeds, there will likely be greater
departure from historic population trends and increased uncertainty and risk in fisheries management. In addition, the effects of fishing pressure may unexpectedly magnify the effects of climate change and vice-versa (Harley and Rogers-Bennett 2004; Hsieh, et al. 2008; IPCC 2001).

EFH has been described within the project area for highly migratory species, CPS, salmon, and groundfish. The MSA defines EFH to mean “those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity” (16 U.S.C. 1802 sec. 3(10)). Regulatory guidelines elaborate that the words “essential” and “necessary” mean EFH should be sufficient to “support a population adequate to maintain a sustainable fishery and the managed species’ contributions to a healthy ecosystem.” The regulatory guidelines also establish authority for Councils to designate Habitat Areas of Particular Concern (HAPC) based on the vulnerability and ecological value of specific habitat types. Councils are required to minimize, to the extent practicable, the adverse effects of fishing on EFH, when information indicates that fishing activities may adversely affect EFH. NMFS works through a consultation process to minimize adverse effects of nonfishing activities (50 CFR 600 subpart J). Refer to Volume 1 of the Council’s 2008 groundfish SAFE document for more information. Groundfish EFH is currently undergoing an EFH review.

3.3 Socio-economic Environment

This section describes the current socio-economic environment that may be affected by these measures. The effects of implementation of the action alternatives on the socio-economic environment are presented in Chapter 4.

3.3.1 Participants in the Fixed Gear Sablefish Fishery

Participants in the fixed gear sablefish fishery (LE or OA) that are likely to be affected by these measures fall into one of several groups:

- Owners of LEFG permits, a subset of which would be owners of LEFG permits that have a sablefish endorsement for pot or longline gear (i.e. participants in the primary sablefish fishery north of 36°N latitude);
- Owners of vessels registered for use with LEFG permits that participate in the LEFG sablefish fishery;
- Participants in the DTL OA fishery;
- Buyers, processors, and first receivers of sablefish landings in the primary and DTL sablefish fishery; and
- Crew that work on vessels that fish in the sablefish fishery.
3.3.2 Participants in Other Fisheries (Shorebased Trawl IFQ and Alaska Program)

As mentioned previously, the other two fisheries whose participants may be affected by these actions are the Shorebased Trawl IFQ fishery and the Alaskan fixed gear sablefish and halibut IFQ program (Alaska program). Participants in these fisheries fall into one of several groups:

- Owners of trawl endorsed limited entry permits that participate in the shorebased IFQ program (not mothership or catcher/processor endorsed trawl permit owners);
- Owners of vessels registered to limited entry trawl permits that harvest IFQ species with trawl or fixed gear for delivery to shorebased first receivers;
- Owners of quota share (QS) permits;
- Shorebased IFQ first receivers with a first receiver site license eligible to receive IFQ landings;
- Initial recipients of Alaska sablefish IFQ that qualify for the owner on board exemption by owning partial interest in a vessel that is also used to fish LEFG permits on the West Coast; and
- Owners of vessels that harvest both sablefish in the Alaska program, as well as sablefish in the West Coast LEFG sablefish fishery.

3.3.3 Communities

The groundfish fishing communities of Washington, Oregon, and California are described in detail in the 2013-14 Specifications EIS at 3.2.2. Fishing communities specific to the LEFG sablefish fishery are described in the Pacific Coast Groundfish Limited Entry Fixed Gear Sablefish Permit Stacking Program Review document which will be incorporated by reference here following final adoption by the Council.
3.3.4 State and Federal Management and Enforcement Agencies

The state agencies in Washington, Oregon, and California are currently responsible for tracking sablefish landings through collection of paper landing tickets. State and Federal enforcement agencies are responsible for ensuring compliance with existing and future regulations. NMFS is responsible for tracking allocations and for implementing any administrative requirements associated with these fisheries and as such will incur any costs associated with implementation.
Chapter 4 Environmental Consequences - Impacts of the Proposed Action Alternatives on the Affected Environment

4.1 Impact Mechanisms

In Section 4.1 impact mechanisms are discussed, and in following sections the effects of the impact mechanisms on each resource of concern are identified, including physical, biological, and socio-economic. Impact mechanisms are the first level expected instrumental effects of the action with only such interpretation of meaning as is necessary to explain the mechanism. The instrumental impacts mechanisms are given their full policy meaning as the effects on each resource area are described in each subsequent section. As a simple example, consider as an impact mechanism an event in which a vessel strikes a reef, a crewman nearly loses his life, oil is spilled and coral damaged. These are the instrumental impact mechanisms. Having described the event in a single comprehensive fashion, the meaningful impacts of concern can then be discussed such as the loss to the economy and a business of the capital asset of a fishing vessel; the physical and emotional trauma to the crew member, his family, and rescue personnel; the effect of the mechanical damage to the reef and oil spill on stock productivity, future harvests, and ecosystem services. The boundary between impact mechanism and impact to the resources can be fuzzy, particularly where the impact mechanisms primarily operates through the human system as in the case of the actions considered in this EA. However, particularly where issues are complex, it is useful to provide the reader with a single concise starting point and initial understanding of the expected dynamics associated with the events to be evaluated, from which the reader can then evaluate the conclusions drawn with respect to the impact on each resource. This approach reduces the need for partial repetitive and piecemeal explanations which sometimes result when discussion of the impact mechanisms is more dispersed through the document, leaving the reader without really ever having achieved a comprehensive understanding of the dynamics being evaluated. The impact mechanism section provides a clear opportunity for the reader to evaluate for him or herself the premises which underlie the entire analysis before proceeding with consideration of the evaluation of the impacts on each individual resource.

4.1.1 Electronic Fish Ticket

The action alternatives would implement a Federal requirement that an electronic fish ticket be used to document sablefish landings in either the primary LEFG sablefish fishery, the primary and LEFG DTL fisheries, or in the primary and LEFG and OA DTL fisheries. This would be in addition to the existing state reporting requirements. The impacts from this action may be divided into two types of categories: the physical and biological, and the socio-economic. These are discussed further in 4.2.1, Effects on the Physical and Biological Environment, and in 4.3.1, Effects on the Socio-economic Environment.

4.1.2 Own/Control Limits

The action alternatives would change the criteria by which it is determined whether an entity controls a limited entry fixed gear (LEFG) permit. Currently, entities are considered to control any permit with which they have some share in the direct ownership plus any permit registered with a vessel in which they have at least a partial ownership interest. For example, if a fisherman owns one vessel and owns two LEFG permits (Fisherman 2 in Figure 4-1), but also holds a partial ownership interest in another vessel (perhaps as security for a loan), then all the permits of the other vessel also count toward that fisherman’s total (in Figure 4-1, for Fisherman 2 a total
of four permits, i.e. one in excess of the three-permit limit). Such a situation might also arise for a lender or any other person who takes part ownership in a vessel to secure a loan or other debt, rather than establishing a maritime lien (Figure 4-2). The current accounting rule might be conceptualized as an “all-or-nothing” rule: if an entity has any ownership interest in a vessel then all LEFG permits associated with the vessel count as being under that entity’s control. The action alternative would allow entities to have a small percent ownership interest in a vessel without being considered to also be in control of the permits attached to the vessel.

Figure 4-1. Fisherman example--full or partial ownership of a vessel implies control over the limited entry fixed gear (LEFG) permits associated with that vessel, potentially resulting in violation of the three-permit control limit (in this example, four permits for Fisherman 2).

Figure 4-2. Lender example--full or partial ownership of a vessel implies control over the limited entry fixed gear (LEFG) permits associated with that vessel, potentially resulting in violation of the three-permit control limit (in this example, four permits for a lender that secures interest through vessel ownership rather than through a maritime lien).

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8 Direct ownership of a permit is counted in a similar fashion, i.e. any fraction of ownership counts as ownership of the entire permit.
While there are a number of imaginable situations constrained by the current “all-or-nothing” rule, there are primarily two types of situations that have been brought to managers’ attention. Because these are the situations which are currently bumping up against the all-or-nothing rule, they are the most likely indicators of how human activity would change with a change in the constraint. The first situation had to do with a family wanting to bring other members into the fishery by helping them purchase a vessel, essentially by acquiring the vessel and selling it to them. Whether within a family or among fishermen, a frequent practice is that a seller financing a vessel allows the buyer to operate the vessel (to virtually act as owner), but the seller retains an ownership interest until the vessel is fully paid for (at which time the transaction is completed and full vessel ownership transferred to the buyer). However, by maintaining that ownership interest in the vessel for security (regardless of how small), any LEFG permits the vessel buyer attaches to the vessel will also count against the control total for the seller, and potentially put the seller over the cap, if the seller owns another vessel with LEFG permit(s).

In the second situation, rather than to secure financing, the incentive for maintaining ownership in a limited entry fixed gear vessel relates to that vessel’s participation in the Alaskan fixed gear sablefish and halibut IFQ program (Alaska program). In the Alaska program, as in the West Coast sablefish program, there is an IFQ owner-on-board requirement with a grandfather clause exception. In Alaska, most partnerships, corporations, and other non-individual Alaska IFQ owners are required to hire skippers to fish their IFQ and individuals grandfathered in are allowed to hire skippers to fish in their stead. However, to hire a skipper an Alaska IFQ owner must have at least a 20% ownership interest in the vessel on which the IFQ will be fished (50 CFR 679.42). This creates a situation in which vessel ownership established to take advantage of the exception to the owner-on-board requirements of the Alaska program may push an entity over the West Coast LEFG permit control limits if that vessel also fishes in the West Coast sablefish fishery. For example, if an individual that owns a vessel that participates only in the West Coast fixed gear sablefish fishery also has ownership of Alaskan IFQ, then that person may desire to acquire part ownership in a vessel participating in the Alaskan IFQ fishery to take advantage of the Alaskan owner-on-board exception provision. Under such circumstances, any West Coast permits which are attached to the vessel that fishes in the West Coast limited entry fixed gear fishery and also fishes Alaskan IFQ would also count against the individual’s control limit for West Coast LEFG permits, as illustrated in Figure 4-3. In Figure 4-3, Fisherman 2 has a 20% ownership of Vessel A (owned by Fisherman 1) and as a result all permits registered to Vessel A count against Fisherman 2’s three-permit cap, even though Fisherman 2 has no ownership over Fisherman 1’s permits. Also note that while Fisherman 1’s permits registered to Vessel A count against Fisherman 2, Fisherman 2’s permits, registered to Vessel B, do not count against Fisherman 1 because Fisherman 1 has no ownership in Vessel B of Fisherman 2’s permits. A similar situation would pertain to corporations, partnerships, etc. In the Alaska program, these entities are required to hire a skipper to fish their initial allocations of Alaska IFQ.9

9 The Alaska program grandfathered in corporations, partnerships, and other non-individual entities. Their grandfather status will expire with the addition of new owners or the sale of their IFQ. Similarly, the West Coast sablefish tier program grandfathered these entities in a similar fashion and has similar rules for the expiration of those grandfather exceptions.
Thus, there seem to be two potential impact mechanisms of particular concern with the all-or-nothing criteria for counting permits toward the control limit:

1. an effect on arrangements that involve financial interests secured through vessel ownership, and
2. an effect on the distribution of limited entry privileges (both Alaska IFQ and LEFG permits) among fishing operations.

