

DRAFT FOR NOAA FISHERIES SERVICE REVIEW

**Regulatory Impact Review and Initial Regulatory Flexibility Analysis
for Seven Proposed Amendments to Regulations that Implement the
Halibut and Sablefish IFQ Program**

Date: November 9, 2005

Lead Agency: NOAA Fisheries Service
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Abstract: This document is a Regulatory Impact Review (RIR) and Initial Regulatory Flexibility Analysis (IRFA) for seven proposed actions to amend halibut and sablefish Individual Fishing Quota (IFQ) regulations under the authority of the NOAA Fisheries Service. The preferred alternatives would: (1) allow the use of medical transfers; (2) tighten the criteria allowing the use of hired skippers; (3) add vessel clearance requirements to the sablefish IFQ fisheries in the Bering Sea and Aleutian Islands regulatory areas; (4) change the sablefish product recovery rate for bled sablefish to 1.0; (5) amend the halibut quota share (QS) block program to: a) increase the block limit to three, unless unblocked QS is held; b) unblock QS in excess of 69,492 QS units in Area 3B and 93,404 QS units in Area 4A from a single block; and c) increase the sweep-up limits to 33,320 units in Area 2C and 46,520 units in Area 3A; (6) allow IFQ derived from category D QS to be fished on category C vessels in Areas 3B and 4C; and (7) eliminate the exception that prohibits IFQ derived from category B QS to be used on vessels greater than 60 ft for halibut in Area 2C and sablefish in the Southeast Outside District. None of the proposed actions are expected to have the potential to result in a “significant action,” as defined in Executive Order 12866, or result in adverse impacts on directly regulated small entities, as defined in the Regulatory Flexibility Act.

Comment Due Date: A public comment period will be announced by NOAA Fisheries Service in the proposed rule.

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Acronyms and Abbreviations

ABC	allowable biological catch
AD	Administrative Determination
AI	Aleutian Islands
BS	Bering Sea
BSAI	Bering Sea and Aleutian Islands
CDQ	Community Development Quota
CFEC	State of Alaska Commercial Fisheries Entry Commission
CFR	Code of Federal Regulations
Council	North Pacific Fishery Management Council
EEZ	exclusive economic zone
EMT	Emergency Medical Transfer
EO	Executive Order
FMP	Fishery Management Plan
FR	Federal Register
ft	feet
GOA	Gulf of Alaska
IFQ	Individual Fishing Quota
IPHC	International Pacific Halibut Commission
IRFA	Initial Regulatory Flexibility Analysis
lb	pound(s)
LOA	length overall
mt	metric ton(s)
NMFS	National Marine Fisheries Service
RAM	Restricted Access Management Program
NOAA Enforcement	National Oceanic and Atmospheric Administration, Office of Law Enforcement
NPFMC	North Pacific Fishery Management Council
PRR	product recovery rate
QS	quota share
RA	Regional Administrator
RFA	Regulatory Flexibility Act
RIR	Regulatory Impact Review
TAC	total allowable catch
VMS	vessel monitoring system

Executive Summary

Proposed amendments to the halibut and sablefish fishery regulations would address seven issues pertaining to the Individual Fishing Quota (IFQ) Program for fixed gear Pacific halibut and sablefish fisheries in and off Alaska. In December 2004, the North Pacific Fishery Management Council identified its preferred alternatives for the seven proposed actions as follows:

(1) Allow the use of medical transfers.

Current regulations require catcher vessel quota share (QS) holders to be aboard the vessel during harvest and offloading of IFQ species. The IFQ program does not have medical transfer provisions. Therefore, QS holders who experience a legitimate medical emergency that prevents them from fishing their IFQS are left without the ability to temporarily transfer them. In light of loan repayment obligations and financial dependence on the IFQ program, fishermen who are not allowed to hire a skipper must often divest themselves of QS. This analysis reviews the status quo and the preferred alternative to allow emergency medical transfers of an IFQ permit, if the applicant meets specified requirements related to eligibility, the nature of the exemption, limit on transfers, justification for an emergency medical transfer, evidence of the qualifying medical condition. An application and appeals process would be outlined in the regulations. The preferred alternative likely would increase economic efficiency and operational flexibility for halibut fishermen. It requires an amendment to the halibut and sablefish IFQ regulations.

(2) Tighten the criteria allowing the use of hired skippers.

An exception to the “owner onboard” regulatory requirement, which stipulates that QS holders must be onboard the vessel on which catcher vessel QS is being fished, was created to allow the use of a “hired skipper” by persons who received QS allocations at the time the IFQ program was established. However, the Council continues to be concerned about alleged abuses of this regulatory provision. This analysis reviews the status quo and alternatives to further limit the use of the hired skipper exception. In addition to the current regulatory requirement that QS holders must demonstrate at least a 20 percent ownership interest in a vessel to use a hired skipper on that same vessel, the preferred alternative would require an abstract of title that documented continuous ownership in the vessel, upon which the hired skipper is used, for the previous 12 months. Further, the Council recommended that replacement of a vessel be allowed in the case of a constructive loss. The preferred alternative would address the Council’s goal for the IFQ program of maintaining an owner-operated fleet. It requires an amendment to the halibut and sablefish IFQ regulations.

(3) Add vessel clearance requirements to the Bering Sea and Aleutian Islands sablefish fishery.

Current regulations require fishing location in the sablefish fishery to be self-reported. This analysis reviews the status quo and the preferred alternative to require vessels in the Bering Sea and Aleutian Islands sablefish fishery to either check-in/check-out or use a vessel monitoring system to verify fishing locations. The preferred alternative addresses concern about misreporting. It would enhance accuracy of catch accounting and enforcement of regulations that require IFQ to be harvested from the specified regulatory area to which it was allocated. It requires an amendment to the sablefish IFQ regulations.

(4) Amend the sablefish product recovery rate for bled sablefish.

Current regulations apply a product recovery rate of 0.98 to all sablefish intentionally bled upon landing. This rate is used to calculate the equivalent ‘round’ weight to be attributed to a harvest allocation. However, industry has proposed that the rate is inaccurate and therefore may be compromising accurate catch accounting, providing a disincentive for fishermen to bleed fish, and reducing the quality of fish delivered. NOAA Fisheries Service staff has reported that the rate is accurate and is used to enhance accuracy of catch accounting. This analysis reviews the status quo and alternatives to change the product recovery rate. The preferred alternative would revise the rate from 0.98 to 1.0 for bled sablefish, effectively eliminating the

product recovery rate for sablefish. The Council set its policy for accounting of bled sablefish, weighing the increased economic efficiencies for halibut fishermen over inaccurate catch accounting. It requires an amendment to the regulations that implement groundfish product recovery rates.

(5) Amend the halibut block program.

At initial implementation, all halibut QS holdings in a regulatory area that yielded less than 20,000 lb, based on the 1994 catch limits, were issued as an indivisible block. The regulations limit the ownership of halibut QS to two blocks per person in a regulatory area (or one block and any amount of unblocked QS). Small blocks may be consolidated into one, up to a maximum number of QS units. However, halibut QS holders have reported that existing block and sweep-up restrictions are cumbersome. This analysis reviews the status quo and four alternatives to the existing requirements. One alternative would increase block limits, two alternatives would ease restrictions on blocks yielding greater than 20,000 lb based on the 2003 TACs, and a fourth would increase sweep-up limits for Pacific halibut in Areas 2C and 3A. The Council has made three recommendations under this preferred alternative. The first would increase the number of QS blocks that may be held by a person in each regulatory area to 3 blocks, unless unblocked QS is held, in which case the limit is one block. The second would divide all QS blocks in Areas 3B and 4A which yield more than 20,000 lb, based on the 2004 TACs, into one block of 20,000 lb with the remainder as unblocked QS. This proposed exception to the current block limits would no longer be in effect for a QS holder once one of his/her two blocks are transferred. The third would increase the Areas 2C and 3A halibut sweep-up level to a 5,000 lb equivalent in 1996 QS units. These preferred alternatives are likely to increase economic efficiency and operational flexibility for halibut fishermen. They require amendments to the halibut IFQ regulations.

(6) Amend halibut quota share categories.

The IFQ program was designed to restrict the harvest of IFQ assigned to a particular QS category to a specific vessel size class. Regulations currently require that category D QS be fished on a vessel of 35 ft or less. However, halibut fishermen have identified safety concerns when fishing on small vessels in western Alaska. These concerns could be alleviated by relaxing restrictions on category D QS. This analysis reviews the status quo and three alternatives to the existing requirements. Two alternatives would allow category D QS to be fished on vessels less than or equal to 60-ft LOA, and one alternative would allow category D QS to be fished on vessels of any size. The preferred alternative would allow category D QS to be fished on vessels less than or equal to 60-ft LOA in Areas 3B and 4C only. This preferred alternative would likely increase the catch of IFQ derived from category D QS in Area 4C, which has been low in recent years, and may address reported safety concerns in Area 3B. The preferred alternative requires an amendment to the halibut IFQ regulations.

(7) Amend fish down regulations.

Current regulations permit category B QS to be fished only from a vessel 60 ft or greater. In 1996, the regulations were revised to allow category B QS to be fished on vessels less than 60-ft LOA (i.e., “fish down”). At that time, certain QS holdings in the Southeast Outside District sablefish and Area 2C halibut fisheries were identified as ineligible for “fish down” to ensure that category B QS would be available to vessels 60 ft or greater. However, some fishermen have recently identified this prohibition as unnecessary, inefficient, and burdensome. This analysis reviews the status quo and the preferred alternative to allow category B QS to be fished on a vessel of any length. The preferred alternative would likely increase the marketability and value of unblocked and larger blocks of category B QS. It requires an amendment to the halibut and sablefish IFQ regulations.

1.0 Introduction

This document contains the Regulatory Impact Review (RIR) and Initial Regulatory Flexibility Analysis (IRFA) for seven proposed amendments to regulations that describe management of Pacific halibut Individual Fishing Quota (IFQ) fisheries in North Pacific Halibut Convention waters in and off Alaska, and sablefish IFQ fisheries in the Bering Sea and Aleutian Islands (BSAI) and Gulf of Alaska (GOA) Federal waters off Alaska.

The proposed actions are the result of two solicitations by the North Pacific Fishery Management Council (Council) for proposals from the public in 1999 and 2003. Proposals were reviewed by the IFQ Implementation Team in 1999, and 2003, and recommendations were forwarded to the Council. Seven proposed actions to amend the halibut and sablefish IFQ program were approved for analysis, in December 2003. The proposed actions are: (1) allow the use of medical transfers; (2) tighten the criteria allowing the use of hired skippers; (3) add check-in/check-out or vessel monitoring systems to the Bering Sea and Aleutian Islands sablefish fisheries; (4) amend the sablefish product recovery rate for bled sablefish; (5) amend the halibut quota share (QS) block program; (6) amend halibut quota share categories; and (7) amend fish down regulations. Each action is addressed individually, by chapter, with the RIR analysis preceding the IRFA.

1.1 Management Authority

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

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

1.2 Requirements of a Regulatory Impact Review

The RIR is required under Presidential Executive Order (EO) 12866 (58 FR 51735; October 4, 1993). The requirements for all regulatory actions specified in EO 12866 are summarized in the following statement from the order:

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

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

- Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, local or tribal governments or communities;
- Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

- Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
- Raise novel legal or policy issues arising out of legal mandates, the President’s priorities, or the principles set forth in this Executive Order.

1.3 Requirements of a Regulatory Flexibility Analysis

The Regulatory Flexibility Act (RFA), first enacted in 1980, and codified at 5 U.S.C. 601, et. seq., was designed to place the burden on the government to review all regulations to ensure that, while accomplishing their intended purposes, they do not unduly inhibit the ability of small entities to compete. The RFA recognizes that the size of a business, unit of government, or nonprofit organization frequently has a bearing on its ability to comply with a Federal regulation. Major goals of the RFA are: 1) to increase agency awareness and understanding of the impact of their regulations on small business; 2) to require that agencies communicate and explain their findings to the public; and 3) to encourage agencies to use flexibility and to provide regulatory relief to small entities.

The RFA emphasizes predicting significant adverse impacts on small entities as a group distinct from other entities and on the consideration of alternatives that may minimize the impacts, while still achieving the stated objective of the action. When an agency publishes a proposed rule, it must either, 1) “certify” that the action would not have a significant adverse effect on a substantial number of small entities, and support such a certification declaration with a “factual basis,” demonstrating this outcome, or, 2) if such a certification cannot be supported by a factual basis, prepare and make available for public review an Initial Regulatory Flexibility Analysis (IRFA) that describes the impact of the proposed rule on small entities.

Based upon a preliminary evaluation of the seven proposed IFQ actions, it appears that “certification” would not be appropriate. Therefore, an IRFA has been prepared for each action. Analytical requirements for the IRFA are described below in more detail.

The IRFA must contain:

1. A description of the reasons why action by the agency is being considered;
2. A succinct statement of the objectives of, and the legal basis for, the proposed rule;
3. A description of, and where feasible, an estimate of the number of small entities to which the proposed rule will apply (including a profile of the industry divided into industry segments, if appropriate);
4. A description of the projected reporting, record keeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities that will be subject to the requirement and the type of professional skills necessary for preparation of the report or record;
5. An identification, to the extent practicable, of all relevant Federal rules that may duplicate, overlap, or conflict with the proposed rule;
6. A description of any significant alternatives to the proposed rule that accomplish the stated objectives of the Magnuson-Stevens Act and any other applicable statutes, and that would minimize any significant adverse economic impact of the proposed rule on small entities. Consistent with the stated objectives of applicable statutes, the analysis shall discuss significant alternatives, such as:
 - a. The establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities;
 - b. The clarification, consolidation or simplification of compliance and reporting requirements under the rule for such small entities;
 - c. The use of performance rather than design standards;
 - d. An exemption from coverage of the rule, or any part thereof, for such small entities.

The “universe” of the entities to be considered in an IRFA generally includes only those small entities that can reasonably be expected to be directly regulated by the proposed action. If the effects of the rule fall primarily on a distinct segment of the industry, or portion thereof, (e.g., user group, gear type, geographic area), that segment would be considered the universe for purposes of this analysis.

In preparing an IRFA, an agency may provide either a quantifiable or numerical description of the effects of a proposed rule (and alternatives to the proposed rule), or more general, descriptive statements if quantification is not practicable or reliable.

Definition of Small Entities

The RFA recognizes and defines three kinds of small entities: 1) small businesses; 2) small nonprofit organizations; and 3) small government jurisdictions. Only small businesses are directly regulated by any of the seven proposed IFQ actions.

Section 601(3) of the RFA defines a “small business” as having the same meaning as a “small business concern,” which is defined under Section 3 of the Small Business Act. A “small business” or “small business concern” includes any firm that is independently owned and operated and does not dominate in its field of operation. The U.S. Small Business Administration (SBA) has established size criteria for all major industry sectors in the U.S., including fish harvesting and fish processing businesses. A business “involved in fish harvesting” is a small business if it is independently owned and operated and not dominant in its field of operation (including its affiliates), and if it has combined annual receipts not in excess of \$3.5 million for all its affiliated operations worldwide. A seafood processor is a small business if it is independently owned and operated, not dominant in its field of operation (including its affiliates) and employs 500 or fewer persons, on a full-time, part-time, temporary, or other basis, at all its affiliated operations worldwide. A business involved in both the harvesting and processing of seafood products is a small business if it meets the \$3.5 million criterion for fish harvesting operations. A wholesale business servicing the fishing industry is a small business if it employs 100 or fewer persons on a full-time, part-time, temporary, or other basis, at all its affiliated operations worldwide.

NOAA Fisheries has defined all halibut and sablefish vessels as small businesses, for the purpose of this analysis. In 2003, 1,338 unique vessels made IFQ halibut landings, and 409 unique vessels made sablefish landings. The number of small entities operating as fishing vessels in the IFQ Program may be deduced from certain restrictions the program places on those vessels. The IFQ program limits the amount of annual IFQ that may be landed from any individual vessel. A vessel may be used to land up to one half percent (0.5 percent) of all halibut IFQ TAC, or up to 1.0 percent of all sablefish TAC. In 2003, these limits were 295,050 lb of halibut (headed and gutted weight) and 348,635 lb of sablefish (round weight).

NOAA Fisheries annually publishes “standard prices” for halibut and sablefish that are estimates of the ex-vessel prices received by fishermen for their harvests. NOAA Fisheries uses these prices for calculating permit holder cost recovery fee liabilities. In 2003, these price data suggested that the prevailing prices might have been about \$2.92 per pound for halibut (headed and gutted weight), and \$2.36 per pound for sablefish (round weight) (68 FR 71036). In combination, these harvest limits and prices imply maximum ex-vessel revenues of about \$1.68 million (for halibut and sablefish taken together).

While some of the operations considered here participate in other revenue generating activities (e.g., other fisheries), the halibut and/or sablefish fisheries likely represent the largest single source of annual gross receipts for these operations. Based upon available data, and more general information concerning the probable economic activity of vessels in these IFQ fisheries, no vessel subject to these restrictions could have been used to land more than \$3.5 million in combined gross receipts in 2003 (the maximum gross revenue threshold for a “small” catcher vessel, established by SBA under RFA rules). Therefore all halibut and sablefish vessels have been assumed to be “small entities,” for purposes of the IRFAs. This simplifying

assumption likely overestimates the true number of small entities, since it does not take account of vessel affiliations, owing to an absence of reliable data on the existence and nature of these relationships.

1.4 Structure of the IFQ Program

The IFQ Program is a limited access system for managing the fixed gear Pacific halibut (*Hippoglossus stenolepis*) in the North Pacific Halibut Convention waters in and off Alaska, and sablefish (*Anoplopoma fimbria*) fisheries in waters of the Exclusive Economic Zone off Alaska.

The North Pacific Fishery Management Council (Council), under authority of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) and the Northern Pacific Halibut Act of 1982, adopted the IFQ Program in 1991, and implementing regulations were published in the *Federal Register* on November 9, 1993 (58 FR 59375). Fishing began under the program in 1995.

The program was designed to reduce excessive fishing capacity, while maintaining the social and economic character of the fixed gear fishery and the coastal communities where many of these fishermen are based; to allocate specific harvesting privileges among U.S. fishermen; to resolve management and conservation problems associated with “open access” fishery management; and to promote the development of fishery-based economic opportunities in western Alaska. The IFQ approach was chosen to provide fishermen with the authority to decide how much and what types of investment they wished to make to harvest the resource. By guaranteeing access to a certain amount of the total catch at the beginning of the season, and by extending the season over a period of eight months, those who held the IFQ could determine where and when to fish, how much gear to deploy, and how much overall investment in harvesting to make. The development and design of the halibut and sablefish IFQ fishery are described in Pautzke and Oliver (1997), Hartley and Fina (2001a, b), and the annual *Report to the Fleet* (NOAA Fisheries 2003a, in prep.).

Design of the IFQ Program

The purpose of the program was to provide for improved long-term productivity of the sablefish and halibut fisheries by further promoting the conservation and management objectives of the MSA and the Halibut Act, and to retain the character and distribution of the fishing fleets as much as possible. The Council needed to address the issue of protecting small producers, part-time participants, and entry-level participants who may tend to be squeezed out of the fisheries because of potential excessive consolidation under the IFQ program. For this reason, the system includes restrictions designed to prevent too many quota shares from falling into too few hands (ownerships caps) or from being fished on too few vessels (vessel use caps).

Other restrictions are intended to prevent the fishery from being dominated by large boats or by any particular vessel class. Quota shares (QS) were initially assigned to vessel categories based on vessel size and kind of fishery operation (Table 1.1). QS are issued specifically to a vessel class and to an IFQ regulatory area. There are eight areas (Figure 1.1) and four vessel categories for halibut, and six areas (Figure 1.2) and three vessel categories for sablefish.

Table 1.1 Vessel categories at initial allocation

Category	Vessel type	Vessel length
A	freezer vessels	any length
B	catcher vessels	> 60 ft
C	catcher vessels	sablefish: ≤ 60 ft halibut: ≤ 60 ft but > 35 ft
D	catcher vessels	halibut: ≤ 35 ft

Figure 1.1 IFQ regulatory areas for Pacific halibut

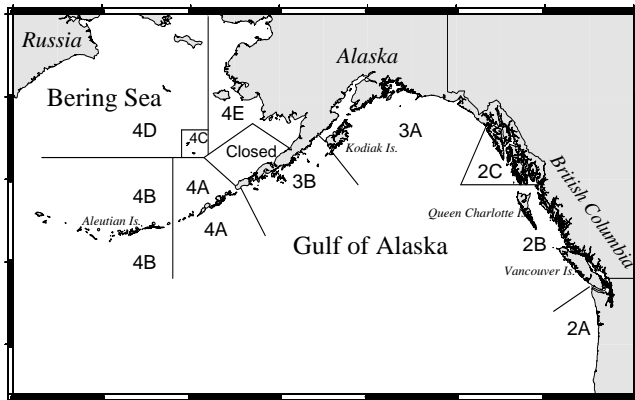
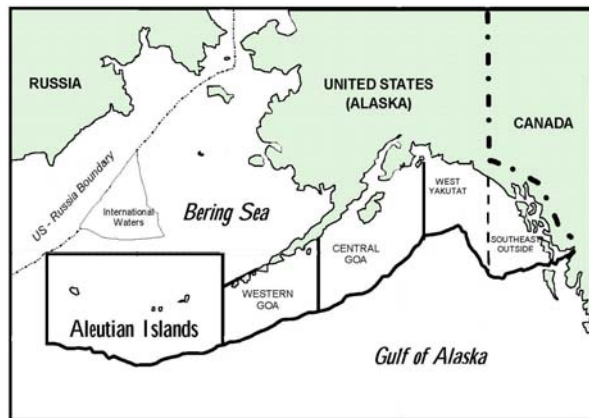


Figure 1.2 IFQ regulatory areas for sablefish



The Council also designed a “block program,” to further guard against excessive consolidation of QS and consequent social impacts on the fishery and dependent communities. The block program reduced the amount of QS consolidation that could have occurred under the IFQ program, and slowed consolidation by restricting QS transfers. The following are provisions of the block program.

- All initial QS allocations for both halibut and sablefish, which would have yielded less than 20,000 lb of IFQ in 1994, were placed permanently in a QS block. Blocks are not divisible and can only be bought or transferred in their entirety.
- A sweep-up provision allows very small blocks to be combined into a fishable amount. For halibut, blocks could be combined if the sum total would not exceed an amount of QS equal to 1,000 lb of IFQ in 1994. The same provision applies to sablefish, except that the poundage cap was set at 3,000 lb. In 1996, the sweep-up consolidation levels for small QS blocks were increased to 3,000 lb for Pacific halibut, and 5,000 lb for sablefish. The base year for determining the pound equivalents was revised to 1996 and the poundages were fixed as QS unit equivalents. This was to eliminate any confusion as to the appropriate sweep up level in pounds, which otherwise would fluctuate with changes in the annual TAC.
- Block restrictions limit a QS holder to hold up to two blocks of QS each for halibut and sablefish per IFQ regulatory area. However, if a QS holder holds any amount of unblocked QS for an area, he or she may hold only one block of QS for that area.

An amendment to the IFQ program in 1996, relaxed the restrictions on using QS across vessel categories. The ‘fish down’ amendment, as it was termed, allowed QS deriving from larger catcher vessels to be fished on smaller vessels, with an exception in Southeast Alaska:

- Category B authority to harvest IFQ species on a vessel of any length (except in halibut Area 2C or sablefish Southeast Outside District, unless the IFQ derives from blocked QS units that results in less than 33,321 halibut QS units or 33,271 sablefish QS units)
- Category C authority to harvest IFQ species on a vessel less than or equal to 60-ft LOA
- Category D authority to harvest IFQ halibut on a vessel less than or equal to 35-ft LOA

Another design feature of the IFQ program was to require that, for the most part, holders of IFQ be onboard at the time of harvest. To maintain this predominantly “owner-operated” nature of the fishery, the program provides that:

- Only QS holders who received their quota upon initial issuance may hire skippers to fish the resulting IFQ. In Southeast Alaska (for halibut, Area 2C and for sablefish, east of 140 degrees west longitude), only corporations or partnerships that received their QS on initial issuance may hire masters.

- When QS is transferred, it may only be transferred to an entity that received an initial award of QS or to an individual who is a qualified crew member. If QS is transferred to an individual, then that individual must be on board while the IFQ is being fished.

History of IFQ Amendments

Since initial implementation, the Council has made numerous amendments to the halibut and sablefish IFQ program which have relaxed the restrictions that enacted the Council's policy. This may be reasonable given that the Council, in adopting the IFQ program, recognized the need to place tight restrictions on what was then a revolutionary approach to fisheries management with unknown economic and social consequences. As the fishery adjusted to the new program, the design was modified to increase efficiency without compromising the overall goals. However, the Council remains aware of the cumulative effects of each incremental adjustment on its original intent for the program.

Community Development Quota (CDQ) Compensation. This regulatory amendment authorized a one-time trade of QS/IFQ received under the CDQ compensation formula between parties in different regulatory areas. The Council subsequently exempted the CDQ compensation "pieces" of QS/IFQ from the provisions of the block amendment, except for freezer/longline vessels, and allowed for a one-time trade of these pieces, exempt from the vessel category designations. The final rule was effective in February 1996.

Catch Sharing Plan. In December 1995, the Council approved a Catch Sharing Plan for the IPHC subareas of Area 4 in the BSAI. The action allowed shifts, without a plan or regulatory amendment, in the percentages of halibut distributed to the various areas. The final rule took effect in March 1996. In 1998, the Catch Sharing Plan was amended to remove Areas 4A and 4B, and to apply an annual framework for allocations to Areas 4C, 4D, and 4E, based on historic apportionment. Due to lack of stock separation among the areas, the IPHC sets a catch limit for combined Areas 4C, 4D, and 4E. The final rule took effect in March 1998. In 2001, the Council blurred the boundary between Areas 4D and 4E by allowing CDQ halibut allocations in Area 4D to be harvested in Area 4E. The final rule took effect in March 2003.

Multiple Area Fishing. An interim rule, effective August 25, 1995, allowed vessels to fish IFQs in multiple areas without offloading, so long as there is an observer onboard.

Catcher Vessel QS Use on Freezer Boats. The Council reaffirmed, in June 1994, that catcher vessel QS/IFQ for sablefish (but not halibut) can be used on freezer vessels, so long as no processed IFQ product is on board for that trip. This allowed freezing of non-IFQ species such as Pacific cod and rockfish, while harvesting sablefish catcher vessel QS on a freezer vessel. The final rule became effective in July 1996.

Fish down of QS. In January 1996, the Council approved an amendment wherein catcher vessel QS could be used on vessels of the same size class or smaller. It addresses the need for increased flexibility of halibut and sablefish QS transfers for Category B, C, and D vessels to alleviate a scarcity of large to medium size blocks in some areas. It allows the use of larger vessel QS (Category B and C) on smaller category vessels (vessels 60-ft LOA and smaller), except that in halibut Area 2C and sablefish Southeast Outside, fish down of category B QS is allowed only for blocks of less than 5,000 lb (based on 1996 TACs). The final rule became effective August 1996.

Sweep-up of QS Blocks. In April 1996, the Council increased the sweep-up levels of halibut and sablefish QS blocks to 3,000 lb for halibut, and 5,000 lb for sablefish. The increased level of consolidation of very small, blocked QS was approved to provide economically fishable amounts for small QS holders, crew members, and new entrants to the fishery, without overly increasing consolidation or creating large blocks. The final rule became effective for December 1996.

Slime and Ice Deduction. In December 1996, the Council approved a regulatory amendment to create standard deductions for ice and slime for halibut and sablefish, to standardize accounting of harvests. The

Council recommended standard deductions for halibut and sablefish of 0 percent (washed) and 2 percent (for ice and slime). The final rule became effective December 1997.

Longlining of Pots for Sablefish in Bering Sea. In April 1996, the Council approved a regulatory amendment to allow the use of pot longlines in the Bering Sea for sablefish. Pots no longer have to be on single buoyed lines, and are compatible with the regulations as they exist in the Aleutians Islands. The final rule became effective in September 1996.

Emergency Transfers to Heirs. In September 1995, the Council approved authorization for immediate transfer of IFQ to a surviving spouse, with leasing provisions for a period of three years. The final rule took effect September 9, 1996. In June 1997, the Council amended the provision to allow transfer of QS, upon death of the QS owner, to any heir of the deceased's estate, under a 3-year emergency provision.

Hired Skipper Requirements. In October 1997, the Council required a minimum 20 percent ownership interest in a vessel for QS holders wishing to hire skippers. The Council also grandfathered QS holders who had employed a hired skipper on or before April 17, 1997, to continue to use a hired skipper at the ownership level they had used prior to April 17, 1997. Any QS holder grandfathered under this provision will lose their right to hire a skipper if they purchase or otherwise acquire ownership or control of additional QS, after September 23, 1997. The final rule was effective June 1999. In November 1998, the Council modified the hired skipper provisions to allow QS holders wishing to hire skippers to establish indirect vessel ownership through corporate ties. The final rule became effective May 2002.

Increased Quota Share Use Level in BSAI. In June 1996, the Council approved a regulatory amendment to increase the BSAI halibut QS use cap to 1.5 percent, from the previously existing limit of 0.5 percent, of the total amount of halibut QS for regulatory areas 4A, 4B, 4C, 4D, and 4E, combined. The final rule became effective in March 1997.

Halibut Charter IFQ Program. In April 2001, the Council approved a program that would incorporate the charter sector into the commercial halibut IFQ program. Among its many provisions and restriction, QS would have limited transferability between the charter and commercial sectors. The proposed rule is under development by NOAA Fisheries.

Community QS Purchase. In April 2002, the Council approved 42 Gulf of Alaska coastal communities as eligible to hold commercial halibut and sablefish catcher vessel QS in Areas 2C, 3A, and 3B, for lease to community residents. Specified rural, coastal communities with no road access, populations of fewer than 1,500, and documented participation in the halibut and/or sablefish fisheries, would be allowed to hold a maximum of 3 percent of the Area 2C, 3A, or 3B halibut QS and 3 percent of the Southeast Outside, West Yakutat, Central GOA, or Western GOA sablefish QS, in each of the first seven years of the program, with a 21 percent total cap by area, unless modified earlier through a review process specified by the Council. The final rule became effective in April 2004.

1.5 Description of the Fishery

A detailed description of the fishery can be found in the *Report to the Fleet*, prepared annually by the Restricted Access Management Program, NOAA Fisheries Alaska Region (NOAA Fisheries 2003a, in prep.). The information below is taken from these reports.