The latter of these two situations seem to be of most concern at this time, based on the content of public testimony to the Council.

In addition to these two mechanisms which operate through a change in participant behavior, a third mechanism operates on the administrative side of the program:

3. a change in effort required to comply with and administer the program (submission, collection, and tracking of additional information).

Impact Mechanisms Related to Lending

To date, institutional lenders have not expressed any concerns about financing and the all-or-nothing rule for assessing the three-permit control limit. An action alternative would only affect assessing the three-permit limit with respect to vessel ownership (i.e., it does not change how the control limit would be assessed with respect to direct permit ownership). Institutional lenders likely secure loans against vessels through a preferred mortgage and associated maritime lien.
A preferred mortgage is a mortgage which is given status as a maritime lien. As such it enjoys a certain priority in the event of default. In addition, the Coast Guard is prohibited from making certain changes in documentation including, but not limited to, change of vessel ownership, name, and hailing port without consent of the mortgagee. For this reason, many financial institutions require vessels which are eligible for documentation to be documented and to have preferred mortgages recorded against them.

USCG National Documentation Center (http://www.uscg.mil/nvdc/nvdcfaq.asp#18)

As discussed above, the main lending practice likely to be affected by an action alternative would be that which is reported to occur among industry members (as fishing operations and families secure loans they make to other fishermen by maintaining possession of the vessel being sold until such time as all payments have been made, as described above).

If such within industry arrangements are advantageous over working with an institutional lender, it is likely because it generates some economic advantages that would not be available through an institutional lender. For a vessel seller, providing a buyer direct financing may allow the seller to negotiate a better price. The buyer may gain either through access to financing that would otherwise not be available or through access at a lower cost. A seller’s personal knowledge and social connections with the buyer may mean that the transaction is a lower risk than would be perceived by an institutional lender or the seller may have a social interest in the buyer’s entry into the fleet. At the same time, the fleet has been operating for over 12 years under the current all-or-nothing control rule and in the interim may have found other ways to achieve similar private financing outcomes.

Thus, with respect to lending, the impact mechanism of an action alternative might be

- a redistribution of risks, financing transaction costs, and related profits from institutional lenders toward the private parties involved in a transaction, and
- more social connections between buyers and sellers than might be the case if borrowers were qualified by institutional lenders.

Impact Mechanism Related to Distribution of Fishing Privileges

To consider the impact mechanisms with distribution of fishing privileges we will look at three groups of participants:

1. West Coast and Alaska (WC&AK) participants,
2. Alaska only participants (AKO), and
3. West Coast only participants (WCO).

For purposes here: West Coast participation is participation involving control of a West Coast LEFG permit; and Alaska participation involves owning or fishing Alaska IFQ. An AKO participant is one that participates in the Alaska IFQ program and may own a vessel that is partially owned by a West Coast participant but the AKO participant does not have an ownership
interest in a West Coast operation, i.e. fishing enterprise active in the West Coast limited entry sablefish fishery.

The WC&AK group can be further divided into

1. those who directly participate only on the West Coast (either with a permit or a vessel registered to permits), fishing their Alaska sablefish IFQ on an AKO vessel without traveling to Alaska (i.e. hiring a skipper to fish their Alaska IFQ for them), and
2. those who individually or with their vessel travel to Alaska to participate in the Alaska fishery in addition to fishing on the West Coast.

For the second subgroup to participate in the Alaska IFQ program, there is no requirement that they have ownership in the vessel that fishes in Alaska. Therefore, with respect to the WC&AK group, the impact mechanism operates directly through the first subgroup of WC&AK participants, those fishing under a grandfather exception to the Alaska owner-on-board provision, which allows them to participate without being present during fishing operations. As a result of the impact on the first subgroup members of the second WC&AK subgroup and AKO participants may subsequently be affected. The owners of approximately 87 percent (Table 4-1) of the West Coast limited entry fixed gear sablefish vessels (84 of 97) might fall in the first subgroup (their vessels do not go to Alaska) but would fall in the second category if they travel there individually or would not be affected if they do not own Alaska IFQ. The owners of the remaining 13 percent of vessels (13 of 97) fall in the second category (their vessels fish on the West Coast and in Alaska, Tables 4-1) and are impacted by a constraint on their ability to fish Alaska IFQ for members of the first group. The WC&AK vessels which travel to Alaska to fish Alaska IFQ could not be hired to fish Alaska IFQ by an entity that has an LEFG permit if the permits registered to that WC&AK vessel would put the hiring entity over its limit.

<table>
<thead>
<tr>
<th>Number of Permits Stacked on a Vessel</th>
<th>Total</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Permits</td>
<td>18</td>
<td>86.6%</td>
</tr>
<tr>
<td>2 Permits</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>1 Permit</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>84</td>
<td></td>
</tr>
</tbody>
</table>

a/ These data provide only a general indication of the magnitude of the number of entities potentially affected by the all-or-none accounting method and Alaska participation requirement. On the one hand, the number of entities affected may be greater than these numbers indicate because there may be more than one owner per vessel affected (if for a single vessel there are multiple owners that each individually own Alaska IFQ). On the other hand, the number may be smaller because: some of these owners may still travel to Alaska on their own, and therefore not need to take advantage of the grandfather clause; some may not qualify under the grandfather clause; and some (many) may not have Alaska IFQ.

35
The following discussion shows the impact mechanisms of the action alternative is likely to be some degree of increase in consolidation of harvest privileges both in West Coast and Alaska, including:

- consolidation of Alaskan IFQ on vessels that also participate in the West Coast LEFG fishery (WC&AK participants),
- consolidation of West Coast LEFG permits on vessels that fish in both fisheries (WC&AK participants), and
- acquisition of West Coast LEFG permits by vessels that previously fished only in the Alaskan IFQ fishery (AKO participants).

To simplify the discussion, we will first examine the effects with respect to WC&AK operations, starting with operations that have three permits. Then we will examine effects with respect to AKO participants.

Currently, a WC&AK vessel with three LEFG permits cannot hire another WC&AK vessel to fish its Alaska IFQ for it, but could hire an AKO vessel. For a WC&AK operation to participate in the Alaska IFQ fisheries, while taking advantage of the Alaska grandfather exception for the owner-on-board provision, it must acquire ownership in a vessel participating in the Alaska fishery (as indicated in Figure 4-3). If the WC&AK operation has three LEFG permits, it cannot fish its AK IFQ as an absent owner on another WC&AK vessel because acquiring an ownership interest in that vessel would put it over the three permit limit. Therefore, the Alaska IFQ owner with ownership in a WC&AK operation that has three permits would either have to fish its Alaska IFQ from an AKO vessel or participate in the fishery in person (forego use of the grandfather clause). This situation is illustrated on the left hand side of Figure 4-4 and characterized as a constraint on the opportunity of a WC&AK participant to hire a vessel to fish in its Alaska IFQ.
Additionally, under current rules, a WC&AK vessel with three LEFG permits cannot hire out to fish IFQ for another WC&AK vessel. Vessels also have an opportunity to operate as a “hired skipper” in the Alaska IFQ fisheries, fishing the Alaska IFQ for other absent IFQ owners taking advantage of the Alaska grandfather exception to the owner-on-board provisions. A WC&AK vessel with three LEFG permits would not be able to hire out to fish Alaska IFQ for another WC&AK operation because that other operation would have to acquire an ownership in the WC&AK vessel with three permits, which would put it over the three permit limit. This is illustrated on the right hand side of Figure 4-4.

WC&AK participants with fewer than three LEFG permits would have more flexibility to hire, or hire out to other WC&AK vessels to fish Alaska IFQ, with the number of other vessels with which they could work depending on the number of permits owned by each party. Table 4-2 illustrates the combinations of WC&AK participants and AKO participants that would be allowed to operate and not operate together under No Action.
Tables 4-2. No Action: ability of WC&AK and AKO vessels to fish Alaska sablefish IFQ for the potential participant listed in the first column (to “hire out” to the participant listed in the first column) and number of additional LEFG permits that the owners of each entity listed in the columns might acquire.

<table>
<thead>
<tr>
<th>WC&amp;AK Vessels</th>
<th>Number of Permits Registered to the Vessel</th>
<th>AKO Vessels</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3 Permits</td>
<td>2 Permits</td>
</tr>
<tr>
<td>Participants Seeking to Hire Out Their AK IFQ (Hire a Skipper)</td>
<td>Able to Fish IFQ For Entity Listed to Left – Yes or No (Maximum Number of Additional Permits That Could Be Acquired, If Vessel is Able to Fish for Entity Listed to Left)</td>
<td></td>
</tr>
<tr>
<td>WC&amp;AK w/3 LEFG Permits</td>
<td>N (-)</td>
<td>N (-)</td>
</tr>
<tr>
<td>WC&amp;AK w/2 LEFG Permits</td>
<td>N (-)</td>
<td>N (-)</td>
</tr>
<tr>
<td>WC&amp;AK w/1 LEFG Permits</td>
<td>N (-)</td>
<td>Y (0)</td>
</tr>
<tr>
<td>AKO (i.e. no LEFG Permits)</td>
<td>Y (0)</td>
<td>Y (1)</td>
</tr>
</tbody>
</table>

"N" means vessel in the column could not hire out to the participant listed in the row. Numbers in parenthesis show the number of additional LEFG permits the vessel in the column could acquire without violating the three permit limit (a "-" is displayed where the combination is impermissible).

This impact mechanism involves the creation of a new opportunity which participants may or may not take advantage of. While we cannot predict the degree to which participants will avail themselves of that opportunity we can describe the change in the opportunity. Under an action alternative, WC&AK operations would have more opportunity to both hire out to other WC&AK operations or to hire other WC&AK vessels to fish their Alaska IFQ, because the 20 percent ownership in a hired vessel needed to meet the requirements of the Alaska IFQ program would not be enough to cause associated LEFG permits to count against the three-permit cap. This increased opportunity to hire and hire out is reflected in the increased number of permissible combinations in Table 4-3 as compared to Table 4-2 (number of cells with a “Y”). All of the new opportunities are for WC&AK vessels with LEFG permits, indicating that the action alternative would provide more opportunities for consolidation of AK IFQ on WC&AK vessels.

Tables 4-3. Action alternative: ability of WC&AK and AKO vessels to fish Alaska sablefish IFQ for the potential participant listed in the first column (to “hire out” to the participant listed in the first column) and number of additional LEFG permits that the owners of each entity listed in the columns might acquire.

<table>
<thead>
<tr>
<th>WC&amp;AK Vessels</th>
<th>Number of Permits Registered to the Vessel</th>
<th>AKO Vessels</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3 Permits</td>
<td>2 Permits</td>
</tr>
<tr>
<td>Participants Seeking to Hire Out Their AK IFQ (Hire a Skipper)</td>
<td>Able to Fish IFQ For Entity Listed to Left – Y/N (Maximum Number of Additional Permits That Could Be Acquired, If Vessel is Able to Fish for Entity Listed to Left)</td>
<td></td>
</tr>
<tr>
<td>WC&amp;AK w/3 LEFG Permits</td>
<td>Y (0)</td>
<td>Y (1)</td>
</tr>
<tr>
<td>WC&amp;AK w/2 LEFG Permits</td>
<td>Y (0)</td>
<td>Y (1)</td>
</tr>
<tr>
<td>WC&amp;AK w/1 LEFG Permits</td>
<td>Y (0)</td>
<td>Y (1)</td>
</tr>
<tr>
<td>AKO (i.e. no LEFG Permits)</td>
<td>Y (0)</td>
<td>Y (1)</td>
</tr>
</tbody>
</table>

Numbers in parenthesis show the number of additional LEFG permits the vessel in the column could acquire without violating the three permit limit.

In addition to an increase in the opportunity for WC&AK participants to fish Alaska IFQ for each other (either hiring out or being hired), additional flexibility would be created for these vessels to acquire more LEFG permits without diminishing their opportunities in the Alaska IFQ fishery. In Table 4-2, values shown in parentheses are the number of additional permits the vessel represented in the column would be able to acquire without interfering with its ability to hire out to the types of vessels listed for each row. For example, the owner of a vessel with 1
permit (represented in the third column of numbers) could work with a WC&AK vessel with 1 permit and would still have the flexibility to acquire one additional permit without exceeding the 3-permit control limit. Under an action alternative, there are not only more permissible combinations of WC&AK vessels with other fishing operations, but the number of additional permits which could be acquired by vessels operating in those combinations increases in every column except for the vessels which already have three permits (first column of numbers). **Thus, an action alternative could lead to increased consolidation of West Coast LEFG permits on fewer West Coast vessels.**

Vessels that participate in Alaska but not the West Coast currently have flexibility to fish for multiple WC&AK operations. If an AKO participant is fishing Alaska IFQ for an absent WC&AK participant (i.e. the WC&AK participant has part ownership in the AKO vessel), each WC&AK participant must have some ownership interest in the AKO vessel but the AKO operation does not have to have an ownership interest in the WC&AK operations. Moreover, under the action alternatives, an AKO vessel might fish for several separately owned WC&AK operations, each with three LEFG permits, without violating the three-permit control limit. This situation is illustrated in Figure 4-5.

![diagram](attachment:image.png)

**Figure 4-5.** Opportunity for AKO participant to hire out to multiple WC&AK participants, each of which might be at the three-permit limit for control of FG Groundfish permits.

While AKO vessels can fish for multiple WC&AK operations (each with up to three permits), the AKO vessels may be constrained in their ability to acquire West Coast LEFG permits (i.e. to become a WC&AK vessel). The LEFG permits held by the WC&AK operations that an AKO vessel fishes Alaska IFQ for do not prevent an AKO vessel from acquiring its own LEFG permit but may provide a disincentive for such acquisitions. Since the WC&AK operations that the AKO vessel fish for are required to have an ownership interest in the AKO vessel, any permits
the AKO participant acquires would count against the permit totals for the WC&AK entities. Thus, if the AKO participant acquires a LEFG permit(s) it could force the WC&AK operations it fishes for to find another vessel to hire, if that acquisition pushes one of the WC&AK operations over its three-permit limit. Figure 4-6 diagrams the opportunities present for the AKO operation, and the boxes at the bottom discuss the constraint on acquiring an LEFG permit. Comparison of the AKO vessel column in Table 3-2 to the AKO vessel column in Table 3-3 shows that under an action alternative there would be more situations in which AKO vessels could acquire up to the three-permit limit (i.e. become WC&AK vessels with three LEFG permits without sacrificing their ability to hire out to fish AK IFQ for other WC&AK vessels). This could lead to some increased consolidation of LEFG permits on AKO vessels (movement of AKO vessels into the LEFG fishery).

![Figure 4-6](image.png)

**Figure 4-6.** Ability of an Alaska only fishing operation to hire out to fish Alaska IFQ or to hire others to fish Alaska IFQ for it and constraints on acquiring a West Coast LEFG permit.

With respect to the new opportunities for consolidation, the situations affected may be somewhat limited. The impact mechanisms pertain only to those situations in which a WC&AK participant both qualifies for a grandfather exception to the Alaska owner-on-board provision and chooses (or would prefer to choose) to exercise that exception by hiring a vessel and skipper rather than
travelling to Alaska to participate in the fishing activities. In those situations, both those entities that would hire a vessel to fish Alaska IFQ and the entities that would be hired are involved in the impact mechanism.

With respect to those entities that would hire a vessel to fish their Alaska IFQ, any of the owners of the 97 LEFG vessels (in 2012) and the 164 LEFG permits may be affected in their ability to hire but, in 2012, of 97 vessels (164 permits), 13 vessels (25 permits) participated in the Alaska fishery (Table 4-1). Of the vessels that did not participate in Alaska in 2012, the 18 owners of vessels with three permits could not hire any of the WC&AK vessels that travel to Alaska; the 16 owners of vessels with two permits could hire any one of the 4 of the WC&AK vessels that travel to Alaska; the owners of the 50 vessels with one permit could hire any one of the 10 of the WC&AK vessels that travel to Alaska (Table 4-4). Under the action alternative, these owners could hire any of the 13 WC&AK vessels that travel to Alaska. The numbers provided here are only indicators since they are only for one year and do not take into account the possibility that for a single West Coast permit or vessel there may be multiple owners which each, independently of one another, own Alaska IFQ. Additionally, there are individuals that own multiple permits and vessels such that they may be at higher levels of consolidation (closer to the three-permit limit) than indicated here. The 164 LEFG permits are owned by only 112 unique owners. Therefore, the numbers provided here only indicate a rough order of magnitude of the potential impacts.

Table 4-4. Vessels that go to Alaska and are available for hire, as constrained by the number of permits held by the vessels that might hire them.

<table>
<thead>
<tr>
<th>West Coast Vessels that Did not Go to Alaska (Owners might have Alaska IFQ to hire out)</th>
<th>WC&amp;AK Vessels that Went To Alaska (Number of LEFG Permits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Permits</td>
<td>Number of Vessels</td>
</tr>
<tr>
<td>-------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Number of Vessels</td>
<td></td>
</tr>
<tr>
<td>3 permits</td>
<td>18</td>
</tr>
<tr>
<td>2 permits</td>
<td>16</td>
</tr>
<tr>
<td>1 permit</td>
<td>50</td>
</tr>
</tbody>
</table>

Statistics on rate at which Alaska IFQ owners hire vessels in the Alaska IFQ fishery may provide some indication of the degree to which the hiring practice occurs and therefore, the degree to which West Coast entities with Alaska IFQ might be constrained by the current permit counting rule. In 2012, 39 percent (201) of all Alaska sablefish IFQ owners (511) hire out their IFQ to a vessel (“hire a skipper”) (Table 4-5). This was 64 percent of those eligible or required to do so (315). Because of the geographic distances involved, it seems likely that the proportion of participants in the LEFG fishery that are Alaska IFQ owners and hire a vessel would likely be higher than the averages reported here.

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10 These values assume that the owners of the vessels do not also own other vessels or permits. If for example, one of the owners of a vessel with two permits also owned a vessel with one permit (or owned a permit and leased it to another vessel), then the number of entities at the three-permit limit would be higher than indicated by the count of vessels at the three-permit limit.
On the other side of the transaction are owners of the vessels which would hire out to West Coast LEFG participants that own Alaska IFQ. Most directly impacted are those who have West Coast LEFG permits and take their vessels to Alaska. These are the entities which would have the opportunity to hire out their vessels but have LEFG permits which would add to the permit count of any entity that hires them. In 2012, there were 13 vessels with a cumulative total of 25 permits that are constrained under No Action and could potentially benefit under one of the action alternatives (Table 3-1). Vessels with three permits going to Alaska can only hire out to entities which have Alaska IFQ but do not participate in the West Coast LEFG fishery (presumed for purpose of this analysis to be Alaska only (AKO) participants. In 2012, there were three such vessels. Vessels with two LEFG permits can fish for AKO participants or the owners of one of the 50 vessels that only have a single permit (or the owners of single permits). In 2012, there were six such vessels. Vessels with one LEFG permit can fish for AKO participants or the owners of one of the 66 vessels that have one or two LEFG permits (or owners of one or two permits). In 2012 there were four such vessels. These vessel counts assume that the owners of the vessels do not also own other vessels or permits. To the degree that there is cross ownership, the constraints may be greater than indicated here for either the number of the 13 vessels at the three-permit limit or the number of vessels owners with which those vessels could work. Under the action alternatives, all 13 of the West Coast LEFG vessels that participate in Alaska would be able to hire out to the owner of any other West Coast LEFG vessel or permit.