In 2003, approximately 59 million pounds of halibut were allocated among halibut QS holders in the eight halibut IFQ regulatory areas. In that year, 38 million pounds of sablefish were allocated among sablefish QS holders in the six sablefish IFQ regulatory areas. Ninety-seven percent of the halibut harvest was achieved across all areas, and 88 percent of the sablefish harvest. Table 1.2 shows the number of unique QS holders, by regulatory area, for halibut and sablefish. While 102 persons hold Area 4E halibut QS, no IFQs are awarded to this area, as the entire Area 4E allocation is made to the western Alaska CDQ Program.

Table 1.2 Number of Persons holding halibut and sablefish QS in 2004. NOTE: Counts are not additive across areas. Data as of September 15, 2004. Source: NOAA Fisheries RAM.

Halibut	Area	Number of Persons
	2C	1,413
	3A	1,885
	3B	558
	4A	275
	4B	107
	4C	62
	4D	49
	4E	102
	TOTAL	3,349

Sablefish	Area	Number of Persons
	Southeast Outside	461
	West Yakutat	281
	Central GOA	421
	Western GOA	172
	Aleutian Islands	97
	Bering Sea	112
	TOTAL	874

A total of 1,338 vessels participated in the halibut fishery and 409 sablefish vessels participated in the sablefish fishery (some of these vessels may have participated in both fisheries) in 2003. Table 1.3 illustrates the relative size of participating vessels in the halibut and sablefish fisheries, across the regulatory areas. In the halibut fishery, less than 10 percent of the annual harvest in any regulatory area is allocated to vessels that are allowed to process onboard (i.e., those with category A QS). In the sablefish fishery, 38-56 percent of QS is allocated to freezer longliner vessels in the Bering Sea, Aleutian Islands, and western GOA, although in the central and eastern GOA, only 7-16 percent of sablefish IFQ may be processed onboard.

The *Alaska Groundfish Fisheries Programmatic Supplemental Environmental Impact Statement* (NOAA Fisheries 2004) contains a detailed description of the sablefish fishery. Relevant details of the halibut and sablefish fisheries are also discussed under the analyses of the individual actions, in the following chapters.

Table 1.3 Vessels participating in the halibut and sablefish fisheries in 2003, by size and area. NOTE: Counts are not additive across areas. Source: NOAA Fisheries RAM.

Halibut	Area	Number of Vessels			
		0-35'	36-60'	61-125'	126' or more
	2C	257	427	22	0
	3A	175	437	96	2
	3B	37	208	78	5
	4A	29	45	36	4
	4B	3	17	21	3
	4C	5	10	7	0
	4D	0	9	16	1

Sablefish	Area	Number of Vessels			
		0-35'	36-60'	61-125'	126' or more
	Southeast Outside	6	204	38	2
	West Yakutat	1	87	46	1
	Central GOA	7	129	63	5
	Western GOA	2	36	29	7
	Aleutian Islands	4	15	19	6
	Bering Sea	4	20	14	6

2.0 Action 1: Amend regulations to allow medical transfers

Numerous appeals for medical hardship relief have been raised with the Council and NOAA Fisheries since the IFQ program was implemented in 1995. Stories of injured or sick IFQ holders being transported on and off fishing vessels to meet “owner-on-board” requirements have been reported. Without the allowance to temporarily transfer their IFQs, QS holders who are confronted with a legitimate medical emergency often must sell their QS to generate income. Creative accountings have been reported, anecdotally, whereby an injured or ill QS holder will sell his/her QS to a friend or family member, with the understood provision that those QS would be sold back to the original QS holder, once she or he recuperated to where she or he could be aboard the fishing vessel.

A proposal to allow medical transfers was adopted for analysis by the Council in December 2003. The proposed action would assist the fleet in achieving optimum yield from the resource, whereby halibut or sablefish IFQs would not be left unharvested because of this regulatory prohibition.

2.1 Problem and management objectives for the action

The Council adopted the following problem statement for this action in June 2004.

The IFQ program does not have medical transfer provisions. Quota share holders who experience a legitimate medical emergency that prevents them from fishing their quota are left without the ability to temporarily transfer quota shares. In light of loan repayment obligations and financial dependence on quota shares, fishermen who do not have the ability to hire a skipper are left with no option but to divest themselves of quota shares.

2.2 Management Action Alternatives

Alternative 1 No action.

The regulations currently allow only a very narrow exemption for the transfer of QS in an emergency medical situation that occurs at sea during a fishing trip. An emergency transfer only allows the permit to be temporarily fished by someone other than the permit holder. Typically, the exception applies to a situation requiring a medical evacuation or other rescue scenario, where an IFQ cardholder must be transferred from the vessel during fishing. The pertinent regulations at 50 CFR 679.42(d) read as follow:

(d) Emergency waiver. The requirement of paragraph (c) of this section for an individual IFQ card holder to be aboard the vessel during fishing operations and to sign the IFQ landing report may be waived in the event of extreme personal emergency involving the IFQ user during a fishing trip. The waiving of these requirements shall apply only to IFQ halibut or IFQ sablefish retained on the fishing trip during which such emergency occurred.

Emergency medical transfers (EMT) were originally prohibited, due to the overarching IFQ policy of maintaining a fishing fleet of owner-operators. Initial proposals for a medical transfer provision were rejected based on the potential for abuse and the lack of technical expertise at NOAA Fisheries to determine medical disability.

During the implementation of the IFQ program, affected parties petitioned for an emergency transfer provision analogous to the State of Alaska’s program, found at 20 AAC 05.1740. The State provides for an elaborate system that requires a qualitative determination of “illness, disability, or other unavoidable hardship” under the administrative authority of the Commercial Fisheries Entry Commission (CFEC). The State also allows for further qualitative determinations of severity of injury, “good faith,” and “extraordinary circumstances.”

The Council and some affected parties generally agreed that the State system had been subject to abuse and required an inordinate amount of administrative resources to maintain. Nonetheless, advocates argued compellingly that emergency transfers were necessary to address situations where QS holders would be unable to be on board a vessel during fishing, due to serious medical conditions such as cancers, broken bones, etc.

The IFQ Implementation Team expressed great concern that flagrant abuses of the kind encountered under the State system should be avoided under the IFQ program; however, they recognized that genuine emergencies do arise. In April 1995, the Team unanimously recommended the following policy statement to the Council. The Team also unanimously recommended that the emergency transfer involve IFQ, and not QS.

“If a person can demonstrate to the Regional Director (*sic*) that due to some unforeseen accident, injury, or illness, he has been rendered incapacitated in his ability to longline, he may be allowed a one-time medical transfer provided the RD feels there is insufficient time before the season’s closure for recovery to harvest all or part of his quota share. Consideration by the RD will take into account vessel size and fall weather limitations, accordingly.

Medical documentation shall be satisfactory to NMFS in making impairment determination. Chronic injuries such as “bad backs,” or aging ailments such as arthritic crippling, loss of vision or hearing, do not constitute grounds for medical transfer. Incarceration does not constitute grounds for medical transfer. The onetime transfer provision may last for a period of no more than two fishing seasons. Decisions by the RD to allow transfers are final and not subject to further appeal.

Justification: The integrity of the IFQ system. If we can not produce a mechanism for medical transfer that has clear legitimacy, then the Council should consider either no transfer of QS or revisit leasing as a provision.”

In September 1995, the Council recommended that the Regional Administrator framework a number of regulatory changes, including allowing the use of medical transfers. The Council recommendation was to request that the RA use his discretionary authority to grant medical transfers. Proposed regulatory language stipulated that “. . . the Regional Director (*sic*) may approve the application for transfer of a person’s IFQ if it can be demonstrated that the person is presently unable to participate actively in the IFQ fisheries because of illness, disability, or other unavoidable hardship of a temporary, unexpected, and unforeseen nature.” The draft regulation would have provided that the “transfer” will remain “effective until the circumstance that made the transfer necessary are over . . .” The RA disapproved the action in March 1996, because NOAA Fisheries did not have the expertise or the resources to make emergency transfer provisions a viable part of the IFQ program using discretionary authority.

Alternative 2 Allow medical transfers

Policy Element	Comment
<p>Eligibility for Benefit: Only individual halibut or sablefish QS holders to whom one or more catcher vessel IFQ permit(s) has been issued for any given fishing year, and only those who may not retain the services of a master (hire a skipper) to fish his/her annual IFQ permits, may apply for an Emergency Medical Transfer (EMT).</p>	<p><i>Exemption is intended only for those who have no other options for getting their IFQ permit fished; e.g., “2nd Generation” QS/IFQ holders, individuals holding QS/IFQ in Area 2C and SE, and IFQ Loan Program borrowers.</i></p>
<p>Nature of Benefit: Upon approval of an application to receive an EMT, an eligible individual QS/IFQ permit holder may transfer his/her annual IFQ permit to an eligible recipient; i.e., only an individual who is otherwise eligible to receive catcher vessel QS/IFQ by transfer (individuals who received QS upon initial issuance and individuals who are “IFQ Crew members”).</p>	<p><i>Transferees must be eligible to receive catcher vessel IFQ by transfer.</i></p>
<p>Limitation: Approval of an application for an EMT will be valid only during the calendar (permit) year for which the permit(s) is issued. An application for an EMT in subsequent years, for the same medical condition, will not be approved unless a medical professional attests that there is a reasonable likelihood of recovery. An individual halibut or sablefish quota share holder will not be granted an emergency medical transfer if the individual has been granted an emergency medical transfer in: Option 1. three of the previous six years Option 2. two of the previous five years</p>	<p><i>The maximum three-year limit is consistent with the “surviving spouse” language; chronic or irreversible conditions may not justify an EMT for more than one year.</i></p>
<p>Justification for an EMT: An application for an EMT will not be approved unless the applicant demonstrates that:</p> <ul style="list-style-type: none"> • She or he is unable to participate in the IFQ fishery(ies) for which she or he holds IFQ permit(s) because of a severe medical condition that precludes such participation; or • She or he is unable to participate in the IFQ fishery(ies) for which she or he holds IFQ permit(s) because of a severe medical condition involving a family member that necessitates the IFQ permit holder’s full-time attendance. 	<p><i>The EMT will only be approved for a <u>medical</u> condition; no other situation (e.g., economic hardship, required government service, family obligations, etc.) will suffice.</i></p>
<p>Evidence of Qualifying Medical Condition: An application for an EMT must contain information required by NOAA Fisheries and be submitted on a form provided by NOAA Fisheries. To be approved, the application must be accompanied by an affidavit prepared by a certified medical practitioner. The affidavit must describe the medical condition affecting the applicant and must attest to the inability of the applicant to participate in the IFQ fishery(ies) for which she or he holds IFQ permit(s) during the IFQ season, or (in the case of a family member) that describes the necessity for the IFQ permit holder to tend to an immediate family member who suffers from the medical condition. It must include acknowledgment of the requirements precedent to approval of an application for an EMT. An affidavit so executed will be assumed to be dispositive. Option 1. licensed medical doctor (including local representatives) Option 2. State or Federal certified medical professional</p>	<p><i>NOAA Fisheries would prepare an affidavit form for the “medical practitioner” to review and sign; the form would explain the rule and the consequences of the professional’s assertions. “Medical Professional” suggests that the practitioner need not be a physician – but she or he must be certified as a medical professional (e.g., a village Health Aide would qualify). This section will benefit from a regulatory definition of “Certified Medical Professional” for these purposes, if selected.</i></p>
<p>Consideration of Applications: Applications for EMTs, together with appropriate evidence (described above), must be submitted to the Regional Administrator (RA) or his/her designee on a form provided by the RA. The RA/designee may request additional information before taking action on the application. If the application is approved, the applicant and the transferee will be so notified and the IFQ permit(s) will transfer. If the application is not approved, the applicant will receive an Administrative Determination (AD) that sets out the reason(s) the application is not approved. An applicant whose application is denied by an AD may request reconsideration of the AD and submit additional evidence. Action taken by the RA on an applicant’s Request for Reconsideration is the Final Agency Action.</p>	

Policy Element	Comment
<p>Consideration of Appeals: Any time an EMT application is denied by RAM, such denial would be formally set out in an Initial Administrative Determination. As with all such determinations, it could be appealed to the NOAA Fisheries Office of Administrative Appeals.</p>	

Requests for medical transfers are submitted to the Council and NOAA Fisheries Alaska Region each year; however, current regulations allow only narrow exceptions for the transfer of QS for an emergency medical condition. Alternative 2 would address a policy decision regarding a requirement that an owner/operator who holds and fishes QS and IFQs must be onboard the vessel when fishing those shares. Alternative 2 would allow temporary transfer of an IFQ permit if certain conditions are met.

Experience in the management and prosecution of the IFQ fisheries suggests that a medical transfer system could be implemented that would avoid the unnecessary administrative burden and minimize the potential for abuse associated with early EMT proposals. Revising the EMT requirements would allow QS holders to retain possession of their QS during brief periods of disability where they might otherwise have to sell their QS to meet short term financial obligations.

In October 2003, the IFQ Implementation Team reviewed proposals to amend the IFQ program and reiterated its 1995 recommendation that provisions for medical transfers should be examined for inclusion in the halibut and sablefish IFQ program. The team noted that short term emergency situations are not likely to result in abuse. NOAA Fisheries, NOAA Enforcement, and IPHC staff worked with interested team members and industry in October 2003 to develop language for the Council to consider for this provision. The Council adopted further Advisory Panel refinements in June 2004.

Proposed criteria for medical transfers no longer include the use of discretionary authority by the Regional Administrator, but would require a signed affidavit by a medical professional who attests to a particular medical situation. The following draft language, adopted by the Council for review in June 2004, blends the need for medical transfer provisions with policy and enforcement needs to limit the potential for abuse that could otherwise undermine the program (e.g., *de facto* leasing under the guise of medical transfers).

During initial review in October 2004, the Council added options to two elements of the proposed EMT program. One option was for a more restrictive period during which an EMT would be allowed. The second option addresses the degree of flexibility the Council wishes to allow for the type of medical practitioner that would be required to affirm the nature of the medical condition. The two options for medical expertise address Council intent regarding the flexibility to be allowed in the medical transfer provisions, i.e., legitimate emergency applications may not be granted if the provisions are too tight and abuse may occur if the provisions are too broad.

In the public review draft of this analysis, staff suggested consideration of the following change to one of the EMT elements. Under revised language for “evidence of qualifying medical condition,” the medical expert would certify that the family member’s condition warrants care taking. The medical expert would not certify that the IFQ holder is the person who should be the caretaker. This revision was adopted in the Council’s preferred alternative.

Modified Alternative 2 (Preferred) Allow medical transfers.

Policy Element
<p>Eligibility for Exemption: Only individual halibut or sablefish QS holders to whom one or more catcher vessel IFQ permit(s) have been issued for any given fishing year, and only those who may not retain the services of a master (hire a skipper) to fish his/her annual IFQ permits, may apply for an Emergency Medical Transfer (EMT).</p>
<p>Nature of Exemption: Upon approval of an application to receive an EMT, an eligible individual QS/IFQ permit holder may transfer his/her annual IFQ permit to an eligible recipient; i.e., only an individual who is otherwise eligible to receive catcher vessel QS/IFQ by transfer (individuals who received QS upon initial issuance and individuals who are "IFQ Crew members").</p>
<p>Limitation: Approval of an application for an EMT will be valid only during the calendar (permit) year for which the permit(s) is issued. An application for an EMT in subsequent years, for the same medical condition, will not be approved unless the medical professional attests that there is a reasonable likelihood of recovery. An individual halibut or sablefish quota share holder will not be granted an emergency medical transfer if the individual has been granted an emergency medical transfer in any two of the previous five years.</p>
<p>Justification for an EMT: An application for an EMT will not be approved unless the applicant demonstrates that:</p> <ul style="list-style-type: none"> • She or he is unable to participate in the IFQ fishery(ies) for which she or he holds IFQ permit(s) because of a severe medical condition that precludes such participation; or • She or he is unable to participate in the IFQ fishery(ies) for which she or he holds IFQ permit(s) because of a severe medical condition involving a family member that necessitates the IFQ permit holder's full-time attendance.
<p>Evidence of Qualifying Medical Condition: An application for an EMT must contain information required by NOAA Fisheries and be submitted on a form provided by NOAA Fisheries. NOAA Fisheries will not approve an application unless it is accompanied by the declaration of a certified medical practitioner. The declaration must include acknowledgment of the requirements precedent to approval of an application for an EMT. A declaration so executed will be assumed to be dispositive. In the case of a medical condition affecting the applicant, the declaration must document the medical condition and must verify that the applicant is unable to participate in the IFQ fishery(ies) for which he or she holds IFQ permit(s) during the IFQ season because of the medical condition. In the case of a medical condition affecting an immediate family member of the applicant, the declaration must document the medical condition and describe the care that the family member requires. In addition, the applicant must verify that he or she will provide care for that individual and that the applicant is unable to participate in the IFQ fishery(ies) for which he or she holds IFQ permit(s) during the IFQ season because of the medical condition. The affidavit in support of the emergency transfer must be signed by a licensed medical doctor or nurse practitioner (including local representatives).</p>
<p>Consideration of Applications: Applications for EMTs, together with appropriate evidence (described above), must be submitted to the Regional Administrator (RA) or his/her designee on a form provided by the RA. The RA/designee may request additional information before taking action on the application. If the application is approved, the applicant and the transferee will be so notified and the IFQ permit(s) will transfer. If the application is not approved, the applicant will receive an Initial Administrative Determination (IAD) that sets out the reason(s) the application is not approved. An applicant whose application is denied by an IAD may request reconsideration appeal that denial. of the IAD and submit additional evidence. Action taken by the RA on an applicant's Request for Reconsideration is the Final Agency Action.</p>
<p>Consideration of Appeals: Any time an EMT application is denied by RAM, such denial would be formally set out in an Initial Administrative Determination. As with all such determinations, it could be appealed to the NOAA Fisheries office of Administrative Appeals (OAA). If the applicant fails to appeal, or an appeal is not accepted, the IAD becomes Final Agency Action (FAA). If an appeal is accepted by OAA, OAA will produce a formal Decision on the case. An appellant may request for OAA reconsideration of a Decision. An OAA Decision becomes FAA unless by the effective date, the Regional Administrator orders a review of the Decision. In this case, FAA occurs after RA review.</p>

During final action in December 2004, the Council selected its preferred alternative. The Council adopted new language under the element for "evidence of qualifying medical condition," and selected its preferred options that specified that: (1) an applicant will not be granted an EMT if the individual has been granted an EMT in any two of the previous five years under the limitation element; and (2) an affidavit in support of the EMT must be signed by a licensed medical doctor or nurse practitioner (including local representatives) under the evidence of qualifying medical condition.

2.3 Expected effects of Alternative 1

Alternative 1 would not create an allowance for temporary transfers of halibut or sablefish IFQs made necessary due to medical emergencies. Under the status quo, QS holders would either sell their QS, or forego the economic benefits of those QS for the duration of their medical emergency. However, private arrangements to sell and then repurchase the “same” QS may be viewed as circumventing Council intent to prevent *de facto* leasing, and could potentially place the “seller” and “buyer” at increased financial risk (e.g., because the “private arrangement” is not sanctioned under the IFQ Program rules, enforcement of the terms of such an agreement could be problematic. Furthermore, legal and/or administrative sanctions could be applied if evidence was presented to NOAA Fisheries indicating this unauthorized temporary transfer had taken place). Under the status quo management, management costs should remain at their current levels.

2.4 Expected effects of Alternative 2

The preferred alternative addresses a problem that has been identified in the fisheries since the IFQ program was implemented in 1995. The Council has made previous recommendations to NOAA Fisheries to allow these transfers, but legal issues impeded Secretarial approval. The Council believes that it has identified a program that will allow these transfers to be granted, without jeopardizing its policy of having an owner-operated fleet. The preferred alternative would allow emergency medical transfers of an IFQ permit, if the applicant meets specified requirements related to eligibility, limit on transfers, justification for an emergency medical transfer, evidence of the qualifying medical condition. An application and appeals process would be outlined in the regulations. The Council selected its preferred alternative by modifying Alternative 2 by adopting new language under the evidence of qualifying medical condition element and selecting from among two options under two of the elements.

Specifically, the preferred alternative would implement a procedure for allowing temporary transfer of annual IFQ permit(s) by an injured QS holder to another eligible recipient. The recipient presumably would pay the original QS holder an agreed upon amount of money for that privilege, thus allowing the QS holder to recoup some portion of the potential economic loss which would be associated with the inability of the injured QS holder to fish that year. This allowance would benefit the injured QS holder and the temporary recipient. Otherwise, the transaction would not occur. It would also result in higher utilization of the halibut or sablefish IFQ allocation than under the status quo, delivering more product to the marketplace, with the associated benefits to consumers, and provide added structural stability to the “owner-on-board” program design.

While the CFEC already allows medical transfers, using its program as a proxy for the IFQ program should be done with caution; State fisheries are only a few weeks long and State medical transfers are, therefore, of more limited duration than the more than nine month commercial IFQ season. However, CFEC’s system is informative to the development of a proposed EMT program for the IFQ program.

During 2002, the CFEC approved 686 out of 719 emergency transfer requests. The requests and approvals each represents less than 2 percent of 36,000 annual fishing permits and vessel licenses issued by the CFEC. Emergency transfer hearings are conducted by paralegals. Commissioners review each paralegal’s and hearing officer’s decision and may order further review and hearings on their own motion or upon the request of an affected party, and may subsequently modify, reverse or affirm the decisions. CFEC staff advised that a more “liberal” law/regulation providing for emergency transfers may lead to higher numbers of emergency transfer requests and approvals and a less “liberal” law/regulation would lead to fewer (Source: K. Schelle).

The CFEC website describes the details of the program (<http://www.cfec.state.ak.us/faq/transfer.htm>). Limited entry permits may be transferred under emergency provisions if the permit holder is prevented from fishing due to illness, disability, required government service, or other unavoidable hardship of a temporary, unexpected, and unforeseen nature. If the permit holder chooses to work at another job or do something else, rather than fish, it is usually not grounds for an emergency transfer. Emergency transfers of permanent permits may also be granted while the estate of a deceased permit holder is being settled.

If the basis for an approved emergency transfer continues into the following year, the Commission may grant an emergency transfer for the second year. Requests to emergency transfer interim-use permits in limited fisheries are subject to slightly more lenient standards of hardship, since their holders do not have the option of permanently transferring the permits. There are no special provisions in the law authorizing emergency transfer of permits due to old age or chronic medical problems.

Administrative, Enforcement, and Information Costs

Under Alternative 2, NOAA Fisheries will likely incur additional management costs, associated with the number of medical emergency transfers requested, associated cost of appeals, and the associated administrative costs of implementing the alternative. Enforcement costs are also likely to increase under Alternative 2, since it will be necessary to verify the validity of the permit for the temporary QS holders encountered. The extent of these additional management and enforcement costs are not known, since they will depend to a large extent on the number of emergency medical transfer requests.

2.5 Conclusions

Table 2.1 summarizes the benefits of the respective alternatives. The preferred alternative is expected to increase economic efficiency and operational flexibility for IFQ fishermen. It is expected to increase the likelihood of achieving optimum yield of halibut and sablefish by allowing additional IFQ allocations to be harvested, which under current rules could be lost, due to injuries that do not allow the QS holder to physically be aboard his or her fishing vessel. Lost fishing income of temporarily injured or otherwise legitimately incapacitated QS holders could be mitigated by income from temporarily transferred annual IFQ.

Beneficiaries of the preferred alternative could include those fishermen who are confronted with a legitimate medical emergency and who by definition are unable to physically board a fishing vessel to harvest their IFQs for the duration of the emergency. Other beneficiaries of such a rule change may be those eligible recipients of transfers who would temporarily harvest those IFQs during the QS owner's recovery. Additional beneficiaries include the following: 1) processors may benefit by continuing to receive halibut and sablefish associated with the otherwise inactive IFQ; 2) communities may benefit from the continued income stream generated by exercise of the IFQ; 3) suppliers of fishing inputs (e.g., gear purveyors, fuel suppliers, boat yards) may benefit by the continued activity generated by use of the transferred IFQ; 4) consumers may benefit by continued supply of product (associated with the otherwise inactive IFQ) to the marketplace; and 5) the Nation may benefit to the extent that adoption of this action provides stability and support to the "owner-on-board" management objective that characterizes the halibut and sablefish QS program.

Minor administrative costs of the program would be recovered by annual cost recovery fees, already a component of the IFQ program. Action 1, Alternative 2 best meets the objectives of the proposed action.

Table 2.1 Summary of the cost and benefit analysis of Action 1.

	Alternative 1	Modified Alternative 2 (Preferred) Allow emergency medical transfers
Who may be affected	Status quo, baseline	All 3,349 individual halibut QS holders and 874 individual sablefish QS holders (both as of 2004) with IFQ permits, as well as an unknown number of emergency transfer recipients could benefit under this, the preferred alternative. A small percentage of QS holders would be expected to request a medical emergency transfer each year.
Impacts to the resource	baseline	Adoption of this alternative may increase the likelihood that the optimum yield would be achieved for halibut and sablefish stocks, consistent with sound management practices.
Benefits	baseline	The sanctioning of legal transfers of IFQs by injured or otherwise legitimately incapacitated IFQ holders could yield a number of direct and indirect benefits. These include: (1) providing operational and economic flexibility to fishermen confronted with serious medical emergencies; (2) an income stream to such fishermen that may sustain them economically and allow their future participation in the fishery (ies); (3) making raw fish available to processors that would otherwise have gone unharvested; (4) sustaining demand for services and supplies from purveyors to prosecute the harvesting and processing of the transferred IFQ amounts; (5) assuring continued supplies of fisheries products derived from the IFQ fish, to consumers; and (6) all the associated jobs, value-added production, tax revenues, etc., attributable to the economic activity made possible by the temporary transfer of otherwise inactive IFQ. Nearly 4,300 halibut and sablefish QS holders may, at some point in their fishing careers, unexpectedly need to utilize these temporary transfer provisions. The number of requested transfers cannot be predicted, but are expected to be relatively few, due to strict medical certification requirements. This alternative may further promote stable, owner-operated businesses in the halibut and sablefish IFQ fisheries.
Costs	baseline	There is a risk, although not amenable to estimation, that this alternative may be inappropriately exploited to circumvent owner-on-board requirements. This risk will require expenditure of additional administrative and legal resources to adjudicate, monitor, and enforce the terms of this emergency transfer provision. Estimates of these costs cannot be provided, <i>a priori</i> .
Net benefits	baseline	Net benefits to the Nation are expected to increase in several ways (i.e., opportunity for attainment of halibut and sablefish OY, increased product availability to consumers, added stability and economic security for QS holders in a historically dangerous occupation.
Action objectives	Does not address the objectives of the Council for this action.	Best meet the objectives of the proposed action.

2.6 Initial Regulatory Flexibility Analysis

This IRFA describes the potential adverse impacts on small entities, attributable to the proposed alternatives for allowing the use of medical transfers of IFQ. A complete description of the requirements of the Regulatory Flexibility Act is set out in Section 1.3.

Reason for action and objectives

Numerous petitions to allow the temporary transfer of IFQs for medical reasons have been submitted to NOAA Fisheries and the Council since initial implementation of the halibut and sablefish IFQ program in 1995. These petitions were motivated by the inability of the QS holder to physically be onboard the vessel as their IFQs were being fished, as required presently, due to medical emergencies. The Council previously recommended that NOAA Fisheries administer a program change to accommodate IFQ transfers by QS owners confronted with a legitimate medical emergency. This did not occur for legal reasons. A proposal to allow medical transfers was received again in 2003, and was adopted for analysis. A new approach is proposed under this action. The problem statement, as well as the Council's objectives for this proposed action, are discussed in detail in Section 2.1.

Description and estimated number of small entities

This action has the potential to directly regulate 3,350 halibut QS holders and 875 sablefish QS holders (Table 1.2). At present, NOAA Fisheries does not have sufficient ownership and affiliation information to determine precisely the number of "small" entities in the IFQ program, or the number that would be adversely impacted by the present action.

While no records have been kept over the years, NOAA Fisheries and the Council have been contacted by roughly 12 QS holders each year for information on medical transfer exemptions, under the IFQ program. However, it is not possible to know how many QS holders would have requested a medical transfer, had such a provision been available, but did not choose to contact NOAA Fisheries or the Council. For the reasons discussed in Section 1.3, this analysis assumes that all halibut and sablefish QS operations are small for RFA purposes.

Alternatives considered and their potential adverse impact on small entities

This analysis reviews the status quo (no temporary transfers), and an alternative to allow medical transfers. The alternatives are explained in Section 2.2, and the following summary of impacts on small entities is from the discussion in Sections 2.3 and 2.4.

Alternative 1 is the no action alternative and would continue any associated adverse economic impacts on directly regulated small entities. Under the status quo, halibut and sablefish QS holders incapacitated through injury or other medical emergency would have no option for temporary transfer of their shares.

Alternative 2 would allow medical transfers, but would require an applicant to document his/her medical emergency with NOAA Fisheries. The transfer would also require an affidavit from a medical professional that describes the medical condition affecting the applicant and attest to the inability of the applicant to participate in the IFQ fishery(ies) for which she or he holds IFQ permit(s), during the IFQ season. In the case of a family member's medical emergency, the affidavit would describe the necessity for the IFQ permit holder to tend to an immediate family member who suffers from the medical condition.

Description of recordkeeping, reporting and other compliance requirements

Paperwork reduction Act requirements will be addressed by NOAA Fisheries in the final rule. To obtain the economic benefit of a medical transfer under Alternative 2, a QS holder would be required to file a two part NOAA Fisheries application. The first part of the requirement would be a brief form from the applicant, providing information to identify the shareholder, QS shares and identifying the type of incapacity suffered. A second part of the filing would require a short declaration from a certified medical practitioner, verifying that, because of a medical condition, the applicant is unable to participate in the IFQ fishery for which he or she holds an IFQ permit during the season. It is anticipated that an applicant seeking approval of a medical

transfer would be under a physician's care, therefore the cost to the applicant should be relatively modest.

As noted in Table 1.2, there were 3,349 persons holding halibut QS and 874 persons holding sablefish QS in 2004. It is not known how many of these may take advantage of the emergency transfer provision under Alternative 2. However, the discussion in Section 2.4 indicates that the State of Alaska emergency transfer program, administered by the Commercial Fisheries Entry Commission (a program that has less stringent qualification measures than those of Alternative 2), receives applications from fewer than two percent of the total licence holders. Therefore, it is reasonable to assume that two percent of the total QS holders identified above would be an upper limit for the projected number of annual applicants.

Identification of all relevant Federal rules that may duplicate, overlap, or conflict with the proposed rule

NOAA Fisheries is not aware of any other Federal rules that would duplicate, overlap, or conflict with this action.