The West Coast rule constrains AKO participants from acquiring a LEFG permit only if they hire out to an owner of one of the 18 vessels with three permits or some other three-permit owner. Not all of these, and potentially none, may own Alaska IFQ. Thus, the number of AKO-only entities that the three-permit limit inhibits from entering the West Coast fishery under No Action is probably small (particularly in the context of the total number of Alaska IFQ vessels and owners, Table 4-5). Therefore, the action alternatives would not be expected to result in a substantial increase in Alaska vessel participation in the West Coast LEFG fishery.

Impact Mechanism Related to Administrative Effort and Compliance Requirements

Currently, NMFS collects only a listing of the individuals with an ownership interest in LEFG permits and the vessels to which they are registered. Under the action alternatives, NMFS would have to collect information on percent of ownership interest in vessels, and those ownership
interests would have to be updated with any change in the portions of ownership and with any permit transfer where the permit is registered to another vessel.\textsuperscript{11} Additionally, depending on the policy guidance, ownership interests may have to be tracked through several levels of ownership – for example, if one partnership is part owner of a second partnership that owns a vessel. For any vessel that is owned by more than one individual or owned by a corporation or some other legal entity, the owners would have to submit a detailed vessel ownership interest form.

Changing Conditions

With respect to the impact mechanisms related to the Alaska IFQ program, the function of the mechanism and need for this action is expected to diminish over time as those who are grandfathered in with an exception to the owner-on-board requirement leave the fishery. Recent final and proposed rules for the Alaska halibut and sablefish IFQ fisheries are expected to expedite the shift of the fishery toward an all owner-on-board fishery in Alaska. NMFS, Alaska Region, recently published a final rule (79 FR 9995, February 24, 2014) that imposes a 12-month vessel ownership requirement on initial individual recipients of QS who wish to use an exemption from the owner-on-board requirement and use a hired master to harvest their IFQ. NMFS has also proposed a regulation that would prevent an initial recipient from using a hired master to harvest QS that an initial recipient acquired by transfer after February 12, 2010, with a limited exception for small amounts of QS (78 FR 24707, April 26, 2013).

Summary of Impact Mechanisms and Differences Between Alternatives 1 and 2

On the basis of the situations that regulations currently constrain, it is expected that the direct impact mechanisms of the action alternatives would be some increased flexibility in financing within the fishery (including an increase in personal connections between lenders and borrowers) and at most, some modest consolidation of both LEFG permits and Alaska sablefish and halibut IFQ on fewer vessels. Additionally, there may be some impact on program administrative costs. The effects of these changes on each of the resources is discussed in the following sections. In summary, the primary direct impact mechanisms for the action alternatives are expected to be as follows.

\textsuperscript{11} This entails ownership interests of shareholders in a corporation and the relative ownership in partnerships.

\textbf{Example}

\begin{itemize}
  \item Acme Inc. and Fish Inc. own a vessel
  \item Acme Inc. and Fish Inc. each own 50% ownership in the vessel
  \item Acme Inc. is made up of John Doe and Mary Doe and each owns 50% of Acme
  \item Fish Inc. is made up of Mark and Sarah Smith and each have a 50% interest in Fish.
\end{itemize}
1. A potential effect on arrangements that involve financial interests secured through ownership in vessels:
   a. a redistribution of risks, financing transaction costs, and related profits from institutional lenders toward the private parties involved in a transaction, and
   b. more social connections between buyers and sellers than would be the case if borrowers were qualified by institutional lenders

2. An uncertain but at most modest effect on the distribution of limited entry privileges among fishing operations:
   a. Some degree of increased opportunity for consolidation of Alaskan IFQ on vessels that also participate in the West Coast LEFG fishery,
   b. Some degree of increased opportunity for consolidation of LEFG permits on vessels that fish in both fisheries, and
   c. Some degree of increased opportunity for acquisition of LEFG permits by vessels that previously fished only in the Alaskan IFQ fishery.

3. An increase in the administrative effort required to track and enforce the control limits and an increase in compliance requirements for all participants.

**Alternative 2a compared to Alternative 2b**

Alternatives 2a and 2b vary from one another in terms of the threshold amount of vessel ownership which counts as ownership of the associated LEFG permits. Under Alternative 2a the amount (20 percent) is the minimum ownership required to take advantage of the grandfather exception provision to the owner-on-board clause for the Alaska IFQ program. The Alternative 2b threshold (30 percent) provides some additional leeway for agreements that may have been established to take advantage of the exception that, for one reason or another, provided somewhat more than the minimum ownership required. These percentages are well below the 50 percent threshold at which majority interest and control would be established. Both action alternatives represent a compromise compared to the No Action, under which any one holding even a fraction of a percent ownership of a vessel would meet the control threshold and be credited with complete control over all of the permits associated with the LEFG vessel. The primary impact mechanism at work in these alternatives is the LEFG permit owner and vessel owner response to the change in the rule for determining permit control through vessel ownership. The difference in the amplitude of the impact mechanism between the alternatives will depend on how those who own (or would like to own) between 20 percent and 30 percent of a vessel respond.

With respect to the lending situation, one might expect some difference in private individual’s willingness to lend depending on whether they could maintain an ongoing 20 percent or 30 percent interest, with a greater willingness at 30 percent. However, as mentioned earlier, while a standard industry practice is to maintain ownership to secure a private loan financing the sale of a vessel there are alternatives ways to secure such an interest. Based on the absence of recent complaints about how the control rule restricts private lending it may be that industry has found a work-around with respect to the 3-permit control limit. Because of the alternative means of securing loans, industry’s apparent adjustment and the relatively small difference between the
two alternatives with respect to amount of security provided, it may be that there is little
difference between these to alternatives with respect to the response in lending activities.

With respect to the situations of WC&AK participants, again the amplitude of the impact
mechanism will depend on how those with (or who would like to acquire) between 20 percent
and 30 percent ownership interest in a WC&AK vessel respond to a 20 percent limit. If they
divest themselves down to 20% in order to take advantage of the exception created by
Alternative 2a (or acquire only 20 percent rather than some greater amount to take advantage of
that exception), then the degree of consolidation of LEFG permits and Alaska IFQ on WC&AK
vessels would not vary between the action alternatives but there would be lower percent
ownerships under Alternative 2a. If instead, they opted not to divest (or went ahead and acquire
more than 20 percent), then they would not benefit from the exception and for these individuals
there would be no difference between No Action and Alternative 2a. With respect to those who
would choose not divest down (not acquire a smaller percent interest) Alternative 2b would
provide opportunity for that higher percent ownership and would increase LEFG permits and
Alaska IFQ on WC&AK vessels. Information is not available which would allow a prediction of
the difference in response between these two alternatives. However, given only a 10 percent
difference between the alternatives, given that the difference is well below that needed to
establish majority interest control (50%), and given the relatively small number of operations
that this provision is expected to impact, it appears unlikely that there will be a substantial
difference in the size of the response to Alternative 2a or 2b.

4.2 Effects on the Physical and Biological Environment

4.2.1 Electronic Fish Ticket
Alternatives 2-4 consider implementing a Federal catch accounting requirement, an electronic
fish ticket for nontrawl vessels landing sablefish into U.S. West Coast ports. None of the catch
accounting action alternatives are expected to change where fishing vessels operate at sea or
where they land their catch, because none of the action alternatives would constrain how much or
how little gear fishery participants use, where they use the gear, or whether and how they interact
with the ocean floor or essential fish habitat. Therefore, NMFS does not anticipate that any of
the alternatives would have any effect on the physical environment, nor would the action
alternatives result in the monitored fisheries having different effects on the physical environment
from those experienced under the No Action alternative.

Effects on the biological environment resulting from fishery management actions primarily
include changes in fishing mortality levels resulting from implementation of the alternatives.
This particular action considers changes to a catch accounting system and record keeping and
reporting requirements for fishery participants. No direct biological effects are expected to result
from any of the action alternatives because none of the alternatives would change the allowable
directed harvest or incidental catch levels allowed in the fishery. The Council considers
allowable groundfish harvest levels under its specifications and management measures process
and this action would not alter harvest levels set through that process, nor would it alter the
fishing practices of vessels pursuing the allowable harvest. Indirect impacts from fishery
management actions include changes in fishing practices that affect the biological environment,
but are further away in time or location than those occurring as a direct impact. Indirect
biological impacts could result if catch data were inaccurate or delayed such that fishery specifications could not be adequately monitored or the fishing was not stopped before a specification was exceeded. Exceeding a specification increases the risk of overfishing, may affect rebuilding times for overfished species, or result in a stock becoming overfished. Accurate and timely data are needed to monitor total catch of all groundfish, including sablefish (a precautionary zone stock), to prevent overfishing and to maintain rebuilding schedules for overfished stocks. Since implementation of the permit stacking program in 2002, inseason management of the primary and DTL sablefish fixed gear fisheries has been based on two types of information: (1) paper landing receipts that typically have a two month time lag between the date of landing and when the landing data are available in PacFIN, and (2) the Quota Species Monitoring (QSM) Best Estimate Report, which fills in the three-month time lag based on estimates from the previous years’ landings. Both of these data sources estimate which landings are attributed to the primary (tier) fishery and which are attributed to the DTL fishery. Thus, the current catch accounting system is subject to inaccuracy and time delays under the No Action Alternative and will continue to be if this alternative is selected.

Under the No Action Alternative, the requirements for sending in paper landing receipts varies among states with Washington requiring the paper landing receipts to be received within six working days, Oregon requiring the landing receipts to be received within five working days, and California requiring the landing receipts to be received by the first and sixteenth of the month. It is a considerable time after the tickets are prepared and submitted that the data are entered into a state database, edited, and forwarded to the PacFIN database; depending on the state, it may take several months. Extending the electronic fish ticket requirements to the non-trawl fisheries would result in fish tickets being submitted within 24 hours of landing. The requirement for daily submissions of electronic fish tickets, under Alternatives 2-4 provides for timely and efficient reporting of landing data such that species allocations and ACL can be effectively monitored and inseason adjustments for conservation purposes can be made as necessary. Electronic fish tickets would allow managers to use timely, accurate data to manage the fisheries inseason rather than having to rely on estimates and data from the previous year to supplement data from paper landing receipts as is currently the case under No Action. The electronic fish tickets would also provide daily landings estimates for all species landed, not just sablefish, providing improved inseason data for other species, including overfished species. Electronic fish ticket reporting is expected to expedite the receipt of catch data which are combined with observer data for total catch estimates. Timely reporting reduces the risk of indirect impacts on the biological resource.