Description of significant alternatives that minimize adverse impacts on small entities

NOAA Fisheries is not aware of any additional alternatives to those considered that would accomplish the objectives of the Magnuson-Stevens Act and other applicable statutes and that would minimize the economic impact of the proposed rule on small entities.

3.0 Action 2: Amend hired skipper provisions

A proposal to tighten the regulations for the use of hired skippers was adopted for analysis by the Council in December 2003, because NOAA Fisheries continues to see abuse of the hired skipper provisions through the use of informal, unverifiable transactions. Alternative 2 would require documentation of vessel ownership upon which IFQs would be harvested by a hired skipper, for a specified period of time. Four options are examined below. As described in NOAA Fisheries (2003), a central policy of the IFQ program is that those who hold catcher-vessel QS and receive annual IFQ permits should, in time, exercise the harvest privilege themselves. This is the "owner-on-board" policy¹. The IFQ program is designed so that eventually all catcher-vessel IFQ will be fished by the QS/IFQ holders.

An element of the program is that some persons may (and others must) designate a "master" (or "hire a skipper") to actually do the fishing authorized by their annual IFQ permit during a transitional period. Currently, the IFQ permit holder may not hire a skipper unless she or he holds an ownership interest of at least 20 percent of the vessel upon which the IFQ is to be fished by that skipper (an exception to this rule results in a small number of IFQ permit holders allowed to hold less than 20 percent). One way of looking at this provision is that it is a "grandfather" provision for B vessel owners, who were able to hire someone else to run the boats they owned before the IFQ program was implemented. However, as individuals depart the fishery and as corporations and partnerships dissolve over time, the new entrants who take their place must be on board when the fish are caught and when they are offloaded.

¹ The policy does not apply to "freezer vessel" (category A) shares, which may be leased without restriction.

3.1 Problem and management objectives for the action

The Council adopted the following problem statement in June 2004.

A key element of the IFQ program is the requirement for catcher vessel QS holders to be on board the vessel during harvest and offloading of IFQ species. The Council intended this requirement to assure that catcher vessel QS would continue to be held by professional fishermen after the initial allocation process instead of being acquired by investment speculators. While sole proprietor commercial fishing businesses were unlikely to have difficulty complying with this restriction, the Council recognized that many fishing firms may use hired masters to operate their vessels. The Council did not wish to constrain this option for small businesses and therefore created an exception (codified at 50 CFR 679.42(i) and (j)) for individuals who received initial allocations of catcher vessel QS, provided that such an individual (a) owns the vessel on which the IFQ halibut or sablefish are harvested and (b) is represented on the vessel by a master in his employ. The Council continues to be concerned about alleged abuses of the regulatory provision that allows vessel owners who received QS at initial allocation to hire skippers to harvest their IFQs without having to be onboard the vessel.

3.2 Management Action Alternatives

Alternative 1 No action.

The ability to hire a skipper to fish catcher vessel IFQ remains an important, if controversial, element of the IFQ program. The Fishery Management Plan for Groundfish of the Gulf of Alaska and the Fishery Management Plan for the Groundfish Fishery of the Bering Sea and Aleutian Islands Area (FMPs) and regulations implementing the IFQ program prohibit all leasing of IFQ derived from QS in categories B, C, and D (QS that authorizes the harvest but not the processing of IFQ species on board the vessel). Further, regulations require that holders of such QS be aboard the vessel harvesting IFQ species during all fishing operations.

An exception to this owner-aboard provision allows initial recipients of category B, C, or D QS to employ a hired skipper to fish his or her IFQ provided that the QS holder can document ownership of at least 20 percent of the vessel on which the IFQ is being fished. This exception was created to allow fishermen who had operated their fishing businesses in this manner before the IFQ Program was implemented, to have some flexibility to continue operating this way under the IFQ Program. While the IFQ Program promotes an owner-operator fixed gear fishery for sablefish and halibut, this exception allows initial recipients of QS to remain ashore, while a hired skipper harvests their IFQ. By limiting this exception to initial recipients, the Council designed the hired skipper provision to expire with the eventual transfer of all QS out of the possession of initial recipients.

Revised regulations (at CFR 679.42 Limitations on use of QS and IFQ), require an initial recipient of certain categories of QS, who wishes to hire a skipper to fish the IFQ derived from that QS to own a minimum of 20 percent interest in the harvesting vessel. This 20 percent minimum ownership requirement does not apply to a QS holder who hired a skipper prior to April 17, 1997, continues to own that vessel at not less than the percentage of ownership interest that was held on April 17, 1997, and has not acquired additional QS through transfer after September 23, 1997. This action was necessary to promote the Council's intent to provide for an owner-operator catcher vessel fleet in the halibut and sablefish fixed gear fisheries off Alaska and is intended to further the objectives of the IFQ program.

The rationale for setting the minimum percentage of vessel ownership at 20 percent was to allow for most equal interest partnerships, such as those between spouses. The Council included a grandfather provision only to pre-existing arrangements regarding levels of both vessel ownership and QS holdings.

Under existing regulations, the practice of hiring a skipper to fish IFQ on behalf of a QS holder not onboard the vessel will eventually disappear, as current QS/IFQ holders are replaced by new entrants who are required

to be on board when the IFQ is harvested. Until that happens, however, it appears that an increasing percentage of the annual IFQ will be harvested by persons other than the QS/IFQ holder (even though many such persons are either owners of the entities that “hire” them, or IFQ holders in their individual capacity). The larger issue of hired skippers addresses how the Council wishes to affect the demographics of the fleet - as active participants (“owner on board”) versus passive owners (“absentee landlord”).

The following information is excerpted from NOAA Fisheries (2003). Hired skipper activities are reported as the total amount of landings by hired skippers, expressed in absolute numbers and as a percent of the TAC. For 2002, hired skippers harvested 21,683,000 lb of halibut (or 36 percent of the overall TAC) and 9,848,000 lb of sablefish (33 percent of the overall TAC). Note that there are two types of entities that hire skippers to harvest their catcher vessel IFQ, including:

- “Non-Individual QS Holders” who must designate a master (hire a skipper) to fish their annual IFQ permit. In 2002, these entities held 25 percent of the halibut catcher vessel quota, and 30 percent of the sablefish catcher vessel quota.
- “Individual QS Holders” who may hire a skipper to fish their annual catcher vessel IFQ permit (except in halibut Area 2C and sablefish Area SE). In 2002, these individuals held 42 percent of the halibut catcher vessel quota (not including Area 2C), and 33 percent of the sablefish catcher vessel quota (not including SE).

Table 3.1 (NOAA Fisheries 2003a) reports the percent of catcher vessel quota that was held by individual QS holders and hired skippers. QS holders who may not hire a skipper (i.e., those who must fish the IFQ themselves as “owners-on-board”) owned 33 percent of halibut and 37 percent of sablefish QS. QS holders which were corporations (and must hire a skipper to harvest IFQs) held 25 percent of halibut and 30 percent of sablefish QS. The focus of this proposed action is not on these “corporate” or non-individual QS holders required to hire skippers to do their fishing, but on individual QS holders. These “individuals” hold 42 percent of halibut QS and 33 percent of sablefish QS.

Table 3.1 Type of QS Holder and Percent of Catcher Vessel (CV) Quota Held - Year-end 2002.

Type of QS Holder	Halibut percent of CV quota	Sablefish percent of CV quota
Non-Individual QS Holders (who <u>must</u> hire a Skipper to fish IFQ)	25%	30%
Individual QS Holders (who <u>may</u> hire a Skipper to fish IFQ)	42%	33%
Individual QS Holders (who may <u>not</u> hire a Skipper to fish IFQ)	33%	37%

NOTE: Catcher vessel quota includes category B, C, and D shares

Table 3.2 displays data similar to that shown in Table 3.1 for the 1998-2002 period. Two clear trends are evident from the following table:

- numbers of both non-individual and individual QS holders who may hire skippers has been declining; (consistent with the Council’s objective for owner-onboard)
- numbers of hired skippers (and the amount of IFQ harvested by them) are increasing. (consistent with an aging population of initial QS recipients who find it increasing difficult to fish their QS)

Table 3.2 Individual QS Holders who were Eligible to Hire Skippers, had IFQ Landings, and Hired Skippers; and Number of Skippers Hired.

	1998	1999	2000	2001	2002	% change (1998-2002)
Halibut						
Individual QS Holders with IFQ Permit Landings	1005	982	942	849	845	-16%
Individual QS Holders with Landings who Hired Skippers	110	116	125	137	135	+23%
Number of Skippers hired by Individual QS Holders	98	110	135	147	143	+46%
Sablefish						
Individual QS Holders with IFQ Permit Landings	232	214	195	185	179	-23%
Individual QS Holders with Landings who Hired Skippers	46	53	56	64	65	+41%
Number of Skippers hired by Individual QS Holders	45	55	71	80	82	+82%

NOTES: • In any given year, a significant number (30% to 40%) of QS holders do not fish their IFQ permit (but the amount of Quota held by these “non-fishers” is very small – less than ½ of 1% of the TAC)
 • Individuals “eligible to hire skippers” hold catcher vessel QS other than 2C halibut or SE sablefish

Regulations that govern the IFQ program require that all “new” catcher vessel QS holders must be on board the vessel when the IFQ is being fished; they may not hire a skipper. Further, individuals who purchase (or refinance) QS using the IFQ loan program administered by NOAA Fisheries Financial Services lose their ability to hire skippers (to date, there have been 78 individuals who have forfeited their ability to hire skippers by becoming borrowers under the program). These regulatory requirements make it inevitable that, over time, there will be an increasing number of individual QS holders who may not hire skippers to fish their IFQ. In the long term, all catcher vessel QS/IFQ held by individuals will be fished by the QS owner .

Tables 3.3 and 3.4 present information about the use of hired skippers during the 2002 halibut and sablefish IFQ seasons and as an average for the five seasons, 1998 - 2002.

Table 3.3 Halibut - Hired Skipper Information. Weights are in thousands of pounds. Halibut pounds are expressed in net (headed and gutted) weight. Source: NOAA Fisheries 2003a.

	2002	Average (1998 - 2002) ¹
Total IFQ TAC²	59,010	56,943
Amount and Percent of TAC Harvested by Skippers hired by Non-Individual IFQ Permit Holders, with IFQ landings	13,970 (23.7%)	13,468 (23.6%)
Amount and Percent of TAC Harvested by Skippers hired by Individual IFQ Permit Holders, with IFQ landings	7,713 (13.1%)	6,129 (10.8%)
Number of Non-Individual Entities with IFQ Permit Landings (by one or more Hired Skippers)	121	128
Number and Percent of Eligible Individual Catcher Vessel IFQ holders with IFQ Landings who chose to Hire Skipper(s) ³	135 (16.0%)	125 (13.5%)

¹ Skipper data for 1995 through 1997 are excluded because hired skipper rules and policies in effect prior to 1998 are inconsistent with later years.

² Total IFQ TACs include all QS categories but do not include allocations to the Community Development Quota (CDQ) Program or pounds from adjustments from prior year fishing.

³ “Eligible Individual” IFQ permit holders are persons who hold catcher vessel IFQ other than Southeast Outside sablefish, which must be fished by the permit holders.

Table 3.4 Sablefish - Hired Skipper Information. Weights are in thousands of pounds. Sablefish pounds are expressed in round weight. Source: NOAA Fisheries 2003a.

	2002	Average (1998 - 2002) ¹
Total IFQ TAC²	29,388	29,087
Amount and Percent of TAC Harvested by Skippers hired by Non-Individual IFQ Permit Holders, with IFQ landings	6896 (23.4%)	2,580 (11.1%)
Amount and Percent of TAC Harvested by Skippers hired by Individual IFQ Permit Holders, with IFQ landings	6,575 (22.4%)	7,185 (24.7%)
Number of Non-Individual Entities with IFQ Permit Landings (by one or more Hired Skippers)	72	82
Number and Percent of Eligible Individual Catcher Vessel IFQ holders with IFQ Landings who chose to Hire Skipper(s) ³	65 (36.3%)	57 (28.4%)

¹ Skipper data for 1995 through 1997 are excluded because hired skipper rules and policies in effect prior to 1998 are inconsistent with later years.

² Total IFQ TACs include all QS categories but do not include allocations to the Community Development Quota (CDQ) Program or pounds from adjustments from prior year fishing.

³ "Eligible Individual" IFQ permit holders are persons who hold catcher vessel IFQ other than Southeast Outside sablefish, which must be fished by the permit holders.

Table 3.5 demonstrates that a large number of "Non-Individual Entities" that have no option but to hire a skipper to fish their IFQ hired one or more individuals who were, in whole or in part, owners of the entity.

Table 3.6 shows that a large number of the skippers (49 percent of halibut skippers and 61 percent of sablefish skippers) that were hired by Non-Individual QS holders during 2002, were participants in the fisheries as Individual QS holders.

Table 3.5 Non-individual entities with catcher vessel QS/IFQ whose hired skipper(s) are owners of the hiring entity in 2002. 'Non-individual' ownership data¹ as of May 2003. Source: NOAA Fisheries 2003a.

A. Number of Non-Individual Catcher Vessel QS Holders with IFQ Halibut Permit(s)	167
• Number of Skippers Hired by (A)	190
• Number and Percent of Skipper who was also an Owner of the Entity in (A)	82 (43%)
B. Number of Non-Individual Catcher Vessel QS Holders with IFQ Sablefish Permit(s)	112
• Number of Skippers Hired by (B)	110
• Number and Percent of Skipper(s) who were also an Owner of the Entity in (B)	56 (51%)

¹ NOTE: These data represent a minimum percentage of skipper "ownership" in the QS Holding entity; "ownership" was checked only to the direct, first level of shareholders, partners, etc. Additional skipper ownership interests may be "hidden" under second, third, or deeper "levels" of ownership.

Table 3.6 Skippers hired by non-individual (i.e., corporate) QS holders who, in 2002, held IFQ permits in their individual capacity. Data on skipper QS holdings as of year-end 2002. Source: NOAA Fisheries 2003a.

	Halibut	Sablefish
A. Number of Non-Individual catcher-vessel QS Holders	166	109
B. Number of Skippers hired by (A)	190	110
C. Number and percent of Skippers in (B) who held QS in their Individual Capacity	93 (49%)	67 (61%)

- Alternative 2 To use the hired skipper exception, a QS holder must demonstrate at least a 20 percent owner interest in the vessel to be used and have continuously owned the vessel as documented by the contemporary abstract of title for the previous:
- a. 6 months
 - b. 12 months
 - c. 24 months
 - d. year to date, plus previous calendar year
- Option. Allow for replacement of vessel in case of a constructive loss

Action 2 was prompted by an apparent concern that the ownership “loophole” that allowed a QS holder to acquire a nominal ownership interest in a vessel was not completely closed by the Council when it decided in 1998 that a QS holder must demonstrate a vessel ownership interest of at least 20 percent before NMFS/RAM would issue an IFQ landing card to a person other than the named QS/IFQ holder. Current regulations do not require documentation of ownership.

Alternative 2 would revise the regulations to add a restriction on the QS holders who would hire a skipper to harvest their IFQs. That restriction would place a minimum time period for which the QS holder must have continuously owned the vessel in which he or she has a 20 percent owner interest. This additional restriction is intended to eliminate the opportunity for QS holders to form short-term agreements which transfer vessel ownership for the duration of a fishing trip(s), thus circumventing Council intent for having an owner-operator fleet.

During initial review, the Council added an option to address commercial fishing vessels that are lost at sea, using regulatory language specifically addressing those vessels lost to fire or sinking. The language was adapted from regulatory language implementing the American Fisheries Act for lost vessels, under §679.4.

During its October 2003 meeting to review proposals, the IFQ Implementation Committee reconfirmed its 1999 recommendation as follows. “The committee recognized the merit of addressing fairness issues, and recommended that leasing restrictions are fundamental to the IFQ program and recommended no change to expanding leasing/hired skipper allowances.” The committee recommended that criteria be established to tighten compliance with the 20 percent ownership requirement.

3.3 Expected effects of Alternative 1

Alternative 1 would not provide additional limits on opportunities for QS holders to form short-term agreements to transfer vessel ownership temporarily, which allows the use of hired skippers on those vessels. No data are available to distinguish the number of temporary transfers specifically intended to circumvent Council intent compared with other vessel ownership transfers.

3.4 Expected effects of Alternative 2 (Preferred)

In addition to the current regulatory requirement that QS holders must demonstrate at least a 20 percent ownership interest in a vessel to use a hired skipper on that same vessel, the preferred alternative would require catcher vessel QS holders who wish to hire a skipper to catch their IFQs on a Federally-licensed vessel to file an Abstract of Title, issued by the US Coast Guard, with RAM. Catcher vessel QS holders who wish to hire a skipper to catch their IFQs on a State-licensed vessel would be required to file the State of Alaska vessel registration with RAM. Further, the Council recommended that replacement of a vessel in case of a constructive loss be allowed. The preferred alternative is a policy decision that is intended to end the inappropriate use of the hiring skipper provision by individuals who are seeking to circumvent the intent of the Council’s owner on board policy for the IFQ program. It is not intended to restrict legitimate vessel ownership or the appropriate use of hired skippers by corporate owners.

The Council identified four options for tightening the hired skipper regulations under Alternative 2. The proposed actions would require that, to use the hired skipper provision, a QS holder would have continuously owned the vessel, as documented by the contemporary abstract of title, for the previous: a) 6 months; b) 12 months; c) 24 months; and d) year to date, plus previous calendar year.

During initial review in October 2004, as a result of public testimony, the Council added an option to address replacement of lost vessels. The effect of the option would be to continue to allow the use of hired skippers by QS owners who lose their vessels due to fire or sinking. This is a rare circumstance, but the Council has made similar provisions in other programs.

During final action in December 2004, the Council selected its preferred alternative by modifying Alternative 2, selecting: (1) a 12 month time period for documenting continuous ownership of a vessel, previous to the date of application, as a requirement to hire a skipper; and (2) an option to allow for replacement of a vessel due to sinking or fire.

No data are available to analyze the expected effects of each of the above options. However, one may assume that more QS holders would be restricted from hiring skippers to operate their vessels as the period of documented ownership of a vessel increases. A longer time period would lessen the opportunities for “absentee owners,” and would likely result in more QS being put on the market. A shorter time period would allow owners who hire skippers to extract annual rent from their QS, rather than sell the QS.

NOAA Fisheries has no empirical data at present to indicate how many QS holders own their own vessels for the four proposed time intervals. Nor does NOAA Fisheries have data with which to analyze the financial burden that may be imposed under any of the four proposed time periods for which QS owners must have continuously owned their vessels in order to hire a skipper to harvest their QS.

Administrative, Enforcement, and Information Costs

Action 2 was prompted by a concern that the ownership “loophole” that allowed a QS holder to acquire a nominal ownership interest in a vessel was not completely closed by the Council when it decided in 1998 that a QS holder must demonstrate a vessel ownership interest of at least 20 percent before NMFS/RAM would issue an IFQ landing card to a person other than the named QS/IFQ holder. Current regulations do not require documentation of ownership, hampering enforcement of the 1998 provision.

NOAA Fisheries staff has indicated that the preferred alternative could provide an enforcement tool (documentation of ownership) to curb abuse of the hired skipper allowance by individual QS holders who may hire a skipper, as it has been difficult to verify ownership under current regulations. Nearly all vessels in the IFQ fisheries are Federally licensed. For those vessels, the Abstract of Title, issued by the US Coast Guard, would be required to be filed with RAM under the provisions of Alternative 2. This is not the same as the Certificate of Documentation issued through the National Vessel Documentation Center, and the latter may not substitute for the abstract of title. An IFQ holder may provide the State of Alaska vessel registration for those vessels that are not Federally licensed, although the State document does not contain a list of owners or their percentage of ownership. Owners of the small number of vessels not having a Federal registration will have to provide NOAA Fisheries with sufficient proof of ownership to participate in the hired skipper program under Alternative 2. Such proof may consist of bills of sale, partnership agreements, or other documents that, under the normal course of doing business, applicants are likely to have in their possession. RAM Division at NOAA Fisheries will make a case by case administrative decision on the adequacy of the ownership information before them.

Under Alternative 2, NOAA enforcement may realize an increase in efficiency by making it easier to prevent abuses to the owner-onboard policy of the Council. NOAA Fisheries has not provided a quantitative estimate of the net effect of a potential increase in administrative costs, nor potential gains in efficiency (therefore reduced enforcement costs) that may result under Alternative 2.

3.5 Conclusions

Table 3.7 summarizes the net benefits of the alternatives for this policy action. As noted in Section 3.1, a key policy of the IFQ program is the requirement for catcher vessel QS holders to be onboard the vessel. Net benefits to the Nation are expected to increase under the preferred alternative, to the extent that Council objectives for an “owner-operator” fishery are enhanced. This policy will be advanced under the preferred alternative. By successfully supporting the owner-on-board requirement in the IFQ program for halibut and sablefish, Alternative 2 may also serve as a disincentive for speculative investment in halibut and sablefish QS under the program, contributing to stability in market prices over time. The magnitude and distribution of these benefits are unknown.

Those most directly affected by the preferred alternative would include QS holders who hire skippers and the hired skippers themselves. Owner-operator QS holders and crew may benefit from QS placed on the market due to a tightening of the hired skipper provision if some current QS holders lose the opportunity of hiring a skipper and have to divest themselves of QS. Increased administrative costs associated with determining whether the 20 percent ownership requirement comports with the selected time period would likely be recovered in the annual fee, resulting in no net increases in administrative costs to the Agency for Alternative 2.

Despite the attempt at providing a more effective enforcement tool, documentation requirements, depending on how they are specified, may continue to represent a loophole to owner-onboard requirements. Benefits to the nation would be enhanced to the extent to which the preferred alternative curbs the potential for abuse of the ‘owner-onboard’ requirement.

Table 3.7 Summary of the cost and benefit analysis of Action 2.

	Alternative 1	Alternative 2 (Preferred) QS holders must file an abstract of Title with NOAA Fisheries and have continuously owned the vessel for the previous 12 months to be authorized to hire a skipper to fish IFQ from that vessel. Replacement of vessels due to constructive loss would be allowed
Who may be affected?	baseline	The directly affected entities include all 845 (as of 2002) individual halibut QS holders and 179 (as of 2002) individual sablefish QS holders with IFQ permits (Table 3.2). To the extent that this alternative restricts QS holders within the above group from hiring, a skipper in the future, an unknown number of skippers would also be directly affected. There were 143 halibut and 82 sablefish skippers hired in 2002.
Impacts to the resource	baseline	None
Benefits	baseline	The economic benefits resulting from this amendment are unknown but net benefits to the nation are expected to increase by providing a more effective enforcement tool. Alternative 2 is likely to further the Council’s goal of owner-operated vessels in the halibut and sablefish IFQ fisheries. Owner-operators and crew may benefit from QS placed on the market due to a tightening of the hired skipper provision. Alternative 2 may also serve as a disincentive for speculative investment in halibut and sablefish QS under the program, contributing to stability in market prices over time.
Costs	baseline	Some QS holders could lose the opportunity of hiring a skipper to fish their IFQ and may have to divest themselves of QS. Data limitations may allow continued use of ‘hired-skipper’ provisions as a loophole to owner-on-board requirements.
Net benefits	baseline	Net benefits to the nation are expected to increase to the extent that Council objectives for an “owner-operator” fishery are enhanced.
Action objectives	Does not address issue of abuses to “owner-on-board” policy.	Would best meet the objectives of the proposed action.

3.6 Initial Regulatory Flexibility Analysis

This IRFA describes the potential adverse impacts on directly regulated small entities of the preferred alternative to tightening the regulatory criteria that allow the use of hired skippers on catcher vessels fishing halibut and/or sablefish IFQs off Alaska. A complete description of the requirements of the Regulatory Flexibility Act is set out in Section 1.3.

Reason for action and objectives

A key element of the IFQ program for halibut and sablefish is the requirement for catcher vessel QS holders to be onboard the vessel during harvest and offloading of IFQ species. The Council continues to be concerned about alleged abuses of the regulatory provision that allows vessel owners, who received QS at initial allocation, to hire skippers to harvest their IFQs, without having to be onboard the vessel. The objective of the preferred alternative is to improve adherence to the owner onboard provisions of the original program, while providing an opportunity to hire a skipper, when appropriate. The Council’s problem statement is presented in Section 3.1, above.

Description and estimate of small entities

The preferred alternative could directly regulate 4,300 halibut and sablefish QS holders who hold category B, C, or D QS (Table 1.2). At present, NOAA Fisheries does not have sufficient ownership and affiliation information to determine precisely the number of small entities in the IFQ program or the number that would be adversely impacted by the present action. For the reasons discussed in Section 1.3, this analysis assumes that all operations are “small” for RFA purposes.

Alternatives considered and their impact on small entities

This analysis reviews the status quo, and an alternative to further limit the use of the hired skipper exception, and the preferred alternative. The alternatives are explained in detail in Section 3.2, and the following summary of impacts on small entities is drawn from the discussion in Sections 3.3 and 3.4.

Alternative 1 would maintain the current 20 percent vessel ownership requirement for certain catcher vessel QS holders (as noted in Section 3.2) to hire a skipper to harvest IFQs. Current regulations do not require legal documentation of ownership in the vessel and, therefore, the requirement cannot be monitored, verified, or enforced.

Alternative 2 would amend the regulations to require documentation of ownership of the catcher vessel before use of the hired skipper exception. Options would require continuous ownership of the catcher vessel upon which the IFQ would be fished, for a period between 6 months and two years prior to being authorized to hire a skipper.

The preferred alternative modified Alternative 2 in the selection of a 12-month time period immediately prior to application, during which ownership must be documented to allow the use of a skipper.

Description of reporting and record keeping compliance requirements

Catcher vessel QS holders who wish to hire a skipper to catch their IFQs on a Federally-licensed vessel would be required to file an Abstract of Title, issued by the US Coast Guard, with RAM. Catcher vessel QS holders who wish to hire a skipper to catch their IFQs on a State-licensed vessel would be required to file the State of Alaska vessel registration with RAM.

Identification of relevant Federal rules

NOAA Fisheries is not aware of any other Federal rules that would duplicate, overlap, or conflict with this action.

Description of significant alternatives that minimize adverse impacts on small entities

NOAA Fisheries is not aware of any alternatives, in addition to the alternatives considered, that would accomplish the objectives of the Magnuson-Stevens Act and other applicable statutes, and that would achieve the objectives of the proposed action while minimizing the adverse economic impact on small entities.

The Council’s alternative range of times considered for the requirement of continuous ownership of IFQ shares by directly regulated small entities to be eligible to hire a skipper ranged from six months to two years. The Council selected the period of 12 months (one year) because it typically incorporates an entire fishing season (one calendar year) and most fishing businesses make operating decisions (including a decision to hire a skipper) on a year to year basis. The shorter period (6 months) may not include an entire fishing season, making it less appropriate. The longer period (two years) includes more than one full fishing season, and is, therefore, excessively lengthy.

4.0 Action 3: Add vessel clearance requirements

A proposal to implement vessel clearance requirements for the sablefish IFQ fishery in the Bering Sea (BS) and Aleutian Island (AI) management areas was adopted for analysis by the Council in December 2003. The rationales for requiring vessel clearances or a vessel monitoring system (VMS) include killer whale depredations of longline sablefish catches in the BSAI, increased costs of traveling to and from fishing grounds in the BSAI, and relatively low catch rates in the BSAI that may result in harvesters fishing in the western Gulf of Alaska (GOA) and possible misreporting in the BS or AI. The industry proposal that triggered this analysis suggested that, if widespread, such location misreporting may affect the sablefish stock assessment and the resulting total sablefish allowable biological catch (ABC), and area apportionments of ABCs. However, there is no evidence that suggests widespread misreporting is: (1) occurring; (2) affecting sablefish biomass estimates; or (3) impacting the total sablefish ABC or quotas.

4.1 Problem and management objectives for the action

A number of management issues relate to the proposed action to implement vessel clearance requirements in this fishery. The IFQ fleet has been unable to harvest the sablefish TAC in the BS and AI; 2003 landings were the lowest relative to the total allowable catch (TAC) in the 9-year history of the IFQ program (Table 4.1).

Killer whale depredations have been recognized as one reason for low sablefish harvests in the BSAI. NOAA Fisheries amended the program in 1996 to allow the use of longline pots in the BS because of killer whale depredations of hooked sablefish on longlines being fished by sablefish vessels.

Killer whale depredations on longlines have not been identified as a biological issue for the sablefish stocks by NOAA Fisheries. Dr. Michael Sigler, senior author of the sablefish stock assessment, reported to the analyst that sablefish mortality due to killer whale depredations has not been quantified, and would be difficult to accurately estimate. A measure of depredation frequency is the average number of sablefish longline survey stations affected by killer whale depredation. From 1996-2003, 6 of 16 stations (38 percent) in the BS and 1 of 14 stations (7 percent) in the AI showed evidence of sablefish depredations by killer whales.

A second issue is how misreporting of harvest area may affect the methodology for setting sablefish TACs in the BS and AI. Dr. Sigler concluded that if misreporting occurred, it would not affect biomass estimates or the ABC for sablefish in the Alaska EEZ as long as the total amount of catch is reported correctly. Misreporting, however, might affect area apportionments of ABCs. Area allocation of ABC is based on survey and fishery catch rates by area. Catch rates are higher in the western GOA than the BS and AI, so misreporting area would inflate nominal catch rates for the BS and AI and affect the area ABCs. Misreporting of GOA catches as BSAI may increase the area apportionment for BSAI and decrease the apportionment for the GOA. For example, even if 30 percent of western GOA catch was misreported as BSAI catch during 1999-2003, the 2004 ABC would have been 4.3 percent higher for the BSAI and 1.7 percent lower for the GOA than the recommended ABCs. A very high level of misreporting would result in less than a 5 percent error.

Table 4.1 Sablefish quotas and landings, 1995-2003. Source: NOAA Fisheries.

Bering Sea			
Year	Total Catch (lb)	Allocation (lb)	Percent landed
2003	1,207,792	2,557,336	47
2002	1,169,896	1,701,951	69
2001	796,729	1,375,670	58
2000	685,682	1,296,305	53
1999	626,749	1,181,666	53
1998	579,861	1,146,382	51
1997	572,775	970,024	59
1996	703,905	970,024	73
1995	998,319	1,410,944	71
Aleutian Islands			
Year	Total Catch (lb)	Allocation (lb)	Percent landed
2003	1,966,385	4,100,556	48
2002	1,710,000	3,373,920	51
2001	1,749,556	3,306,900	53
2000	1,774,827	3,215,189	55
1999	1,095,189	1,825,409	60
1998	882,172	1,825,409	48
1997	1,137,282	1,587,312	72
1996	1,168,272	1,587,312	74
1995	1,917,783	2,910,072	66

A third issue relates to enforcement challenges in the remote fishing areas of the BSAI. For more than 30 years, the International Pacific Halibut Commission (IPHC) has implemented vessel clearance requirements for the halibut hook-and-line fishery in Area 4 (comprising much of the BS and AI sablefish management areas) (Figure 1.1). Area management for halibut is done on a finer scale than for sablefish in the BSAI (i.e., the BSAI is divided into more and smaller geographic areas for halibut management).

The following is excerpted from IPHC (1996). Vessel clearance procedures were implemented in Area 4 (BSAI) during the 1960s and 1970s to help assure that vessels were, in fact, in the BSAI rather than fishing in the GOA and claiming their catch from the BSAI. This enforcement device was needed because the BSAI required longer running time from major ports of landing and because fishing conditions tended to be more difficult in the BSAI. This was particularly important in Area 4B.

Halibut clearance requirements in the BSAI are listed in Appendix 1. The IPHC has a voluntary arrangement whereby staff at processing plants FAX the clearance forms from vessels delivering halibut to them to the IPHC office. NOAA Enforcement uses those clearance reports, along with VMS reports, as an after-the-fact enforcement tool. Price differentials between sablefish prices in the BS and AI and in the GOA have been cited by industry as another reason for misreporting of BS and AI sablefish as having been taken in the GOA (Table 4.2). Representative QS prices also show a potential higher GOA QS transfer price in 2003 (see Table 6.3 and Section 6.3 for more explanation).

Table 4.2 Ex-vessel prices in the fixed gear sablefish fisheries, 1997-2001 (\$/lb, round weight).

Year	GOA	BSAI
1997	\$2.437	\$2.358
1998	\$1.680	\$1.619
1999	\$2.014	\$1.945
2000	\$2.659	\$2.037
2001	\$2.248	\$1.842

In June 2004, the Council adopted the following problem statement for Action 3.

Due to killer whale depredation, increased costs, and relatively low catch rates, the sablefish fisheries in the BSAI offer unique challenges to harvesters. Due to concerns over harvest occurring in other regulatory areas, but misreported as BSAI catch, options to verify fishing locations need to be developed.

4.2 Management Action Alternatives

Alternative 1 No action.

Alternative 1 would not implement additional reporting or monitoring requirements in the Bering Sea and Aleutian Island sablefish fisheries.

Alternative 2 (**Preferred**) Add vessel clearance requirements to the BS and AI sablefish regulations.

Option 1. Add check-in/check-out for the Aleutian Islands and Bering Sea sablefish fishery in Dutch Harbor, Adak, St. Paul, St. George, Akutan, and Atka

Option 2. Require VMS when fishing in the Aleutian Islands and Bering Sea sablefish fishery

Alternative 2 (the preferred alternative) would implement reporting and monitoring requirements in the BSAI sablefish fisheries to decrease the likelihood of misreporting of sablefish harvests from the GOA as BSAI landings. The Council recommended that either visual clearances (check-in/check-out) or VMS be implemented for vessel clearance requirements. Visual clearance would require that vessels transit to the port where clearance will be obtained and remain there long enough to allow an authorized person to confirm visually the identity of the vessel. During initial review, the Council added Akutan and Atka to the original list of Dutch Harbor, Adak, St. Paul, and St. George of locations at which vessel clearances could be obtained.

4.3 Expected effects of Alternative 1

The expected effects of Alternative 1 are unknown, because the level of misreporting of GOA sablefish harvests as having been taken in the EBS or AI is unknown. Although anecdotal reports suggest it may be occurring, there is no documented evidence of misreporting. In summary, there are no known economic or stock impacts associated with taking no action, although continued public suspicion that misreporting is taking place likely reduces support for and confidence in the sablefish IFQ management program.

4.4 Expected effects of Alternative 2 (Preferred)

The preferred alternative to implement vessel clearance requirements for the sablefish IFQ fishery in the Bering Sea and Aleutian Islands management areas would create parity with halibut vessel clearance requirements in the same waters. The effects of the preferred alternative cannot be quantified, because the level of misreporting of GOA harvests as having been harvested in the BS or AI is unknown. However, it is known that vessel clearance requirements impose some operational and economic burden on both the IFQ fleet and management agencies. It is expected that costs for BS and AI sablefish QS holders would increase under either visual clearance or VMS. If Alternative 2 is adopted, the IFQ holder would be expected to incur additional time, fuel, and opportunity costs (e.g., for his/her next best use, more sablefish fishing).

Costs associated with VMS may, initially, be greater in terms of cash outlay, than visual clearance. Generally, a VMS unit costs approximately \$2,000 to acquire and install. There is an associated \$5/day transmission cost. Those costs may be incurred by the vessel owner, QS holder, the plants, NOAA Fisheries, or some combination thereof. VMS is likely to be more efficient, both for the operator and monitoring agent/agency, over time. Use of VMS would remove the time and operating costs (e.g., fuel, crew fatigue, added transit risk) of diverting from route to the fish grounds, in order to enter an authorized “check-in/check-out” port. The relative “burden” (or avoidance of a burden) would vary by the size of vessel, sea and weather conditions, round trip distance of the diversion to a designated port, and speed and running cost per hour of the vessel. No data are currently available that would permit an empirical estimate of these costs.

Some sablefish IFQ participants already have a VMS endorsement on their Federal Fisheries Permits (FFP) to comply with Steller sea lion avoidance measures in the groundfish fisheries. Table 4.3 shows the numbers of EBS and AI IFQ sablefish vessels which currently possess an FFP and VMS endorsements. Nine of 33 sablefish IFQ vessels with an FFP in the AI (or 27 percent) already have a VMS endorsement. Seventeen of 33 sablefish IFQ vessels with a BSAI FFP in the EBS (or 52 percent) already have a VMS endorsement. These vessels would not have additional costs associated with acquisition and installation, but would incur the daily reporting costs, if the preferred alternative is adopted, assuming that they elect to use VMS instead of visual clearance. Actual costs are not known.

Table 4.3 Federal Fishery Permitted Vessels with VMS Endorsements, in 2004.

Area	FFP	VMS	
	Number	Number	Percent
Aleutian Islands	33	9	27
Bering Sea	33	17	52

Some participants also participate in the Area 4 halibut IFQ fishery. Table 4.4 shows that 85 unique EBS and AI sablefish IFQ holders also hold Area 4 halibut QS. These participants already are subject to vessel clearance requirements for the halibut fishery. Their costs for clearing areas for their sablefish IFQ harvests would be mitigated to the degree that they already must clear the halibut IFQ harvests and assuming joint production. Actual costs are not known.

Table 4.4 Number of BSAI sablefish QS holders who also hold halibut QS in Area 4. Source: NOAA Fisheries.

QS Category	BSAI Sablefish	BSAI Sablefish + Area 4 Halibut	
	Number	Number	Percent
A	38	13	34
B	79	47	60
C	59	35	59
Total	85		

Administrative, Enforcement, and Information Costs

NOAA Enforcement supports the preferred alternative. Further, it recommended that the Council also adopt vessel clearance requirements for sablefish in the GOA. Vessel clearance is an effective monitoring and enforcement tool that has been implemented in the halibut fisheries since the 1960s. While the halibut vessel clearance program has voluntary compliance by fishing plants and IPHC staff dedicated to monitor the associated paperwork, NOAA Fisheries does not have the personnel at this time to handle the paperwork associated with check-in/check-out requirements. From a staffing perspective, NOAA Enforcement prefers VMS as a vessel clearance requirement because it appears to be the superior means of attaining the goals of this action, given the potential operational efficiencies for fishing vessel operators, as well as NOAA, associated with its use.

4.5 Conclusions

Table 4.5 summarizes the net benefits of the alternatives. The economic benefits are likely to increase by providing an effective enforcement tool for the regulatory requirements that sablefish landings come from the area to which the associated IFQs are assigned. If vessel clearance Option 2 were adopted, associated requirements would impose costs on approximately 100 QS holders who do not already have VMS endorsements for other groundfish fisheries. NMFS estimates the cost for purchase, installation, and connection for VMS on a vessel to be \$1,550 (Queirolo and Muse, 2005). In addition to the purchase and set-up costs, vessels are subject to a monthly transmission cost of \$74 (during operational months) and \$5 for non-operational months. Annual repair and maintenance fees are estimated to range from \$47 to \$93, depending of the size of the vessel. For vessels that already have VMS installed, the main costs will be transmission costs of \$155 per month for the additional coverage. Costs of implementation, administration, and enforcement to NOAA Fisheries would be covered by the IFQ fee. Alternative 2 would meet the objectives of the proposed action better than the status quo, but it is unclear whether a significant enforcement problem (widespread misreporting of catch location) actually exists.

Table 4.5 Summary of the cost and benefit analysis of Action 3.

	Alternative 1	Alternative 2 (Preferred) Add vessel clearance requirements to the BS and AI sablefish regulations
Who may be affected	baseline	Up to a maximum of 112 QS holders in the Bering Sea and 97 QS holders in the Aleutian Islands regulatory areas may be affected. The actual numbers may be smaller due to: (1) some fishermen holding sablefish QS in both areas; (2) some BS and AI sablefish QS holders also hold halibut QS and already comply with halibut vessel clearance requirements; and (3) some BS and AI sablefish QS holders already comply with VMS requirements in other groundfish fisheries.
Impacts to the resource	baseline	None
Benefits	baseline	The economic benefits are likely to increase from providing an effective enforcement tool for the sablefish IFQ fishery, enhancing public confidence in the IFQ program.
Costs	baseline	Vessel clearance requirements attributable to VMS could increase costs to approximately 100 QS holders. Estimated costs for purchase and set up for VMS is estimated to be \$1,550 per vessel; (\$155,000) for 100 QS holders, in addition to monthly transmission fees. Costs to NOAA Fisheries are anticipated to be covered by the IFQ fee.
Net benefits	baseline	Net benefits to the nation are expected to increase because of more effective enforcement of current regulations, and heightened public confidence in sablefish fisheries management.
Action objectives	Would not enhance enforcement.	Alternative 2 would likely meet the objectives of the proposed action better than the status quo, although it is unclear whether an enforcement problem (misreporting) is actually occurring.

4.6 Initial Regulatory Flexibility Analysis

This IRFA describes the impact on small entities of the proposed alternatives for adding vessel clearance requirements to the Bering Sea and Aleutian Islands sablefish fisheries. A complete description of the requirements of the Regulatory Flexibility Act is set out in Section 1.3.

Reason for action and objectives

The TACs for the BS and AI sablefish fixed gear sector have not been fully harvested during the ten years of the IFQ program. A number of reasons for harvest shortfalls are described in more detail in Section 6.1, above. The industry has expressed concern that a lack of enforcement capability in the area may have resulted in misreporting of harvests taken in the GOA as having come from the BSAI.

Description and estimate of small entities

For the reasons discussed in Section 1.3, this analysis assumes that all sablefish QS operations are small. There are 163 unique fishing entities that hold QS in the AI and/or BS and GOA (Table 4.6). Of these, 42 unique entities hold QS in all three areas, 34 unique entities hold QS in the AI and GOA, and 43 unique entities hold QS in both the BS and GOA for a total of 119 directly regulated small entities, under this action item.

Alternatives considered and their impact on small entities

This analysis reviews the status quo, and the preferred alternative to add either visual clearance or vessel monitoring system requirements. The alternatives are explained in Section 4.2, and the following summary of impacts on small entities is distilled from the discussion in Sections 4.3 and 4.4.

Adoption of Alternative 1 would result in no change to the regulations that currently govern the sablefish IFQ program, and therefore would have no attributable impact on any directly regulated small entities.

Total	Aleutian Islands	Bering Sea	Gulf of Alaska
42	x	x	x
7	x	x	
34	x		x
15	x		
43		x	x
22		x	
163	98	114	119

Note: AI/BS/GOA columns not additive

Alternative 2 would implement either (or both) a check-in/check-out and/or VMS requirement(s) for the sablefish IFQ fishery in the BSAI, as a disincentive to misreporting of catch areas. As detailed in the RIR, each of these requirements has the potential to impose costs on small entities participating in the EBS or AI sablefish IFQ fisheries. The check-in/check-out requirement would mandate a port call, at a specifically designated location to confirm, through a monitoring agent, the time and location of the vessel, upon seeking entry onto the fishing grounds. This clearly has the potential to impose both operational and logistical costs on all participating vessels, as well as the monitoring agent. As the RIR reveals, a port call to check in and/or check out of a fishing area can mean diverting from planned trips to and from the grounds, utilizing time and consumable inputs (i.e., fuel) that would otherwise be invested in fishing, and exposing the vessel and crew to additional sea time, with all the associated risks, thereof.

Requiring, alternatively, the use of VMS on all participating vessels, while reducing the operational inconvenience, risk, and cost of an otherwise unnecessary port call, imposes its own costs, as treated in detail in the RIR above. These include, but are not limited to, the initial cost of the VMS hardware, the cost of installation and annual maintenance, costs of broadcasting VMS signals, etc. As the RIR suggests, many of the operations to which this rule would apply already have VMS capability and would, therefore, not incur the relatively large initial costs of this program requirement.

Description of recordkeeping, reporting and other compliance requirements

Under the provisions of Alternative 2, the operator of any vessel who fishes for sablefish in the BS or AI management area must obtain a vessel clearance for the management area in which fishing is to occur. Under the preferred alternative, either (1) an operator obtaining a vessel clearance must obtain the clearance in person from the authorized clearance personnel and sign the NOAA Fisheries form documenting that a clearance was obtained, except that when the clearance is obtained via VHF radio, the authorized clearance personnel must sign the form documenting that the clearance was obtained; or (2) any vessel that carries a transmitting VMS transmitter while fishing for sablefish in the BS or AI management area (and until all sablefish caught in any of these areas is landed) would be exempt from the clearance requirements, provided that the operator of the vessel complies with VMS regulations. The operator of the vessel also must notify NOAA Enforcement within 72 hours before fishing, and receive a VMS confirmation number. Appendix I identifies the type of regulation in place for halibut that are envisioned under this action.

Identification of relevant Federal rules

NOAA Fisheries is not aware of any other Federal rules that would duplicate, overlap, or conflict with this action.

Description of significant alternatives that minimize adverse impacts on small entities

NOAA Fisheries is not aware of any alternatives in addition to the alternatives considered herein that would accomplish the objectives of the Magnuson-Stevens Act and other applicable statutes and that would minimize the economic impact of the proposed rule on small entities.

The only alternative to that identified by the Council as “preferred” is the No Action (status quo) alternative. Based on the forgoing IRFA analysis (immediately above) and the more detailed treatment of this alternative in the RIR, it appears that, while the No Action alternative likely would impose a lesser burden on small entities than the preferred alternative, it fails to achieve the objective of this action. It therefore would not accomplish the objectives of the Magnuson-Stevens Act and other applicable statutes.

5.0 Action 4: Amend sablefish product recovery rate

A proposal for a regulatory change to the product recovery rate (PRR) for bled sablefish from 0.98 to 1.00 was adopted for analysis by the Council in 2003. A product recovery rate is the ratio expressed as a percentage of the weight of processed product, divided by the round weight. The proposal suggested that the current PRR for sablefish is not reasonable, has no conservation benefit, is a disincentive to improved quality (i.e., to bleeding sablefish), and is an unfair reduction in sablefish IFQs. The preferred alternative would effectively eliminate the PRR for bled sablefish.

NOAA Fisheries states that accurate catch reporting is the main objective in applying the PRR to landed sablefish, and that no action should be taken to change the recovery rate because the PRR of 0.98 is accurate. In October 2004, the analysis was expanded to address product recovery of unbled sablefish. At that time, the Council added an alternative to change the PRR from 0.98 to 0.99.

5.1 Problem and management objectives for the action

In June 2004, the Council adopted the following problem statement for Action 4, although NOAA Fisheries asserts, and scientific experiments have confirmed that this product rate is accurate.

Inaccurate product recovery rate provisions may be a disincentive for fishermen to bleed fish thereby reducing the quality of fish delivered. Accurate catch reporting may be compromised under the current application of the product recovery rate for bled sablefish.

5.2 Management Action Alternatives

Alternative 1 No action.

Accurate catch accounting is a critical component of determining appropriate levels of allowable biological removals. The 0.98 PRR for bled fish has been in regulation since the mid-1980s. Some processors may have been incorrectly reporting bled fish as “round” fish for years, by not applying the PRR to those landings. To the extent that past misreporting by processors who reported bled sablefish as “round” weight has occurred, then sablefish harvest has been under-reported, both in the general record keeping and reporting system, and IFQ accounting. A few years ago, some buyers began applying the required PRR to bled sablefish, resulting in concern by sablefish QS holders of lost revenues associated with the 2 percent of the IFQs that was being deducted from landed weights. For example, NOAA Fisheries would apply the 0.98 PRR on 100 lb of bled sablefish, resulting in an IFQ deduction of 102 lb round weight from an IFQ account.

The sablefish PRR is based, in part, on research by the Observer Program in the 1980s, as well as scientific experiments performed at the NMFS Auke Bay Laboratory, and inquiries made of a number of commercial processors. At the request of NMFS Alaska Regional Office (AKRO), NMFS Auke Bay Lab scientists recently conducted a cooperative study with sablefish fishermen, to determine the blood loss that could be expected for sablefish being bled onboard, and those delivered in the round. Sigler et al. (2004) reported the following (emphasis added):

“Accurate catch estimates are necessary for successful fishery management. Catch weights may be affected by fish bleeding; a practice fishermen use to ensure product quality. We conducted field experiments during July 2002, and July 2003, in the Gulf of Alaska to estimate the change in fish weight due to blood loss for sablefish. Fish weights were compared before and after bleeding. Sablefish lost more weight when bled without seawater (2.0%) than when immersed in flowing seawater (1.6%). Sablefish lost more weight when carefully brought aboard (2.0%) than when gaffed aboard (1.7%) (bled without flowing seawater). Gaffed sablefish lost weight even when not intentionally bled (1.0%) because of blood loss at the gaff wound. **The product recovery rate (PRR) currently applied by fishery managers to estimate catch weight for bled sablefish (2.0%) *slightly overestimates* “blood loss” for fish gaffed aboard (1.7%).** The PRR applied by fishery managers for unbled sablefish (0.0%) *underestimates* “blood loss” for fish gaffed aboard (1.0%). Estimating the actual change in weight due to blood loss for a commercial fishing trip is difficult because it requires accounting for storage methods and handling practices.”

In summary, the researchers recognized that their results may not match blood loss during commercial fishing because of variations in fishing gear and handling. Field testing of the 2 percent deduction resulted in findings of a 1.7 percent blood loss during research trials. NMFS AKRO interpreted the results as confirmation of the 0.98 PRR and recommended no action. The full report is appended to this analysis under Appendix 2.

Alternative 2 Change product recovery rate from 0.98 to 1.0 for bled sablefish. (**Preferred**)

The preferred alternative would effectively eliminate the PRR for bled sablefish, by revising the rate from 0.98 (2 percent deduction) to 1.0 (no deduction). An industry organization recommended the regulatory change, asserting that application of the PRR has resulted in a change in fishing behavior, whereby some fishermen no longer bleed sablefish, thus lowering its quality.

During its review of IFQ proposals in December 2003, the IFQ Implementation Team agreed that a PRR of 0.98 for sablefish is not reasonable, has no conservation benefit, and is a disincentive to improved quality. NOAA Fisheries (Sigler et al. 2004), however, continues to recommend its application for accounting, population modeling, and stock assessment purposes, as follows.

“The National Marine Fisheries Service applies an adjustment to landings of bled sablefish that implies blood loss is 2% of body weight (PRR = 0.98, bled fish, product code 03). Gaffing fish is the normal method of bringing fish aboard during longline fishing. We found that blood loss is slightly less, 1.7% of body weight, for bled sablefish that are gaffed aboard. The implied PRR is 0.983 rather than the current 0.98. No adjustment currently is applied for sablefish not deliberately bled (PRR = 1.0, whole fish, product code 01) (Low et al. 1989); however, we found that blood loss is 1.0% of body weight for sablefish that are gaffed aboard. The implied PRR is 0.99 rather than the current 1.0.

Historic catch estimates represent the weight of sablefish after gaffing, rather than live weight, because most sablefish were gaffed aboard, classified as whole fish, and the PRR of 1.0 was applied. Fishery catches as well as catches from sablefish longline surveys are affected. Thus, historic catches underestimate the live weight of the catch by 1%.”

Alternative 3 Change product recovery rate from 0.98 to 0.99 for bled sablefish.

During initial review, the Council added an alternative to change the sablefish PRR from 0.98 to 0.99 to address an underlying issue of the industry proposal which is related to the 1.0 percent loss of blood from fish gaffed and unintentionally bled in the field experiment by Auke Bay Lab scientists (Sigler et al. 2004). The Council recommended that the analysis be expanded to discuss how the lack of a PRR for unintentionally or “unbled” sablefish masks the effectiveness and accuracy of the PRR for bled sablefish (Table 5.1).

Table 5.1 Results of Sigler et al. bleeding study under experimental fishing conditions	
2.0 percent	body weight loss when intentionally bled without flowing sea water.
1.7 percent	body weight loss in intentionally bled sablefish with flowing sea water
1.0 percent	body weight loss in unintentionally bled sablefish gaffed aboard
0.7 to 1.0 percent difference between intentionally and unintentionally bled sablefish under experimental fishing conditions	

Public testimony incorrectly suggested that the PRR for bled sablefish was implemented two years ago; however, it was initially implemented in the 1980s. Two years ago, Sitka buyers began applying the rate for sablefish intentionally bled, due to contacts with NOAA Enforcement Division. The proponents of the subject management action suggest that the recent application of the existing PRR for bled sablefish has resulted in a “loss” of the 2 percent correction of the weight of every landing of intentionally bled sablefish and acts as a disincentive for fishermen to bleed sablefish at sea, a practice that they assert enhances product quality.

The proponents of the subject management action suggested that the 1.7 percent blood loss, minus the 1 percent blood loss from sablefish not intentionally bled, but which have suffered a blood loss through the gaff wound, results in a difference between bled and unbled sablefish of 0.7 percent. They suggested that since the experimental results do not accurately reflect actual fish handling techniques in the commercial fishery, that either the sablefish quota be increased by 1 percent or the PRR for bled sablefish be eliminated. During testimony, the proponents notified the Council that they did not support changing the PRR from 0.98 to 0.99.

The Council requested that the analysis be expanded to address the issue of the difference between intentionally and unintentionally bled sablefish, and the lack of a PRR for unintentionally bled sablefish. A response by NOAA Fisheries staff follows:

“At the request of the Alaska Longline Fisherman’s Association and with the endorsement of the Alaska Region Office of NMFS, the Alaska Fisheries Science Center staff conducted a study of the product recovery rates for sablefish that are reported as round or bled products. The study was conducted in two sessions in 2002 and 2003 and examined the effects of different types of handling on weight loss. The treatments in the experiment were intended to simulate typical processes on fishing vessels.

Product recovery rates allow fisheries managers to estimate the round weight equivalent of groundfish that are accounted for at a product level. For example a product that in general results in the removal of half the weight of a fish will have a product recovery rate of one-half. If the product weighs one pound it is calculated to have a round weight equivalent of two pounds. Accurate determination of round weight is an important component of the algorithm fisheries managers use to determine total harvest removals so that quotas are accurately managed and fishing mortality is determined for population modeling. Product recovery rates can affect the revenues fishermen realize and are important to the industry to determine retention amounts for species that are closed to directed fisheries, but can be retained at a particular rate.

In 2002, Alaska Fisheries Science Center staff examined carefully released sablefish to compare the loss of body weight from bleeding by cutting gills with and without flowing seawater. In 2003 the study compared fish boarded with a gaff with the gills either subsequently cut or not cut, both treatments in the absence of flowing seawater. The median weight loss in the 2002 study indicated a lower loss in the flowing sea water or a product recovery rate of 0.984 vs 0.980 for loss in the absence of flowing sea water. The median weight loss in the 2003 study for the gaffed fish with cut gills indicated a product recovery rate of 0.983 and for fish that are gaffed and not intentionally bled, a rate of 0.990.

The table of product recovery rates in regulation indicates fish that are gaffed aboard the vessel without intentional bleeding are considered whole fish and are assigned a product recovery rate of 1.0. Intentionally bled fish are assigned a product recovery rate of 0.98. The study indicates gaffed fish that are not intentionally bled lose 1% of their weight or a product recovery rate of 0.99 rather than the current rate of 1.0. The three different treatments that included intentionally bled fish had product recovery rates of 0.980, 0.983 and 0.984. The two higher rates compare favorably with, and under most rules of rounding would translate into, the current regulatory rate of 0.98. Given the above results, fishermen are allowed exactly what their IFQ should be, or incur excessive deductions of either 1/10 of a percent, or 4/10 of a percent for intentionally bled sablefish.

Given the information gained from this study NMFS endorses consideration of changing the product recovery rate for gaffed sablefish from 1.0 to 0.99. NMFS further suggests that this rate be applied to all species that are currently gaffed and delivered as round fish.

If the product recovery rate for gaffed sablefish were changed from 1.0 to 0.99 about 15% of the total sablefish catch across the BSAI and GOA would be affected. In 2003, sablefish were predominately delivered as a "headed and gutted" product (80% BSAI/GOA wide) followed by round fish (15%) and bled fish (2%). In 2003, the total catch was about 17,400 mt. Fifteen percent of that amount is 2,600 mt. One percent of 2,600 mt is 26 mt, indicating the catch is under estimated by that amount and IFQ deductions were 26 mt too small.

NMFS does not endorse changing the bled fish rate from 0.98 to 0.99 as suggested by public testimony. The change is not supported by the study nor if it were accepted, have much effect on the estimate of total catch.

In the three treatments that involved intentionally bled fish, the group of fish that were not gaffed aboard but carefully released and bled were calculated to have exactly the same product recovery rate as the regulatory rate. The other two treatments showed rates that indicated .003 and .004 percent less weight loss than the current regulatory product recovery rate of 0.98. If the rate were changed from 0.98 to 0.99, given the 2003 reported products, the change in total catch would be negligible. About 350 mt round weight of bled fish were delivered in 2003, which was generated by applying a rate of .98 to the original product weight of 343 mt. Applying a rate of 0.99 to the product weight results in a round weight estimate of 346 mt or a total difference of 4 mt." Thus, if the 'correct' PRR was .983, the IFQ 'error' was 1.03 mt, while at .984 it was 1.37 mt across all landings of bled sablefish.

The recommendation to create a PRR for unintentionally or “unbled” sablefish is a new action that has not been analyzed or noticed to the public. A separate regulatory amendment could be initiated by the Council.

5.3 Expected effects of Alternative 1

The bled sablefish PRR of 0.98 would be maintained. This application results in a 2 percent deduction of IFQs for blood loss to correct landed weight to round weight for intentionally bled sablefish. In recent years, there has been a downward trend in the amount of bled sablefish landed. Based on round weight, in 2002, 4.6 percent of the total sablefish landed in the IFQ fixed gear fisheries was coded as bled. This declined to 1.6 percent of the total IFQ landings in 2003, and to 1.0 percent in 2004 (NMFS Alaska Region, Weekly Production Reports, October 2005).

Taking no action *may* result in some fishermen changing their fish handling practices (e.g. not bleed sablefish), so as not to incur uncompensated costs. This is a rational economic decision. Indeed, in the absence of an ex-vessel price differential between bled and unbled sablefish, there is no economic justification for intentionally bleeding catch, since the buyer (apparently) perceives no quality difference as reflected in price. In any case, the proportion of bled sablefish is already very low, as noted above, so the market effect of those who historically bled their catch abandoning that practice would be extremely small.

In the fall of 2005, Council staff interviewed representatives of the major sablefish processors and found the unanimous response that no price premium for bled sablefish is paid to fishermen. This indicates consumers do not perceive (or are unwilling to pay for) a difference in bled versus unbled product. In this case, the assertion by proponents of the PRR change that the current 0.98 rate is, “*a disincentive for fishermen to bleed fish, thereby reducing the quality of fish delivered*” is without merit. That is, if the market price does not reflect a quality differential, then effectively none exists. If a price premium for bled fish does emerge, then “the market” will compensate (i.e., provide the incentive) for fishermen to produce a higher quality product. Market forces will produce the most efficient (i.e., “correct”) incentive structure, by accurately reflecting the consumers surplus, as reflected in their “willingness-to-pay” (WTP) for the quality differential. Retention of the status quo PRR would allow the market to correctly define and capture any actual quality differential.

It is, therefore, the marketplace, and not the status quo PRR, which is the source of declining landings of bled sablefish. Intentional bleeding of sablefish catch is an economically irrational practice, based upon market price signals. Therefore, any fisherman that continues to do so, in the face of contrary indicators, must receive some non-pecuniary compensatory value from incurring the added handling costs and PRR deduction. In any case, this has no bearing on whether or not the PRR is correct and serving its intended management purpose.

5.4 Expected effects of Alternative 2 (Preferred)

The Council’s preferred alternative would eliminate the PRR for bled sablefish (no deductions made), in effect equating fish landed “round” with those landed “bled.” This alternative would address an *alleged* (but unsupported) overestimation of reported IFQ catch, which proponents of the action assert results from the application of the PRR for bled sablefish to convert landings to round weight. The purpose of the PRR is to account for the loss in weight of sablefish (in the round) from blood loss. Bleeding and handling practices on individual vessels and setting time (the time the fish is allowed to bleed) affect delivery weight. The industry proposal suggested that the PRR overestimates weight loss in bled sablefish. However, recent NMFS research suggested that the discrepancy between the applied rate (2 percent) and the research rate (1.7 percent) was negligible (i.e., 0.3) and application of the current rate should be continued.

Based on 2004 landings data, the preferred alternative could be expected to affect 1.04 percent of sablefish landings (i.e., those that were reported to be bled), or 192 mt out of a total harvest of 18,375 mt. Fishermen that landed 192 mt of sablefish (round weight equivalent after application of the PRR) would only have been paid for 98 percent of this amount, or 188.2 mt. This would leave 3.84 mt that were ‘lost’ (i.e., deducted from their IFQs without compensation) to fishermen making landings of bled sablefish in 2004. Since they were

apparently not paid a premium price for bled sablefish, they were charged 3.84 mt for which no payments were received. At an average ex-vessel price of \$3.50, this would result in diminished sablefish income, shared among all those who landed bled sablefish, of \$29,000. Data are not immediately available on the number of fishermen making landings of bled sablefish, but the average diminished earnings, per fisherman, is likely to be exceedingly small.