The quality and accuracy of data could also be expected to improve with the use of electronic fish tickets. Paper landing receipts introduce two areas where data entry errors could occur, when the first receiver enters the data on the paper form and when the data are entered into the database weeks to months later by the state. The electronic fish ticket allows users to pre-load landings data into their account. For example, a first receiver that generally receives sablefish landings from five different vessels could enter each of the vessels identifying information into their user account. Then, at the time of landing, the first receiver would simply select information such as vessel I.D. and permit number from drop down menus in each field. The first receiver also has the ability to fill out an electronic fish ticket and save it and submit it at a future date, should any corrections need to be made. There are also numerous, built-in data checks that
prevent entry errors and improve the quality of landings data for all species. These built-in data checks include pre-loaded lists of allowed gear types, current species, and area restrictions. Also, an electronic ticket would allow NMFS to specify the reporting groups consistent with Federal regulation. This could improve the quality of species-specific reporting (for example, when a stock is left in a complex, but NMFS requires reporting for conservation concerns). By reducing data entry errors, issues can be resolved in a timely manner by the first receivers and fishers, such that the resolution is likely to be more accurate and timely than errors found weeks to months after the landing occurred.

If catch accounting difficulties continue, delays in catch reporting may or may not have an effect on the biological condition of groundfish stocks. The severity of the impact caused by inaccurate or untimely landings data depends on how sensitive the groundfish stock is to changes in catch levels. For precautionary zone and healthy groundfish species or species groups, the risk to the stock is lower than it is for overfished species. If catch allocations of the most constraining overfished species are greatly exceeded due to delayed or inaccurate catch reporting, the risk of exceeding rebuilding based OYs is increased. Although there are many variables that affect the time it takes a stock to rebuild, exceeding the rebuilding-based OY could result in an extended rebuilding period for an overfished species. Additionally, since sablefish is a precautionary zone species that is usually fished to a high level of attainment, inseason monitoring and management is especially important when managers are trying to make decisions that may be impacted by exceeding or attaining sector ACLs, such as the annual issuance of carry over quota in the shorebased IFQ fishery.

In terms of improved catch accounting, Alternative 4 has the greatest beneficial indirect impacts in that it would require all sablefish and DTL landings in the LEFG and OA fisheries to be reported via electronic fish tickets. The scope of Alternative 3 is narrower than Alternative 4 in that it would not require DTL OA landings to be recorded on electronic tickets. Alternative 2 has the narrowest scope in that it would require only sablefish landings in the primary (tier) fishery to be recorded on electronic fish tickets and the least beneficial indirect impacts among the action alternatives.

4.2.2 Own/Control Limits

Summary: Under the no action and action alternative no substantial impact to the physical or biological environment would be expected relative to baseline conditions. The primary potential effect would result from a possible geographic shift in the area of harvest under an action alternative. Any such shift is expected to be modest (as described in Section 4.1.2). If that shift were to occur, the data collection and reporting system would alert managers to any substantial impacts and management tools authorized under the MSA and groundfish FMP (see Chapter 6 of the Groundfish FMP) are available for an appropriate response.

Section 3.1 and 3.2 describe the potentially affected physical and biological environment including:

- Groundfish stocks
- Nongroundfish Species
Protected Species  
Essential Fish Habitat  
California Current Marine Ecosystem

Impacts on the physical and biological environment would depend on whether the changes in the control rule changed fishing behavior. Impacts to the physical and biological environment might change if there were:

- changes in total harvest,
- changes in the types of gear used,
- changes in the way gear is fished,
- changes in the amount of fishing effort required to take a given amount of harvest (CPUE), or
- changes in the distribution of harvest.

The limited entry fixed gear allocations are fully distributed among participants and nearly fully harvested under the limited entry fixed gear permit stacking program by vessels using longline and/or fishpot gear (Figure 3-X). There is no opportunity to increase total removals and no reason to expect that changing the control rule provision would result in a decrease of harvest. Any increase in attainment would be within the impact levels anticipated and analyzed in the NEPA document for the groundfish biennial harvest specifications.

Under the No Action alternative, the current regulatory environment would be maintained and there is no reason to believe that situations would worsen with respect to the conditions leading to the need for this action. In fact, as the number of those with a grandfather exception in the Alaska program diminishes, the situations in which individuals are constrained from either benefiting from Alaska IFQ or acquiring more limited entry permit, as described in Section 4.1.2, would diminish. The impacts of a control rule change under either action alternative would occur through the mechanism of changes in financing or consolidation (see Section 4.1.2). There is no reason to expect that consolidation of harvest on fewer vessels or increased financing opportunities (the two identified impact mechanisms identified in Section 4.1.2) would cause a substantial change in the type of gear used, the way the gear is fished, or the catch per unit effort (CPUE) in either the West Coast LEFG sablefish or Alaska sablefish and halibut IFQ fisheries.

If the changes result in some modest degree of consolidation on vessels that fish in both the West Coast and Alaska (see discussion in Section 4.1.2) and those vessels tend to fish in a different geographic distribution along the West Coast than the vessels from which the permits are acquired, then there could be a spatial shift in the distribution of effort and catch. The current program does not restrain redistribution of sablefish harvest and landings within the management area for the stock. Such redistributions may occur in response to local area CPUE, local fish marketing opportunities, and shifts of the permits between ports (through transfer or changing locations of fishing operations). To a certain extent, a natural rebalancing of effort would be expected from any substantial shifts. For example, if effort shifted enough to cause a CPUE decline in a particular area then, as a result of the increased fishing cost, effort would be expected to reshift to some other area. Biologists and managers have determined that the northern sablefish stock to which this program applies (roughly north of 36 degrees north
latitude) is a unit that can be effectively managed as such, i.e. there are not issues of localized depletion that would require further subdivisions to ensure the productivity of the target species. All catch in the fishery (including sablefish and nontarget species) is assessed through an observer program, and landings are recorded on state fish tickets. Thus, if there is a geographic shift and if that shift leads to changes that are of management concern, a data collection and reporting system is in place to alert managers to the situation, and coordinated Federal, state, and tribal regulatory authority is available to mitigate such impacts.

Habitat impacts are limited to the possibility that there may be a redistribution of effort, redistributing gear impacts along the coast. The amount of any such redistribution would be expected to be small (see section on impacts on communities in Section 4.3.2). Amendment 19 to the groundfish FMP set aside essential fish habitat conservation areas and provided a process for five-year reviews which includes assessment of changes in the intensity and distribution of fishing effort (see NMFS, 2013 for an example of the type of information produced). This review process provides an opportunity for adaptive management in response to any substantial shifts in fishing effort that adversely impacts habitat.

### 4.3 Effects on the Socio-economic Environment

#### 4.3.1 Electronic Fish Ticket

The action alternatives primarily affect fishermen, first receivers where non-trawl sablefish are landed (LE and OA), and state and federal enforcement and management agencies. This document deals with three inter-related measures: (1) implementation of a federal electronic fish ticket, (2) modification of the own/hold control rules, and (3) implementation of joint registration (allow a LEEFG and trawl permit to be registered to the same vessel at the same time). The first measure would affect either only the sablefish permit stacking program (the primary sablefish fishery north of 36ºN latitude) or both the primary fishery and the daily trip limit (DTL) fishery north and south of 36ºN latitude. In the LEEFG fishery (primary and DTL), sablefish is taken as directed catch and the only gear types allowed are longline or trap (or pot). Longline vessels harvest some other groundfish species, but for pot vessels, sablefish comprises the vessels’ only significant commercial groundfish species harvest.

The second measure only affects the primary sablefish fishery north of 36ºN latitude. The third measure affects both the LEEFG fishery and the shorebased trawl individual fishing quota (IFQ) program. Participants in the shorebased trawl IFQ program typically use trawl gear to target sablefish as part of the DTS groundfish complex (Dover Sole/ Thornyhead/ Sablefish complex), in a near shore mixed groundfish species strategy, or when targeting slope rockfish.

**Impacts to Sablefish Fishermen**

It is likely that under the action alternatives regulations will require that sablefish landings be made to first receivers that have electronic fish ticket capabilities. To the extent that this limits the number of first receivers that may receive sablefish landings, fishermen may find a reduced number of first receivers capable of recording sablefish landings on electronic fish tickets. In order to be able to fill out and submit an electronic ticket, first receivers would need a computer with an internet connection and browser. The catch accounting issues previously discussed in this document (i.e. the time lag associated with landing data from state landing receipts and subsequent use of estimates for inseason management) affect the ability of state and Federal
enforcement to accurately track sablefish landings on an individual permit basis. Overages in the primary fishery may impact sector specific allocations and introduce potential issues of intersector inequity. By implementing an electronic fish ticket, NMFS will be able to better track instances of tier overages and ensure that neither the tier limits nor the DTL limits are exceeded inseason, and will be better able to track compliance with the owner on board requirement.

**Impacts to Sablefish First Receivers**

The main burden of implementation of an electronic fish ticket would fall on sablefish first receivers that receive: (1) primary (tier) sablefish landings, (2) primary and LEFG DTL sablefish landings, or (3) primary (tier) and DTL (LEFG and OA) sablefish landings, and are not already licensed IFQ first receivers. This socio-economic group is estimated to be approximately 33 unique first receivers in the primary sablefish fishery and 53 first receivers in the primary and LEFG DTL fisheries, and 77 first receivers across the primary, DTL, and OA fisheries. These 77 additional first receivers account for approximately 34% of sablefish landings in these fisheries. Twenty-three sablefish first receivers are also IFQ first receivers and already use electronic fish tickets to record shorebased-IFQ trawl landings. The approximately 77 first receivers across the primary and DTL fisheries who do not already use electronic fish tickets would be most affected by the action alternatives (see Table 4-6 below).

Table 4-6: The number of additional first receivers required to use electronic tickets under each alternative, by state.