An expected effect of the preferred alternative is reduced accuracy in catch accounting, although the result will likely be modest. Carried to its logical extreme, if there actually exists no price premium between the two delivery forms (bled and unbled sablefish), then it follows (based on the argument presented by the proponents of the action) that no sablefish will be intentionally bled, or otherwise handled with any special care. This must be so, again following this argument, because “bleeding and careful handling” increases per unit cost to the fisherman, as compared to “not bleeding or carefully handling”, and these costs cannot be recovered from the buyer. Ultimately, this must lead to all sablefish being landed in-the-round, in whatever condition they may be when the boat hits port.

An important aspect of the preferred alternative is to determine whether or not it would inadvertently provide an incentive for future misreporting of either bled sablefish misreported as round, or round sablefish misreported as bled fish.

In the first instance, we can evaluate whether Alternative 2 would provide any incentive for fishermen to report bled sablefish as round. As an example, if a fisherman brought in 10,000 pounds of bled sablefish but somehow managed to persuade the processor to report them as round, what would be the result and would the fisherman receive any advantage from this misreporting? With the PRR of 2 percent, 10,000 pounds of bled sablefish would result from a harvest of 10,204 pounds, resulting in an under reporting of the catch by 204 pounds. However, it seems unlikely that a fishermen would have an incentive to make this under reporting. As noted above, there is no price premium paid to fishermen for bled fish, so the extra work of bleeding the catch would result in no additional revenue although it would yield approximately 200 pounds of “undeducted” IFQ. Against this, the fisherman and the processor would have to weigh their joint risk from falsifying the State of Alaska fish ticket, and from illegal misreporting of Federal IFQ.

In the second instance, we can evaluate whether Alternative 2 would provide any incentive for fishermen to report round sablefish as bled. An example of this case would be a fisherman landing 10,000 pounds of round fish, but having them reported as bled. Because there is no price premium for bled sablefish, the fisherman would receive no revenue advantage from this misreporting. If NOAA Fisheries continues to apply the 2 percent PRR, the fisherman would have 10,204 pounds charged against his or her IFQ shares. If NOAA Fisheries were to drop the 2 percent PRR as a result of the Council action, the fisherman would only be charged with 10,000 pounds against his/her IFQ shares.

In either case, there does not appear to be a financial incentive for misreporting under the Council preferred alternative. Likewise, however, there does not appear to be a financial incentive to bleed catch, under any of the three alternatives.

5.5 Expected effects of Alternative 3

As noted above, Alternative 3 would change the PRR for bled sablefish to account for blood loss from unintentionally bled fish. As described in Section 5.4, the effect of Alternative 3 *may* be half that estimated for Alternative 2. That is, the industry may realize less than \$15,000 in additional gross ex-vessel earnings, based on 2004 landings and an average ex-vessel price of \$3.50. This must be traded off against the unquantified cost of reduced catch accuracy and the subsequent impacts these could have on sablefish stocks and future quotas.

Council Selection of a Preferred Alternative

The proponents of this subject management action also note that, depending on the care given the catch, handling of unbled sablefish may still result in blood loss (e.g., from gaff wounds), but NMFS does not currently correct for that blood loss. They argue that PRR research results from bled sablefish (0.983) are similar to unbled sablefish (1.0) and should be treated equivalently. That is, blood loss from intentionally bled fish should not be counted against IFQ accounts, since blood loss from fish unintentionally bled (e.g., gaffed aboard) is not counted against IFQ accounts.

This is admittedly a rather curious conclusion, given that the intentionally bled fish account for approximately 1 percent of landings, while unintentionally bled fish account for something over 15 percent of landings. What this argument suggests is, because approximately 15 percent of the total IFQ catch has had at least one percent “too little” of its weight deducted from the IFQ holder, while approximately 1 percent of the total IFQ catch has had perhaps 3/10 to 4/10 of one percent “too much” of its weight deducted from the IFQ holder, all reductions from round weight should be eliminated. This is doubly confounding, because those that believe they have had “too much” deducted can immediately avoid the deduction by not intentionally bleeding their catch, and pay “nothing” in terms of ex-vessel price, for doing so.

In making its decision on the preferred alternative, the Council did not record their specific rationale for the decision. However, it appears that it was based on the following perceptions: (1) the Council determined that NMFS experimental results were not persuasive and the difference between weight loss from intentional and unintentional bleeding, due to different handling techniques in the fishery was insignificant, (2) the Council further concluded the resultant weight loss had an insignificant impact on sablefish biomass estimates, and (3) since the Council was not being asked to address the PRR for blood loss from gaffed sablefish (a 1 percent loss), that the logic of applying the PRR for bled sablefish only was also not persuasive. The Council recognizes that its preferred alternative differed from the recommendation of NOAA Fisheries Service, but believes that the implementation of the preferred alternative was the best choice.

Administrative, Enforcement, and Information Costs

No additional costs can be quantified under Action 4 although NMFS’ scientists expressed concern about loss of accuracy in landings records, with possible future implications for stock modeling and quota estimation..

5.6 Conclusions

Table 5.2 summarizes the net benefits of the alternatives. The estimated aggregate benefits to fishermen who currently bleed their fish, and incur the PRR deduction, would be approximately \$30,000 (all things being equal), based on 2004 landings data. That is, of a total harvest of 18,375 mt, 1.04 percent of sablefish landings were reported to have been bled, or 192 mt. The fishermen that landed 192 mt of sablefish (round weight equivalent, after application of the PRR) would have been paid for 98 percent of this amount, or 188.2 mt. This would leave 3.84 mt that were deducted from their IFQs, without compensation.

The costs associated with inaccurate catch statistics cannot be quantified, although they are expected to occur (but will be small unless there is a large increase in the proportion in bled sablefish landed. Since it appears there is no price premium for bled sablefish, this seems unlikely to occur. A systematic error in catch accounting, however, would tend to compound over time. Until biological surveys begin to reflect the higher than predicted (i.e., greater than TAC) removals, the inherent asset value of the sablefish resource would be diminished, *ceteris paribus*. Long term sablefish TACs may be reduced, impacting all sablefish fishermen (i.e., IFQ holders, trawlers targeting sablefish, other fisheries).

While none of the proposed actions are expected to result in a “significant action”, as defined in Executive Order 12866, the preferred alternative could, potentially, result in a “reduction” in net national benefits, which would be contrary to the legal requirements of MSA and EO 12866 to “maximize” net benefits to the Nation, to the fullest extent practicable.

Table 5.2 Summary of the cost and benefit analysis of Action 4.

	Alternative 1	Alternative 2 (Preferred) Change the bled sablefish PRR to 1.0	Alternative 3 Change the bled sablefish PRR to 0.99
Who may be affected	baseline	An unknown number of the 874 (as of 2004) total sablefish QS holders may land their sablefish as bled. Only 1 percent of landings, in 2004, were reported as bled. Misreporting of bled fish has been widespread historically, making accurate prediction of this number problematic.	The same as under the preferred alternative.
Impacts to the resource	baseline	The Council believes none, at least in the short run. NMFS disagrees.	The Council believes none, at least in the short run. NMFS disagrees.
Benefits	baseline	The estimated direct benefits are something under \$30,000 (all things being equal) divided among those IFQ holders that accounted for approximately 1 percent of total sablefish IFQ landings (based on 2004 data).	Estimated benefits are approximately half of the preferred alternative, or something under \$15,000.
Costs	baseline	Costs associated with inaccurate catch statistics cannot be quantified. However, an inappropriate change in PRR could impose small reductions in future TACs, with associated reductions in earnings from the fishery. Since there is no price differential for delivery of bled sablefish, it does not seem likely that the alternative would result in a failure of price to accurately account for WTP for quality differentials should one emerge.	Costs associated with inaccurate catch statistics cannot be quantified. However, an inappropriate change in PRR could impose small reductions in future TACs, with associated reductions in earnings from the fishery. Since there is no price differential for delivery of bled sablefish, it does not seem likely that the alternative would result in a failure of price to accurately account for WTP for quality differentials should one emerge.
Net benefits	baseline	The net benefits to the Nation may decrease slightly as a result of inaccurate catch statistics that would result from not applying the PRR to the relatively small proportion of sablefish harvest that is landed bled.	The net benefits to the Nation may decrease slightly as a result of inaccurate catch statistics that would result from not applying the PRR to the relatively small proportion of sablefish harvest that is landed bled.
Action objectives	Does not meet Council's policy objective	Does not address issue of inaccurate catch statistics.	Does not address issue of inaccurate catch statistics.

5.7 Initial Regulatory Flexibility Analysis

This IRFA describes the impact on small entities of the proposed alternatives for amending the sablefish product recovery rate for bled sablefish. A complete description of the requirements of the Regulatory Flexibility Act is set out in Section 1.3.

Reason for action and objectives

Accurate catch reporting is the main objective in applying PRRs to landed fish. The problem statement is discussed in detail in Section 6.1, above. However, the proposal's claim that the PRR applied to bled sablefish is inaccurate has not been corroborated by NOAA Fisheries.

Description and estimated number of small entities

This action could directly regulate as many as 874 sablefish QS holders (Table 1.2), although only a small (but unknown) subset of these IFQ holders land their catch as bled fish. At present, NOAA Fisheries does not have sufficient ownership and affiliation information to determine precisely the number of small entities in the IFQ program, or the number that would be adversely impacted by the present action. For the reasons discussed in Section 1.3, this analysis assumes that all operations are small for RFA purposes.

Alternatives considered and their impact on small entities

This analysis reviews the status quo and two alternatives to change the PRR for bled sablefish. The alternatives are explained in Section 4.2, and the following summary of impacts on directly regulated small entities is distilled from the discussion in Sections 4.3 and 4.4.

Alternative 1 would not revise the PRR for bled sablefish. As a result, proponents of this action suggest that IFQ deductions for fish bled before landing exceed the true amount of the IFQ used. This, it is further asserted, imposes costs, in the form of reduced ex vessel revenues, upon that segment of the industry which bleeds its sablefish. This reduction in ex vessel revenue, it is argued, represents a disincentive for fishermen to bleed sablefish onboard, a practice which they further assert improves product quality.

Alternative 2 (preferred) would change the PRR to 1.0 (effectively eliminating the PRR) for bled sablefish because its proponents have suggested that it is inaccurate. NOAA Fisheries disputes this claim. NMFS has stated that the change in PRR from 0.98 to 1.0 for bled sablefish would result in inaccurate catch accounting, the detailed implications of which are summarized above in the RIR. Furthermore, the market-distorting effects of adoption of this alternative could inhibit the market from accurately compensating those small entities with the desire and ability to produce a superior quality product (assuming a quality differential

emerges in the future). Such entities may be placed at a competitive disadvantage and be forced to either adopt practices that result in low quality, or exit the fishery.

Alternative 3 would change the PRR to 0.99 resulting in many of the same outcomes identified under Alternative 2, although, perhaps, on a somewhat smaller scale.

Description of recordkeeping, reporting, and other compliance requirements

No additional record keeping and reporting requirements are associated with this action.

Identification of relevant Federal rules

NOAA Fisheries is not aware of any other Federal rules that would duplicate, overlap, or conflict with this action.

Description of significant alternatives that minimize adverse impacts on small entities

The Council is not aware of any other alternatives, in addition to the alternatives considered that would accomplish the objectives of the Magnuson-Stevens Act and other applicable statutes and that would minimize the economic impact of the proposed rule on small entities.

6.0 Action 5: Amend the halibut block program in Areas 2C, 3A, 3B, 4A, 4B, 4C, and 4D

Prior to the implementation of the IFQ program, the Council adopted a block program to prevent excessive consolidation in the halibut and sablefish fisheries. Another goal of the program was to maintain the diversity of the IFQ longline fleet, comprising small producers, part-time participants, and entry-level participants, without compromising the flexibility and economic efficiency of the program as a whole. All initially issued QS that resulted in less than 20,000 lb (9 mt) of IFQ was “blocked,” that is, issued as an inseparable unit. Also, no person is allowed to own more than two QS blocks per species in any regulatory area, or one QS block, if unblocked QS is also held by that individual for that area.

A “sweep-up” provision was included to avoid an excess of small blocks that would be economically unfishable (i.e., the value of the harvest would not exceed the costs of the fishing trip). This allows small QS blocks to be permanently consolidated, as long as the resulting block does not exceed a set limit. The sweep-up level was originally set at 1,000 lb for halibut and 3,000 lb for sablefish, based on the 1994 TACs. However, after the completion of the first season, the IFQ longline industry reported that the established sweep-up levels were still lower than the harvest amount of a worthwhile fishing trip, and the sweep up levels were consequently increased to 3,000 lb and 5,000 lb for Pacific halibut and sablefish, respectively, based on the 1996 TACs.

6.1 Problem and management objectives for the action

The halibut vessel size classes and block plan were designed to maintain a diverse, owner-operated fleet and provide entry-level opportunity in the IFQ fisheries. However, many halibut QS holders have indicated that the existing block and sweep up restrictions are cumbersome when arranging changes in fishing operations and that increased flexibility may be desirable. Large quota increases, consolidation, and changing use patterns within the fleet suggest that the block and sweep-up provisions should be reviewed to determine whether changes are necessary.

6.2 Management Action Alternatives

Five alternatives are considered under this management action. Alternatives 2 through 5 are not mutually exclusive.

Alternative 1 No action

Under this alternative, the halibut QS would remain blocked or unblocked as currently issued, and the number of blocks that may be held by a person would be limited to 2 (or 1 block and any amount of unblocked QS) for each regulatory area. The maximum sweep-up levels would continue as specified in regulations under 50 CFR 679.41(e).

Alternative 2 Increase block limits in all areas

- a) **(Preferred)** limit is 3 blocks unless unblocked QS is held, in which case the limit is 1 block
- b) limit is 3 blocks unless unblocked QS is held, in which case the limit is 2 blocks
- c) limit is 4 blocks unless unblocked QS is held, in which case the limit is 2 blocks
- d) limit is 4 blocks unless unblocked QS is held, in which case the limit is 3 blocks

This alternative would increase the limit on the number of blocks that can be held by a person in each regulatory area.

Alternative 3 Unblock all QS blocks that yield more than 20,000 lb in all areas

Alternative 3 would unblock QS blocks yielding larger than 20,000 lb, based on the 2004 TACs, in all halibut IFQ areas.

Modified Alternative 3 (Preferred) In Areas 3B and 4A, for QS blocks that yield more than 20,000 lb, divide into one block of 20,000 lb, based on the 2004 TACs, and unblock the remainder

In Area 3B, all QS blocks that exceed 69,492 QS units would be divided into one block of 69,492 QS units with the remaining QS to be issued as unblocked QS. In Area 4C, all QS blocks that exceed 93,404 QS units will be divided into one block of 93,404 QS units with the remaining QS to be issued as unblocked QS.

Alternative 4 Allow blocked QS greater than 20,000 lb to be divided into smaller blocks in all areas

Under this alternative, holders of QS blocks yielding larger than 20,000 lb based on the 2004 TACs, in all halibut IFQ areas would choose whether to divide the block, with the resulting parcels to remain blocked.

Alternative 5 (Preferred) Increase the Areas 2C and 3A halibut sweep-up level to the 5,000 lb equivalent in 1996 QS units

This alternative would increase the sweep-up level provision of the halibut block program in Areas 2C and 3A to a not-to-exceed consolidation level of 5,000 lb, based on the 1996 TACs. The maximum number of QS units that would be consolidated into a single block would increase from 19,992 to 33,320 in Area 2C, and from 27,912 to 46,520 QS units in Area 3A.

6.3 Alternative 1 - No action

Under this alternative, halibut QS holders are subject to transfer and use limitations under the IFQ program as currently implemented. These restrictions are described in 50 CFR 679 Subpart D.

Under the block program, a person may not hold more than 2 blocks of each IFQ species in any IFQ regulatory area, or if the person holds unblocked QS for a species in an IFQ regulatory area, may hold only one QS block for that species [50 CFR 679.42 (g)(1)]. The majority of QS in each of Areas 2C, 3B, and 4A are blocked (see Table 6.1). However, small block holdings may be consolidated or 'swept up' into a single block holding, as long as the resulting block does not exceed 3,000 lb, based on the 1996 TACs. The maximum number of QS units that may be consolidated in each regulatory area is identified in 50 CFR 679.41(e)(3).

Table 6.1 QS Holdings by area. Data as of 7/27/2004. Source: NOAA Fisheries RAM.

Area	Total QS	Blocked QS	Unblocked QS	Total Number of Blocks	Total Number of QS Holders
2C	59,556,591	71%	29%	1,667	1,426
3A	184,928,542	35%	65%	2,055	1,928
3B	54,203,176	66%	34%	626	567
4A	14,587,099	71%	29%	276	284
4B	9,284,774	36%	64%	115	107
4C	4,016,352	52%	48%	66	63
4D	4,958,250	49%	51%	55	49

In addition to the block program, QS holdings are also limited by overall halibut ownership limits that constrain the total number of QS units held by a person. There are three ownership caps identified, limiting QS holdings by regulatory area(s). The QS units are calculated based on the 1996 TACs. In Area 2C, no person may own more than 1 percent of the QS pool, or 599,799 QS units. A person's QS holdings for Areas 2C, 3A, and 2B combined may not exceed 0.5 percent of the QS pool, or 1,502,823 QS units. For the combined Areas 4A, 4B, 4C, 4D, and 4E, no person may own more than 1.5 percent of the QS pool, or 495,044 QS units. Additionally, vessel limits constrain the amount of QS that may be caught onboard a vessel. In a given fishing year, no vessel may harvest more than 0.5 percent of the combined halibut TAC for Areas 2C, 3A, 3B, 4A, 4B, 4C, 4D, and 4E, and more than 1 percent of the combined fixed gear sablefish TAC for the BSAI and GOA management areas. Also, no vessel may harvest more than 1 percent of the halibut TAC for Area 2C, and more than 1 percent of the sablefish TAC in that portion of the GOA management area east of 140° W. longitude.

Determining the market value of halibut QS is difficult. Various attributes of the QS holding influence its price, including regulatory area, QS category, whether it is blocked or unblocked, and whether it can be fished down in Area 2C. Additionally, the size of the QS holding for sale, and how many fishable pounds remain associated with the QS for the current year also affect price. Table 6.2 contains data from the NOAA Fisheries Restricted Access Management Program of all 2003 priced QS transfers for halibut, in which the transferor and transferee are not the same person. The table averages the price per lb (based on 2003 lb equivalents to the total QS units transferred) by regulatory area, QS category, and blocked versus unblocked status. However, the data do not necessarily give an accurate market value of QS because other, non-monetary factors may have been a part of a transfer, and their value is not reflected in the averages below. For example, in a dual transfer (QS trade), the party with the less valuable holding may make up the difference in money. This would be reflected as a priced transfer in the database, although the monetary value of the transfer does not represent the full value of the holding.

Another perspective on the price of halibut QS is evident from examining the market offerings of QS holdings. Table 6.3 contains data from eight brokerage web sites, from September 2004, and illustrates the range of sellers' offers for each type of QS holding. This does not necessarily indicate the price at which the QS will actually sell. The table also does not reflect the variation in price that results from the size of the holding.

Although the specific prices may not be reliable, the tables illustrate the general trends in halibut IFQ prices. For example, unblocked QS is generally more valuable than blocked QS. The value of QS in southeast Alaska and the central GOA is greater than QS in the western areas (that is, all areas except 2C and 3A), particularly for QS that must be fished on smaller vessels.

Table 6.2 Average QS transfer price in 2003, and number of transfers, by regulatory area, category, and blocked versus unblocked status, in US dollars. Amount indicated is the equivalent price per lb, based on 2003 TACs, of the actual QS units transferred. Number of transfers is indicated in parentheses. Data averaged from all priced transfers. Source: NOAA Fisheries RAM.

Area	Category A		Category B		Category C		Category D	
	Blocked	Unblocked	Blocked	Unblocked	Blocked	Unblocked	Blocked	Unblocked
2C	–	–	9.89 (4)	10.20 (4)	11.11 (71)	13.15 (6)	8.87 (56)	– (1) ¹
3A	– (1) ¹	– (1) ¹	11.36 (7)	12.69 (18)	9.87 (28)	14.24 (10)	7.38 (60)	8.49 (3)
3B	– (1) ¹	–	7.14 (10)	9.01 (9)	8.06 (39)	– (1) ¹	– (2) ¹	– (1) ¹
4A	–	– (1) ¹	8.06 (10)	7.58 (7)	5.76 (13)	–	3.66 (13)	– (1) ¹
4B	–	– (1) ¹	3.70 (11)	6.78 (4)	4.53 (8)	– (1) ¹	–	–
4C	–	–	–	– (1) ¹	– (2) ¹	– (2) ¹	–	–
4D	–	–	6.53 (7)	– (1) ¹	– (2) ¹	–	not applicable ²	not applicable ³

¹ Average price not shown for fewer than three transfers.

² There is no category D QS in Area 4D.

Table 6.3 Representative QS prices based on market offerings, September 2004, in US dollars. Amount indicated is the equivalent price per lb, based on 2004 TACs, of the actual QS units offered. Data represents the range of offerings for a given QS type. “–” indicates that no QS was advertised with a price for that QS type. Source: ifqalaska.com, ifq.gsiboat.com, www.alaskabroker.com, www.dockstreetbrokers.com, www.ifqbrokers.com, www.permitmaster.com, www.thissen.com, www.tidewater-bkg.com.

Area	Category A		Category B		Category C		Category D	
	Blocked	Unblocked	Blocked	Unblocked	Blocked	Unblocked	Blocked	Unblocked
2C	–	–	14.00	–	12.00-16.50	16.00-18.00	11.00-14.00	–
3A	–	–	13.00-15.00	18.50-20.00	11.00-18.00	20.00	9.00-13.00	–
3B	–	17.00	11.00-13.00	11.50-15.00	9.50-13.50	14.00	9.00-11.00	–
4A	–	–	8.50-10.50	12.75	9.00-12.00	–	7.50-9.50	–
4B	–	14.00	6.50-6.75	7.50-8.50	6.00-8.00	8.50	3.50-5.00	–
4C	–	–	5.00-6.25	–	4.00-5.75	6.75	4.50-7.00	7.00
4D	–	–	7.25-7.50	–	–	–	not applicable ¹	not applicable ¹

¹There is no category D QS in Area 4D.

The block program intentionally constrains the transferability of certain QS holdings in order to preserve the availability of small holdings in the fishery (Hartley and Fina 2001b). Through the Council process², three problems with these constraints have been suggested by IFQ fishermen.

A potential problem with the block program is that in some instances, the QS holdings that were blocked based on 1995 TACs are no longer small holdings. Halibut TACs have increased significantly in some areas since 1995. QS are units that are converted to fishable IFQ based on the annual TAC. While in Areas 2C and 3A, the TACs are roughly similar to their 1995 levels, in the western areas (Areas 3B, 4A, 4B, 4C, and 4D), TACs have increased considerably. Table 6.4 illustrates the number of QS units that constituted 20,000 lb in 1995 for each regulatory area, and the corresponding IFQ lb in 2004. In the most extreme case, Area 3B, TACs have increased more than 300 percent. The result is that many blocked holdings in the western areas now constitute relatively large holdings. This is contrary to the intent of the block program. Difficulties of transfer ensue, as a blocked holding cannot be severed, and the larger holdings are now only available to those with access to large sums of capital.

²The Council called for and received proposals for amendments to the IFQ program in 1999 and 2003.

Table 6.4 QS/IFQ conversion rates in 1995 and 2004. Source: NOAA Fisheries RAM.

Area	1995 IFQ lb	1995 QS/IFQ conversion	QS units	2004 QS/IFQ conversion	2004 IFQ lb
2C	20,000	6.650	133,000	5.6721	23,448
3A	20,000	9.291	185,820	7.3795	25,181
3B	20,000	14.712	294,240	3.4746	84,683
4A	20,000	7.622	152,440	4.2038	36,262
4B	20,000	4.998	99,960	4.1302	24,202
4C	20,000	10.310	206,200	4.6702	44,152
4D	20,000	8.694	173,880	4.1181	42,223

A different problem has also been indicated in the western areas. For these fishermen, whose holdings are small regardless of the increases in TAC, it may not be economically feasible to harvest the holdings as the overhead costs of a fishing trip may equal or exceed the income that can be generated. The ability of a fisherman to increase his or her QS holding by purchase is constrained by the two block limit and a purported scarcity of unblocked QS. QS block holders could minimally be limited to a 6,000 lb (based on 1996 TACs) halibut QS holding, as under the sweep-up provisions, halibut QS blocks may each be consolidated to a maximum of 3,000 lb (based on 1996 TACs). Table 6.5 illustrates that the number of distinct QS holders with unblocked QS is much smaller in the western areas than in Areas 2C and 3A. Larger vessels that may support more crew members may increase their vessel harvest if each crew member controls IFQ. A small vessel, however, is physically restricted as to crew size, and has a limited capacity for the number of blocks that may be harvested on a trip.

Table 6.5 Distinct halibut QS holders by holdings block type. NOTE: Counts are not additive across areas. Data as of 7/27/04. Source: NOAA Fisheries RAM.

Area	Number of Holders				Total Distinct Number of Holders	Total QS holders with two blocks
	with 1 block only	with 2 blocks	with 1 block + unblocked QS	with unblocked QS only		
2C	816	377	93	140	1,426	26.44%
3A	1,082	409	153	284	1,928	21.21%
3B	302	141	39	85	567	24.87%
4A	102	80	14	88	284	28.17%
4B	46	28	13	20	107	26.17%
4C	28	12	14	9	63	19.05%
4D	22	15	3	9	49	30.61%

Some indication of the viability of a holding size can be gleaned from the degree to which consolidation has occurred in the fishery, by area and holding size. This information is compiled annually in the NOAA Fisheries Report to the Fleet (NOAA Fisheries 2003a, in prep.). Table 6.6 summarizes the number of persons holding QS at initial issuance, and those at the end of 2003. The greatest amount of consolidation has occurred among those with holdings of 3,000 lb or less, implying that for many fishermen, it was more profitable to sell out of the fishery than to fish the small holding. Consolidation is much reduced in the larger categories, and the number of holders of QS more than 25,000 lb has increased across the board.

Table 6.6 Consolidation of halibut QS between initial issuance and year-end 2003, by area. NOTE: Size of holdings is expressed in 2003 IFQ pounds. Source: NOAA Fisheries, in prep.

Size of holding (lb)	Area	Number of initial recipients	Holders as of end of 2003	Area	Number of initial recipients	Holders as of end of 2003
3,000 or less	2C	1,551	744	4A	266	88
3,001-10,000		619	456		124	54
10,001-25,000		197	216		82	68
over 25,000		20	50		57	72
TOTAL		2,387	1,466		529	282
3,000 or less	3A	1,819	894	4B	31	13
3,001-10,000		657	486		40	21
10,001-25,000		342	323		47	31
over 25,000		252	261		34	43
TOTAL		3,070	1,964		152	108
3,000 or less	3B	435	127	4C	20	12
3,001-10,000		253	81		29	14
10,001-25,000		182	153		22	23
over 25,000		185	216		11	14
TOTAL		1055	577		80	63
3,000 or less				4D	9	2
3,001-10,000					20	11
10,001-25,000					23	13
over 25,000					16	23
TOTAL					68	49

In the western areas, the number of fishermen participating in the halibut fishery with holdings of between 3,001 and 10,000 lb has decreased by approximately 50-75 percent since initial issuance, depending on the area. Participants with between 10,001 and 25,000 lb holdings have decreased by about 15 percent in Areas 3B and 4A, by 35-45 percent in Areas 4B and 4D, and have increased by about 15 percent in Area 4C.

A final problem identified with the block program is that it imposes logistical complexity on the transfer process which prevents active fishery participants from incrementally increasing their holdings. While unblocked QS holders may gradually increase their QS, assuming unblocked QS is available for purchase, blocked QS holders are constrained by the 2 block limit. As of late July 2004, 20-30 percent of QS holders in each regulatory area are unable to purchase further QS without divesting themselves of their existing QS (i.e., they own 2 blocks; Table 6.5). Consequently, a small QS holder at the block limit, in order to increase his or her holding, must first transfer a block of QS before she or he is able to increase his or her holding. The complexity involved in this dual transaction may provide a substantial obstacle to growth for active fishery participants.

6.4 Expected Effects of Alternative 2 (Preferred)

Four options were examined that would increase the block limits under Alternative 2. The preferred alternative (Alternative 2a) would increase the limit on the number of blocks of halibut QS that may be held by a person to three, unless unblocked QS is held. This preferred alternative would directly affect halibut QS block holders, representing approximately 80-90 percent of QS holders in all areas except Area 4C (Table 6-5). All 3,349 persons holding halibut QS in all IFQ areas (Table 1.2) may be indirectly impacted. The actual effect is likely to be concentrated on the 20-30 percent of QS holders who are currently constrained by holding 2 blocks (Table 6.5), and those QS holders who hold one block and unblocked QS.

The likely effect of this preferred alternative is that some QS holders would expand their operations and purchase additional QS blocks. Consolidation of QS will continue to be limited by the vessel and ownership caps, however. Increasing the halibut block limits to 3 or 4 blocks would increase the flexibility of QS holders in arranging transfers of QS. For those at the block limit, it would allow them to purchase blocked QS without first having to sell QS. Currently, approximately one third of the QS holders in each regulatory area are constrained by the block limits from acquiring additional QS.

This preferred alternative is likely to increase the value of blocked QS, which may consequently decrease the value of unblocked QS. Tables 6.2 and 6.3 provide an indication of the value of blocked and unblocked halibut QS, across categories. Blocked QS is consistently less valuable than unblocked QS, due in part to the restrictions, such as ownership limits, imposed upon blocked shares. Relaxing the ownership limit on blocks is likely to diminish the price differential between otherwise similarly categorized QS holdings.

The preferred alternative may provide some benefit to small vessel operators in the western areas, who face high overhead costs in fishing their IFQ. Increasing block limits would permit these fishing operations to accumulate larger amounts of IFQ on their vessel, which would increase the potential for generating income on a fishing trip. On the cost side, it could potentially weaken an important element of the block program, namely preventing excessive consolidation and maintaining a diverse fleet. Although small holdings would still be available in the fishery, increasing the block limits would allow increased consolidation of halibut QS. This especially may impact the availability of entry-level opportunities in the fishery.

Distinguishing impacts between the preferred alternative and the rejected suboptions is difficult. The preferred alternative is the only suboption that would only affect one group, namely QS holders who only hold blocked QS. Increasing the block limit to four versus three blocks could amplify the benefits and costs discussed above, depending on a number of factors (e.g., access to investment capital, vessel size limitations, economies of scale considerations). The suboptions also distinguish between those QS holders who hold only blocks, and those who hold unblocked QS and may also hold a block. Limited data is available to distinguish between these groups.

Table 6.5 indicates that 20-30 percent of QS holders are at the two block limit, and 5-8 percent of QS holders in most areas have one block and unblocked QS. In Area 4B and 4C, 12 percent and 22 percent of QS holders, respectively, have one block and unblocked QS. This would seem to indicate that there are likely more QS holders who hold only blocked QS who would benefit from this alternative.

Table 6.1 illustrates that 35-70 percent of QS is blocked in each regulatory area. The proportion of unblocked QS is far lower in category D (vessels less than or equal to 35-ft LOA) than for larger vessels (Table 6.7), in all areas except Area 4C. It is difficult to correlate the block characteristic of QS directly with vessel size used for IFQ landings due to the way in which the QS/IFQ accounts are set up. However, it is possible to draw some inferences as to their relative characteristics by limiting the data to QS holders who hold only blocked QS and those who hold only unblocked QS, and who have not transferred QS in a regulatory area during 2003. For vessels less than or equal to 35-ft LOA, the IFQ derived from blocked QS greatly exceeded the IFQ derived from unblocked QS. For vessels between 36 and 60-ft LOA, IFQ derived from blocked QS exceeded that derived from unblocked QS in Areas 2C, 3B, 4A, and 4C. In the other areas, IFQ derived from unblocked QS was most prevalent in the landings. For vessels greater than 60-ft LOA, IFQ deriving from blocked or unblocked QS was fairly comparable in Areas 2C, 3B, 4A, and 4C. In Areas 3A, 4B, and 4D IFQ derived from unblocked QS greatly exceeded that from blocked QS.

Table 6.7 Percent blocked versus unblocked halibut QS, by category and regulatory area. NOTE: Category A QS can be fished on any vessel, category B QS can be fished on any vessel except in Area 2C, category C QS can be fished on vessels ≤ 60 -ft LOA, and category D QS can be fished on vessels ≤ 35 -ft LOA. Data as of July 1, 2004. Source: NOAA Fisheries RAM.

Area	Category A		Category B		Category C		Category D	
	Blocked	Unblocked	Blocked	Unblocked	Blocked	Unblocked	Blocked	Unblocked
2C	49	51	38	62	67	33	99	1
3A	16	84	10	90	47	53	90	10
3B	60	40	48	52	89	11	99	1
4A	70	30	58	42	92	8	99	1
4B	33	67	27	73	71	29	100	0
4C	100	0	48	52	59	41	52	48
4D	49	51	45	55	90	10	na	na

Overall, the preferred alternative should provide an opportunity for increased economic efficiency among halibut blocked QS holders by relaxing restrictions. This would allow operational flexibility to QS holders. For the most part, halibut blocked QS holders would benefit from this alternative, as the value of their blocked holdings would likely increase. Unblocked QS holders may experience an attendant “relative” decrease in the value of their QS holding, as the price differential between the two classes of QS narrows. Although this alternative may lead to increased consolidation, small holdings will remain blocked. While entry-level opportunities in the fishery may become more scarce, they are not necessarily precluded.

From a management perspective, increasing the block limit to 3 blocks does not appear to pose any implementation difficulties. The cost of administering the program may decrease to the extent that consolidation occurs and whether the number of participants in the IFQ fisheries decreases. Transfer activity will probably increase after implementation of the alternative. These costs will be covered by the IFQ fee. No additional administrative, enforcement, or information costs have been identified under the preferred alternative.

6.5 Expected Effects of Alternative 3

Alternative 3 would unblock all QS blocks that yield more than 20,000 lb of IFQ, based on 2004 TACs in the western areas (Areas 3B, 4A, 4B, 4C, and 4D), where TACs have increased substantially since 1996, resulting in QS blocks exceeding 20,000 lb.

Under Alternative 3, holders of large blocks would be most likely to benefit under this preferred alternative. The number of large block holdings in each regulatory area is listed in Table 6.8. Area 3B contains the most large block holdings, and many of the holdings are considerably larger than in the other IFQ areas (30 of the holdings exceed 60,000 lb). The preferred alternative may indirectly affect holders of small blocks and holders of unblocked QS in these areas, to the degree that the value of their QS holdings changes. A maximum of 150 halibut QS holders in the western areas (Table 6.5) are potentially affected by this alternative.

The Council’s preferred alternative changes the proportion of blocked versus unblocked QS considerably in these areas (Table 6.8). Tables 6.2 and 6.3 give an indication of the current value of blocked and unblocked QS. Due to increased availability, the current value of unblocked QS is likely to decrease. The value of blocked QS cannot be predicted, *a priori*. Under one scenario, blocked QS value could decrease further; or it could increase if these blocks were now the only available source of small holdings in the western areas.

Table 6.8 Effects of Alternative 3 on the proportion of blocked holdings. Data as of 7/1/04. Source: NOAA Fisheries RAM.

Area	2004				Under Alternative 3		
	Number of Large Blocks ¹	Total Blocks	Blocked QS as % of Total QS	Unblocked QS as % of Total QS	Total Blocks	Blocked QS as % of Total QS	Unblocked QS as % of Total QS
3B	156	626	66%	34%	470	26%	74%
4A	33	276	71%	29%	243	46%	54%
4B	2	115	36%	64%	113	34%	66%
4C	2	66	52%	48%	64	47%	53%
4D	7	55	49%	51%	48	35%	65%

¹QS blocks that yield IFQ greater than 20,000 lb, based on 2004 TACs.

The preferred alternative has the potential to benefit QS holders on small vessels in western areas who are struggling to make economically viable fishing trips, as more unblocked QS would be available for purchase. Similarly, increased availability of unblocked QS would benefit buyers in the marketplace, particularly if it is accompanied by a decrease in the unit price of unblocked QS. If in the long run, however, there are no small lots available, this could adversely affect those seeking entry-level opportunities in the fishery.

The preferred alternative permanently adjusts the proportion of blocked versus unblocked QS in western areas. It responds to the considerable increase in halibut TACs since the initiation of the block program, reportedly resulting in operational difficulties due to large block size. The 2004 TACs are twenty to three-hundred and twenty times greater in Areas 3B, 4A, 4B, 4C, and 4D, as compared to 1995. Halibut exploitable biomass in the western areas reached historically high abundance levels in the early years following implementation of the IFQ program. However, the biomass has been decreasing since 1999 (Clark and Hare 2004). Should TACs decrease in the future, fewer QS will be blocked in these areas, and the block sizes will all be smaller. Harvesting small blocks in these areas is already reported to be difficult under the current block limits. For example, the largest block holding would be equivalent to only 12,600 lb, and most blocks would be considerably smaller, if TACs were to decrease by 30 percent in Area 3B from 2004 levels.

Overall, the preferred alternative would increase the opportunity for economic efficiency in Area 3B and 4A by expanding the holdings of unblocked halibut QS. It would provide individual fishermen with flexibility to increase revenues and decrease costs by reversing the proportion of unblocked versus blocked QS available in these areas. Existing holders of unblocked QS may experience some decrease in the value of the holdings as more unblocked QS is created.

Implementation of the preferred alternative would require a one-time change to the database to reassign QS as unblocked. QS certificates would then be reissued to all affected QS holders. The change would need to take place prior to the start of an IFQ season. Increased management costs for that year would be covered by the annual IFQ cost recovery fee. No additional administrative, enforcement, or information costs would be anticipated.

6.6 Expected Effects of Modified Alternative 3 (Preferred)

During final action, the Council recommended a modified Alternative 3 as its preferred alternative. Under this alternative, the equivalent of 20,000 lb (69,492 QS units in Area 3B and 93,404 QS units in Area 4A) remains blocked and inseparable and the remainder of the holding becomes unblocked in Area 3B and 4A only. This gives the QS holder increased flexibility in managing his/her QS. These are areas that contain the greatest number of large QS blocks. As discussed above, unblocked QS generally commands a higher price than blocked QS, as it is subject to fewer restrictions.

Table 6.9 illustrates the amount of QS that would become unblocked under Modified Alternative 3, and Table 6.10 compares the blocked versus unblocked QS proportions under the status quo, Alternative 3, and Modified Alternative 3. Although the proportion of blocked versus unblocked QS decreases under Modified Alternative 3, the change is not as considerable as under Alternative 3. This change may still potentially affect the relative value of blocked versus unblocked QS, however. The increased availability of unblocked QS may decrease its current value. Tables 6.2 and 6.3 give an indication of the current value of blocked and unblocked QS in these areas.

Table 6.9 Total amount of QS that would become unblocked under Modified Alternative 3, based on 2004 TACs. Source: NOAA Fisheries RAM.

Area	Number of blocks affected	Number of QS that would equal 20,000 lb, based on 2004 TACs	Total amount of QS that would become unblocked under Modified Alternative 3		
			QS units	IFQ lb, based on 2004 TACs	% of total QS pool
3B	156	69,492	10,558,727	3,038,832	19.5%
4A	33	84,076	915,247	217,719	6.3%

Table 6.10 Total proportion of blocked to unblocked QS under Alternative 3 and Modified Alternative 3, by area, in 2004. Source: NOAA Fisheries RAM.

Area	2004		Alternative 3		Modified Alternative 3	
	Blocked QS as % of total QS	Unblocked QS as % of total QS	Blocked QS as % of total QS	Unblocked QS as % of total QS	Blocked QS as % of total QS	Unblocked QS as % of total QS
3B	66%	34%	26%	74%	46%	54%
4A	71%	29%	46%	54%	65%	35%

Table 6.11 gives an approximation of the number of QS holders that would be directly affected by the preferred alternative. The Council has indicated its intention that an exemption be awarded to QS holders who, as a result of this action, end up with 2 blocks and unblocked QS. This exemption would be in place until such time as one of the blocks is transferred out of the QS holder’s account. An effect of this exemption would be that QS holders who currently hold two blocks, of which at least one is a large block, would be able to trade unblocked QS at will, including to void their account of unblocked QS, and would still be allowed to repurchase unblocked QS despite the block program restrictions. Only the sale of a block of QS rescinds the exemption.

Table 6.11 QS holdings as a result of Modified Alternative 3, the approximate number who would hold 2 blocks + unblocked QS. Data from 7/27/04. Counts are not additive across areas. Source: NOAA Fisheries RAM.

Area	Number of QS holders affected under Modified Alternative 3	Number of QS holders who would hold 2 blocks + unblocked QS under Modified Alternative 3
3B	143	54
4A	31	11

As under Alternative 3, holders of large blocks would be most likely to benefit under this preferred alternative.

6.7 Expected Effects of Alternative 4

Alternative 4 is similar to both Alternative 3 and the Modified Alternative 3 in that it addresses large QS blocks, i.e., those yielding more than 20,000 lb, based on the 2004 TACs. Holders of these QS blocks would have the option of dividing their large QS block into smaller blocks. This division could be made at any point in the future, although for ease of management, would likely need to occur prior to the start of an IFQ season.

At present, as with both Alternative 3 and Alternative Modified 3, all QS holders in the western areas would be affected, although those most directly impacted are holders of large QS blocks. Should TAC levels increase substantially in Areas 2C and 3B in the future, QS block holders in those areas could also be affected. Table 6.8 lists the number of large block holdings in each regulatory area. As written, there is no restriction on the size or number of smaller blocks to be created.

Large QS holders would likely to benefit. Those halibut QS holders who, now or in the future, would want to transfer some or all of their QS holding, would be able to divide their holding in order to do so. The increased flexibility would alleviate the current reported difficulty of transferring large, blocked QS holdings. The alternative may also benefit buyers looking for smaller holdings in the western areas, by increasing the potential availability of such holdings. Among these would be “entry level” buyers, seeking to establish their participation in the fishery. Access to reasonably small QS, to support new entry, was of specific interest to the Council when establishing the original program.

With the two block limit still in place, some complexity would be involved in dividing and transferring QS holdings. Although nothing in this alternative would prevent it, there seems little advantage to be gained from dividing a block that is to remain within a person’s possession. Therefore, it seems likely that the vast majority of, if not all, such divisions would be made in conjunction with a transfer. Therefore, this may not prove to be a serious administrative problem .

The long-term impacts should the halibut TACs decrease in the future would depend on the degree to which QS holders took advantage of this option. There would be an abundance of small blocked holdings in the western areas if all the large holdings were divided and the TACs decreased. This may prove cumbersome if the block limit is still in place, and overhead costs for a fishing trip continue to be high in this area. The Council may need to recommend mitigative management action should TACs decrease substantially, to allow re-consolidation of small blocks. To the extent that the QS holders takes advantage of the alternative to sell some of their QS, opportunities for entry-level fishermen should increase under this alternative, as it will increase the availability of smaller QS holdings on the market.

It might reasonably be expected that most block divisions would occur at the time of transfer. These changes should require no additional staff time, but would involve changes to the database and the re-issuance of the QS certificate. Transfer activity would likely increase in the short-term as a result of this alternative. The division of the large QS blocks is voluntary and may be undertaken at any time in the future. No additional administrative, enforcement, or information costs would be incurred.

6.8 Expected Effects of Modified Alternative 5 (Preferred)

This preferred alternative would increase sweep-up levels for halibut QS in Areas 2C and 3A. There is a maximum of 3,354 halibut QS holders in these areas (Table 6.5). Of these, holders of QS blocks equivalent to less than 5,000 lb, based on the 1996 TACs, would be affected by this alternative.

Table 6.12 indicates that under this preferred alternative, multiple blocks may be consolidated into a larger block that does not exceed 33,320 or 46,520 QS units in Areas 2C and 3A, respectively. The table shows the equivalent poundage based on the 2004 TACs.

Table 6.12 Halibut sweep-up levels. Source: NOAA Fisheries RAM.

	Current regulations		Alternative 5	
	QS units	Equivalent lb, based on 2003 TACs	QS units	Equivalent lb, based on 2003 TACs
Area 2C	19,992	3,525	33,320	5,875
Area 3A	27,912	3,782	46,520	6,304

Under this preferred alternative, 1,194 blocks in Area 2C and 1,535 blocks in Area 3A would be eligible to be swept-up. Block holders could benefit from consolidating additional QS units into their blocks.

As of July 1, 2004, 930 blocks in Area 2C and 1,262 blocks in Areas 3A were eligible to be swept up. RAM maintains a list of these QS holdings on its website (www.fakr.noaa.gov/ram), although it is unknown how many are available for purchase. While some of these blocks are approaching the consolidation limit, more than 60 holdings are less than half the maximum consolidation size. There are, therefore, a considerable number of QS holdings that are below the 3,000 lb threshold level, even factoring out those that are close to the threshold, which have not been consolidated. A total of 18 sweep-ups occurred in Area 2C in 2003, and 23 in Area 3A (NOAA Fisheries 2003). It is unknown how many QS holders would take advantage of the increased sweep-up limit. The preferred alternative would allow some QS holders who are currently at both the threshold limit and the block limit to incrementally increase their QS holding without first selling one of their blocks.

The preferred alternative would allow increased consolidation. The block program was originally instituted to control consolidation during the transition period at the start of the IFQ program. Ten years on, ownership in the IFQ fishery has largely stabilized.

From a management perspective, the alternative requires a simple change to the database. It is likely that the preferred alternative would engender an increase in sweep-up transfers to be processed, but these costs are covered by the IFQ cost recovery fee. No additional administrative, enforcement, or information costs would be anticipated.

6.9 Expected Effects of Alternatives 2 through 5 in combination

None of the alternatives are likely to change fishing patterns or harvest amounts to an extent that would result in an impact on the halibut stock, bycatch amounts, or other environmental impacts. A summary of benefits and costs is detailed in Table 6.13 below.

Alternative 2 (increasing the block limits) and Alternative 3 (unblocking QS blocks yielding greater than 20,000 lb in 2004 TACs) address different issues in the halibut fishery. Alternative 2 would increase the flexibility of QS block holders in all areas, allowing them to increase their holding beyond the current block limits. Alternative 3 would address the needs of a subset of QS holders in the western areas with large QS blocks that are permanently indivisible and which exceed 20,000 lb based on the 2004 TACs, and are consequently difficult to transfer. For these QS holders, implementing both alternatives simultaneously would increase their ability to consolidate QS, as they would be able to purchase unlimited unblocked QS (pursuant to availability) and also one to three more blocks, depending on their current QS holding. However, these QS holders would still be limited by the ownership and vessel caps, as outlined under Alternative 1 in Section 6.3.

As with Alternatives 2 and 3, Alternative 4 (which allows QS holders with blocks yielding greater than 20,000 lb in 2004 TACs to divide their block into smaller blocks) addresses different issues in the fishery. The subset of QS holders that would be affected by the first two alternatives is larger, because the proposed action to divide large blocks can take place at any time in the future. Currently, this would only affect large QS block holders in the western areas, however if TACs change, the subset of affected participants could be broader. There are unlikely to be cumulative impacts from implementing these alternatives simultaneously, as a QS holder is most likely to take advantage of Alternative 4 by dividing his or her holding in order to transfer a resulting block. No additional impacts are likely to occur that are distinguishable from implementing either in isolation.

Alternative 5 would increase halibut sweep-up limits in Areas 2C and 3A. It would directly affect small QS block holders (those with blocks yielding less than 5,000 lb based on 1996 TACs) in those areas. It is intended to facilitate incremental increases of QS by these fishermen. Implementing Alternative 2 with Alternative 5 is likely to be largely redundant, as the incremental growth could occur through block acquisition instead of

block consolidation through the sweep-up limits. However, it is possible that a QS holder owning four small blocks (under Alternative 2) could increase his or her consolidation level by up to 8,000 mt (based on the 1996 TACs) under the simultaneous implementation of Alternative 5.

Alternative 5 would primarily affect fishermen in a different geographical area (Areas 2C and 3A) than those impacted by Alternatives 3 and 4 (the western areas), and so there are limited cumulative impacts. Alternative 4 does have the potential to affect QS holders in Areas 2C and 3A in the future, should TAC levels increase in those areas. Depending on the degree of TAC increase, implementing the alternatives simultaneously could increase the number of small blocks available for sweep-up. Alternatives 3 and 4 are mutually exclusive actions .

Table 6.13 Summary of the benefits and costs of Action 5

	Alternative 1	Alternative 2 (Preferred) Increase block limit to 3, unless unblocked QS is held, in all areas	Alternative 3 Unblock all QS that yield more than 20,000 lb, in all areas	Modified Alternative 3 (Preferred) Divide QS blocks >20,000 lb into 20,000 lb block and unblock remaining QS, in Area 3B and 4A	Alternative 4 Allow QS blocks > 20,000 lb to be divided into smaller blocks, in all areas	Alternative 5 (Preferred) Increase the halibut sweep-up limit to QS units equal to 5,000 lb based on 1996 TACs, in Area 2C and 3A
Who may be affected	No change in affected entities	up to 3,349* halibut QS holders	<ul style="list-style-type: none"> • directly affects up to 679** large halibut block holders • may indirectly affect up to 3,349* halibut fishermen 	<ul style="list-style-type: none"> • directly affects up to 288** large halibut block holders • may indirectly affect up to 833** halibut fishermen 	<ul style="list-style-type: none"> • directly affects up to 679** large halibut block holders • may indirectly affect all 3,349* halibut fishermen 	<ul style="list-style-type: none"> • directly affects up to 1,638*** halibut QS holders in Areas 2C and 3A who hold small QS blocks
Impacts to resource	baseline	none	none	none	none	none
Benefits	baseline	<ul style="list-style-type: none"> • would ease restrictions on transferring large blocks • may help small vessel owners to make more economically viable trips 	<ul style="list-style-type: none"> • would ease restrictions on QS holders of large blocks • may increase availability and value of QS by increasing unblocked holdings • may increase value of large QS block holdings 	• same as Alternative 3	<ul style="list-style-type: none"> • may increase availability and value of small holdings • would ease restrictions on transferring large blocks 	<ul style="list-style-type: none"> • would ease restrictions on QS holders of small blocks • may help small vessel owners to make more economically viable trips

	Alternative 1	Alternative 2	Alternative 3	Modified Alternative 3	Alternative 4	Alternative 5
Costs	baseline	<ul style="list-style-type: none"> • may reduce market value of unblocked QS • may increase consolidation, which may reduce entry-level opportunities in the fishery 	<ul style="list-style-type: none"> • may increase proportion of unblocked QS and decrease its market value • may lead to further consolidation • would permanently reassign blocked QS; if TACs decrease, there may be fewer small holdings 	<ul style="list-style-type: none"> • same as Alternative 3 	<ul style="list-style-type: none"> • if TACs decrease, there may be many small blocks, diminishing economic viability for some operations 	<ul style="list-style-type: none"> • may increase consolidation
Net benefits	baseline	increases potential net economic efficiency by reducing block restrictions	increases potential net economic efficiency by expanding the holdings of unblocked QS	same as Alternative 3	same as Alternative 2	increases potential net economic efficiency by allowing further small block consolidation
Action objectives	does achieve objectives	would increase flexibility in transfer and ownership restrictions	would increase flexibility in transfer of large, blocked holdings in all areas	same as Alternative 3, except only in Areas where need is demonstrated	would increase flexibility in transfer and ownership restrictions, but less than Alternative 2	would increase flexibility, but only for small block holders in Areas 2C and 3A
<p>* numbers (as of 2004) are likely to be reduced due to holdings in multiple regulatory areas ** numbers (as of 2003) for holders of blocks >25,000 lb (data available in categories from NOAA Fisheries <i>Report to the Fleet</i>) ***numbers (as of 2003) for holders of blocks < 3,000 lb (data available in categories from NOAA Fisheries <i>Report to the Fleet</i>)</p>						

6.10 Conclusions

In summary, the Council has recommended three changes be made to the IFQ program under its preferred alternative for this action. The first is to increase the number of quota share blocks that may be held by a person in each regulatory area to 3 blocks, unless unblocked QS is held, in which case the limit is one block (Alternative 2, Option (a)). Although the Council remains a strong proponent of the block program, because it allows entry level access and constrains consolidation, this action represents an incremental change in this programmatic goal, to relieve constraints on those stakeholders who are most limited by these provisions, namely those holding two blocks.

Second, the Council recommended an exception to the regulations that limit a QS holder to two blocks or one QS block and unblocked QS. The large increases in TACs, most evident in Areas 3B and 4A, have created non-severable QS holdings, beyond the intent of the block program. The preferred alternative provides greater flexibility to holders of large blocks in these areas. The preferred alternative would divide all QS blocks in Areas 3B and 4A, which yield more than 20,000 lb, based on the 2004 TACs, into one block of 20,000 lb (in QS unit equivalents) and the remainder would be unblocked (Modified Alternative 3). Modified Alternative 3 addresses this problem, while maintaining greater parity, in terms of blocked versus unblocked QS, with

adjacent regulatory areas. This preferred alternative would allow QS holders to possess two blocks and unblocked QS, until one QS block is transferred, at which time the original block limits would be in effect.

Third, the Council proposed to increase the Areas 2C and 3A halibut sweep-up level to the 5,000 lb equivalent in 1996 QS units (Alternative 5). The preferred alternative would increase the sweep-up limits to create parity with the other halibut regulatory areas, as these areas have the lowest sweep-up levels (in pounds). The change also provides economic incentives for currently unfished QS blocks to be fully harvested.

Table 6.13 summarizes the net benefits of the alternatives. The three preferred alternatives are expected to increase the net economic efficiencies of halibut IFQ fishing operations. Beneficiaries of the preferred alternatives would include those fishermen whose QS holdings are under the constraints of block and sweep-up limits. The operational burden imposed by these limits has been exacerbated as halibut TACs have increased.

The total “standard” ex-vessel value of the catch³ taken in the commercial halibut fishery off Alaska in 2003, was approximately \$167 million (NOAA Fisheries in prep.). The proposal under consideration will make minor changes in these fisheries. Although it has not been possible to fully monetize the benefits and costs from these proposed program changes, their net impact on the economy will be far below \$100 million, annually. These proposals generally have little cost and are expected to produce benefits for industry, through greater economic efficiency and operational flexibility. Minor administrative costs of the proposed program changes would be recovered through annual cost recovery fees for the entire program. For these reasons, they are unlikely to adversely and materially affect the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities. These programs are not likely to have the potential to meet the economic criterion for significance under EO 12866.

6.11 Initial Regulatory Flexibility Analysis

This IRFA describes the impact of the proposed alternatives for amending the halibut block program in Areas 2C, 3A, 3B, 4A, 4B, 4C, and 4D on small entities. A complete description of the requirements of the Regulatory Flexibility Act is set out in Section 1.3.

Reason for action and objectives

Since implementation of the IFQ program, the halibut fleet has experienced large quota increases (owing to halibut stock improvements), consolidation, and changing use patterns. Halibut QS holders have indicated that existing block and sweep-up restrictions are cumbersome, and changing the restrictions could improve flexibility and efficiency in fishing operations. The problem statement is discussed in detail in Section 6.1, above.

Description and estimate of the number of small entities

These actions would directly regulate holders of halibut QS blocks, in all IFQ areas. When all IFQ management areas off Alaska are taken together, there are 3,205 “persons,” both individual and collective entities, who hold at least one block of halibut QS. 80-90 percent of all halibut QS holders in all regulatory areas except Area 4C own at least some blocked QS holdings (Table 6.5). At present, NOAA Fisheries does not have sufficient ownership and affiliation information to determine precisely the number of small entities in the IFQ program, nor the number of directly regulated small entities that would be adversely impacted by

³ Total halibut or sablefish landings, multiplied by NOAA Fisheries’ published “standard prices” for halibut or sablefish, which reflect, as closely as possible, the variations in the actual ex-vessel values of IFQ halibut or sablefish landings.

the present actions. For the reasons discussed in Section 1.3, this analysis assumes that all operations are small, for RFA purposes.

Alternatives considered and their impact on small entities

This analysis reviews the status quo and four alternatives to the existing halibut IFQ Program requirements. One alternative would increase block limits, two alternatives would ease restrictions on blocks yielding greater than 20,000 lb of halibut, based on the 2004 TACs, and a fourth would increase sweep-up limits for halibut in Areas 2C and 3A. The alternatives are explained in detail in Section 6.2, and the following summary of impacts on small entities is distilled from the discussion in Sections 6.3 and 6.4, of the RIR.

Alternative 1 is the no action alternative. Many halibut QS holders have indicated that the existing block and sweep up restrictions are cumbersome when arranging changes in fishing operations and that increased flexibility may be desirable.

Alternative 2 would increase the block limit to either three or four blocks, under four options, in all regulatory areas. The Council selected Alternative 2 Option “a” as its preferred alternative. As discussed in Section 6.4 above, QS block holders that are currently constrained would benefit from increased operational flexibility under an increased block size limit. This *may* decrease the market value of unblocked QS in relation to blocked QS, because by relaxing the ownership constraint on blocked QS, it would become relatively more marketable. There are no data available to determine whether and by how much the alternative would change QS market value.

Alternative 3 would unblock all large QS blocks, those yielding greater than 20,000 lb of halibut based on 2004 TACs, in all regulatory areas. The Council modified Alternative 3 by limiting the preferred alternative to only Areas 3B and 4C, because these areas contain the most large QS blocks. Additional flexibility in managing QS holdings would yield greater asset liquidity to owners of large QS blocks, allowing them to be more responsive to operational needs and economic opportunities. The preferred alternative may also impact the value of unblocked shares in Areas 3B, 4A, 4B, 4C, and 4D, by increasing the proportion of unblocked QS available in those IFQ areas. Benefits could accrue to holders of large QS blocks, as well as fishermen wishing to make adjustments to their QS asset holdings to reflect changes in their personal circumstances, or the broader economic environment (e.g., market demand, input costs). At present, the capital demands associated with transferring very large restricted blocks is reportedly prohibitive. The preferred alternative would contribute to alleviating this potential barrier to the transfer of the large, restricted blocks. In any case, there would be no differential impacts on the basis of size of the regulated entity attributable to this preferred alternative, because, by assumption, all are “small” on the basis of RFA criteria.

Alternative 4 would allow large QS block holders to divide their holding into smaller blocks, potentially increasing efficient use of the QS holding. Data are unavailable to determine the extent to which QS holders would be likely to take advantage of this option. Should all large holdings be divided, the alternative may impact the market price of block holdings.

Alternative 5 also was selected as a preferred alternative. It would increase the sweep-up levels in Areas 2C and 3A from 3,000 lb equivalents to 5,000 lb equivalents in QS units, based on the 1996 halibut TAC. This preferred alternative would allow small QS block holders to incrementally increase their holdings. There are no apparent adverse impacts on small entities.

Description of recordkeeping, reporting, and other compliance requirements

No additional record keeping and reporting requirements are associated with this action.

Identification of relevant Federal rules

NOAA Fisheries is not aware of any other Federal rules that would duplicate, overlap, or conflict with this action.

Description of significant alternatives that minimize adverse impacts on small entities

NOAA Fisheries is not aware of any alternatives, in addition to the alternatives considered, that would accomplish the objectives of the Magnuson-Stevens Act and other applicable statutes and that would minimize the economic impact of the proposed rule on small entities. The detailed analysis of attributable impacts of each alternative is contained in the RIR, and summarized, above, in this IRFA. Few, if any, actual adverse impacts are associated with these actions, and no additional alternatives could be identified which have the potential to further minimize (potential) adverse impacts on small entities, while achieving the objectives of Action 5.

7.0 Action 6: Amend Area 3B, 4A, 4B, 4C, and 4D halibut quota share categories

The Council included a number of elements in the IFQ program that were intended to preserve the diversity of the fleet and maintain entry-level opportunity in the fisheries. One measure permanently attributes QS holdings to halibut vessel categories A, B, C, and D, which restricts how the resulting IFQ is fished. The QS category determines both whether harvested fish may be processed onboard (category A QS only), and the size of vessel on which the catcher vessel IFQ may be harvested.

Each QS category determines the length of the catcher vessel (i.e., a vessel not authorized to process IFQ fish onboard) on which the resulting IFQ could be fished: category B for vessels >60ft LOA; category C for vessels >35 ft but ≤60ft LOA; category D for vessels ≤35ft LOA. At the request of industry, and to facilitate flexibility and efficiency in the fishery, however, a regulatory amendment in 1996 allowed halibut IFQ derived from category B or C QS to be fished on smaller vessels, in all halibut areas except Area 2C⁴ (see NPFMC 1996a for further detail).

7.1 Problem and management objectives for the action

The halibut vessel size categories and block program were designed to maintain a diverse, owner-operated fleet and provide an entry-level opportunity in the IFQ fisheries. Halibut fishermen in western Alaska have identified significant safety concerns, when fishing in those areas on small vessels. Therefore, vessel size class restrictions in those areas are being reconsidered.

7.2 Management Action Alternatives

Four alternatives are considered under this management action. A different alternative may be applied to each regulatory area under consideration.

Alternative 1 No action

Taking no action retains the existing restrictions regarding the use of halibut IFQ derived from a particular QS category.