<table>
<thead>
<tr>
<th>State</th>
<th>Alternative 1</th>
<th>Alternative 2</th>
<th>Alternative 3</th>
<th>Alternative 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washington</td>
<td>0</td>
<td>9</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>Oregon</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>California</td>
<td>0</td>
<td>20</td>
<td>40</td>
<td>53</td>
</tr>
<tr>
<td>Coastwide</td>
<td>0</td>
<td>33</td>
<td>53</td>
<td>77</td>
</tr>
</tbody>
</table>

Table 4-7. California first receivers affected by each action alternative.

<table>
<thead>
<tr>
<th>Action Alternative</th>
<th>Number of First Receivers</th>
<th>Sablefish Landed (lbs)</th>
<th>Net Revenue (U.S. dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative 2</td>
<td>Total</td>
<td>32</td>
<td>1,387,692</td>
</tr>
<tr>
<td></td>
<td>IFQ FRSL</td>
<td>12</td>
<td>867,800</td>
</tr>
<tr>
<td></td>
<td>Net Addition</td>
<td>20</td>
<td>363,131</td>
</tr>
<tr>
<td>Alternative 3</td>
<td>Total</td>
<td>52</td>
<td>1,750,823</td>
</tr>
<tr>
<td></td>
<td>IFQ FRSL</td>
<td>12</td>
<td>867,800</td>
</tr>
<tr>
<td></td>
<td>Net Addition</td>
<td>40</td>
<td>883,023</td>
</tr>
<tr>
<td>Alternative 4</td>
<td>Total</td>
<td>65</td>
<td>2,010,479</td>
</tr>
<tr>
<td></td>
<td>IFQ FRSL</td>
<td>12</td>
<td>1,034,673</td>
</tr>
<tr>
<td></td>
<td>Net Addition</td>
<td>53</td>
<td>975,806</td>
</tr>
</tbody>
</table>
Table 4-8. Oregon first receivers affected by each action alternative.\(^\text{12}\)

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Number of First Receivers</th>
<th>Sablefish Landed (lbs)</th>
<th>Net Revenue (U.S. dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>12</td>
<td>1,137,303</td>
<td>2,665,833</td>
</tr>
<tr>
<td>IFQ FRSL</td>
<td>8</td>
<td>1,101,283</td>
<td>2,574,560</td>
</tr>
<tr>
<td>Net Addition</td>
<td>4</td>
<td>36,020</td>
<td>91,273</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td>1,137,303</td>
<td>2,665,833</td>
</tr>
<tr>
<td>IFQ FRSL</td>
<td>8</td>
<td>1,101,283</td>
<td>2,574,560</td>
</tr>
<tr>
<td>Net Addition</td>
<td>4</td>
<td>36,020</td>
<td>91,273</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>1,217,766</td>
<td>2,840,958</td>
</tr>
<tr>
<td>IFQ FRSL</td>
<td>8</td>
<td>1,173,492</td>
<td>2,723,529</td>
</tr>
<tr>
<td>Net Addition</td>
<td>11</td>
<td>44,274</td>
<td>117,429</td>
</tr>
</tbody>
</table>

Table 4-9. Washington first receivers affected by each action alternative.

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Number of First Receivers</th>
<th>Sablefish Landed (lbs)</th>
<th>Net Revenue (U.S. dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>12</td>
<td>667,954</td>
<td>1,742,888</td>
</tr>
<tr>
<td>IFQ FRSL</td>
<td>3</td>
<td>389,292</td>
<td>1,019,784</td>
</tr>
<tr>
<td>Net Addition</td>
<td>9</td>
<td>278,662</td>
<td>723,104</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td>667,954</td>
<td>1,742,888</td>
</tr>
<tr>
<td>IFQ FRSL</td>
<td>3</td>
<td>389,292</td>
<td>1,019,784</td>
</tr>
<tr>
<td>Net Addition</td>
<td>9</td>
<td>278,662</td>
<td>723,104</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>754,991</td>
<td>1,955,541</td>
</tr>
<tr>
<td>IFQ FRSL</td>
<td>3</td>
<td>423,849</td>
<td>1,100,681</td>
</tr>
<tr>
<td>Net Addition</td>
<td>13</td>
<td>331,142</td>
<td>854,860</td>
</tr>
</tbody>
</table>

Table 4-10. Coastwide first receivers affected by each action alternative.

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Number of First Receivers</th>
<th>Sablefish Landed (lbs)</th>
<th>Net Revenue (U.S. dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>56</td>
<td>3,192,949</td>
<td>7,820,273</td>
</tr>
<tr>
<td>IFQ FRSL</td>
<td>23</td>
<td>2,358,375</td>
<td>5,661,791</td>
</tr>
<tr>
<td>Net Addition</td>
<td>33</td>
<td>677,813</td>
<td>1,785,743</td>
</tr>
<tr>
<td>Total</td>
<td>76</td>
<td>3,556,080</td>
<td>8,791,639</td>
</tr>
<tr>
<td>IFQ FRSL</td>
<td>23</td>
<td>2,358,375</td>
<td>5,661,791</td>
</tr>
<tr>
<td>Net Addition</td>
<td>53</td>
<td>1,197,705</td>
<td>3,129,848</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>3,983,236</td>
<td>9,805,662</td>
</tr>
<tr>
<td>IFQ FRSL</td>
<td>23</td>
<td>2,632,014</td>
<td>6,204,586</td>
</tr>
<tr>
<td>Net Addition</td>
<td>77</td>
<td>1,351,222</td>
<td>3,601,076</td>
</tr>
</tbody>
</table>

The action alternatives would increase the amount of time first receivers spend recording sablefish landings. Action Alternatives 2-4 do not require that additional data be gathered, but do require additional time in the States of Washington and California, because the data would need to be recorded on both the paper forms provided by the state and entered into the electronic fish

\(^{12}\) For the states of Washington and Oregon, Alternatives 2 and 3 affect the same number of first receivers because all first receivers that process primary sablefish landings also process LEFG DTL sablefish landings.
ticket forms. Entering the fish ticket information is expected to take eight minutes per ticket, including the time necessary to check for transcription errors. For first receivers in all three states, two minutes per response would be required to access the internet and send the data files.

There are approximately 639 primary (tier) landings each year, with approximately 373 of the deliveries occurring in Washington and California and the remaining 266 occurring in Oregon. The burden on first receivers in Washington to submit electronic fish tickets under Alternative 2 is estimated to be approximately 29 hours annually over the No Action Alternative. The burden on first receivers in California to submit electronic fish tickets under Alternative 2 is estimated to be approximately 34 hours annually over the No Action Alternative. For first receivers in Oregon, the additional burden is only the time it takes to send the electronic fish ticket, since state law already requires that the information be gathered and allows the submission of a printed and signed electronic ticket in lieu of a paper landing receipt. For processors in Oregon, it is expected to take a total of approximately 9 hours annually to submit electronic fish tickets. In total for all three states, 72 hours annually are estimated for preparing and submitting electronic fish tickets under Alternative 2.

Under Alternative 3, the number of landings in Washington and California would be expanded to 264 and 1,838 respectively, while the number of landings in Oregon would be expanded to 579. Therefore, under Alternative 3 the burden to first receivers in Washington and California would be expected to be 44 hours and 306 hours, respectively, over the No Action Alternative, while the burden to first receivers in Oregon would be 19 hours. In total for all three states, 369 hours annually are estimated for preparing and submitting electronic fish tickets under Alternative 3. Similarly, under Alternative 4, the number of landings in Washington and California would be expanded to 520 and 3,258, respectively, while the number of landings in Oregon would be expanded to 1,072. Therefore, under Alternative 4 the burden to first receivers in Washington and California would be expected to be 87 hours and 543 hours, respectively, over the No Action Alternative, while the burden to first receivers in Oregon would be 36 hours. In total for all three states, 666 hours annually are estimated for preparing and submitting electronic fish tickets under Alternative 4.

Table 4-11. Burden hour estimates for California first receivers.

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Number of sablefish landings per year</th>
<th>Time to fill out and submit e-ticket (minutes per landing)</th>
<th>Burden hour estimate (hours)</th>
<th>Burden hour estimate using a 50 pound sablefish threshold (hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative 1</td>
<td>3,258</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Alternative 2</td>
<td>202</td>
<td>10</td>
<td>34</td>
<td>33</td>
</tr>
<tr>
<td>Alternative 3</td>
<td>1,838</td>
<td>10</td>
<td>306</td>
<td>234</td>
</tr>
<tr>
<td>Alternative 4</td>
<td>3,258</td>
<td>10</td>
<td>543</td>
<td>461</td>
</tr>
</tbody>
</table>

13 The number of sablefish landings is an average of unique landings from 2008 through 2013 that contain greater than zero pounds of sablefish.
Table 4-12. Burden hour estimates for Oregon first receivers.

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Number of sablefish landings(^{14}) per year</th>
<th>Time to submit e-ticket (minutes per landing)</th>
<th>Burden hour estimate (hours)</th>
<th>Burden hour estimate using a 50 pound sablefish threshold (hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative 1</td>
<td>1,072</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Alternative 2</td>
<td>265</td>
<td>2</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Alternative 3</td>
<td>579</td>
<td>2</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Alternative 4</td>
<td>1,072</td>
<td>2</td>
<td>36</td>
<td>35</td>
</tr>
</tbody>
</table>

Table 4-13. Burden hour estimates for Washington first receivers.

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Number of sablefish landings(^{15}) per year</th>
<th>Time to submit e-ticket (minutes per landing)</th>
<th>Burden hour estimate (hours)</th>
<th>Burden hour estimate using a 50 pound sablefish threshold (hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative 1</td>
<td>520</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Alternative 2</td>
<td>171</td>
<td>10</td>
<td>29</td>
<td>28</td>
</tr>
<tr>
<td>Alternative 3</td>
<td>264</td>
<td>10</td>
<td>44</td>
<td>44</td>
</tr>
<tr>
<td>Alternative 4</td>
<td>520</td>
<td>10</td>
<td>87</td>
<td>82</td>
</tr>
</tbody>
</table>

Table 4-14. Burden hour estimates for coastwide first receivers.