⁴ The Council excluded Area 2C (and Southeast Outside District for sablefish) from the fish down amendment because there is proportionally less category B QS available in these areas. The Council was concerned that vessels over 60-ft LOA, who can only use category B QS onboard, would be disadvantaged.

Alternative 2 Allow IFQ derived from category D QS to be fished on category C vessels (**Preferred for Areas 3B and 4C**)

Under this alternative, halibut IFQ resulting from category D QS in Areas 3B, 4A, 4B, 4C, and 4D could be fished on vessels less than or equal to 60ft LOA.

Alternative 3 Allow IFQ derived from category D QS to be fished on category B or C vessels

Under this alternative, halibut IFQ resulting from category D QS in Areas 3B, 4A, 4B, 4C, and 4D could be fished on vessels of any length.

Alternative 4 Combine category C and D QS

This alternative would eliminate category D halibut QS in Areas 3B, 4A, 4B, 4C, and 4D, and reassign all category D QS as category C QS. Category C QS can be fished on vessels less than or equal to 60ft LOA.

7.3 Alternative 1 - No action (Preferred for Areas 4A, 4B, and 4D)

The IFQ program, as currently regulated, constrains the use of IFQ derived from a particular QS category. The use restrictions are described in 50 CFR 679.40(a)(5)(ii) and are listed in Table 7.1 below.

Table 7.1 QS/IFQ use restrictions by category

Category A	authority to harvest and process IFQ species on a vessel of any length (freezer/longliners)
Category B	authority to harvest IFQ species on a vessel of any length (except, in halibut Area 2C or sablefish Southeast Outside District, unless the IFQ derives from blocked QS units that result in less than 33,321 halibut or 33,271 sablefish QS units)
Category C	authority to harvest IFQ species on a vessel less than or equal to 60-ft LOA
Category D	authority to harvest IFQ halibut on a vessel less than or equal to 35-ft LOA

Table 7.2 illustrates the relative proportion of QS, by category, in each of the western areas (that is, all areas, except 2C and 3A). There is no category D QS issued in Area 4D.

Table 7.2 QS Units by category and area. Data from end of 2003. Source: NOAA Fisheries RAM.

Area	Total QS units	Equivalent IFQ (lb) in 2004	Category A % of total	Category B % of total	Category C % of total	Category D % of total
3B	54,203,176	15,600,000	2.9%	55.3%	38.7%	3.1%
4A	14,587,099	3,470,000	4.2%	58.6%	30.0%	7.2%
4B	9,284,774	2,248,000	6.0%	76.6%	14.5%	2.9%
4C	4,016,352	860,000	0.5%	40.4%	21.6%	37.6%
4D	4,958,250	1,204,000	8.3%	82.7%	9.0%	0%

In 1999, industry members asserted that the restrictions governing the use of IFQ derived from category D QS present a serious safety issue in Areas 3B and 4A. Reportedly, due to weather conditions, a 35ft LOA vessel can only safely fish between May 15 and September 15. Additionally, fishing during the safest part of the summer window may not be possible for small vessels, as processors may not be accepting halibut during the peak of the salmon fisheries. Category D vessels may thus be limited to a substantially shortened season, and/or forced to fish under less safe conditions in order to harvest their IFQ. As a result of these adverse conditions, category D vessel owners have reported that they prefer to increase their QS holding by purchasing category B and C QS. They prefer those categories to category D so that they may harvest their QS on a larger vessel in the future. Consequently, there is very little market demand for the category D QS, according to industry members.

This assertion was made to the Council in 1999. Since that time, the achievement of TAC in the western areas has become much more reliable, even for smaller vessels, through consolidation and changing use patterns in the fisheries. Table 7.3 below illustrates the achievement of TAC for category C and D IFQ allocations. The halibut harvest in Area 4C is consistently under-harvested, but this appears to be due to a change in the location of the halibut stock, rather than a safety issue (see NPFMC 2005 for further discussion). Areas 3B, 4A, and 4B appear to have had a high rate of harvest in 2003, with the exception of category D, in Area 4B. It is unknown whether the consistently low harvest by small vessels in this area is related to safety concerns.

Table 7.4 illustrates the degree to which IFQ derived from categories B and C was used on vessels less than or equal to 35ft LOA in 2003. With the exception of Area 4C, about half of the IFQ harvested on these vessels is ‘fished down’⁵ from categories B and C.

Table 7.3 Percent of category C and D IFQ harvested, by area, 1998-2003. Source: NOAA Fisheries RAM.

Year	Area 3B		Area 4A		Area 4B		Area 4C	
	Category C	Category D	Category C	Category D	Category C	Category D	Category C	Category D
1998	93%	87%	89%	78%	68%	3%	69%	34%
1999	96%	93%	95%	90%	71%	0%	83%	47%
2000	97%	95%	98%	94%	89%	35%	84%	46%
2001	96%	88%	96%	86%	87%	44%	93%	39%
2002	98%	95%	99%	89%	88%	27%	74%	15%
2003	99%	94%	98%	96%	95%	42%	70%	4%

Table 7.4 Fish down on vessels less than or equal to 35ft LOA, 2003. Source: NOAA Fisheries RAM.

Area	Total IFQ (lb) landed from vessels 0-35'	Unique vessels 0-35' landing IFQ	IFQ derived from QS categories as % of total IFQ landed from vessels 0-35'			IFQ landed from 0-35' vessels as % of total IFQ derived from QS category		
			B	C	D	B	C	D
3B	992,492	37	16%	34%	50%	2%	5%	100%
4A	742,187	29	23%	32%	45%	6%	16%	100%
4B	77,230	3	–	42%	58%	–	7%	100%
4C	17,152	5	2%	–	98%	<1%	–	100%

Tables 6.2 and 6.3 show price data for QS holdings, by regulatory area, category, and blocked or unblocked status. While these tables do not necessarily provide a completely accurate understanding of the QS market (see discussion under Section 6.3 regarding these tables), they give a general indication of the relative value of QS. Table 6.2 illustrates that there were 14 “priced” transfers of category D QS, in 2003 in Area 4A, and three in Area 3B. The value of category D blocked QS in the western areas seems to be consistently lower for this category than other categories of blocked QS in those areas, which is to be expected as the QS are more restrictive.

7.4 Expected Effects of Alternative 2 (Preferred for Areas 3B and 4C)

The preferred alternative would allow category D QS to be fished on vessels ≤ 60ft LOA in Areas 3B and 4C only. The intent for Area 3B is to address economic hardship and safety concerns as a result of fishing in small

⁵QS was originally issued to specific vessel categories. Category B QS had to be fished on vessels greater than or equal to 60ft LOA; category C QS had to be fished on vessels less than 60ft LOA but greater than or equal to 35ft LOA; and category D QS had to be fished on vessels less than 35ft LOA. A Council amendment to the IFQ program allowed the IFQ from certain categories of QS to be fished on smaller vessels. This is referred to as ‘fishing down’.

(≤ 35ft LOA) vessels. The intent for Area 4C is to address reduced catches of IFQ derived from category D QS in this area (a complementary action to allow Area 4C IFQ and CDQ halibut to be fished in Area 4D is proposed under a separate regulatory analysis; NPFMC 2005). The need for including other regulatory areas that were considered for the proposed action was not documented and the Council took no action for those areas.

The preferred alternative would allow IFQ derived from category D QS to be fished on vessels ≤ 60ft LOA in the two regulatory areas. The QS would remain designated as category D. This alternative would directly affect 134 category D QS holders in Area 3B and 4C. It would benefit category D QS holders in the two areas as it relieves use restrictions and provides greater utility to their QS. It is likely that the price for category D QS would increase as a result of this alternative since, in effect, category D would be equivalent to category C QS. Tables 6.2 and 6.3 give a general indication of the relative price of QS, although neither estimation is totally accurate (see caveats in the discussion of these tables in Section 6.3). The tables suggest that the difference in the value of category D blocked QS and category C blocked QS in the western areas ranges approximately from zero to \$3 per QS equivalent pound. The increase in value of category D QS may cause a corollary decrease in the value of category C QS, but except for Area 4C, category D QS represents a relatively small proportion of the QS pool (Table 7.2). In Area 4C, where 37.6% of the total QS pool is category D, the impact on prices may be more pronounced.

Operators of vessels of less than or equal to 35ft LOA can continue to fish IFQ derived from any QS category on their vessels, so are unlikely to be adversely impacted by this change. However, those small vessel owners who have expressed safety concerns, due to the short season in which they are forced to fish, will have more options available. These vessel owners may choose to upgrade their vessel (as suggested in the proposal to the Council), or team with a larger vessel to fish their IFQ. It is not known which option vessel owners are likely to select.

The increase in the market value of category D QS may disadvantage new entrants to the fishery. Category D QS was originally intended, in part, to provide an affordable opportunity for skippers and crew members to buy into the fishery. The difference in the market price, between category C and D QS, is discussed above, and ranges between \$0-\$3 per pound. Table 7.5 indicates the current number of category D QS holders who are not initial recipients (i.e., they are crew members who have bought into the fishery), and also the amount of category D QS they control. The data in this table represent a point in time, and do not reflect any of the transfer history of QS held by non-initial recipients. Except in Area 4B, initial recipients still represent the majority of category D QS holders, however, new entrants for the most part control the majority of QS. To the extent that the higher price prevents crew members from being able to acquire QS, this action may impose economic costs on new entrants.

Table 7.5 Category D QS holders that are new entrants to the fishery, and the amount of QS controlled.

Area	Total number of category D QS holders	Number of category D QS holders who are not initial recipients	Total category D QS	Category D QS held by non-initial recipients	% of category D QS held by non-initial recipients
3B	102	19	1,660,268	856,482	51.6%
4A	95	19	1,051,099	535,774	51.0%
4B	16	7	268,996	157,321	58.5%
4C	32	4	1,509,042	413,396	27.4%

Data as of October 19, 2004. Source: NOAA Fisheries RAM.

It is difficult to distinguish between the regulatory areas in assessing the impacts of this alternative. It is not possible to determine what percentage of category D QS is held by local area residents, as addresses filed with NOAA Fisheries are self-reported and need not be residential addresses. As illustrated in Table 7.2 and 7.3, 37 and 29 vessels 35ft LOA or less, in Areas 3B and 4A, respectively, harvested all but 5% of their IFQ derived from category D QS, in 2003. In Area 4B, less than half of the IFQ derived from category D QS was harvested by 3 vessels, compared to a high harvest rate of IFQ derived from category C QS. In Area 4C, 5

vessels harvested only 4% of IFQ derived from category D QS, compared with a 70% harvest rate for IFQ derived from category C QS. Anecdotal evidence suggests that the low catch per unit effort in Area 4C, particularly closer to shore in locations accessible to smaller vessels, has resulted in some of those QS holders not fishing their IFQ. Instead, temporary construction projects in 2003 and 2004, may have provided work opportunities for some QS holders who would otherwise rely on IFQ fishery income.

From a management perspective, Alternative 2 would not be difficult to implement. No additional administrative, enforcement, or information costs would be incurred.

7.5 Expected Effects of Alternative 3

Under this alternative, IFQ derived from category D QS could be fished on category B or C vessels, i.e., vessels of any length. This alternative directly affects 243 category D QS holders in the western areas, and indirectly affects category C QS holders in Areas 3B, 4A, 4B, and 4C.

This alternative increases the utility (and, thus, value) of category D QS by removing use restrictions, benefitting QS holders. Tables 6.2 and 6.3 suggest that the difference in market price of category B blocked QS and category D blocked QS in the western areas ranges from approximately \$1 to \$4 per QS equivalent pound. The increase in category D QS value may affect the price of category B and C QS in the western areas. Category D QS represents only a small proportion of the total QS pool, however, ranging from 3% to 7% in all areas, but Area 4C (Table 7.2). As a result, any impact on the value of category B and C QS is likely to be small. In Area 4C, category D QS represents more than a third of the QS pool, and the alternative may impact the price of other categories of QS more.

This alternative may also increase the employment opportunities for crew members holding category D QS, as they may fish their IFQ on any catcher vessel. To the extent that the alternative increases QS consolidation, however, the overall number of crew positions available may decrease.

Although the category D QS pool is small in the western areas (except in Area 4C), Alternative 3 may also provide relief to large (greater than 60ft LOA) vessel operators. Industry has identified, through the Council process⁶, limitations of category B vessels that can only fish IFQ derived from category B QS. Acquiring additional category B QS can be difficult, as it can be purchased and used by any catcher vessel owner. As such, it can reportedly command a higher price, and does not frequently come on the market in some areas. Alternative 3 does not substantially increase the amount of QS available for large vessels, as the category D QS pool is small. If category D QS holders choose to cash in their now valuable QS, however, these holdings would be available for purchase by category B vessel owners.

As with Alternative 2, this alternative could address the safety concerns voiced by small vessel operators in the western areas, by allowing them the option to fish their QS on larger vessels. However, this alternative may also limit opportunities for crew members seeking to buy in to the fishery, by increasing the market value of category D QS and decreasing their accessibility for would be new entrants. Also as with Alternative 2, the relative impacts of the alternative, by regulatory area, are difficult to discern.

From a management perspective, Alternative 2 would not be difficult to implement. No other additional administrative, enforcement, or information costs would be incurred.

7.6 Expected Effects of Alternative 4

As with Alternative 2, this alternative allows IFQ derived from category D QS to be fished on vessels less than or equal to 60ft LOA. A total of 670 distinct category C and D QS holders in Areas 3B, 4A, 4B, and 4C may

⁶The Council called for and received proposals for amendments to the IFQ program in 1999 and 2003.

be affected. Under Alternative 4, the QS would be reassigned as category C QS. This creates one practical difference from Alternative 2, namely that blocked former category D QS can be swept up with blocked category C QS.

Practically, Alternative 4 has the same impacts as Alternative 2. Additionally, the increased flexibility of being able to sweep up former category D QS blocks, along with category C QS blocks is likely to be beneficial to category C and D QS block holders. Also, a one-time increase in management effort would be required to reissue QS certificates to category D QS holders.

If this action is intended to be permanent, Alternative 4 may be preferable to Alternative 2, because it would simplify the IFQ program and removing redundancy from the regulations. However, Alternative 4 would, in effect, eliminate “Category D” QS from the program. Assuming Category D shares had some programmatic purpose, that “purpose” would be lost, and the ability of the Council or NOAA Fisheries to re-institute specific use restrictions for category D QS at some time in the future.

7.7 Conclusions

None of the alternatives are likely to change fishing patterns or harvest amounts to an extent that would result in an impact on the halibut stock, bycatch amounts, or other environmental impacts. There are no data that suggest adverse impacts would result from a higher proportion of the harvest being taken on larger vessels. A summary of attributable benefits and costs of each alternative, relative to the status quo, is included below in Table 7.6.

The preferred alternatives are expected to increase economic efficiencies of halibut IFQ fishing operations and safety by allowing small boat IFQs to be fished on larger vessels. Beneficiaries of the preferred alternatives would include all holders of category D QS in Areas 3B and 4C. Minor administrative costs of the program would be recovered by annual cost recovery fees for the entire program. None of the proposed actions are expected to have the potential to result in a “significant action,” as defined in Executive Order 12866.

The total “standard” ex-vessel value of the catch⁷ taken in the commercial halibut fishery off Alaska in 2003, was approximately \$167 million (NOAA Fisheries in prep.). This action only affects that sector of the fishery participating in Areas 3B, 4A, 4B, and 4C. Only 45% of the total halibut harvest is allocated to these areas (NOAA Fisheries 2003c). The proposal under consideration will make minor changes in these fisheries.

Although it has not been possible to fully monetize the benefits and costs from these proposed program changes, their total net impact on the economy would be expected to be far below \$100 million, annually. These proposals generally have little attributable cost and are expected to produce benefits in the form of economic efficiencies, greater operational flexibility, and improved safety at sea for industry participants. For these reasons, they are unlikely to adversely and materially affect the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities. These programs are not likely to meet the economic criterion for significance under EO 12866.

⁷ Total halibut or sablefish landings, multiplied by NOAA Fisheries’ published “standard prices” for halibut or sablefish, which reflect, as closely as possible, the variations in the actual ex-vessel values of IFQ halibut or sablefish landings.

Table 7.6 Summary of the benefits and costs of Action 6

	Alternative 1	Alternative 2 (Preferred for Areas 3B and 4C) Allow IFQ derived from category D QS to be fished on category C vessel	Alternative 3 Allow IFQ derived from category D QS to be fished on category B or C vessel	Alternative 4 Combine category C and D QS
Who may be affected	baseline	<ul style="list-style-type: none"> would affect up to 134 halibut category D QS holders and 42 category D vessels may indirectly affect category C QS holders and 218 category C vessels 	<ul style="list-style-type: none"> same as Alternative 2 also may indirectly affect category B QS holders and 85 category B vessels 	<ul style="list-style-type: none"> same as Alternative 2
Impacts to the resource	baseline	none	none	none
Benefits	baseline	<ul style="list-style-type: none"> likely to increase the value of category D QS may address safety concerns by providing an alternative to fishing category D IFQ on a <35ft LOA vessel 	<ul style="list-style-type: none"> similar to Alternative 2 may provide relief to large vessel owners who are experiencing difficulty acquiring QS 	<ul style="list-style-type: none"> similar to Alternative 2 may allow QS holders to sweep-up former category D QS blocks with category C QS blocks and thus increase their QS
Costs	baseline	<ul style="list-style-type: none"> may decrease relative market value of category C QS, particularly in Area 4C may decrease entry-level opportunities 	<ul style="list-style-type: none"> may decrease relative market value of category B and C QS may decrease entry-level opportunities 	<ul style="list-style-type: none"> same as Alternative 2 cannot reinstate use restrictions on small vessel using category D QS in the future
Net benefits	baseline	<ul style="list-style-type: none"> increases efficiency by removing restrictions on category D QS may also increase safety 	<ul style="list-style-type: none"> same as Alternative 2 	<ul style="list-style-type: none"> increases efficiency by reassigning more restrictive category D QS as category C QS
Action objectives	does not meet the safety objective	<ul style="list-style-type: none"> meets safety objective 	<ul style="list-style-type: none"> meets safety objective 	<ul style="list-style-type: none"> meets safety objective

7.8 Initial Regulatory Flexibility Analysis

This IRFA describes potential impacts on directly regulated small entities, attributable to the proposed alternatives for amending halibut QS categories in Areas 3B, 4A, 4B, 4C, and 4D. A complete description of the requirements of the Regulatory Flexibility Act is set out in Section 1.3.

Reason for action and objectives

Halibut fishermen in western Alaska have identified safety concerns associated with fishing in those areas on small vessels, which could be alleviated, in large part, by relaxing the current restrictions on vessel length associated with category D QS. The problem statement is discussed in detail in Section 7.1, above.

Description and estimated number of small entities

The action could potentially directly regulate 243 category D halibut QS holders in Areas 3B, 4A, 4B, and 4C. At present, NOAA Fisheries does not have sufficient ownership and affiliation information to determine

precisely the number of entities in the IFQ program that are “small,” based on SBA guidelines, nor the number that would be adversely impacted by the present action. For the reasons discussed in Section 1.3, this analysis assumes that all directly regulated operations are small, for RFA purposes.

Alternatives considered and their impact on small entities

This analysis reviews the status quo and three alternatives to the existing requirements. One alternative would allow category D QS to be fished on vessels less than or equal to 60ft LOA, one would effectively eliminate the “category D” class of QS, by reassigning it as category C QS, and one alternative would allow category D QS to be fished on vessels of any size. Each alternative is examined in detail in Section 7.2, and the following summary of impacts on small entities is distilled from the discussion in Sections 7.3 and 7.4.

Alternative 1 is the no action alternative and its retention would not have associated adverse economic impacts on directly regulated small entities.

Alternatives 2, 3, and 4 would allow category D QS to be fished on larger catcher vessels: equal to or less than 60ft LOA for Alternatives 2 and 4, and catcher vessels of any size for Alternative 3. These alternatives could address safety concerns for small vessel operators. As these alternatives are likely to increase the value of category D QS, there may be some corollary decrease in the relative value of category C QS, and also possibly even category B QS in the case of Alternative 3. However, as demonstrated in the RIR, category D QS constitutes such a small share to the aggregate halibut TAC in any of these areas, that such a change in relative value would not be expected to substantially influence the market for QS..

Description of recordkeeping, reporting, and other compliance requirements

No additional record keeping and reporting requirements are associated with this action.

Identification of relevant Federal rules

NOAA Fisheries is not aware of any other Federal rules that would duplicate, overlap, or conflict with this action.

Description of significant alternatives that minimize adverse impacts on small entities

Each of the significant alternatives to the status quo for this action is treated, in detail (to the extent practicable), in the RIR. The ways in which each alternative contributes to achievement of the objectives of this proposed action, comports with the Magnuson-Stevens Act and other applicable law, and minimizes the economic impacts on directly regulated small entities is articulated there, and summarized above. On the basis of the foregoing analysis, the preferred alternatives appear to be the “least burdensome” for directly regulated small entities, among all available alternatives. NOAA Fisheries is not aware of any alternatives, in addition to the alternatives considered therein, that would more effectively meet these RFA criteria.

8.0 Action 7: Amend “fish down” regulations for Area 2C halibut and Southeast Outside District sablefish

As described in Section 7.0, above, a “fish down” amendment to the initially implemented IFQ program allowed IFQ deriving from certain categories of QS to be fished on smaller vessels than originally authorized, as of August 1996, except in Area 2C for halibut and in the Southeast Outside District for sablefish. The Council’s rationale for the fish down amendment was to increase the flexibility and efficiency of the IFQ fleet. Small boat fishermen had reported a scarcity of medium or large sized QS blocks (i.e., blocks greater than 5,000 lb) available to smaller vessels. Owners of vessels greater than 60ft LOA reported difficulties in using or marketing small category B blocks, and requested the opportunity either to downsize operations or to sell smaller QS blocks to owners of small vessels (NPFMC 1996a).

The Council adopted the fish down amendment for all IFQ areas except Area 2C and the Southeast Outside District. The proportion of category B QS available in Area 2C and Southeast Outside District is substantially less than in other areas. In order to achieve the Council’s overriding goal to preserve diversity in the IFQ fisheries, and to prevent excessive consolidation, in this case, among small boat owners in areas where category B QS is limited, the Council chose to apply a modified fish down amendment for Area 2C and Southeast Outside District. Only category C QS, and category B QS blocks of less than or equal to 5,000 lb (based on 1996 TACs), may be fished on smaller vessels in those areas.

8.1 Problem and management objectives for the action

In 1996, the Council adopted a regulatory change that allowed category B QS to be fished on vessels under 60ft LOA. At that time, certain QS in the Southeast Outside District sablefish and Area 2C halibut fisheries were identified as ineligible for “fish down.” This was an attempt to ensure category B QS would be available to vessels more than 60ft LOA. Recently, this prohibition has been identified as unnecessary by some fishermen, and therefore was requested to be reexamined.

8.2 Management Action Alternatives

Two alternatives are considered for this management action.

Alternative 1 No action

Currently in Area 2C for halibut and Southeast Outside District for sablefish, category B QS must be used on a vessel greater than 60ft LOA, with the exception that category B QS blocks of less than 5,000 lb based on 1996 TACs⁸ may be fished on vessels of any size.

Alternative 2 (**Preferred**) Eliminate the exception to the fish down regulations for Area 2C halibut and Southeast area sablefish

This alternative allows IFQ derived from all category B QS to be fished on vessels of any length in all halibut and sablefish IFQ areas.

8.3 Alternative 1 - No action

Under the current regulations, IFQ derived from category B QS must be used on vessels greater than 60ft LOA in Area 2C and the Southeast Outside District, unless the QS is a block of less than or equal to 5,000 lb, based on 1996 TACs. As indicated in Table 8.1, category B QS represents a very small percentage of total halibut QS in Area 2C, and a relatively small proportion of total sablefish QS in the Southeast Outside District.

Table 8.1 QS units by category and area. Data as of end of 2003. Source: NOAA Fisheries RAM.

Area	Total QS units	Equivalent IFQ (lb) in 2004	Category A % of total	Category B % of total	Category C % of total	Category D % of total
2C	59,632,055	10,500,000	2.1%	4.5%	78.4%	15.1%
SE	66,119,746	8,311,342	9.3%	20.3%	70.4%	0

Only IFQ derived from category B QS blocks of less than 5,000 lb, based on the 1996 TACs, is eligible to be fished down on vessels smaller than 60ft LOA. Table 8.2 illustrates the eligibility of category B QS holdings for fish down in Area 2C and Southeast Outside District. Seventy-five percent of halibut category B QS cannot be fished down, and 96% of sablefish category B QS. Of the halibut category B QS that must be fished on a

⁸33,321 halibut or 33,271 sablefish QS units

vessel greater than 60ft LOA, about half is blocked, with block sizes ranging from 6,000 lb to 17,000 lb, based on the 2004 TACs. For sablefish, only 7% of the category B QS that is ineligible to be fished down is blocked.

Table 8.2 Eligibility of category B QS holdings for fish down.

Area	% of category B QS eligible	% of category B QS ineligible	Number of ineligible blocks	Range of ineligible block size, in lb ¹	Total ineligible blocks, in lb ¹	Total ineligible unblocked, in lb ¹
2C	25%	75%	20	6,000-17,000	176,707	175,292
Southeast Outside	4%	96%	16	4,000-10,000	114,490	1,505,997

¹ based on 2004 TACs

Industry members, through the Council process⁹, have argued that the discrepancy between the use restrictions on category B QS in Southeast Alaska, compared to the rest of the State, is discriminatory. Consequently, to be equitable, they assert that all category B QS should be eligible for fish down.

8.4 Expected Effects of Alternative 2 (Preferred)

Alternative 2 would allow all category B QS to be fished on a catcher vessel of any length. Holders of category B QS that currently cannot be fished down would be directly affected by this alternative, through the change in the use restrictions applied to their QS holding. Operators of vessels of 60ft LOA or less would now be able to fish any category B QS on their vessels. Other category B QS holders, and category C and D QS holders, would be indirectly affected, to the extent that the change in use restrictions affects the market price of their QS holdings. They could also be impacted by the availability of additional fishable quota on the market. There are a maximum of 1,414 category B, C, and D halibut QS holders in Area 2C, and a maximum of 440 category B and C sablefish QS holders in the Southeast Outside District.

Table 8.2 describes the relative percentage of category B QS holdings that can and cannot be fished down. A total of 1,996,568 QS units of halibut (or 351,999 lb of IFQ based on the 2004 TACs) and 12,891,624 QS units of sablefish (or 1,620,487 lb of IFQ based on the 2004 TACs) would become eligible for fish down under this alternative.

Alternative 2 could benefit some category B QS holders who may not currently fish their IFQ on vessels smaller than 60ft LOA, as it increases the available market for their QS. Category B QS would be available to be used on a catcher vessel of any size. There is no information to determine the market value of category B QS that is eligible for fish down, versus those that are not. However, it can be inferred that the QS that is less restricted, e.g., can be used on a vessel of any size, is likely to be more valuable. As a result, the value of currently ineligible category B QS is likely to increase because of this alternative.

The degree to which the increase in price of category B QS that may not currently be fished down may affect other category B QS, or category C and D QS, is unknown. In the case of halibut, any effect is likely to be limited, as the affected subset of category B QS represents only a small percentage of the total QS pool (approximately 3%). For sablefish, the alternative will change the use restrictions for approximately 19% of the QS pool, and any effects may consequently be more pronounced.

The alternative could potentially be detrimental to large (greater than 60ft LOA) vessel fishing operations, who may experience greater difficulty in acquiring QS. Large vessels may only harvest IFQ derived from category B QS. If category B QS may be used on smaller vessels, there may be less category B QS available to the large vessels. Particularly for halibut in Area 2C, this may create an adverse impact, as only 4.5% of the total QS pool is category B (Table 8.1), and of this, 25% is already eligible for fish down (Table 8.2).

⁹The Council called for and received proposals for amendments to the IFQ program in 1999 and 2003.

Small (60ft LOA or less) vessel owners may benefit from the potentially increased availability of medium and large QS blocks, and unblocked QS. However, the additional category B blocks represent only a small increase to the comparably sized QS blocks already available in category C and D QS. For example, 20 category B halibut QS blocks would become eligible for fish down, under Alternative 2, ranging in size from 6,000 lb to 17,000 lb, based on the 2004 TACs (Table 8.2). There are 344 comparably sized category C halibut blocks, and 54 category D halibut blocks in the fishery, with a total poundage of approximately 4 million, based on 2004 TACs. For halibut, half of the currently ineligible QS is blocked. For sablefish, only a small proportion of the QS that would become eligible for fish down under this alternative is blocked. There are 101 blocks in the fishery of a comparable size to the 16 category B QS blocks (Table 8.2) that would become eligible for fish down.

Over the long term, this alternative may contribute to a change in the diversity of the IFQ fleet in Southeast Alaska by decreasing the number of large catcher vessels (greater than 60ft LOA) participating in the fishery. However, to the extent that large vessel operators may be in a position to out bid other buyers when category B QS becomes available, this would reduce any adverse effect. Also, large catcher vessels are a small percentage of total QS holders in Area 2C and Southeast Outside District (Table 8.1).

8.5 Conclusions

A summary of attributable benefits and costs of the preferred alternative, relative to the status quo, is included below in Table 8.3. The total “standard” ex-vessel value of the catch¹⁰ taken in the commercial halibut fishery off Alaska in 2003, was approximately \$168 million, and for the commercial sablefish fishery was approximately \$73 million (NOAA Fisheries in prep.). The preferred alternative would only affect that sector of the fishery participating in Area 2C and the Southeast Outside District. Only 14% of the total halibut harvest is allocated to Area 2C, and 23% of the total sablefish harvest is allocated to the Southeast Outside District (NOAA Fisheries 2003c). The preferred alternative would make minor changes in these fisheries. Although it has not been possible to fully monetize the associated benefits and costs, their total net impact on the economy would be expected to be far below \$100 million, annually. Generally, the proposed action is expected to have little attributable cost and is expected to produce benefits for industry in the form of greater economic efficiency and operational flexibility. For these reasons, it is unlikely to adversely and materially affect the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities. No additional administrative, enforcement, or information costs would be incurred. Amending the fish down provisions for halibut in Area 2C, and sablefish in the Southeast Outside District, is not likely to meet the economic criterion for significance under EO 12866.

¹⁰ Total halibut or sablefish landings, multiplied by NOAA Fisheries’ published “standard prices” for halibut or sablefish, which reflect, as closely as possible, the variations in the actual ex-vessel values of IFQ halibut or sablefish landings.

Table 8.3 Summary of the benefits and costs of Action 7

	Alternative 1	Alternative 2 (Preferred) All category B QS may be fished on a vessel of any length
Who may be affected	baseline	Category B, C, and D QS holders in Area 2C and Southeast Outside District
Impacts to the resource	baseline	none
Benefits	baseline	increases marketability and potentially value of unblocked and larger blocks of category B QS
Costs	baseline	may prove difficult for vessels > 60-ft LOA to acquire QS, due to relative scarcity of QS. May drive the relative value of C and D halibut, and C sablefish QS down, relatively, as the supply of QS is expanded for operators of vessels < 60ft LOA.
Net benefits	baseline	increases net efficiency by increasing category B QS market
Action objectives	does not increase efficiency	potentially increases efficiency for most category B QS holders in Area 2C and Southeast Outside District

8.6 Initial Regulatory Flexibility Analysis

This IRFA describes the potential impacts on small entities of the proposed alternatives for amending fish down regulations for Area 2C halibut and Southeast Outside District sablefish. A complete description of the requirements of the Regulatory Flexibility Act is set out in Section 1.3.

Reason for action and objectives

In the original IFQ program for sablefish and halibut, category B QS was permitted to be fished only on a vessel 60ft or greater LOA. In 1996, the Council adopted a regulatory change that allowed category B QS to be fished on vessels under 60ft LOA (i.e., “fish down” authority). At that time, certain category B QS holdings in the Southeast Outside District sablefish and Area 2C halibut fisheries were identified as ineligible for “fish down,” and IFQ derived from these QS must be fished on a vessel greater than 60ft LOA. This was intended to ensure category B QS would be available to vessels 60ft LOA or greater. However, some fishermen have recently identified this prohibition as unnecessary, inefficient, and burdensome. The problem statement is also discussed in Section 8.1, above.

Description and estimated number of small entities

The action could potentially affect 72 holders of category B halibut QS in Area 2C, and 87 persons who hold category B sablefish QS in the Southeast Outside District. Indirectly, the action may affect 22 owners of vessels greater than 60ft LOA who made landings in 2003, in the halibut fisheries in Area 2C, 40 large vessel owners who landed sablefish in Southeast Outside in 2003, 825 persons who are category B, C, or D halibut QS holders in Area 2C, and 436 persons who are category B or C sablefish QS holders in Southeast Outside. At present, NOAA Fisheries does not have sufficient ownership and affiliation information to determine precisely the number of “small entities,” as that term is defined for RFA purposes, in the IFQ program, nor the number that would be adversely impacted by the preferred alternative. For the reasons discussed in Section 1.3, this analysis assumes that all operations are small.

Alternatives considered and their impact on small entities

This analysis reviews the status quo and an alternative to allow category B QS to be fished on a catcher vessel of any length. The alternatives are explained in detail in Section 8.2, and the following summary of impacts on small entities is distilled from the discussion in Sections 8.3 and 8.4.

Alternative 1 is the no action alternative and its adoption would have no associated adverse economic impacts on directly regulated small entities.

The preferred alternative would allow all category B QS, in either Area 2C for halibut or the Southeast Outside District for sablefish to be fished on any size catcher vessel. It may have the potential to disadvantage large (> 60ft LOA) vessel operations that can only harvest category B QS, as competition for access to these QS could be substantially broadened. As discussed above, the relative scarcity of category B QS in Southeast Alaska halibut and sablefish fisheries may mean that large vessel operations may experience difficulty (i.e., increased cost) in acquiring additional QS under the preferred alternative.

Description of recordkeeping, reporting, and other compliance requirements

No additional recordkeeping and reporting requirements are associated with this action.

Identification of relevant Federal rules

NOAA Fisheries is not aware of any other Federal rules that would duplicate, overlap, or conflict with this action.

Description of significant alternatives that minimize adverse impacts on small entities

NOAA Fisheries is not aware of any alternatives in addition to the alternatives considered above, that would accomplish the objectives of the Magnuson-Stevens Act and other applicable statutes and that would minimize the economic impact of the proposed rule on small entities. As the foregoing IRFA demonstrates, and the RIR confirms, the preferred alternative likely represents the best balance between minimization of adverse impacts on small entities, and achievement of the objective of this action, consistent with applicable requirements.

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John Woodruff	Icicle Seafoods	Seattle, Washington
Armond Odette	Trident Seafoods	Seattle, Washington
Loralie Moore	Smokey Foods, Resurrection Bay Plant	Seward, Alaska

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Appendix 1 Vessel Clearance in Area 4

- (1) The operator of any vessel that fishes for halibut in Areas 4A, 4B, 4C, or 4D must obtain a vessel clearance before fishing in any of these areas, and before the landing of any halibut caught in any of these areas, unless specifically exempted in paragraphs (10), (13), (14), (15), (16), or (17).
- (2) An operator obtaining a vessel clearance required by paragraph (1) must obtain the clearance in person from the authorized clearance personnel and sign the IPHC form documenting that a clearance was obtained, except that when the clearance is obtained via VHF radio referred to in paragraphs 5, 8, and 9, the authorized clearance personnel must sign the IPHC form documenting that the clearance was obtained.
- (3) The vessel clearance required under paragraph (1) prior to fishing in Area 4A may be obtained only at Nazan Bay on Atka Island, Dutch Harbor or Akutan, Alaska, from an authorized officer of the United States, a representative of the Commission, or a designated fish processor.
- (4) The vessel clearance required under paragraph (1) prior to fishing in Area 4B may only be obtained at Nazan Bay on Atka Island or Adak, Alaska, from an authorized officer of the United States, a representative of the Commission, or a designated fish processor.
- (5) The vessel clearance required under paragraph (1) prior to fishing in Area 4C or 4D may be obtained only at St. Paul or St. George, Alaska, from an authorized officer of the United States, a representative of the Commission, or a designated fish processor by VHF radio and allowing the person contacted to confirm visually the identity of the vessel.
- (6) The vessel operator shall specify the specific regulatory area in which fishing will take place.
- (7) Before unloading any halibut caught in Area 4A, a vessel operator may obtain the clearance required under paragraph (1) only in Dutch Harbor or Akutan, Alaska, by contacting an authorized officer of the United States, a representative of the Commission, or a designated fish processor.
- (8) Before unloading any halibut caught in Area 4B, a vessel operator may obtain the clearance required under paragraph (1) only in Nazan Bay on Atka Island or Adak, by contacting an authorized officer of the United States, a representative of the Commission, or a designated fish processor by VHF radio or in person.
- (9) Before unloading any halibut caught in Area 4C or 4D, a vessel operator may obtain the clearance required under paragraph (1) only in St. Paul, St. George, Dutch Harbor, or Akutan, Alaska, either in person or by contacting an authorized officer of the United States, a representative of the Commission, or a designated fish processor. The clearances obtained in St. Paul or St. George, Alaska, can be obtained by VHF radio and allowing the person contacted to confirm visually the identity of the vessel.
- (10) Any vessel operator who complies with the requirements in section 18 for possessing halibut on board a vessel that was caught in more than one regulatory area in Area 4 is exempt from the clearance requirements of paragraph (1) of this section, provided that: (a) The operator of the vessel obtains a vessel clearance prior to fishing in Area 4 in either Dutch Harbor, Akutan, St. Paul, St. George, Adak, or Nazan Bay on Atka Island by contacting an authorized officer of the United States, a representative of the Commission, or a designated fish processor. The clearance obtained in St. Paul, St. George, Adak, or Nazan Bay on Atka Island can be obtained by VHF radio and allowing the person contacted to confirm visually the identity of the vessel. This clearance will list the Areas in which the vessel will fish; and (b) Before unloading any halibut from Area 4, the vessel operator obtains a vessel clearance from Dutch Harbor, Akutan, St. Paul, St. George, Adak, or Nazan Bay on Atka Island by contacting an authorized officer of the United States, a representative of the Commission, or a designated fish processor. The clearance obtained in St. Paul or St. George can be obtained by VHF radio and allowing the person contacted to confirm visually the identity of the vessel. The clearance obtained in Adak or Nazan Bay on Atka Island can be obtained by VHF radio.
- (11) Vessel clearances shall be obtained between 0600 and 1800 hours, local time.

- (12) No halibut shall be on board the vessel at the time of the clearances required prior to fishing in Area 4.
- (13) Any vessel that is used to fish for halibut only in Area 4A and lands its total annual halibut catch at a port within Area 4A is exempt from the clearance requirements of paragraph (1).
- (14) Any vessel that is used to fish for halibut only in Area 4B and lands its total annual halibut catch at a port within Area 4B is exempt from the clearance requirements of paragraph (1).
- (15) Any vessel that is used to fish for halibut only in Area 4C and lands its total annual halibut catch at a port within Area 4C is exempt from the clearance requirements of paragraph (1).
- (16) Any vessel that is used to fish for halibut only in Areas 4D or 4E and lands its total annual halibut catch at a port within Areas 4D, 4E, or the closed area defined in section 10, is exempt from the clearance requirements of paragraph (1).
- (17) Any vessel that carries a transmitting VMS transmitter while fishing for halibut in Area 4A, 4B, 4C, or 4D and until all halibut caught in any of these areas is landed is exempt from the clearance requirements of paragraph (1) of this section, provided that: (a) The operator of the vessel complies with NOAA Fisheries' vessel monitoring system regulations published at 50 CFR sections 679.28(f)(3), (4) and (5); and (b) The operator of the vessel notifies NOAA Fisheries Office for Law Enforcement at 800-304-4846 (select option 1 to speak to an Enforcement Data Clerk) between the hours of 0600 and 0000 (midnight) local time within 72 hours before fishing for halibut in Area 4A, 4B, 4C, or 4D and receives a VMS confirmation number.

Appendix 2

Product recovery rates for bled sablefish

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ABSTRACT

Accurate catch estimates are necessary for successful fishery management. Catch weights may be affected by fish bleeding; a practice fishermen use to ensure product quality. We conducted field experiments during July 2002 and July 2003 in the Gulf of Alaska to estimate the change in fish weight due to blood loss for sablefish. Fish weights were compared before and after bleeding. Sablefish lost more weight when bled without seawater (2.0%) than when immersed in flowing seawater (1.6%). Sablefish lost more weight when carefully brought aboard (2.0%) than when gaffed aboard (1.7%) (bled without flowing seawater). Gaffed sablefish lost weight even when not intentionally bled (1.0%) because of blood loss at the gaff wound. The product recovery rate (PRR) currently applied by fishery managers to estimate catch weight for bled sablefish (2.0%) slightly overestimates "blood loss" for fish gaffed aboard (1.7%). The PRR applied by fishery managers for unbled sablefish (0.0%) underestimates "blood loss" for fish gaffed aboard (1.0%). Estimating the actual change in weight due to blood loss for a commercial fishing trip is difficult because it requires accounting for storage methods and handling practices.

INTRODUCTION

Some fishermen bleed sablefish (*Anoplopoma fimbria*) to ensure product quality. Fish are bled by breaking or cutting gill rakers, then allowing the fish to bleed. The amount of blood lost likely is affected by several factors, some under the fishermen's control and others not. Storage methods (ice or refrigerated seawater) and handling practices (gaffing, hook removal devices, and soak time) affect blood loss.

The NOAA Fisheries Service (also referred to as the National Marine Fisheries Service or NMFS) applies a product recovery rate (PRR) for round, bled sablefish of 0.98 (product code 03) (Low et al. 1989). The PRR is used to estimate the live weight of landed bled sablefish by dividing the landed weight by 0.98. The current PRR dates back to the early 1980s and it is not known whether the figure was verified for sablefish. Besides attempting to accurately estimate catch, the PRR also is important to fishermen because it affects the amount subtracted from the fishermen's individual quota with each delivery of bled sablefish.

Estimating an accurate PRR is challenging because several variables need testing. An experiment designed to estimate the actual PRR for sablefish would need to address storage methods and handling practices. Our approach was to estimate the change in weight due to blood loss expected for 4 treatments under controlled conditions. This approach both reduced the number of treatments and fit the length of field time available for this experiment. The study was a cooperative project between the Alaska Longline Fishermen's Association and the NOAA Fisheries Service Auke Bay Laboratory. The data were collected during the 2002 and 2003 NOAA Fisheries Service sablefish longline surveys.

MATERIALS AND METHODS

The experiments were conducted on 25-26 July 2002 and 25-26 July 2003, on the upper continental slope near Yakutat Bay in the Gulf of Alaska. The chartered U.S. longline vessels, the F/V Alaskan Leader (overall length of 46 m) in 2002 and the F/V Ocean Prowler (overall length of 47 m) in 2003, deployed baited longline gear. Size 13/0 Mustad circle hooks were hand baited with chopped squid (*Illex* spp.). Three sets of 2,672 hooks

each were deployed each day for a total of 6 sets during the 2-day experiment. Setting started at 0630 hours and retrieval started at 0930 hours. Soak time ranged from 3 to 8 hours.

In 2002, fish were carefully released from the hook, dropped into a net, and then brought aboard the vessel to obtain an initial live weight. Only active fish in good condition were chosen. Fish were weighed before bleeding in a closed plastic pipe to still the fish. Fish were weighed with a Marel M1100 motion compensated marine scale. Scale accuracy was ± 2.5 g. The scale was calibrated at the beginning of each set retrieval. The closed plastic pipe was 15.2 cm diameter and 45.7 cm long and constructed of PVC. Neoprene fabric covered one end. The pipe rested in a cradle during weighing. After weighing, fish were marked with a unique tag and the 2 most posterior gill rakers on the fish's right side were cut. Two treatments were carried out to test how handling practices affect blood loss. In the 1st treatment, fish were placed in a tank filled with flowing seawater to bleed. In the 2nd treatment, fish were placed in a tub without seawater to bleed. Slime was wiped off fish in the latter sample before weighing post-bleeding. Clotted blood in the gill rakers was left in place.

In 2003, fish were gaffed aboard the vessel rather than carefully releasing them from the hook as in 2002. Gaffing is the normal method of bringing fish aboard during longline fishing. Only active fish in good condition (before gaffing) were chosen. Fish were weighed immediately after gaffing in the closed plastic pipe. After weighing, fish were marked with a unique tag. Two treatments were carried out to test how handling practices affect blood loss. In 1 treatment, the 2 most posterior gill rakers on the fish's right side were cut. In a 2nd treatment, the gill rakers were not cut. Fish in both treatments were placed in a tub without seawater to bleed. Slime was wiped off fish before weighing post-bleeding. Clotted blood in the gill rakers was left in place. The experimental treatments during 2002 and 2003 are summarized in Figure 1.

Sampled sablefish were chosen by chance. After weighing one fish, the next fish retrieved from the longline was chosen for processing. The ratio of the post-bleeding and live weight was computed for each sampled sablefish. For example, if the live weight was 3.5 kg and the post-bleeding weight was 3.45 kg, then the ratio is 0.986. The distributions of ratios for sablefish bled without flowing seawater were skewed and not normal. The transformations of log, square root, reciprocal, and arcsine-square root did not change the distributions from skewed to normal. The median may be preferred to the mean for expressing central tendency for skewed populations (Zar 1984). The median ratio was computed for each treatment and a confidence interval for the median was estimated (Zar 1984). The bootstrap method (Efron and Tibshirani 1986) also was applied to estimate the confidence interval and gave similar results to the method described in Zar (1984).

RESULTS

The total sample size was 611 sablefish (Table 1). Sample size by treatment ranged from 74 to 252 fish. Average fish size was 3.7 kg round weight (Figure 2). Sablefish bled in flowing seawater frequently gained weight (Figure 3A), whereas all but 1 sablefish bled without seawater weighed less after bleeding (Figures 3B-D). For sablefish carefully brought aboard and with gills cut, the median ratio was 0.984 for sablefish bled in flowing seawater and 0.980 for sablefish bled without seawater (Table 1). These medians imply that blood loss typically is 1.6% for sablefish bled in flowing seawater and 2% for sablefish bled without seawater. For sablefish gaffed aboard and bled without flowing seawater, the median ratio was 0.983 for sablefish with gills cut and 0.990 for sablefish with gills left intact. These medians imply that blood loss typically is 1.7% for gills cut and 1.0% for gills left intact.

DISCUSSION

Weight measurements

The change in weight due to blood loss was measured precisely. The 95% confidence intervals for the medians were narrow. For example the interval was only 0.982-0.985 for sablefish bled in flowing seawater, a range of only 0.003. The range of confidence intervals was narrow for all treatments, only 0.003-0.007. Sablefish lost more weight when bled without seawater (2.0%) than with flowing seawater (1.6%) (gills cut, fish carefully brought aboard). The hydrostatic pressure of the water in the bleeding tank may act on the

severed blood vessels to reduce blood volume loss. Alternatively, the heart, which continues to pump after the gill rakers are cut, may siphon seawater into the fish's circulatory system, replacing the blood with seawater and possibly increasing circulatory system fluid volume. Finally, some water may have remained in the stomach of fish bled in flowing seawater, even though efforts were made to evacuate all water from the stomach prior to the post-bleeding weighing.

Sablefish lost more weight when carefully brought aboard (2.0%) than when gaffed aboard (1.7%) (gills cut, bled without flowing seawater). Fishermen gaff the fish's head, usually stunning the fish. Blood loss is reduced, probably because of the blow. Sablefish lost weight even when not intentionally bled (1.0%), probably because of blood loss at the gaff wound (gills left intact, bled without flowing seawater).

Accuracy of currently applied PRR

The National Marine Fisheries Service applies an adjustment to landings of bled sablefish that implies blood loss is 2% of body weight (PRR = 0.98, bled fish, product code 03). Gaffing fish is the normal method of bringing fish aboard during longline fishing. We found that blood loss is slightly less, 1.7% of body weight for bled sablefish that are gaffed aboard. The implied PRR is 0.983 rather than the current 0.98. No adjustment currently is applied for sablefish not deliberately bled (PRR = 1.0, whole fish, product code 01) (Low et al. 1989); however, we found that blood loss is 1.0% of body weight for sablefish that are gaffed aboard. The implied PRR is 0.99 rather than the current 1.0.

Historic catch estimates represent the weight of sablefish after gaffing, rather than live weight, because most sablefish were gaffed aboard, classified as whole fish, and the PRR of 1.0 was applied. Fishery catches as well as catches from sablefish longline surveys are affected. Thus, historic catches underestimate the live weight of the catch by 1%.

Ability to measure and apply an accurate PRR

Common handling practices and storage methods affect blood loss. On sets left to soak overnight, a common practice in the fishery, some fish are dead, some are in poor condition, and some are active. Blood loss from fish retrieved dead or in poor condition, although not measured, likely is negligible and would reduce average blood loss accordingly. Conversely, we found fish bled in flowing seawater frequently gained weight. Therefore, blood loss may be different for fish stored in refrigerated seawater compared to fish stored on ice. Measuring and applying an accurate PRR is difficult given the variety of conditions existing in the fishery. Measuring an accurate PRR requires further studies of the effects of storage methods (ice or refrigerated seawater) and handling practices (gaffing, hook removal devices, and soak time), which would be time-consuming to complete. Applying the results of these studies would be difficult because the storage methods and handling practices would need quantification for each trip (e.g. percentage of fish retrieved dead). Accurately accounting for these factors would be complex and difficult, especially because blood loss is low.

ACKNOWLEDGEMENTS

This research was funded in part by the National Cooperative Research Program. We thank Dave Ackley, Jerry Pella, Phil Rigby, and Andy Smoker for reviewing this paper. We thank Dave Clausen and Mitch Lorenz, who in addition to Chris Lunsford and Kent Barkhau, collected the blood loss data.

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Table 1. Median blood loss and 95% confidence intervals for median by treatment.

Treatment	Median	Lower 95% confidence interval	Upper 95% confidence interval	Sample size
Carefully released from hook, gills cut, bled in flowing seawater	0.984	0.982	0.985	252
Carefully released from hook, gills cut, bled without flowing seawater	0.980	0.976	0.983	74
Gaffed aboard, gills cut, bled in tub without flowing seawater	0.983	0.981	0.985	128
Gaffed, gills left intact, bled in tub without flowing seawater	0.990	0.988	0.991	157

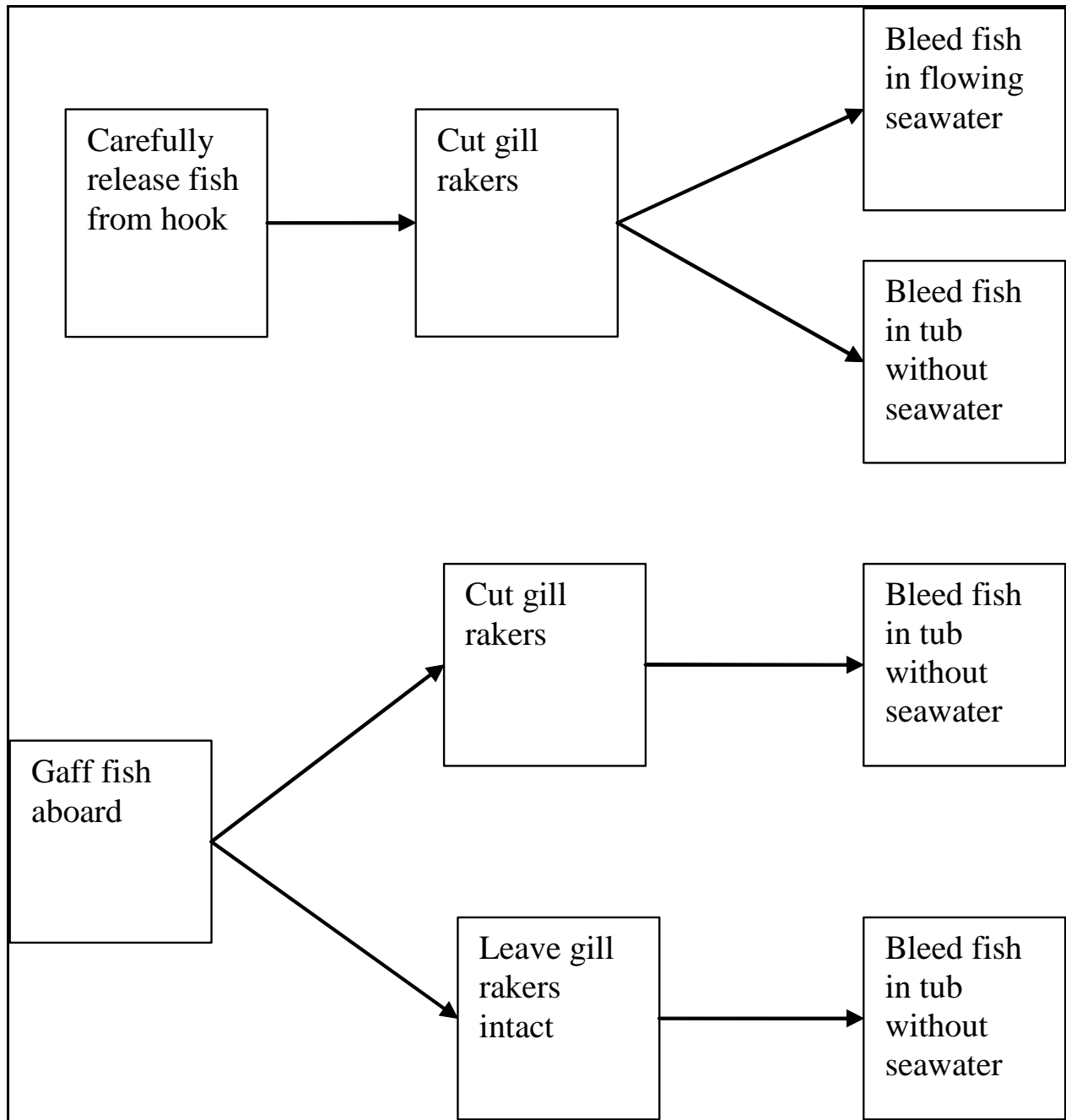


Figure 1. Flow diagram of experimental treatments.

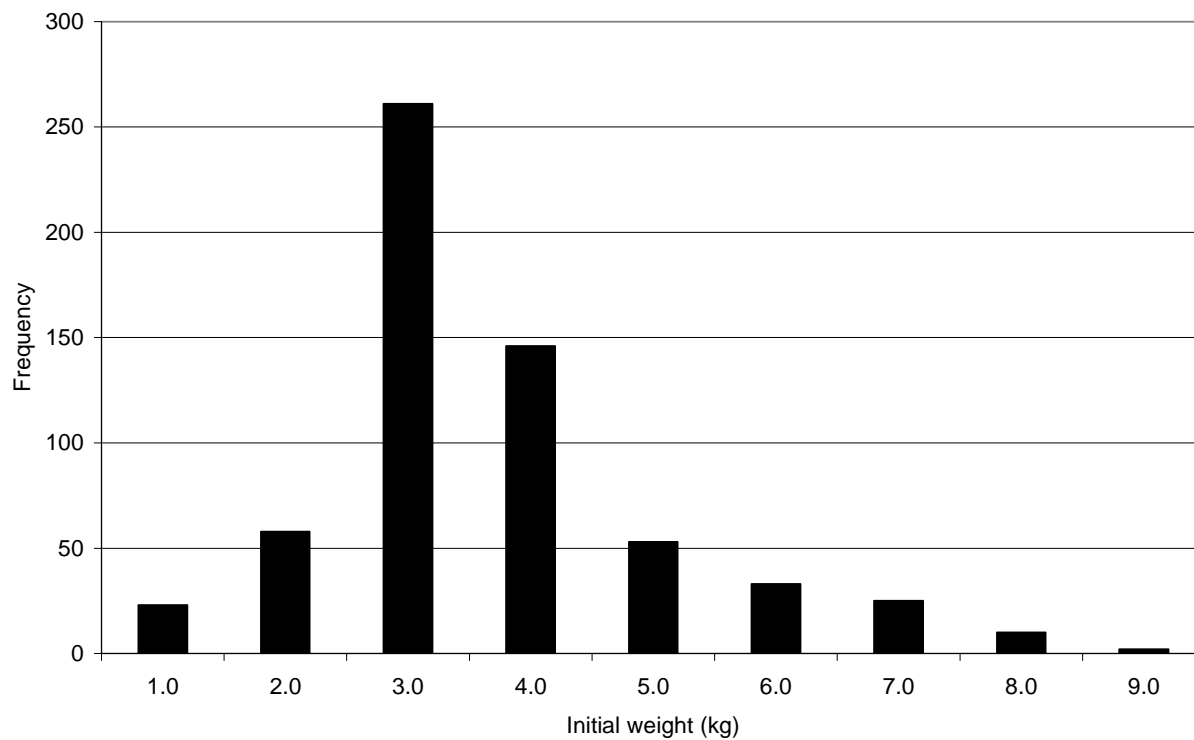


Figure 2. Size distribution (live weight in kilograms, rounded to the nearest kilogram) of sablefish sampled in the bleeding study.

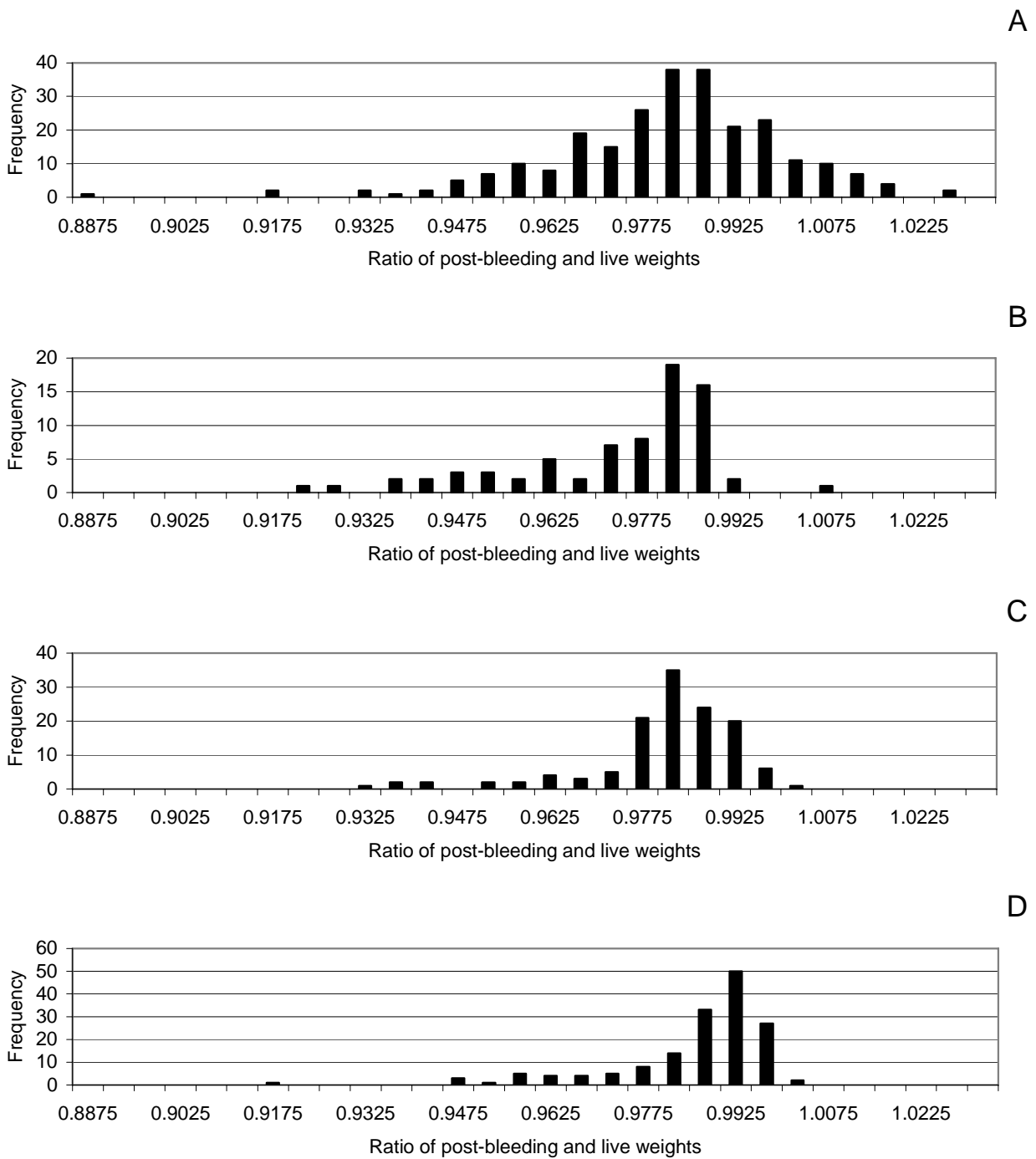


Figure 3. Frequency distributions of post-bleeding weight to live weight of sablefish bled without flowing seawater. A. Carefully released from hook, gills cut, bled in flowing seawater. B. Carefully released from hook, gills cut, bled in tub without seawater. C. Gaffed aboard, gills cut, bled in tub without seawater. D. Gaffed aboard, gills left intact, bled in tub without seawater.

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