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Number of sablefish landings(^{16}) per year</th>
<th>Burden hour estimate (hours)</th>
<th>Burden hour estimate using a 50 pound sablefish threshold (hours)</th>
<th>Total number of first receivers submitting electronic tickets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative 1</td>
<td>4,851</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Alternative 2</td>
<td>639</td>
<td>72</td>
<td>70</td>
<td>56</td>
</tr>
<tr>
<td>Alternative 3</td>
<td>2,682</td>
<td>369</td>
<td>297</td>
<td>76</td>
</tr>
<tr>
<td>Alternative 4</td>
<td>4,851</td>
<td>666</td>
<td>578</td>
<td>100</td>
</tr>
</tbody>
</table>

\(^{14}\) The number of sablefish landings is an average of unique landings from 2008 through 2013 that contain greater than zero pounds of sablefish.

\(^{15}\) The number of sablefish landings is an average of unique landings from 2008 through 2013 that contain greater than zero pounds of sablefish.

\(^{16}\) The number of sablefish landings is an average of unique landings from 2008 through 2013 that contain greater than zero pounds of sablefish.
It is assumed that all first receivers have access to a personal computer and internet access adequate to access the electronic fish ticket website developed by PSMFC. The electronic fish ticket requirements would require that the first receiver’s personal computer be properly operating when accepting landings requiring electronic fish ticket reporting. Therefore, some first receivers may choose to have an additional personal computer or laptop computer as a back-up. To reduce the potential impacts on first receivers should there be a system failure, a waiver could be granted by NMFS that would temporarily exempt a processor from the reporting requirements and allow reasonable time to resolve the electronic fish ticket system problem. The duration of the waiver would be determined on a case-by-case basis. First receivers that are granted a temporary waiver from the requirement to submit electronic fish tickets must submit on paper the same data as are required on electronic fish tickets within 24 hours of the date received during the period that the waiver is in effect.

Table 4-14 above provides a comparison of coastwide burden hour estimates against the total number of first receivers required to fill out electronic tickets by alternative. The second column in Table 4-14 provides the estimated additional amount of time required to fill out an electronic ticket for landings that include any amount of sablefish. Since this is based on the time estimated to fill out and submit an electronic ticket multiplied by the number of unique sablefish landings in a given year, the resulting burden hour estimate is the additional time spent in a year for all first receivers. To put this in perspective, under Alternative 2, the 72 burden hours could be split out among the 56 first receivers. Divided up evenly, this results in approximately 1 hour and 20 minutes per first receiver over the course of a year, or roughly 7 additional minutes per month per first receiver spent filling out and submitting electronic tickets.

After Alternative 1 (the no action alternative), Alternative 2 places the least amount of burden hours on first receivers for all states, individually and coastwide (see Tables 4-11 through 4-14). For first receivers accepting both DTL LE and OA, Alternative 3 would introduce complexity by splitting the DTL fishery and only requiring electronic tickets for LE DTL sablefish landings. Alternatives 2 and 4 would not introduce this added regulatory complexity because Alternative 2 limits the electronic ticket requirement to the primary fishery and Alternative 4 includes the primary and LE and OA DTL sablefish fisheries. Additionally, Tables 4-11 through 4-14 include a column titled, “Burden hour estimate using a 50 pound sablefish threshold”. The purpose of this column is to aid in the discussion of an implementation issue described in Agenda Item F.6.b NMFS Report 1, Issue 1, whether a poundage threshold or some other distinction should be made for OA DTL sablefish landings such that, for example, only OA DTL sablefish landings of 50 pounds or greater would be trigger the electronic ticket requirement. Omitting smaller sablefish landings from the electronic ticket requirement would have the most noticeable impact on burden hour estimates for California under Alternatives 3 and 4.

**Impacts to State Agencies**

As mentioned previously, implementation of a Federal requirement for an electronic fish ticket would be separate from, and in addition to, existing state reporting requirements. Under Alternatives 2-4, each sablefish buyer would be responsible for recording sablefish landings on an electronic fish ticket in addition to state (landing receipt) landing requirements. States may decide the extent to which they would like their landing receipt system to overlap with the
electronic ticket. In the state of Oregon, a printed copy of the electronic ticket may be submitted in lieu of a paper landing receipt; however, in Washington and California, a hand-written landing receipt would likely be required in addition to the federally-required electronic ticket. Each state would have access to their state’s electronic fish ticket landings data through the electronic ticket system. Currently, Oregon and Washington receive their state’s PacFIN landings data every night, enabling them to check their state landing receipts for quality assurance and quality control. Because the electronic ticket is separate from, and in addition to, the state required landing receipts, it is unlikely that any burden due to implementation of a electronic ticket would be placed on state management and enforcement agencies.

Impacts to Federal Agencies

Section 6.10.1 of the Pacific Coast Groundfish Fishery Management Plan identifies some of the issues involved in managing enforcement risks. The primary goals of enforcement are to ensure a cost-effective way that all fishing is conducted in accordance with fishery regulations, while reducing management complexity, and ensuring that the monitoring methods used are sufficient to enforce existing regulations. As mentioned previously, there are several problems with the current system. The paper-based landing receipts are subject to compromise and typographical error, inconsistently record the Federal permit number, and are subject to a time lag of several months. Additionally, the use of inseason estimates for catch accounting purposes does not provide NMFS with sufficient evidence to enforce tier landing overage violations or the owner on board provision, either inseason or post-season.

Tier Catch against Tier Quotas by Permit

The Review of NOAA Catch Share Programs Final Report No. OIG-14-019-1 (published May 1, 2014) found that NOAA does not have adequate data and does not track or enforce landings overage violations in the Pacific Sablefish Permit Stacking Individual Fishing Quota (IFQ). Additionally, NOAA currently does not monitor Pacific Sablefish landings on an individual permit basis during a fishing season. Instead, it only monitors landings for the entire fishery as a whole, using a paper-based system that is subject to compromise and the multiple possibilities of error associated with any manual process. In addition, the report identified 189 instances where actual landings exceeded the allowed landings for individual permits from 2008 through 2013, as summarized in Table 4-15 below.

Table 4-15. Sablefish Tier Overages 2008-2013.
Implementation of an electronic fish ticket would improve the accuracy and timeliness of landings data and would provide managers with the real-time data necessary to do in-season management of the primary and DTL fisheries. It would also provide enforcement with the permit specific landings data necessary to monitor landings overages in the primary (tier) and DTL sablefish fisheries and could also help aid enforcement of the owner on board requirement.

4.3.2 Own/Control Limits

Under the No Action alternative, the current regulatory environment would be maintained and there is no reason to believe that situations would worsen with respect to the conditions leading to the need for this action. In fact, as the number of those with a grandfather exception in the Alaska program diminishes, the situations in which individuals are constrained from either benefiting from Alaska IFQ or acquiring more limited entry permits, as described in Section 4.1.2, would diminish. All impacts discussed in this section are relative to the No Action alternative.

As described at the end of Section 4.1.2, Alternatives 2a and 2b vary from one another in terms of the threshold amount of vessel ownership which counts as ownership of the associated LEFG permits and the expected difference between the alternatives in terms of lending practices and consolidation of LEFG permits and IFQ (the primary impact mechanism) is expected to be minor. To the degree that the alternatives have impacts on lending or consolidation, Alternative 2b might possibly result in slightly more than Alternative 2a. The difference between the two alternatives may be substantial with respect to the opportunities for the few individuals it may affect but is likely to be negligible with respect to the aggregate impacts discussed in this section.

Summary: The following is a summary of the potential socio-economic impacts of either action alternative.

**West Coast LEFG Harvesters.**
- Some potential increase in net revenue and efficiency of vessel operations through consolidation and increased scale of operation and decreased financing costs.
- An impact on equity related to the opportunity for further consolidation.
- Some increase in social cohesion within the fleet.
• An increase in paperwork for vessels owners related to the need to submit ownership interest information.
• A possible fee in association with increased program administrative costs for NMFS.

Harvesters in Other Fisheries.
• Some redistribution of Alaska IFQ away from vessels that participate in Alaska but not in the West Coast LEFG fishery.
• A possible increase in acquisition of LEFG permits by Alaska vessels that hire out to catch Alaska IFQ owned by West Coast LEFG participants and the attendant increase in profits and possible efficiency based on scale of operation.
• Vessels displaced as a result of consolidation may have some impact on other fisheries.

Crew.
• Consolidation may lead to fewer jobs but increased wages for remaining jobs.

Processors.
• Processing companies tied to a particular port may be affected if there is some geographic redistribution (see section on communities).

Communities.
• Potential for some harvest redistribution among ports (seems likely to be minor).
• An increase in social connections within the fleet.
• A possible small decrease in the lending business of financial institutions.

Agencies.
• An increase in administrative workload related to the need to collect, store, and track vessel ownership information.

Section 3.3 describes the potentially affected socioeconomic environment including:

• Fixed gear sablefish harvesting operations
• Harvesting operations in other fisheries
• Crew
• Processors
• Communities
• Management Agencies

As discussed in Section 4.1.2, the primary direct impact mechanisms are as follows.
1. A potential effect on arrangements that involve financial interests secured through vessel ownership in vessels:
   a. a redistribution of risks, financing transaction costs, and related profits from institutional lenders toward the private parties involved in a transaction, and
   b. more social connections between buyers and sellers than would be the case if borrowers were qualified by institutional lenders.

2. An uncertain but at most modest effect on the distribution of limited entry privileges among fishing operations:
   a. Some degree of increased opportunity for consolidation of Alaskan IFQ on vessels that also participate in the West Coast LEFG fishery,
   b. Some degree of increased opportunity for consolidation of LEFG permits on vessels that fish in both fisheries, and
   c. Some degree of increased opportunity for acquisition of LEFG permits by vessels that previously fished only in the Alaskan IFQ fishery.

3. An increase in the administrative effort required to track and enforce the control limits.

**Fixed Gear Harvesting Operations**

For the fixed gear sablefish harvesters, the proposed alternatives may affect profits and efficiency. There may also be some social effects.

The opportunity for larger operations (i.e. those constrained by the three-permit limit) to consolidate more harvest privileges (either by acquiring West Coast LEFG permits or by hiring out to WC&AK participants to harvest Alaska IFQ) may increase economic profits and fleet efficiency through economies of scale. The degree of the current constraint and consequently the opportunity provided by the action alternative (as described in Section 4.1.2) is modest for the fleet as a whole but may be important to some individuals.

The action alternatives may facilitate within-sector financing whereby the seller retains possession of a vessel as security for a loan (see discussion in Section 4.1.2). To the degree that additional seller financing of buyers is facilitated by an action alternative, the potential economic and social impacts for such sellers include:

- generating profits from financing the sale (either through charging an interest rate or a higher sale price);
- increasing the number of potential buyers by lowering transaction costs and financing barriers for potential buyers (which contributes to the profits in the first bullet and may speed the process of finding a buyer, reducing transaction costs for the seller); and
- a strengthened social network by facilitating entry of a community member or other known individual into the fishery.

The potential economic and social impacts for the vessel buyer in these situations include:
• access to financing and or lower financing costs than if financial institutions are the only option;
• competition from more potential buyers; and
• entry into a fleet with more social cohesion.

The current control rule and all-or-none accounting method is intended to err on the side of precaution in trying to ensure that the three-permit control rule is not undermined by private business arrangements which might convey control without conveying majority ownership interest. It also makes it more likely that there will be a greater number of harvesters that are totally independent of one another. The control rule is intended to disperse ownership of harvest rights among more individuals, balancing the efficiency outcome which would occur from unrestricted consolidation with objectives related to equity and dispersing income among communities.

One mechanism by which control might be asserted over a greater number of permits is through lending to finance the purchase of a vessel. At present, seller financing is reported to be a common practice in the industry. There exists opportunity to secure a loan associated with a vessel through a maritime lien, which does not result in the associated LEFG permits being counted against the lender. However, a common industry practice is to maintain security interest by retaining vessel ownership until the loan is paid. Such lending might be turned into leverage over a permit and the activities of a particular vessel. The current all-or-none rule reduces the opportunity to use that type of mechanism where its use is dependent on securing at least part ownership in a vessel. As discussed in Section 4.1.2, the action alternatives would provide opportunity to secure vessel financing through part ownership without tripping the control rule, potentially opening an avenue for circumventing the permit control rule. However, only those seller-financed transactions inhibited by the three-permit limit might be facilitated by one of the action alternatives. Additionally, even where the three-permit limit has presented an obstacle, members of industry may have found alternative ways to secure their loans, further reducing the potential effect through this impact mechanism. The action alternatives provide a limited exception for 20 percent (or 30 percent) ownership of two vessels without tripping the control criteria. This means that the maximum control over LEFG permits that an individual could have would be 100% ownership over three permits (as under No Action), plus up to 20 percent (or 30 percent) ownership in two vessels each of which were registered to three LEFG permits, (none of the permits on those vessels could be owned in any part by the individual). In other words, while the maximum number of permits an individual or entity could control, as control is determined under the LEFG permit program, is 9 LEFG permits, but the maximum number of permits over which an individual could have majority interest control would remain at 3. The options stop well short of providing the opportunity for an entity to have controlling interest in a vessel (50 percent interest). Impacts on financial institutions are discussed in the section on communities.

As a result of the additional vessel ownership information required to track and enforce compliance with this provision, under the action alternatives most owners of vessels registered with LEFG permits would likely be subject to the requirement to submit vessel ownership interest forms specifying each individual’s share of ownership, increasing their paperwork.
burden. There may also be an increase in fees charged to permit owners. LEFG permits and their associated tier limits are the main components of an LEFG IFQ. The MSA requires that costs of administering the program be recovered through fees, up to a maximum of 3% of ex-vessel revenue. Collecting the additional information would increase administrative workload and hence cost of administering and enforcing the program. These additional costs may be passed on to participants through fees, increasing vessel costs and resulting in a minor adverse impact on vessel profits.

Harvesters in Other Fisheries

As indicated in Section 4.1.2, an action alternative could result in shifts in fishing privileges among participants. On the one hand, there would be some decreased opportunity for Alaskan only vessels (AKO participants) to fish Alaska IFQ for WC&AK participants, as there would be a reduction in a constraint that currently limits WC&AK participants’ ability to fish for one another. On the other hand, a few AKO participants that fish for WC&AK vessels might have a new opportunity to buy LEFG permits (become WC&AK vessels) without sacrificing income they earn by hiring out to fish Alaska IFQ for WC&AK vessels. However, there are already a large number of AKO vessels that have the opportunity to acquire LEFG permits and do not exercise such opportunity. The addition of a few more AKO vessels to the pool of potential participants is not expected to have a notable effect in new entry to the LEFG fishery by what are currently AKO participants.

The main impact mechanism by which other fisheries might be affected is consolidation. Section 4.1.2 indicates that under the action alternatives, there is some limited possibility that LEFG permits and Alaska IFQ may be consolidated onto fewer vessels, increasing competition and exacerbating management problems. Because of the limited number of entities affected, any impact would be expected to be relatively minor. This might then generate some surplus capital (vessels) that would be sold into other fisheries. Most US fisheries are under some form of rationalization program that would limit the effects of this surplus capital.

Crew

If there is some consolidation of LEFG permits and/or Alaska IFQ on to fewer vessels, then the income of crew members on vessels from which the permits/IFQ are moved may decrease while there may be a gain on the vessels to which the permits/IFQ are moved. If the loss of West Coast permits or Alaska IFQ result in a vessel going out of business then, rather than a decrease in income, there may be a net job loss. As described in Section 4.1.2, the degree of consolidation is expected to be minor.

Processors

17 Currently, all vessel owners that are businesses (corporations) have to file an ownership interest form at renewal, but they do not provide percent ownership for individual shareholders. Vessel owners who are individual partners (husband/wife) would now have to file ownership interest forms and report relative ownership in the vessel. Also, vessels with multiple owners (corporations and individuals) would need to report relative ownership in the vessels. Businesses would continue to file ownership interest listing shareholders but would now need to provide percent of ownership for each shareholder.
Section 4.1.2 identifies some possibility of a geographic redistribution of harvest and landings, to the degree that LEFG permits are consolidated onto WC&AK vessels and that WC&AK vessels tend to have a different geographic distribution than West Coast only participants. Such a redistribution may affect processors (and processing-dependent jobs) that are dependent on the landings in a particular port. Processing companies that purchase through a number of ports would be less affected. Any redistribution of permits among owners is expected to be relatively minor (as described in Section 4.1.2 and the following section on communities), and it is uncertain whether or not there would be a geographic difference in the distribution of the harvesting activity of the owners receiving the permits.

Communities

Geographic distribution. Some increased consolidation of LEFG permits on vessels that participate on the West Coast and in Alaska is expected. The current fleet of WC&AK vessels tends to be distributed somewhat differently than those that participate only on the West Coast, with vessels from Washington and northern Oregon ports being more likely to participate in Alaskan fisheries than vessels from other ports (Tables 4-16). Whether geographic distribution is affected depends on the degree to which WC&AK acquire additional LEFG permits and the geographic area from which those additional LEFG permits come. With respect to consolidation, one of the primary motivations for the action is to allow the harvest of more Alaska IFQ to be consolidated on WC&AK operations, rather than allowing WC&AK operations to consolidate more LEFG permits. Nevertheless, some additional consolidation of LEFG permits may occur. If WC&AK operations acquire LEFG permits from West Coast-only vessels that operate in the same geographic region of the West Coast as the WC&AK operations, then there may be no net geographic impact would be expected. If they acquire permits from other regions on the West Coast, then some geographic redistribution may occur.
Tables 4-16. Counts of vessels by principal port and whether the vessels participated only on the West Coast LEFG fishery or also in Alaskan Fisheries (2012).

<table>
<thead>
<tr>
<th>Port</th>
<th>West Coast Only</th>
<th>West Coast and Alaska Participation</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Puget Sound</td>
<td>-</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>North Washington Coast</td>
<td>8</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>South &amp; Central WA Coast</td>
<td>8</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>Astoria</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Newport</td>
<td>13</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Brookings</td>
<td>9</td>
<td>-</td>
<td>9</td>
</tr>
<tr>
<td>Coos Bay</td>
<td>11</td>
<td>-</td>
<td>11</td>
</tr>
<tr>
<td>Crescent City</td>
<td>3</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Eureka</td>
<td>4</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Fort Bragg</td>
<td>6</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Bodega Bay</td>
<td>2</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>San Francisco (excl. Bodega Bay)</td>
<td>4</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Monterey</td>
<td>5</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Morro Bay</td>
<td>6</td>
<td>-</td>
<td>6</td>
</tr>
<tr>
<td>Santa Barbara</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>84</strong></td>
<td><strong>13</strong></td>
<td><strong>97</strong></td>
</tr>
</tbody>
</table>

With respect to the Alaska IFQ program, there could be some additional consolidation of harvest of Alaska IFQ on WC&AK vessels. Most of the Alaska IFQ consolidation would be expected to occur among existing WC&AK operations (i.e. those constrained by the West Coast LEFG control rule).

**Social Connections.** As discussed in Section 4.1.2, facilitation of seller financing may increase the degree to which buyers known to the seller are sold vessels, increasing social connections and cohesion within the fleet and community under the action alternatives.

**Financial Institutions.** Financial institutions are often part of local fishing communities. Under the action alternatives, financial institutions could lose some business if the control rule criteria have been inhibiting seller financing. Such inhibitions would likely be occurring only where the three-permit limit would be encountered and where means of securing lender interest, other than retaining ownership of the vessel, were not viable or cost effective (e.g. use of a maritime lien).

**Agency Costs**

Currently, to monitor the three permit limit, the agency need only keep track of a list of the individuals with some ownership interest in the permits and in the vessels. Under the action alternatives, the agency would have the additional cost of tracking whether an individual had more or less than a given percent and records would have to be updated each time an individual’s share of ownership changes or a permit is transferred from one vessel to another. The action alternatives may require the tracking of ownership interests through multiple layers. For example, if the ABC Partnership owns 80% of a vessel and Mr. A owns 20% of a vessel but also
owns a share of the ABC Partnership, Mr. A might then be considered to own in excess of 20% of the vessel. Such tracking will also add to program administrative costs.

Prior to the fixed gear sablefish program review, incremental costs associated with this IFQ were likely minimal, although at this time no quantitative assessment of incremental costs has been done. However, the actions being considered during this review process, if recommended and approved, would implement an electronic fish ticket and modify the control rules. These actions may introduce additional incremental costs. For example, implementation of modified control rules could require additional vessel ownership interest forms from some, as well as new database programming requirements that would take time and would require additional funding to implement. These are examples of additional incremental costs that could be tracked and partially recovered through implementation of a cost recovery program.

Chapter 5 References
